

Wilhelms, Ingo

Working Paper

Atlas of length-weight relationships of 93 fish and crustacean species from the North Sea and the North-East Atlantic

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Atlas of Length-Weight Relationships of 93 fish and crustacean species from the North Sea and the North-East Atlantic

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Thünen Working Paper 12

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*List of accepted species names

Scientific name

listed in the Atlas

Aspitrigla cuculus

Gasterosteus aculeatus

Liparis liparis

Psetta maxima

Raja batis

Raja naevus

Raja radiata

Rhinonemus cimbrius

Sebastes marinus

Solea vulgaris

Trigla lucerna

Trisopterus esmarkii

accepted in WoRMS

Chelidonichthys cuculus

Gasterosteus aculeatus aculeatus

Liparis liparis liparis

Scophthalmus maximus

Dipturus batis

Leucoraja naevus

Amblyraja radiata

Enchelyopus cimbrius

Sebastes norvegicus

Solea solea

Chelidonichthys lucerna

Trisopterus esmarkii

Abstract

This document presents an atlas of length-weight relationships of 93 different fish and crustacean species from the North Sea and the North-East Atlantic. The length and weight data are based on individual measurements from German fisheries research surveys and German commercial fishing vessels, conducted by members of the Thünen Institute of Sea Fisheries (and its predecessor institution).

With the first survey carried out in 1959 and the latest data entered in 2011, the compilation is based on a comprehensive data set collected over more than 50 years. An extensive overview on length weight relationships is given by geographical area, season and partly by sex, of the described species.

Users, who would prefer using relationships based on other time series or subunits, which are not represented in the Atlas, are invited to contact the author for the respective subsets of data.

Introduction

In fisheries research, data for individual species are often collected with measurements of body length, as this parameter is faster obtained than individual weights. Yet, many size-based analyses are dependent on weight data, for which the measured data need to be transformed with a reliable length-weight relationship.

Valid data on length-weight relationships are very important additional parameters for the biological description of marine species and essential for calculation of the biomass from length frequency.

In other cases, where individual fish weights are taken together with length in order to derive conclusions about the condition of the individuals investigated (e.g. Fulton's condition index), it is helpful to compare against a broad average value for this relationship.

This atlas presents an overview on length-weight parameters from fish and crustacean species in North European waters. In contrast to other publications on length-weight relationships (e.g. Coull et al. 1989) this atlas is based largely on current data and on a large data set collected on research and commercial vessels. This ensures that not only a wide geographical area is covered but also a large length range within the described species, because the samples were collected with different nets and mesh sizes on different vessels.

In addition, for each length-weight relationship, the geographical distribution of used data points is clearly represented in a map.

Because of the constant alterations of the naming due to ongoing research, some listed species were changed to other actual valid scientific names (e.g. *Raja radiata*), which are mentioned in an extra table ("List of accepted species names").

This work is not intended to be exhaustive and will be continually improved and supplemented.

Material and methods

All biometric data were collected on several German research vessels during routine surveys conducted by the Thünen Institute of Sea Fisheries (or its predecessor institution). Additionally, data were collected by scientific observers of the TI-SF on commercial fishing vessels. Most length and weight data were taken from freshly caught specimens, but in some cases - especially for herring, mackerel, horse mackerel and sprat - a subsample of the collected individuals was deep frozen aboard the ships and measured after defrosting in the home laboratory. As this fraction was only a small part of the whole data set which had no measurable influence on the analysis, for these species the length-weight-relationships are based on a combination of both fractions.

All length weight data are stored in a Microsoft Access database with currently over 800.000 records covering the years 1959 until 2011, which is continually updated with new entries. Therefore, new species will be added to this compilation in future or the existing database will be amended in order to enhance the analysis, particularly for rare species with fewer data points. If this is done, a new version of this report will be published to allow explicit reference to the length-weight relationship applied by the user.

For every existing entry the geographical position and the date of the observation are known, therefore it would be possible to conduct an analysis for subunits of the area covered and/or a specified time period, which is not currently represented in the atlas. However, this is beyond the scope of this document but if you are interested in such an analysis you are invited to contact:

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Calculation of length-weight relationships

The relation between length and weight can be described in the following formula (Le Cren, 1951)

$$Tw = a * L^b,$$

where "Tw" is the total weight and "L" the length of the species.

By a given weight the length can be calculated by transforming the equation:

$$L = \left(\frac{Tw}{a}\right)^{\frac{1}{b}}.$$

The coefficients "a" and "b" were estimated by the potential regression $y = a * x^b$ in Microsoft Excel.

For all described species the unit of total weight is gram (g). The units for length are centimeters (cm) in case of fish and millimeters (mm) in case of crustaceans. It can be distinguished between following methods of length measurements:

- a) Total length in cm for all fishes (measured from tip of snout to tip of caudal fin),
- b) Total length in mm for *Crangon* spec. (measured from begin of the head to tip of the telson),
- c) Carapace length in mm for *Nephrops norvegicus* and *Lithodes maja* (measured from begin of the rostrum to the end of carapace),
- d) Carapace width in mm for *Cancer pagurus* (measured at the point of its maximum width).

In cases where for very small fish the length data for calculation the biomass are in mm **instead of cm** (e.g. *Gobiidae*), the parameter “a” has to be recalculated with the formula

$$a_{[mm]} = \frac{a_{[cm]}}{10^b}$$

If the length data are given in cm **instead of mm** (e.g. *Crustacea*), the parameter “a” has to be recalculated with the formula

$$a_{[cm]} = a_{[mm]} * 10^b$$

The methods of measurement per type are always listed in the paper. In some small species different units of measurement were used (e.g. *Callionymus lyra*: cm below, mm below), to obtain more accurate data. For calculation the Regression all data were of course adjusted to the standard unit of length (see above), but inaccurate data was never brought to a better level.

For calculation of the coefficients, significant outliers were eliminated by visual inspection the raw data. For poorly manageable large data sets no data were considered where the deviation from the expected weight, compared to the measured weight, was more than 50%.

In general, the regressions consider the data of the last 10-15 years, but please note that the first reports were made already in 2007. Accordingly, regressions that were created later contain more recent data. If there were not enough data in the 15-year time period, also older or even all available entries were used.

At least one length-weight relationship is given for every listed species. In case of species, which are routinely separated into males and females during the onboard measurements (for example dab, elasmobranchs, crustaceans), sex-specific length-weight relationships are shown. For a few commercially important species like cod, haddock, whiting, saithe, etc. data are also presented on a quarterly or even monthly basis. However, different time periods were considered if a sufficiently large amount of data was available for each season. For each regression additional information is given in a specific section and the geographical

distribution of the used data is shown in a separate map. Depending on the species three different maps were used to show the distribution of the data:

- a) **The German Bight**
- b) **North Sea/ British Isles**
- c) **The complete ICES Area**

In order to get a better resolution for some widely distributed species, two different maps are shown in some sections. Due to technical reasons it might be possible that in a few cases (e.g. *Aspitrigla cuculus*) some data points are shown outside the map frame.

Structure of the Atlas (pdf)

The atlas is an interactive pdf document. The “**table of contents**” is linked to the individual sections of the document. By clicking on a desired species in the contents list, you will automatically reach the map with its geographical distribution. The second page for each species always contains the regression equation with further details, which can be reached by clicking on the map. In this way you can easily switch between the two pages.

The next major section is the “**overview**” of the alphabetically listed species with the most important data. By clicking on a scientific name, you get to the regression with all details.

Basically, you can always jump between the distribution and the regression with a simple click on the current page. The navigation can of course always be controlled via the bookmarks.

Acknowledgements

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Overview

Scientific Name	a	b	R ²	Length specification	Length class		N
					Min	Max	
<i>Agonus cataphractus</i>	0.0104	2.8669	0.9528	Total Length[cm]	2.75	18.5	458
<i>Alosa fallax</i>	0.0059	3.0778	0.9753	Total Length[cm]	5.5	53.5	491
<i>Ammodytes marinus</i>	0.001	3.4395	0.9867	Total Length[cm]	6.35	19.25	169
<i>Ammodytes tobianus</i>	0.0063	2.6927	0.9123	Total Length[cm]	7.75	24.25	50
<i>Anarhichas lupus</i>	0.0078	3.0468	0.9661	Total Length[cm]	4.5	105.5	675
<i>Anguilla anguilla</i>	0.0008	3.1851	0.9456	Total Length[cm]	6.5	80.5	609
<i>Argentina silus</i>	0.0025	3.3006	0.9812	Total Length[cm]	6.5	46.5	492
<i>Argentina sphyraena</i>	0.0021	3.346	0.9872	Total Length[cm]	5.5	45.5	748
<i>Arnoglossus laterna</i>	0.0063	3.084	0.9875	Total Length[cm]	1.65	16.5	1518
<i>Aspitrigla cuculus</i>	0.0061	3.1054	0.98	Total Length[cm]	12.5	36.5	130
<i>Belone belone</i>	0.0011	3.0368	0.9708	Total Length[cm]	8.5	82.5	60
<i>Brosme brosme</i>	0.0036	3.2609	0.963	Total Length[cm]	23.5	80.5	121
<i>Buglossidium luteum</i>	0.0079	3.1092	0.9818	Total Length[cm]	1.25	13.5	3082
<i>Callionymus lyra</i>	0.0204	2.5784	0.9568	Total Length[cm]	3.4	29.5	1234
<i>Callionymus maculatus</i>	0.0282	2.3129	0.9029	Total Length[cm]	4.5	16.5	196
<i>Callionymus reticulatus</i>	0.0159	2.5712	0.8438	Total Length[cm]	4.25	18.5	186
<i>Cancer pagurus</i>	0.00025	2.90285	0.95489	Carapace Width[mm]	16.5	222.5	419
<i>Cancer pagurus</i> - Female ♀	0.00028	2.87693	0.9569	Carapace Width[mm]	16.5	222.5	167
<i>Cancer pagurus</i> - Male ♂	0.00019	2.96327	0.95733	Carapace Width[mm]	45.5	208.5	218
<i>Capros aper</i>	0.0346	2.7595	0.9255	Total Length[cm]	8.5	16.5	242
<i>Ciliata mustela</i>	0.0052	3.169	0.9161	Total Length[cm]	7.5	23.5	307
<i>Clupea harengus</i>	0.0042	3.1775	0.9767	Total Length[cm]	3.75	39.25	27423
<i>Clupea harengus</i> - Female ♀	0.0036	3.2448	0.9603	Total Length[cm]	6.25	39.75	22081
<i>Clupea harengus</i> - Male ♂	0.0035	3.2585	0.9554	Total Length[cm]	6.25	39.75	22027
<i>Clupea harengus</i> - Quarter 1	0.0038	3.164	0.9858	Total Length[cm]	4.75	39.25	9854
<i>Clupea harengus</i> - January	0.0036	3.1839	0.9846	Total Length[cm]	4.75	34.75	4409
<i>Clupea harengus</i> - February	0.0029	3.253	0.9886	Total Length[cm]	7.25	39.75	5749
<i>Clupea harengus</i> - March	0.0046	3.0789	0.987	Total Length[cm]	9.25	39.25	631
<i>Clupea harengus</i> - Quarter 2	0.0043	3.1879	0.9832	Total Length[cm]	3.75	33.25	1761
<i>Clupea harengus</i> - April	0.0057	3.0391	0.9719	Total Length[cm]	5.25	33.25	156
<i>Clupea harengus</i> - May	0.0076	2.9252	0.9696	Total Length[cm]	3.75	28.75	91
<i>Clupea harengus</i> - June	0.0038	3.2383	0.9907	Total Length[cm]	4.75	31.25	1514
<i>Clupea harengus</i> - Quarter 3	0.0033	3.2912	0.9861	Total Length[cm]	4.75	34.25	11796
<i>Clupea harengus</i> - July	0.0032	3.3017	0.9869	Total Length[cm]	4.75	34.25	8655
<i>Clupea harengus</i> - August	0.0037	3.2582	0.9887	Total Length[cm]	6.75	32.75	2330
<i>Clupea harengus</i> - September	0.0027	3.338	0.9752	Total Length[cm]	4.75	31.75	811
<i>Clupea harengus</i> - Quarter 4	0.003	3.3231	0.9201	Total Length[cm]	6.25	33.75	4012
<i>Conger conger</i>	0.0001	3.7272	0.9806	Total Length[cm]	47.5	161.5	29
<i>Crangon allmanni</i>	0.0000016	3.3272115	0.8400151	Total Length[mm]	37.5	67.5	1102
<i>Crangon allmanni</i> - Female ♀	0.0000027	3.2114476	0.794664	Total Length[mm]	37.5	67.5	292
<i>Crangon allmanni</i> - Male ♂	0.0000192	2.6677417	0.8084237	Total Length[mm]	39.5	54.5	69
<i>Crangon crangon</i>	0.0000022	3.278553	0.9714365	Total Length[mm]	17.5	81.5	7917
<i>Crangon crangon</i> - Female ♀	0.0000021	3.2878593	0.9736858	Total Length[mm]	22.5	81.5	4000

Scientific Name	a	b	R ²	Length specification	Length class		N
					Min	Max	
<i>Crangon crangon</i> - Male ♂	0.000049	3.0488185	0.9257512	Total Length[mm]	24.5	58.5	3108
<i>Cyclopterus lumpus</i>	0.063	2.9405	0.9799	Total Length[cm]	3.5	50.5	239
<i>Dicentrarchus labrax</i>	0.0258	2.7287	0.9462	Total Length[cm]	7.5	54.5	21
<i>Echiichthys vipera</i>	0.0115	2.9894	0.9019	Total Length[cm]	1.85	18.5	380
<i>Engraulis encrasicolus</i>	0.0041	3.147	0.9075	Total Length[cm]	3.75	21.25	616
<i>Entelurus aequoreus</i>	0.0003	2.7807	0.8178	Total Length[cm]	16.5	45.5	405
<i>Eutrigla gurnardus</i>	0.0112	2.8774	0.989	Total Length[cm]	1.95	38.5	722
<i>Gadiculus argenteus</i>	0.0154	2.7217	0.893	Total Length[cm]	5.75	15.25	102
<i>Gadus morhua</i>	0.0065	3.0982	0.9929	Total Length[cm]	3.5	120.5	16665
<i>Gadus morhua</i> - Female ♀	0.0061	3.1144	0.9935	Total Length[cm]	6.5	119.5	7370
<i>Gadus morhua</i> - Male ♂	0.0062	3.1113	0.9935	Total Length[cm]	8.5	118.5	7317
<i>Gadus morhua</i> - Quarter 1	0.005	3.1693	0.9941	Total Length[cm]	7.5	126.5	9355
<i>Gadus morhua</i> - January	0.0073	3.052	0.9945	Total Length[cm]	7.5	126.5	5346
<i>Gadus morhua</i> - February	0.006	3.111	0.9943	Total Length[cm]	10.5	119.5	3533
<i>Gadus morhua</i> - March	0.0053	3.1528	0.9888	Total Length[cm]	8.5	113.5	382
<i>Gadus morhua</i> - Quarter 2	0.0069	3.0855	0.9922	Total Length[cm]	3.5	119.5	2529
<i>Gadus morhua</i> - April	0.0053	3.1666	0.9949	Total Length[cm]	10.5	117.5	101
<i>Gadus morhua</i> - May	0.0067	3.0873	0.9923	Total Length[cm]	4.5	119.5	1386
<i>Gadus morhua</i> - June	0.0081	3.0489	0.992	Total Length[cm]	3.5	99.5	1042
<i>Gadus morhua</i> - Quarter 3	0.0072	3.0723	0.9892	Total Length[cm]	4.5	118.5	5714
<i>Gadus morhua</i> - July	0.0074	3.0693	0.9915	Total Length[cm]	4.5	118.5	2718
<i>Gadus morhua</i> - August	0.0075	3.0613	0.9876	Total Length[cm]	5.5	112.5	2351
<i>Gadus morhua</i> - September	0.0062	3.1121	0.9831	Total Length[cm]	9.5	111.5	645
<i>Gadus morhua</i> - Quarter 4	0.0076	3.0488	0.9954	Total Length[cm]	5.5	120.5	1737
<i>Gadus morhua</i> - October	0.008	3.0347	0.995	Total Length[cm]	5.5	120.5	1210
<i>Gadus morhua</i> - November	0.006	3.1119	0.9943	Total Length[cm]	7.5	101.5	445
<i>Gadus morhua</i> - December	0.0055	3.1707	0.9962	Total Length[cm]	10.5	114.5	300
<i>Gaidropsarus vulgaris</i>	0.0172	2.7135	0.9139	Total Length[cm]	6.5	41.5	49
<i>Galeorhinus galeus</i>	0.0049	2.9819	0.9794	Total Length[cm]	23.5	156.5	70
<i>Galeorhinus galeus</i> - Female ♀	0.0114	2.7697	0.9478	Total Length[cm]	23.5	156.5	24
<i>Galeorhinus galeus</i> - Male ♂	0.0043	3.0112	0.9917	Total Length[cm]	33.5	154.5	25
<i>Gasterosteus aculeatus</i>	0.0239	2.6111	0.7617	Total Length[cm]	3.75	8.5	122
<i>Glyptocephalus cynoglossus</i>	0.0032	3.1895	0.9747	Total Length[cm]	4.5	54.5	343
<i>Helicolenus dactylopterus</i>	0.0098	3.1616	0.9397	Total Length[cm]	5.25	46.5	127
<i>Hippoglossoides platessoides</i>	0.0034	3.2851	0.9938	Total Length[cm]	2.85	51.5	1452
<i>Hippoglossus hippoglossus</i>	0.0026	3.3322	0.9831	Total Length[cm]	25.5	167.5	120
<i>Hyperoplus lanceolatus</i>	0.0066	2.6967	0.9134	Total Length[cm]	6.5	34.5	782
<i>Lampetra fluviatilis</i>	0.0005	3.3567	0.9659	Total Length[cm]	9.25	38.75	178
<i>Lepidorhombus whiffiagonis</i>	0.0026	3.2967	0.9822	Total Length[cm]	15.5	52.5	247
<i>Limanda limanda</i>	0.0087	3.0226	0.9919	Total Length[cm]	1.35	33.5	743
<i>Limanda limanda</i> - Female ♀	0.0076	3.0584	0.9891	Total Length[cm]	4.5	33.5	90
<i>Limanda limanda</i> - Male ♂	0.0076	3.0587	0.9839	Total Length[cm]	5.5	25.5	92
<i>Liparis liparis</i>	0.0172	3.0359	0.9752	Total Length[cm]	3.5	16.5	134
<i>Liparis montagui</i>	0.0131	3.1228	0.9214	Total Length[cm]	6.5	15.5	29
<i>Lithodes maja</i>	0.00057	2.99662	0.9356	Carapace Length[mm]	18.5	132.5	220
<i>Lithodes maja</i> - Female ♀	0.00093	2.88717	0.90093	Carapace Length[mm]	34.5	130.5	123

Scientific Name	a	b	R ²	Length specification	Length class		N
					Min	Max	
<i>Lithodes maja</i> - Male ♂	0.00035	3.10704	0.97537	Carapace Length[mm]	18.5	122.5	65
<i>Lophius budegassa</i>	0.0203	2.9304	0.977	Total Length[cm]	13.5	81.5	31
<i>Lophius piscatorius</i>	0.0266	2.8568	0.9669	Total Length[cm]	7.5	120.5	1110
<i>Lumpenus lampretaeformis</i>	0.0063	2.4477	0.974	Total Length[cm]	5.35	35.5	76
<i>Melanogrammus aeglefinus</i>	0.005	3.1761	0.9869	Total Length[cm]	6.5	72.5	16770
<i>Melanogrammus aeglefinus</i> - Female ♀	0.0047	3.1937	0.9881	Total Length[cm]	10.5	72.5	8735
<i>Melanogrammus aeglefinus</i> - Male ♂	0.0053	3.1517	0.987	Total Length[cm]	10.5	69.5	8499
<i>Melanogrammus aeglefinus</i> - Quarter 1	0.0046	3.1932	0.9882	Total Length[cm]	7.5	72.5	11461
<i>Melanogrammus aeglefinus</i> - January	0.0047	3.1862	0.9887	Total Length[cm]	10.5	72.5	4907
<i>Melanogrammus aeglefinus</i> - February	0.0045	3.1955	0.9882	Total Length[cm]	7.5	69.5	6417
<i>Melanogrammus aeglefinus</i> - March	0.0034	3.3003	0.9816	Total Length[cm]	15.5	70.5	137
<i>Melanogrammus aeglefinus</i> - Quarter 2	0.0083	3.0284	0.9828	Total Length[cm]	7.5	70.5	161
<i>Melanogrammus aeglefinus</i> - April	0.0048	3.1779	0.9717	Total Length[cm]	17.5	70.5	55
<i>Melanogrammus aeglefinus</i> - May	0.0143	2.8509	0.9701	Total Length[cm]	14.5	58.5	61
<i>Melanogrammus aeglefinus</i> - June	0.0092	3.008	0.9874	Total Length[cm]	7.5	45.5	45
<i>Melanogrammus aeglefinus</i> - Quarter 3	0.0065	3.1083	0.9867	Total Length[cm]	6.5	66.5	5148
<i>Melanogrammus aeglefinus</i> - July	0.0063	3.1205	0.9872	Total Length[cm]	6.5	66.5	2439
<i>Melanogrammus aeglefinus</i> - August	0.0068	3.0956	0.9881	Total Length[cm]	6.5	54.5	2314
<i>Melanogrammus aeglefinus</i> - September	0.0065	3.0997	0.9596	Total Length[cm]	18.5	56.5	395
<i>Merlangius merlangus</i>	0.0061	3.0671	0.9846	Total Length[cm]	3.5	91.5	14880
<i>Merlangius merlangus</i> - Female ♀	0.0045	3.162	0.9863	Total Length[cm]	7.5	53.5	9435
<i>Merlangius merlangus</i> - Male ♂	0.0057	3.0863	0.9808	Total Length[cm]	7.5	47.5	9315
<i>Merlangius merlangus</i> - Quarter 1	0.0042	3.1775	0.9865	Total Length[cm]	6.5	53.5	8862
<i>Merlangius merlangus</i> - January	0.0049	3.1319	0.9881	Total Length[cm]	5.5	52.5	5199
<i>Merlangius merlangus</i> - February	0.0041	3.1868	0.9882	Total Length[cm]	6.5	53.5	4895
<i>Merlangius merlangus</i> - Quarter 2	0.0111	2.8596	0.9799	Total Length[cm]	3.5	36.5	412
<i>Merlangius merlangus</i> - Quarter 3	0.0085	2.9661	0.9857	Total Length[cm]	4.5	91.5	5473
<i>Merlangius merlangus</i> - July	0.008	2.9831	0.9912	Total Length[cm]	4.5	86.5	2480
<i>Merlangius merlangus</i> - August	0.0082	2.978	0.9885	Total Length[cm]	4.5	91.5	3669
<i>Merlangius merlangus</i> - September	0.0072	3.0222	0.9808	Total Length[cm]	7.5	36.5	600
<i>Merlangius merlangus</i> - Quarter 4	0.0084	2.9664	0.9657	Total Length[cm]	8.5	34.5	133
<i>Merluccius merluccius</i>	0.004	3.13	0.9944	Total Length[cm]	6.5	113.5	1682
<i>Merluccius merluccius</i> - Female ♀	0.0045	3.0912	0.9943	Total Length[cm]	12.5	93.5	284
<i>Merluccius merluccius</i> - Male ♂	0.0047	3.0774	0.9943	Total Length[cm]	7.5	70.5	374
<i>Microchirus variegatus</i>	0.011	2.9899	0.9409	Total Length[cm]	10.25	19.5	36
<i>Micromesistius poutassou</i>	0.0073	2.8926	0.8655	Total Length[cm]	10.5	55.5	17796
<i>Micromesistius poutassou</i> - Female ♀	0.0024	3.2288	0.8997	Total Length[cm]	14.5	42.5	3349
<i>Micromesistius poutassou</i> - Male ♂	0.0029	3.1651	0.8391	Total Length[cm]	14.5	43.5	3060
<i>Microstomus kitt</i>	0.0106	2.9904	0.9393	Total Length[cm]	3.25	45.5	2398
<i>Microstomus kitt</i> - Female ♀	0.0085	3.0626	0.9636	Total Length[cm]	13.5	40.5	889
<i>Microstomus kitt</i> - Male ♂	0.0107	2.9673	0.9604	Total Length[cm]	12.5	38.5	729
<i>Molva molva</i>	0.0031	3.1396	0.9841	Total Length[cm]	18.5	125.5	388
<i>Mullus surmuletus</i>	0.0149	2.9185	0.9695	Total Length[cm]	5.5	38.5	380
<i>Mustelus asterias</i>	0.0016	3.1753	0.9725	Total Length[cm]	42.5	100.5	178
<i>Mustelus asterias</i> - Female ♀	0.0011	3.2651	0.9679	Total Length[cm]	48.5	98.5	95
<i>Mustelus asterias</i> - Male ♂	0.0023	3.0919	0.9755	Total Length[cm]	42.5	100.5	75

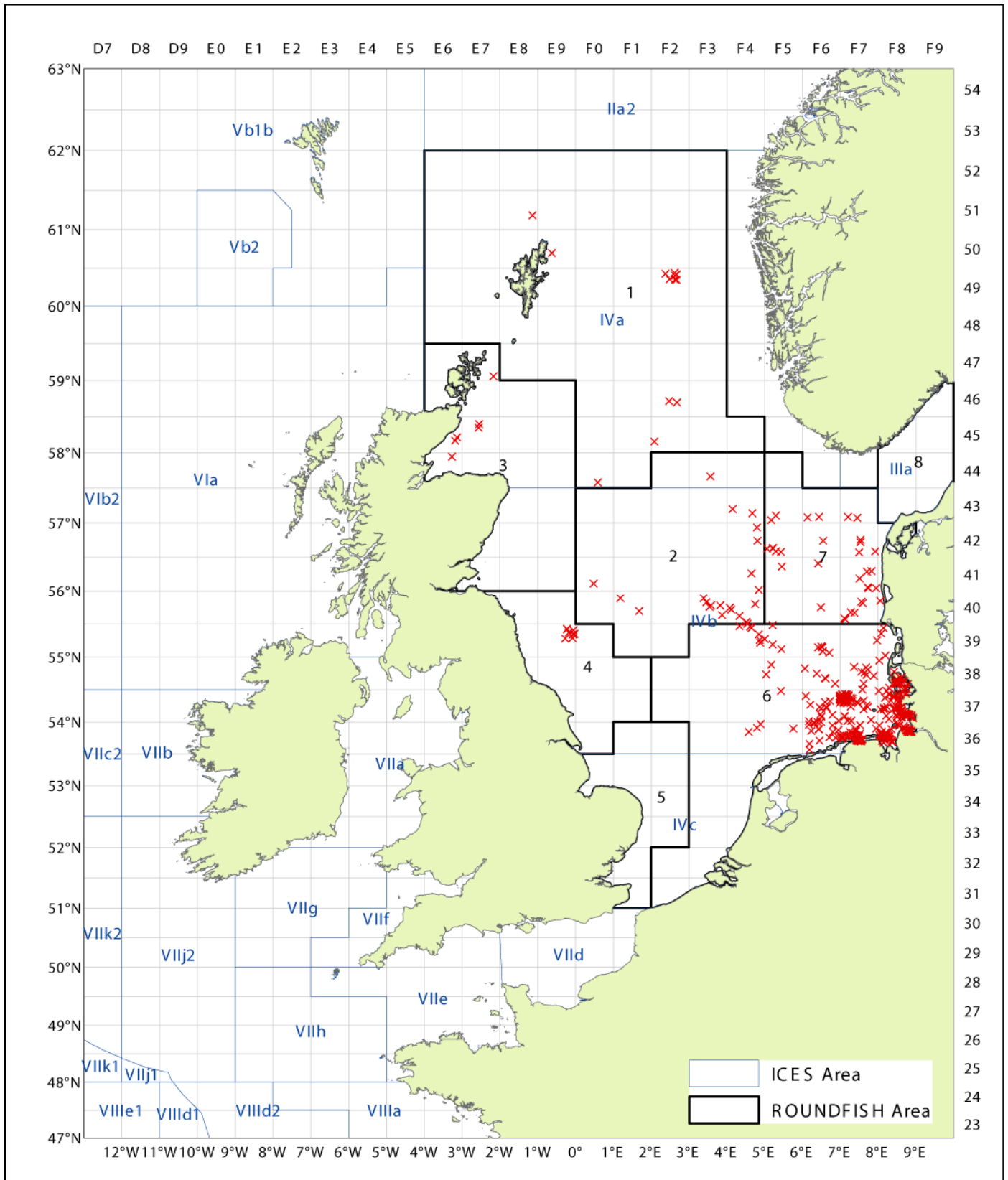
Scientific Name	a	b	R ²	Length specification	Length class		N
					Min	Max	
<i>Mustelus mustelus</i>	0.0033	3.0231	0.9876	Total Length[cm]	25.5	113.5	37
<i>Myoxocephalus scorpius</i>	0.0114	3.1036	0.971	Total Length[cm]	2.5	33.5	938
<i>Myxine glutinosa</i>	0.0022	2.8357	0.943	Total Length[cm]	8.5	41.5	128
<i>Nephrops norvegicus</i>	0.00042	3.11965	0.92553	Carapace Length[mm]	19.5	67.5	1334
<i>Nephrops norvegicus - Female</i> ♀	0.00083	2.93399	0.91843	Carapace Length[mm]	22.5	62.5	201
<i>Nephrops norvegicus - Male</i> ♂	0.00053	3.0791	0.94342	Carapace Length[mm]	20.5	67.5	239
<i>Osmerus eperlanus</i>	0.0094	2.8535	0.8983	Total Length[cm]	5.25	25.5	264
<i>Platichthys flesus</i>	0.0098	3.0235	0.9849	Total Length[cm]	6.5	42.5	755
<i>Pleuronectes platessa</i>	0.0103	2.9745	0.9823	Total Length[cm]	3.5	60.5	2970
<i>Pleuronectes platessa - Female</i> ♀	0.0059	3.1539	0.9768	Total Length[cm]	9.5	58.5	9656
<i>Pleuronectes platessa - Male</i> ♂	0.0077	3.0623	0.9713	Total Length[cm]	9.5	53.5	5417
<i>Pollachius pollachius</i>	0.0107	2.966	0.9756	Total Length[cm]	8.5	92.5	183
<i>Pollachius virens</i>	0.0055	3.1071	0.9752	Total Length[cm]	10.5	116.5	4677
<i>Pollachius virens - Female</i> ♀	0.0043	3.1692	0.9802	Total Length[cm]	23.5	116.5	2618
<i>Pollachius virens - Male</i> ♂	0.0049	3.1328	0.9829	Total Length[cm]	14.5	115.5	3156
<i>Pollachius virens - Quarter 1</i>	0.004	3.1853	0.9778	Total Length[cm]	10.5	116.5	3809
<i>Pollachius virens - January</i>	0.0032	3.2409	0.9765	Total Length[cm]	16.5	115.5	1628
<i>Pollachius virens - February</i>	0.0044	3.1573	0.9782	Total Length[cm]	10.5	116.5	2071
<i>Pollachius virens - March</i>	0.0065	3.0596	0.9865	Total Length[cm]	28.5	108.5	109
<i>Pollachius virens - Quarter 2</i>	0.0164	2.8586	0.9821	Total Length[cm]	21.5	106.5	215
<i>Pollachius virens - May</i>	0.0204	2.8079	0.9819	Total Length[cm]	28.5	106.5	187
<i>Pollachius virens - Quarter 3</i>	0.0103	2.9632	0.9813	Total Length[cm]	15.5	111.5	642
<i>Pollachius virens - July</i>	0.0107	2.9549	0.9817	Total Length[cm]	16.5	111.5	508
<i>Pollachius virens - August</i>	0.0105	2.9504	0.9801	Total Length[cm]	15.5	74.5	132
<i>Pollachius virens - Quarter 4</i>	0.0077	3.0455	0.9931	Total Length[cm]	16.5	113.5	1055
<i>Pollachius virens - October</i>	0.0106	2.9637	0.9914	Total Length[cm]	36.5	91.5	551
<i>Pollachius virens - November</i>	0.0054	3.1297	0.9922	Total Length[cm]	32.5	113.5	498
<i>Pomatoschistus minutus</i>	0.01	2.8976	0.9282	Total Length[cm]	2.5	9.5	615
<i>Psetta maxima</i>	0.0128	3.1267	0.9833	Total Length[cm]	4.5	72.5	944
<i>Psetta maxima - Female</i> ♀	0.0112	3.1702	0.966	Total Length[cm]	22.5	63.5	184
<i>Psetta maxima - Male</i> ♂	0.0138	3.0988	0.9518	Total Length[cm]	20.5	56.5	221
<i>Raja batis</i>	0.0074	2.9532	0.9842	Total Length[cm]	9.5	210.5	37
<i>Raja clavata</i>	0.0081	2.976	0.984	Total Length[cm]	9.5	95.5	73
<i>Raja montagui</i>	0.0029	3.2006	0.9903	Total Length[cm]	13.5	83.5	57
<i>Raja naevus</i>	0.0025	3.216	0.9878	Total Length[cm]	11.5	68.5	390
<i>Raja naevus - Female</i> ♀	0.0023	3.2423	0.9901	Total Length[cm]	12.5	67.5	225
<i>Raja naevus - Male</i> ♂	0.0032	3.1435	0.9838	Total Length[cm]	11.5	68.5	148
<i>Raja radiata</i>	0.0069	3.0343	0.987	Total Length[cm]	7.5	60.5	1156
<i>Raja radiata - Female</i> ♀	0.0073	3.0145	0.9871	Total Length[cm]	7.5	60.5	584
<i>Raja radiata - Male</i> ♂	0.0063	3.0574	0.9873	Total Length[cm]	8.5	53.5	528
<i>Rhinonemus cimbricus</i>	0.0032	3.1436	0.9492	Total Length[cm]	4.65	28.5	448
<i>Sardina pilchardus</i>	0.0034	3.2665	0.9764	Total Length[cm]	6.25	28.75	365
<i>Scomber scombrus</i>	0.004	3.1996	0.9477	Total Length[cm]	7.5	45.5	8600
<i>Scomber scombrus - Female</i> ♀	0.002	3.4011	0.9588	Total Length[cm]	15.5	47.5	9832
<i>Scomber scombrus - Male</i> ♂	0.002	3.4036	0.9535	Total Length[cm]	15.5	46.5	9328
<i>Scomber scombrus - Quarter 1</i>	0.0027	3.3022	0.9809	Total Length[cm]	10.5	43.5	3329

Scientific Name	a	b	R ²	Length specification	Length class		N
					Min	Max	
<i>Scomber scombrus</i> - January	0.0022	3.3809	0.987	Total Length[cm]	15.5	43.5	807
<i>Scomber scombrus</i> - February	0.0026	3.3148	0.981	Total Length[cm]	10.5	41.5	1223
<i>Scomber scombrus</i> - March	0.0017	3.4118	0.9825	Total Length[cm]	15.5	43.5	1209
<i>Scomber scombrus</i> - Quarter 2	0.0024	3.308	0.9459	Total Length[cm]	16.5	45.5	1828
<i>Scomber scombrus</i> - April	0.0024	3.2954	0.9522	Total Length[cm]	16.5	42.5	1696
<i>Scomber scombrus</i> - May	0.0028	3.2932	0.9344	Total Length[cm]	26.5	43.5	118
<i>Scomber scombrus</i> - Quarter 3	0.0043	3.2101	0.9614	Total Length[cm]	7.5	45.5	3509
<i>Scomber scombrus</i> - July	0.0043	3.2122	0.9569	Total Length[cm]	7.5	43.5	1781
<i>Scomber scombrus</i> - August	0.0046	3.1875	0.9647	Total Length[cm]	11.5	45.5	1478
<i>Scomber scombrus</i> - September	0.0029	3.335	0.9703	Total Length[cm]	13.5	40.5	250
<i>Scomber scombrus</i> - Quarter 4	0.0015	3.4916	0.9809	Total Length[cm]	16.5	45.5	1510
<i>Scomber scombrus</i> - October	0.003	3.2714	0.9832	Total Length[cm]	16.5	39.5	286
<i>Scomber scombrus</i> - November	0.0027	3.3083	0.9219	Total Length[cm]	20.5	35.5	498
<i>Scomber scombrus</i> - December	0.001	3.5993	0.9862	Total Length[cm]	16.5	45.5	724
<i>Scophthalmus rhombus</i>	0.0103	3.0937	0.9825	Total Length[cm]	4.5	56.5	528
<i>Scyliorhinus canicula</i>	0.0021	3.1276	0.9753	Total Length[cm]	16.5	79.5	683
<i>Scyliorhinus canicula</i> - Female ♀	0.0017	3.1946	0.9785	Total Length[cm]	16.5	79.5	316
<i>Scyliorhinus canicula</i> - Male ♂	0.0033	3.0097	0.9715	Total Length[cm]	19.5	78.5	277
<i>Sebastes marinus</i>	0.0065	3.2124	0.9745	Total Length[cm]	19.5	66.5	1073
<i>Sebastes mentella</i>	0.0127	2.9773	0.9609	Total Length[cm]	16.5	77.5	20030
<i>Sebastes viviparus</i>	0.0127	3.0797	0.956	Total Length[cm]	10.5	31.5	67
<i>Solea vulgaris</i>	0.0034	3.2974	0.983	Total Length[cm]	5.5	42.5	1792
<i>Solea vulgaris</i> - Female ♀	0.0032	3.3307	0.9573	Total Length[cm]	13.5	44.5	2819
<i>Solea vulgaris</i> - Male ♂	0.0047	3.1882	0.9352	Total Length[cm]	12.5	42.5	893
<i>Sprattus sprattus</i>	0.0052	3.1474	0.9358	Total Length[cm]	3.75	15.75	11479
<i>Sprattus sprattus</i> - Female ♀	0.0078	2.9851	0.9204	Total Length[cm]	5.75	16.25	7177
<i>Sprattus sprattus</i> - Male ♂	0.0069	3.0305	0.9135	Total Length[cm]	5.75	15.25	5750
<i>Sprattus sprattus</i> - Quarter 1	0.0038	3.2418	0.9584	Total Length[cm]	4.75	15.75	2663
<i>Sprattus sprattus</i> - January	0.0039	3.2324	0.9558	Total Length[cm]	4.75	14.75	1260
<i>Sprattus sprattus</i> - February	0.0033	3.2926	0.9614	Total Length[cm]	5.75	15.75	1254
<i>Sprattus sprattus</i> - March	0.0072	2.9707	0.97	Total Length[cm]	6.75	15.75	149
<i>Sprattus sprattus</i> - Quarter 2	0.0075	3.0174	0.9181	Total Length[cm]	5.75	14.75	1135
<i>Sprattus sprattus</i> - April	0.01	2.8771	0.937	Total Length[cm]	5.75	14.75	122
<i>Sprattus sprattus</i> - May	0.0049	3.2161	0.9055	Total Length[cm]	5.75	14.25	261
<i>Sprattus sprattus</i> - June	0.008	2.9889	0.9244	Total Length[cm]	6.75	14.75	752
<i>Sprattus sprattus</i> - Quarter 3	0.0073	3.0207	0.9344	Total Length[cm]	3.75	15.75	7656
<i>Sprattus sprattus</i> - July	0.0084	2.9566	0.9241	Total Length[cm]	3.75	15.75	5967
<i>Sprattus sprattus</i> - August	0.0055	3.1562	0.9619	Total Length[cm]	4.75	14.75	1341
<i>Sprattus sprattus</i> - September	0.0046	3.2214	0.946	Total Length[cm]	4.75	15.25	348
<i>Sprattus sprattus</i> - Quarter 4	0.007	3.0104	0.8812	Total Length[cm]	6.75	14.25	25
<i>Squalus acanthias</i>	0.0023	3.1289	0.9821	Total Length[cm]	24.5	115.5	273
<i>Squalus acanthias</i> - Female ♀	0.0015	3.2491	0.9916	Total Length[cm]	24.5	115.5	108
<i>Squalus acanthias</i> - Male ♂	0.0041	2.984	0.9824	Total Length[cm]	25.5	97.5	127
<i>Syngnathus rostellatus</i>	0.00015	3.40846	0.91674	Total Length[cm]	5.25	18.5	184
<i>Trachinus draco</i>	0.0061	3.0482	0.9853	Total Length[cm]	10.5	36.5	18
<i>Trachurus trachurus</i>	0.0112	2.8824	0.9787	Total Length[cm]	2.5	41.5	3815

Scientific Name	a	b	R ²	Length specification	Length class		N
					Min	Max	
<i>Trachurus trachurus</i> - Female ♀	0.0177	2.7566	0.8829	Total Length[cm]	15.5	42.5	5093
<i>Trachurus trachurus</i> - Male ♂	0.0166	2.7736	0.8948	Total Length[cm]	12.5	45.5	4711
<i>Trachurus trachurus</i> - Quarter 1	0.0072	3.0172	0.9774	Total Length[cm]	6.5	46.5	3388
<i>Trachurus trachurus</i> - January	0.0073	3.0281	0.9906	Total Length[cm]	6.5	38.5	330
<i>Trachurus trachurus</i> - February	0.0065	3.0504	0.9714	Total Length[cm]	10.5	46.5	2289
<i>Trachurus trachurus</i> - March	0.0073	2.9946	0.9334	Total Length[cm]	15.5	40.5	769
<i>Trachurus trachurus</i> - Quarter 2	0.0068	3.0168	0.9142	Total Length[cm]	12.5	40.5	2030
<i>Trachurus trachurus</i> - April	0.0082	2.9564	0.9201	Total Length[cm]	12.5	40.5	1981
<i>Trachurus trachurus</i> - May	0.0099	2.9721	0.9182	Total Length[cm]	21.5	39.5	37
<i>Trachurus trachurus</i> - June	0.0021	3.4271	0.9748	Total Length[cm]	21.5	39.5	14
<i>Trachurus trachurus</i> - Quarter 3	0.0125	2.9076	0.9878	Total Length[cm]	4.5	41.5	886
<i>Trachurus trachurus</i> - July	0.0165	2.8229	0.9616	Total Length[cm]	4.5	40.5	491
<i>Trachurus trachurus</i> - August	0.0118	2.9306	0.9925	Total Length[cm]	4.5	41.5	350
<i>Trachurus trachurus</i> - September	0.0112	2.9286	0.9913	Total Length[cm]	4.5	39.5	56
<i>Trachurus trachurus</i> - Quarter 4	0.0079	3.0199	0.9391	Total Length[cm]	7.5	40.5	4711
<i>Trachurus trachurus</i> - October	0.0067	3.0818	0.9385	Total Length[cm]	14.5	40.5	3447
<i>Trachurus trachurus</i> - November	0.0137	2.8256	0.948	Total Length[cm]	7.5	36.5	928
<i>Trachurus trachurus</i> - December	0.0086	2.9778	0.9732	Total Length[cm]	7.5	37.5	336
<i>Trigla lucerna</i>	0.0151	2.8814	0.9855	Total Length[cm]	4.5	50.5	505
<i>Trisopterus esmarki</i>	0.0045	3.1484	0.9657	Total Length[cm]	5.5	22.5	1051
<i>Trisopterus esmarki</i> - Female ♀	0.0039	3.2015	0.9694	Total Length[cm]	9.5	22.5	672
<i>Trisopterus esmarki</i> - Male ♂	0.0069	2.9786	0.956	Total Length[cm]	8.5	21.5	550
<i>Trisopterus esmarki</i> - Quarter 1	0.0047	3.1254	0.9644	Total Length[cm]	7.5	22.5	775
<i>Trisopterus esmarki</i> - January	0.0057	3.0558	0.9585	Total Length[cm]	8.5	22.5	423
<i>Trisopterus esmarki</i> - February	0.0039	3.1935	0.9693	Total Length[cm]	7.5	22.5	346
<i>Trisopterus esmarki</i> - Quarter 3	0.0048	3.1515	0.9751	Total Length[cm]	5.5	21.5	269
<i>Trisopterus esmarki</i> - July	0.0043	3.1932	0.9684	Total Length[cm]	5.5	21.5	136
<i>Trisopterus esmarki</i> - August	0.005	3.1365	0.977	Total Length[cm]	5.5	20.5	130
<i>Trisopterus luscus</i>	0.0102	3.0277	0.9728	Total Length[cm]	4.5	35.5	256
<i>Trisopterus minutus</i>	0.004	3.275	0.965	Total Length[cm]	8.5	24.5	697
<i>Trisopterus minutus</i> - Quarter 1	0.0032	3.3595	0.981	Total Length[cm]	8.5	24.5	385
<i>Trisopterus minutus</i> - January	0.0029	3.3963	0.9693	Total Length[cm]	9.25	23.75	111
<i>Trisopterus minutus</i> - February	0.0031	3.3628	0.9861	Total Length[cm]	8.5	24.5	260
<i>Trisopterus minutus</i> - Quarter 2	0.0082	3.0006	0.9432	Total Length[cm]	8.5	24.5	119
<i>Trisopterus minutus</i> - Quarter 3	0.0072	3.0566	0.9309	Total Length[cm]	8.5	21.5	166
<i>Zeus faber</i>	0.0134	3.0526	0.9832	Total Length[cm]	9.5	52.5	184
<i>Zoarces viviparus</i>	0.0047	3.0241	0.9522	Total Length[cm]	4.75	26.5	321

Agonus cataphractus

Geographical distribution of data used for calculating the length-weight relationship



Agonus cataphractus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0104

b = 2.8669

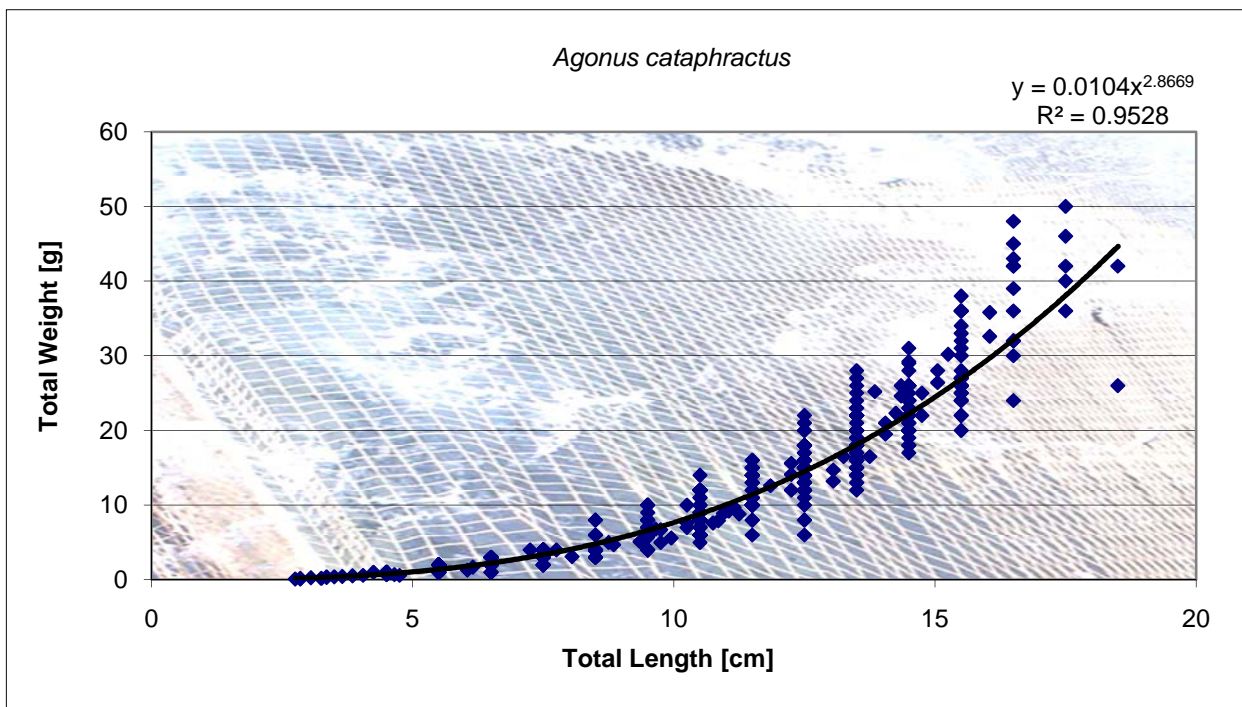
data collected

time period : 2001 - 2011

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
138	67	210	43																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
130	8	-	11	56	-	32	84	94	28	5	10								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	458	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	41	417	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
15	22	25	9	-	345	42	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

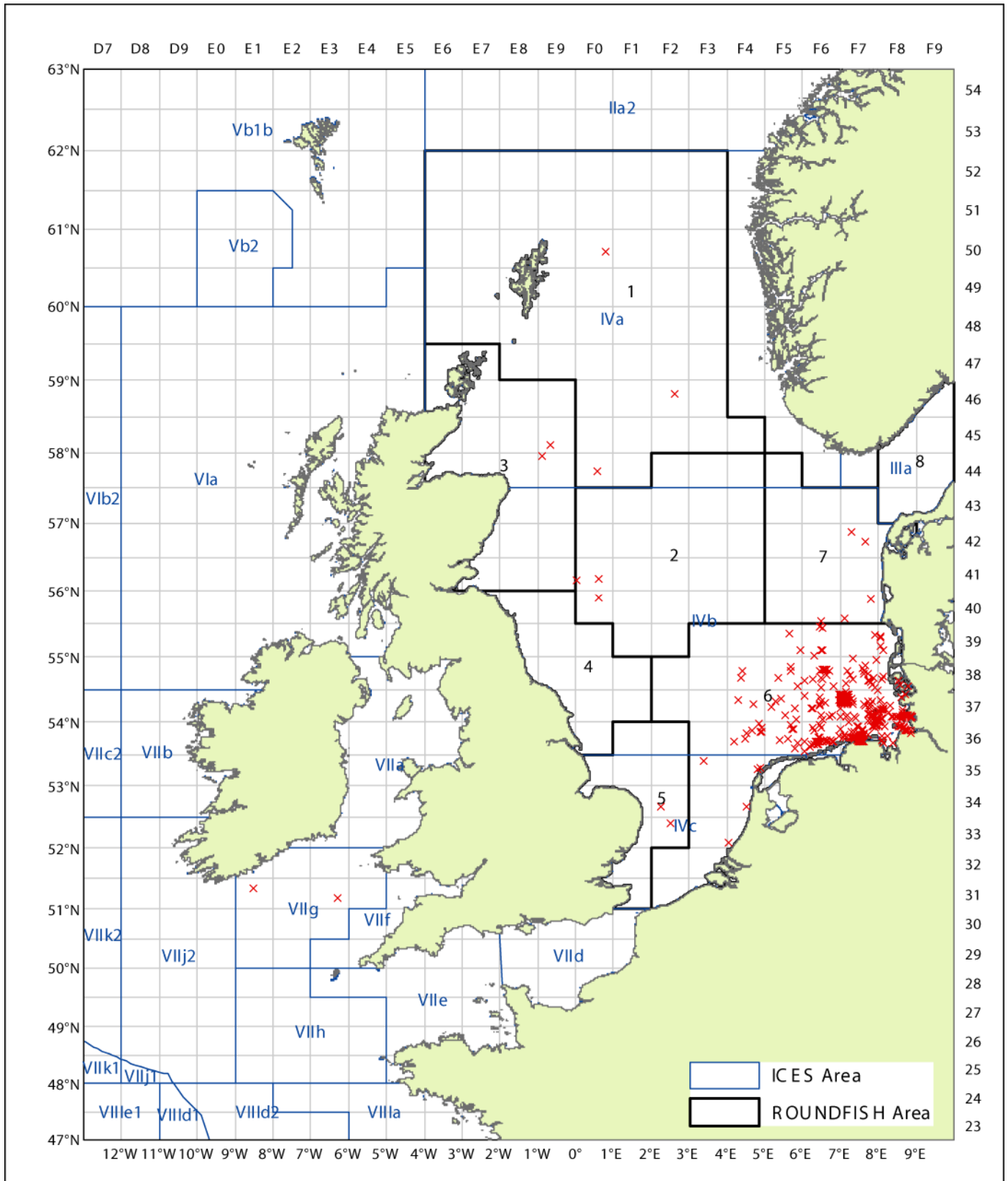


Method of Measurement

- Total length	male	-
- cm below, 1/2 cm below, mm below	female	-
min length	undefined	458
max length		
2.75 [cm]	total numbers of data	458
18.5 [cm]		

Alosa fallax

Geographical distribution of data used for calculating the length-weight relationship



Alosa fallax

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0059

b = 3.0778

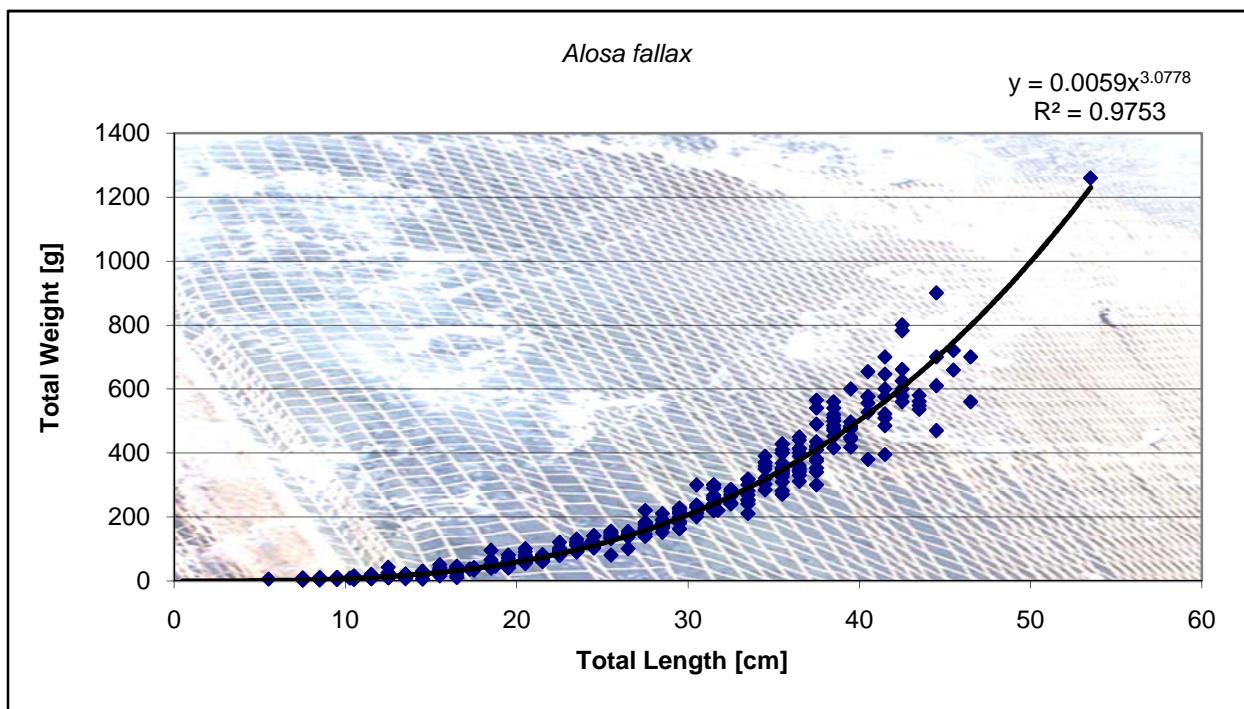
data collected

time period : 1975 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
178	32	192	89																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
138	38	2	13	13	6	24	129	39	21	36	32								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	489	-	-	2	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	5	480	4	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
2	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
3	4	2	-	2	474	2	-	-	-	-	-	-	-	-	-	-	-		

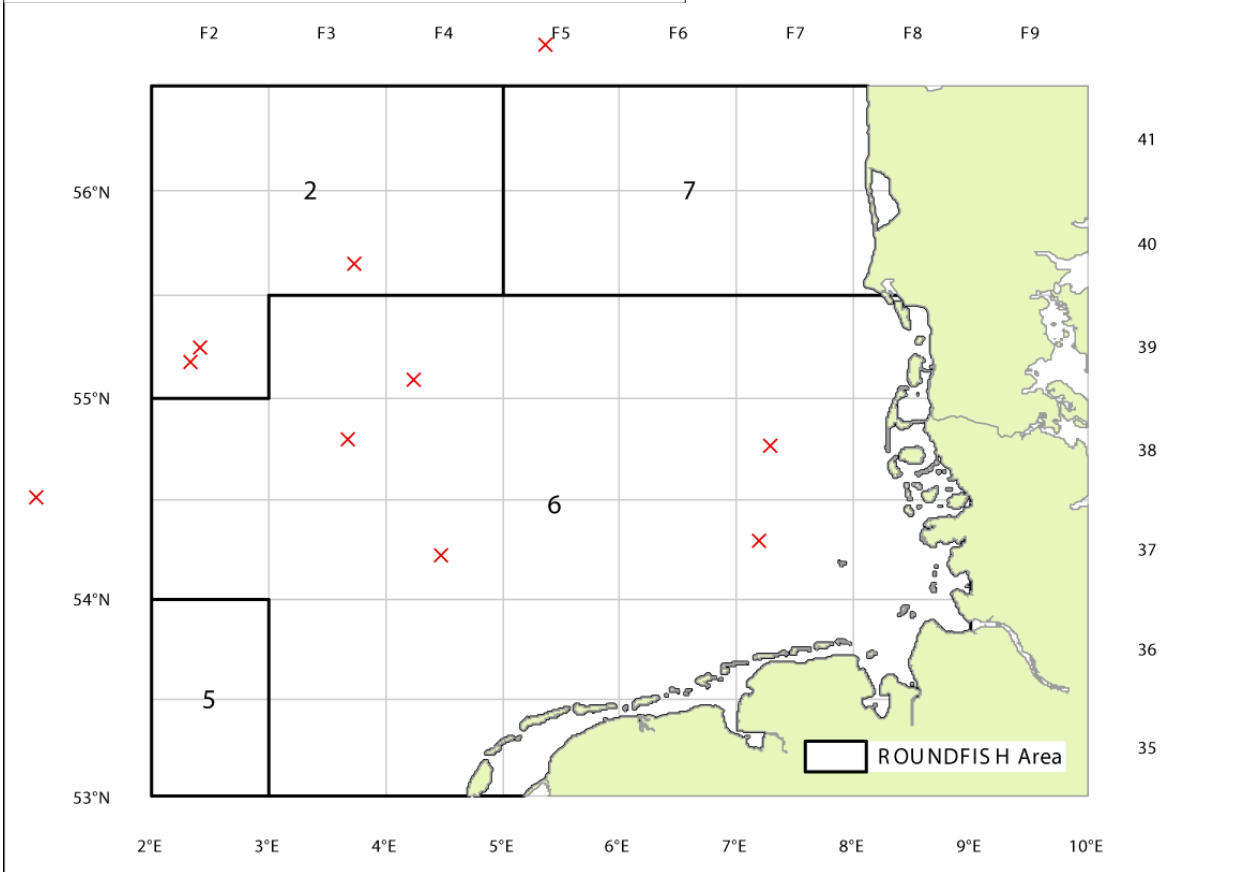
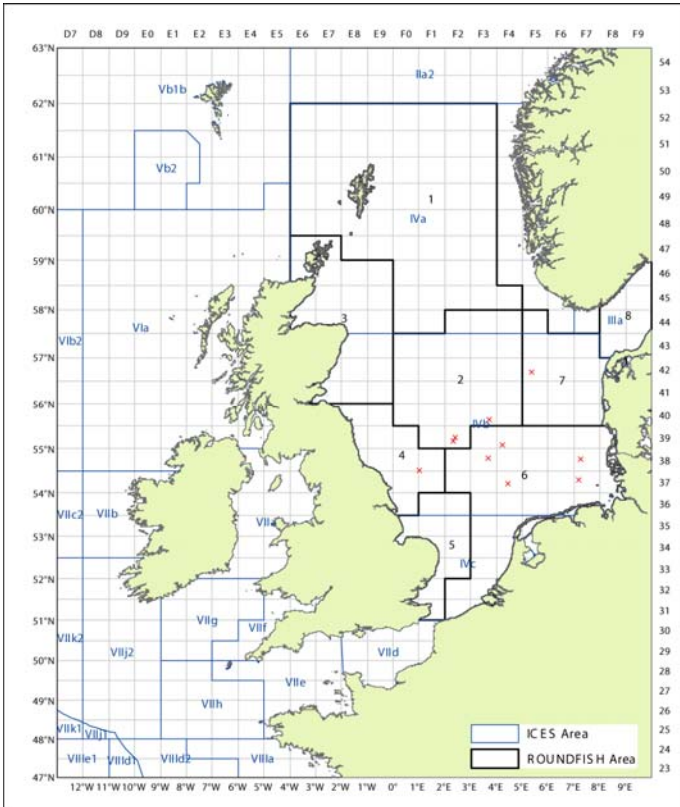


Method of Measurement

- Total length		male	-
- cm below		female	2
min length	5.5 [cm]	undefined	489
max length	53.5 [cm]	total numbers of data	491

Ammodytes marinus

Geographical distribution of data used for calculating the length-weight relationship



Ammodytes marinus

Quarter: 2 ; 3

$$Tw [g] = a * L [cm]^b$$

a = 0.001

b = 3.4395

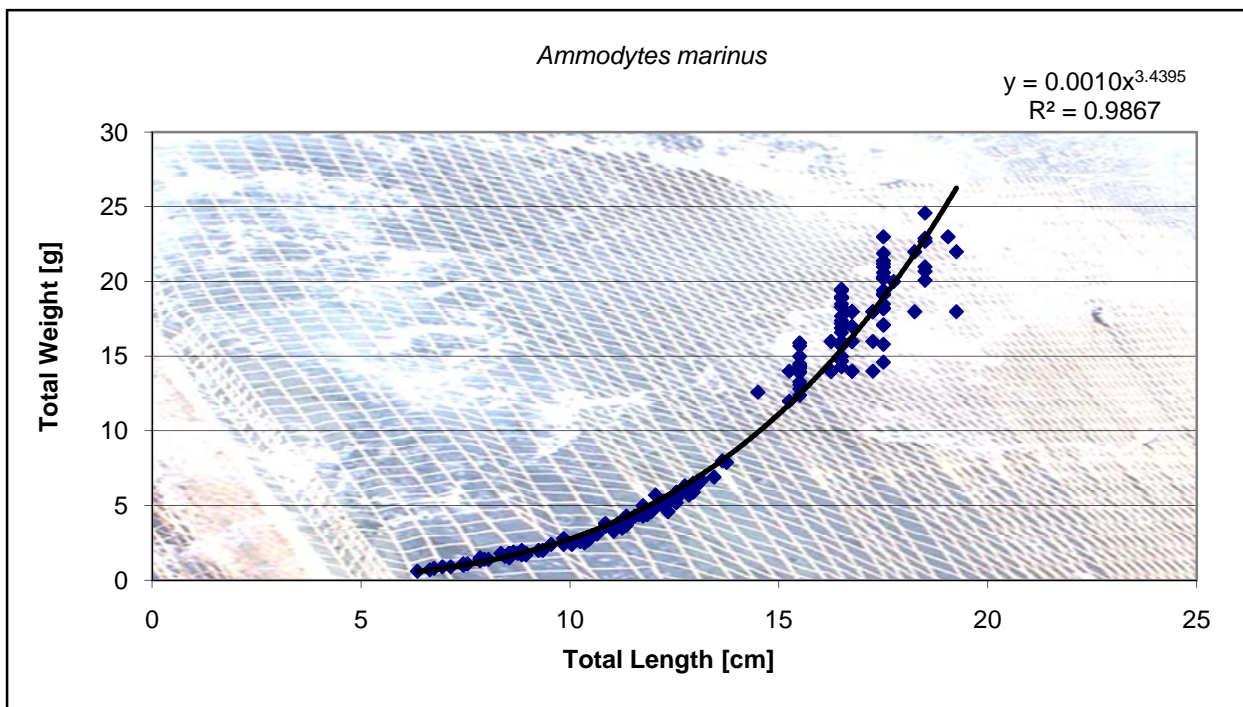
data collected

time period : 1995 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	61	108	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	1	60	-	108	-	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	169	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	-	169	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	79	-	1	-	66	23	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

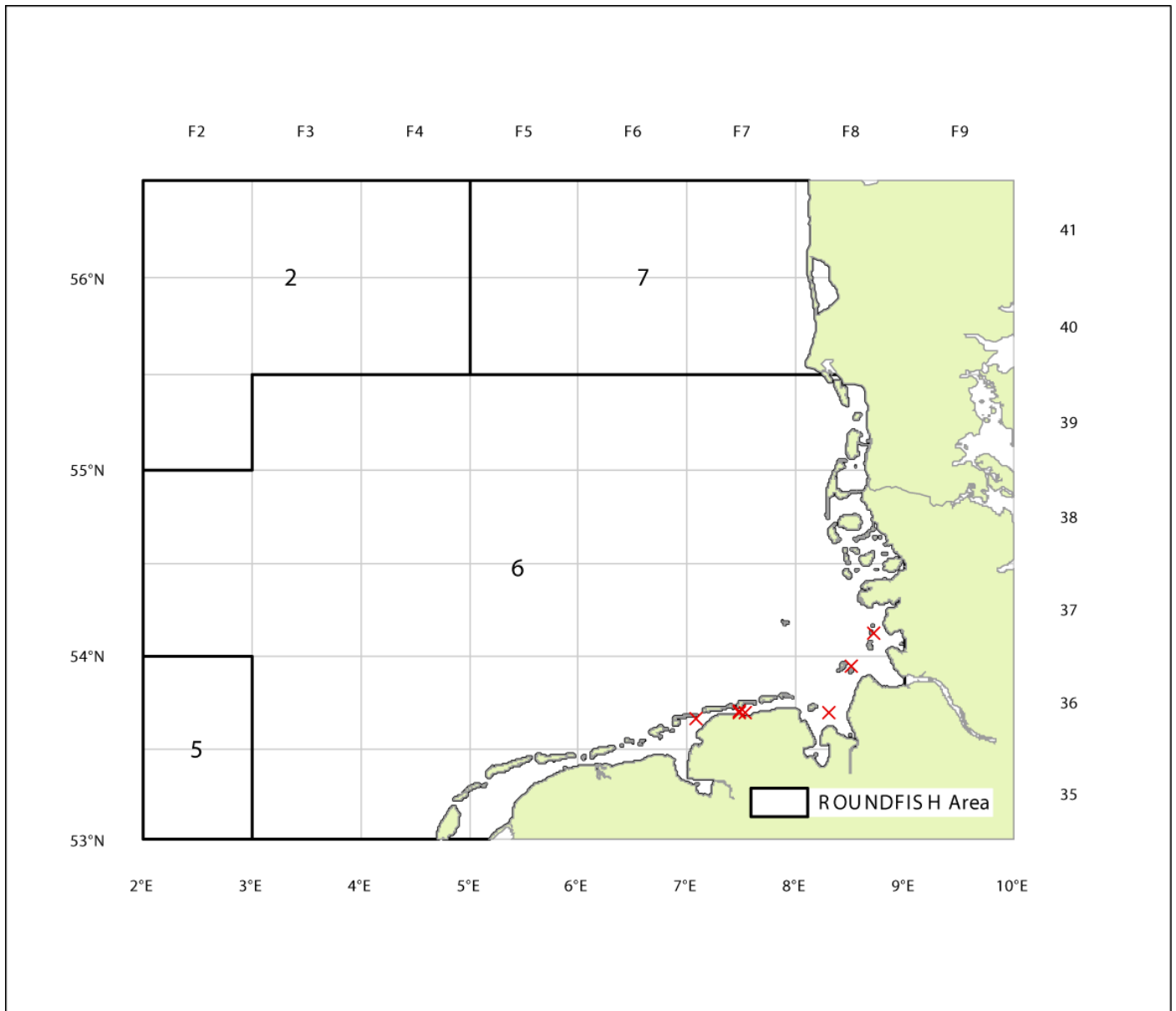


Method of Measurement

- Total length		male	-
- mm below, 1/2 cm below		female	-
min length	6.35 [cm]	undefined	169
max length	19.25 [cm]	total numbers of data	169

Ammodytes tobianus

Geographical distribution of data used for calculating the length-weight relationship



Ammodytes tobianus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0063

b = 2.6927

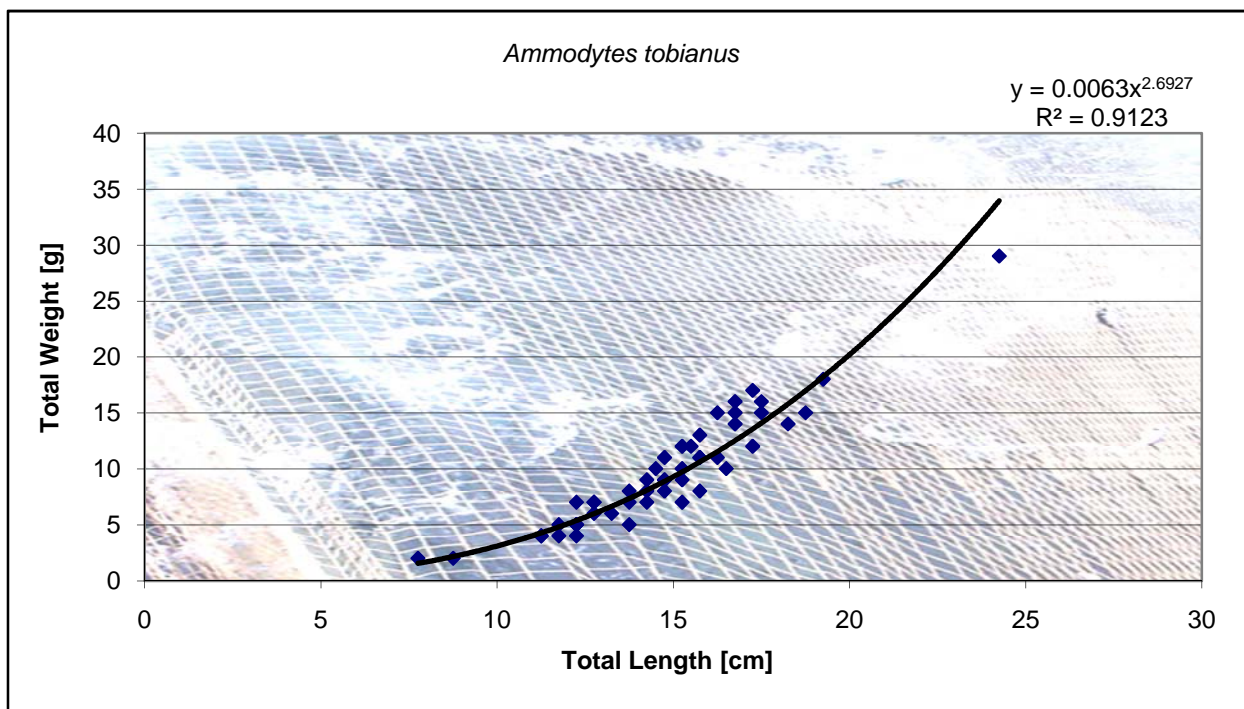
data collected

time period : 1958 - 2003

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
2	14	25	9																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	2	3	2	9	10	8	7	6	3	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	50	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-		

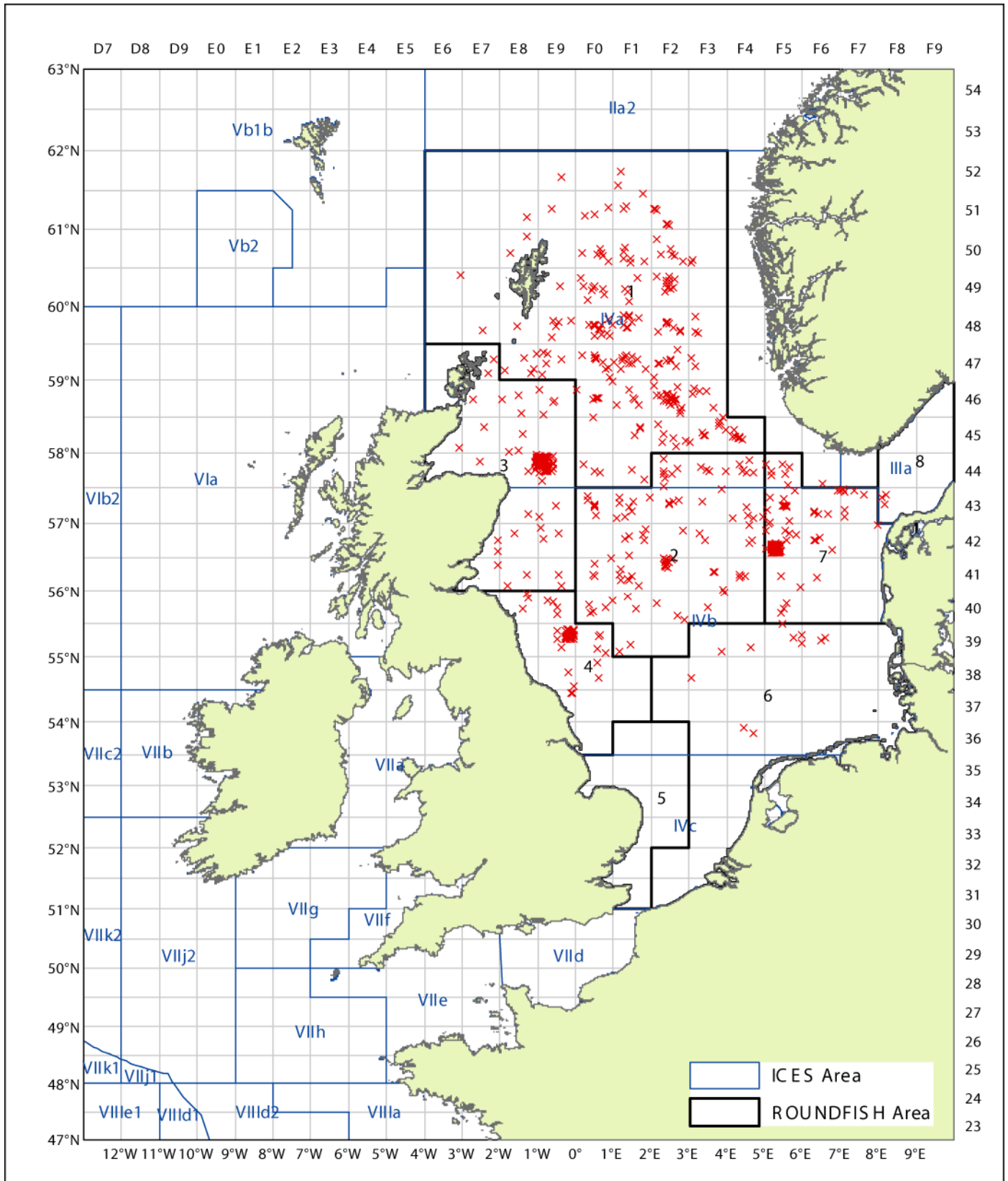


Method of Measurement

- Total length		male	-
- 1/2 cm below, cm below		female	-
min length	7.75 [cm]	undefined	50
max length	24.25 [cm]	total numbers of data	50

Anarhichas lupus

Geographical distribution of data used for calculating the length-weight relationship



Anarhichas lupus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0078

b = 3.0468

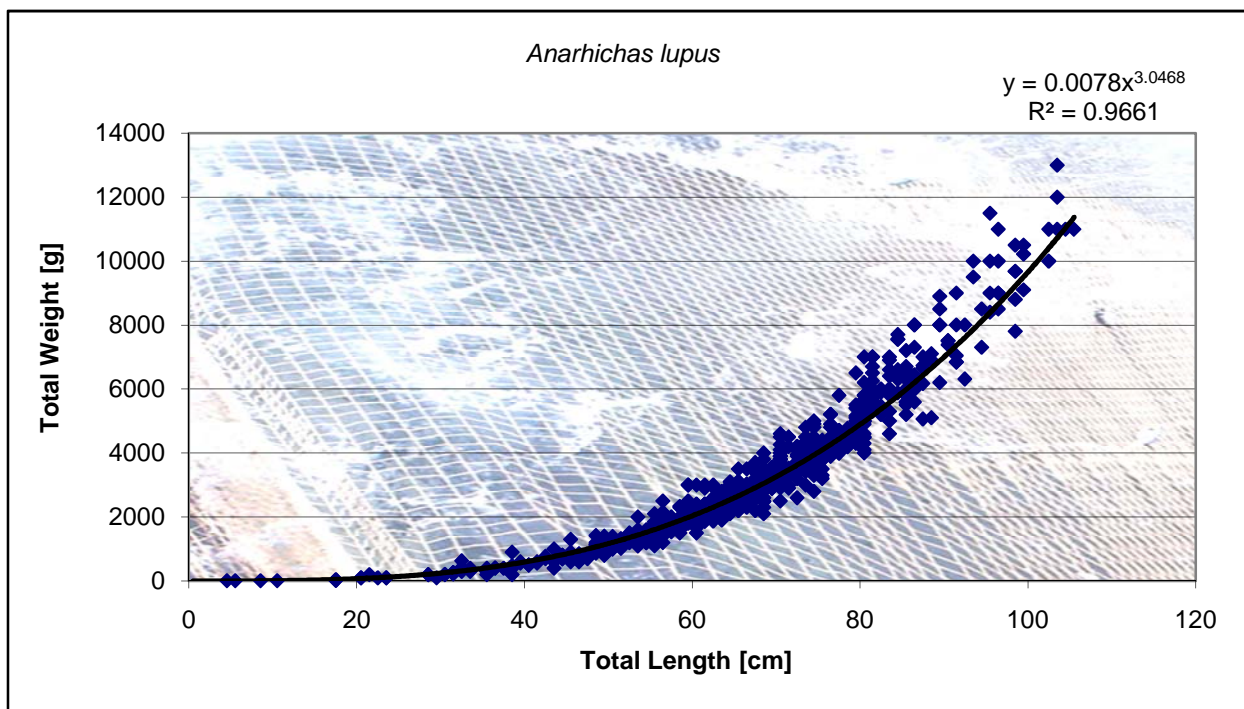
data collected

time period : 1959 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
182	238	247	8																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
22	126	34	-	85	153	211	25	11	-	8	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	3	672	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	3	-	-	-	383	289	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
238	103	127	61	-	7	110	-	-	-	-	-	-	-	-	-	-	-		

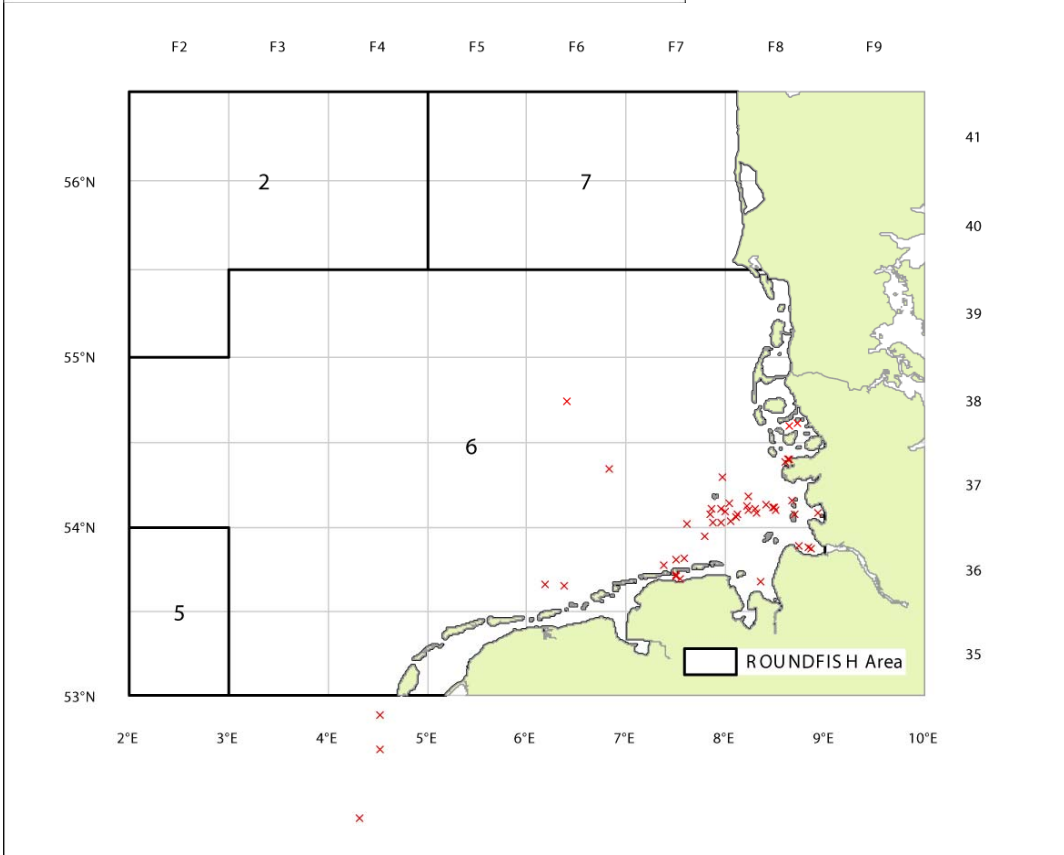
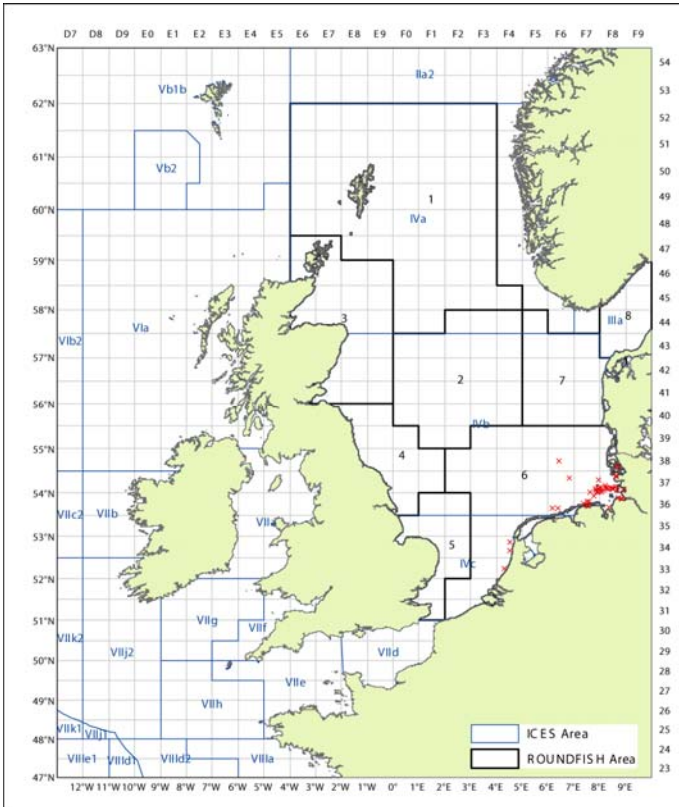


Method of Measurement

- Total length		male	11
- cm below		female	22
min length	4.5 [cm]	undefined	642
max length	105.5 [cm]	total numbers of data	675

Anguilla anguilla

Geographic distribution of data used for calculating the length-weight relationship



Anguilla anguilla

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0008

b = 3.1851

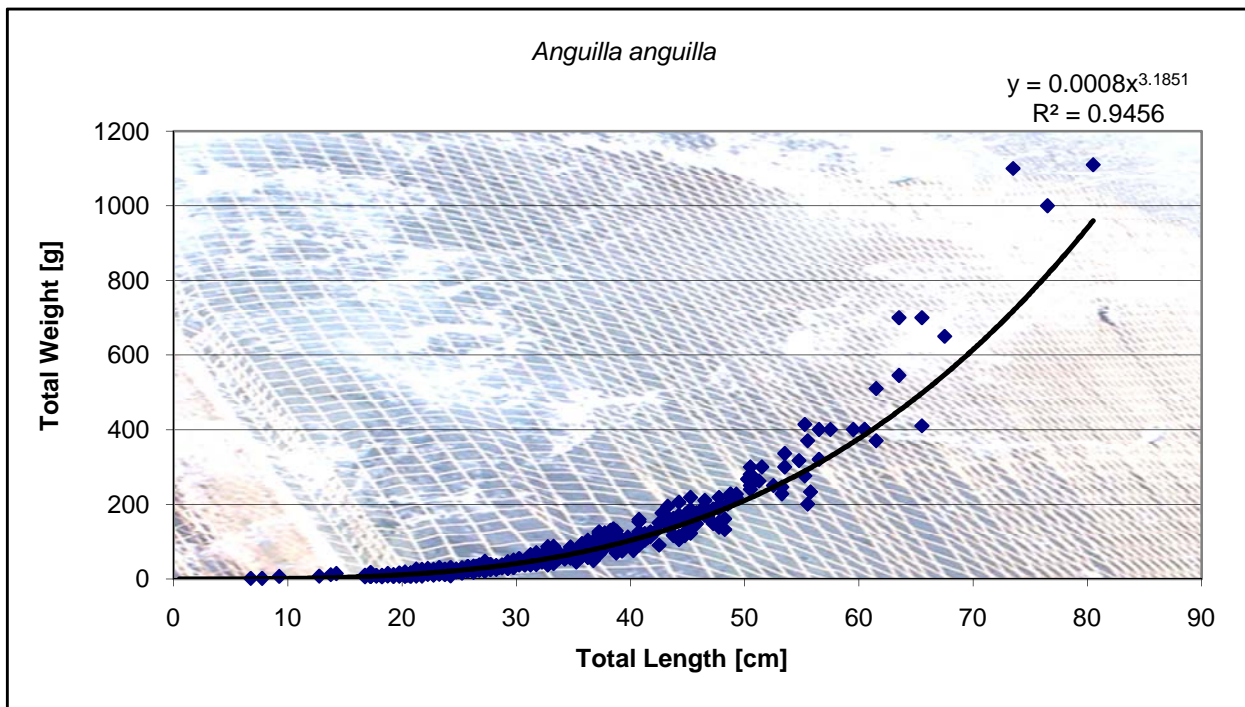
data collected

time period : 1955 - 2004

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
12	223	340	34																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
4	5	3	28	86	109	146	107	87	19	12	3								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	609	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	-	608	1	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	609	-	-	-	-	-	-	-	-	-	-	-	-		

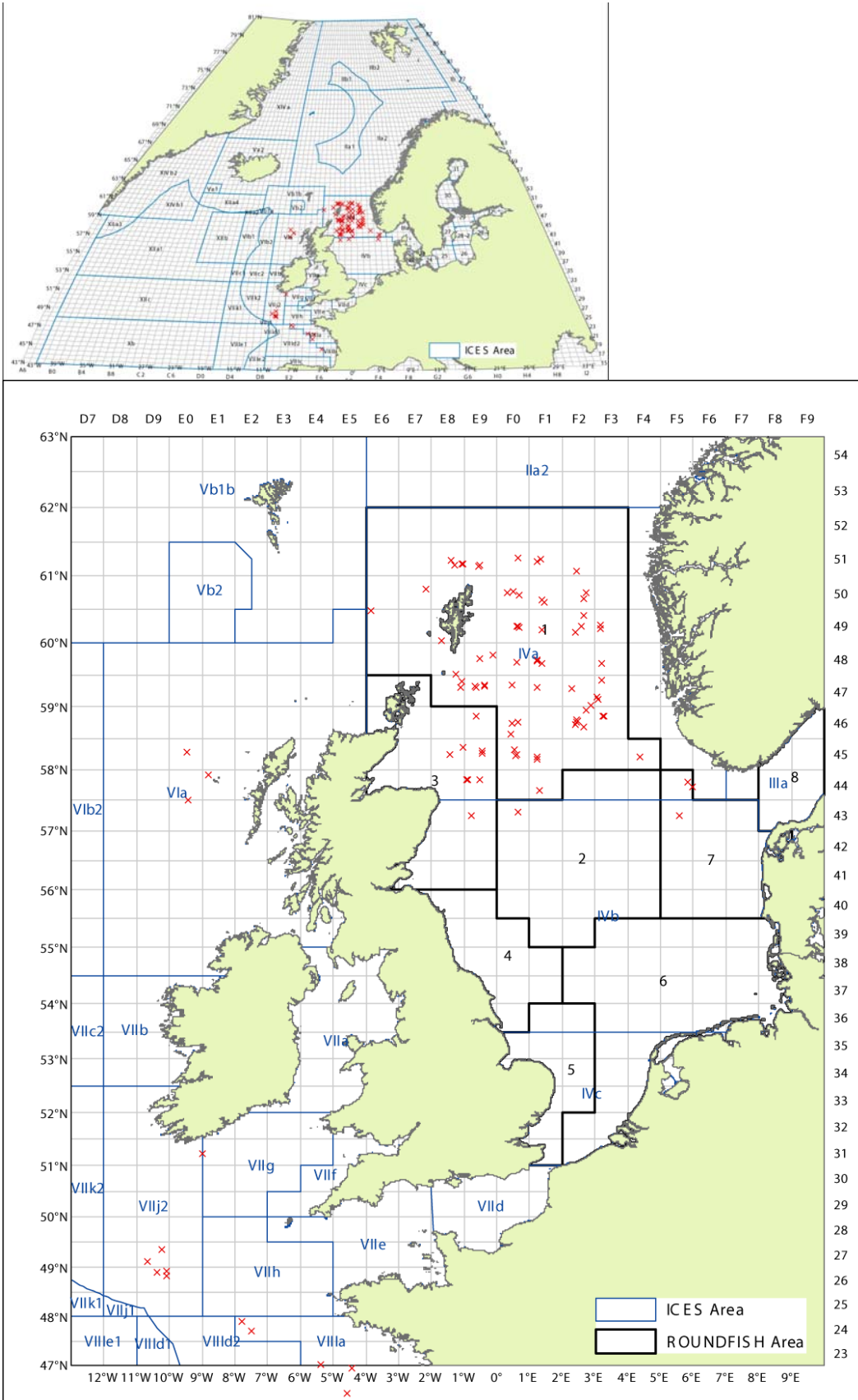


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	6.5 [cm]	undefined	609
max length	80.5 [cm]	total numbers of data	609

Argentina silus

Geographical distribution of data used for calculating the length-weight relationship



Argentina silus

Quarter: 1 - 3

$$TW [g] = a * L [cm]^b$$

a = 0.0025

b = 3.3006

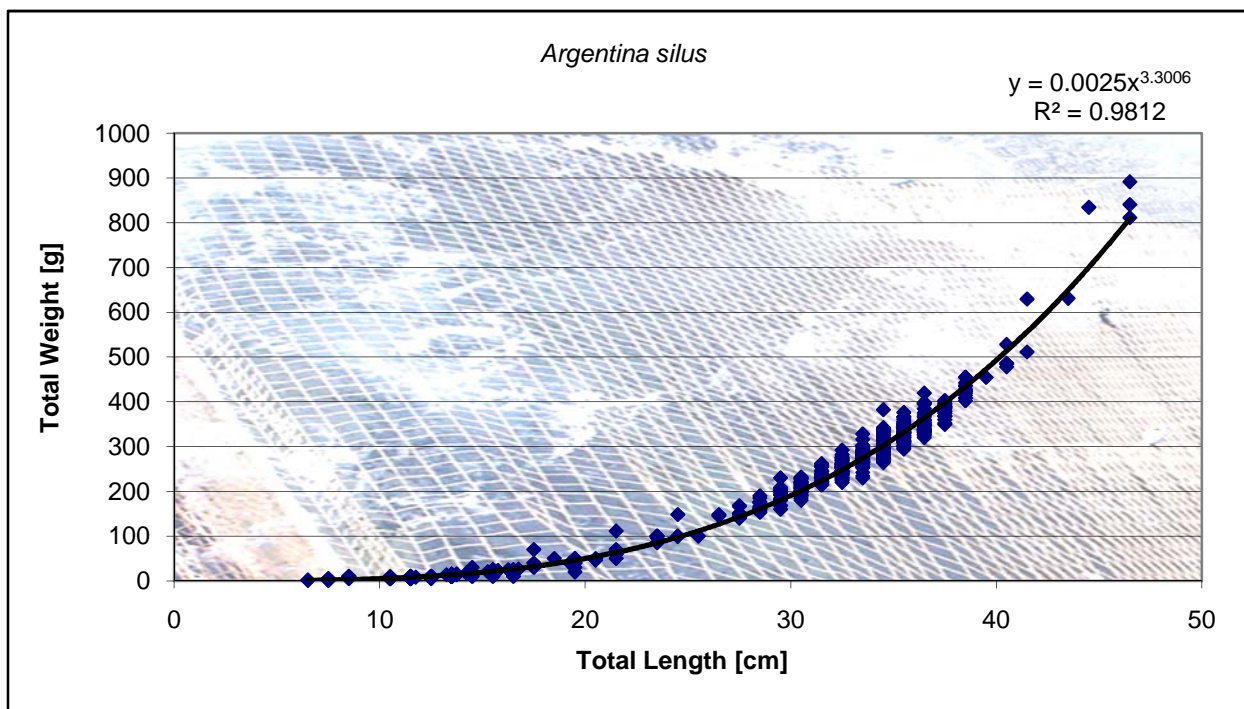
data collected

time period : 1983 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
251	227	14	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
43	197	11	217	5	5	14	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	264	-	216	6	6	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	260	4	-	-	-	216	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	-	5	-	5	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
85	1	11	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-

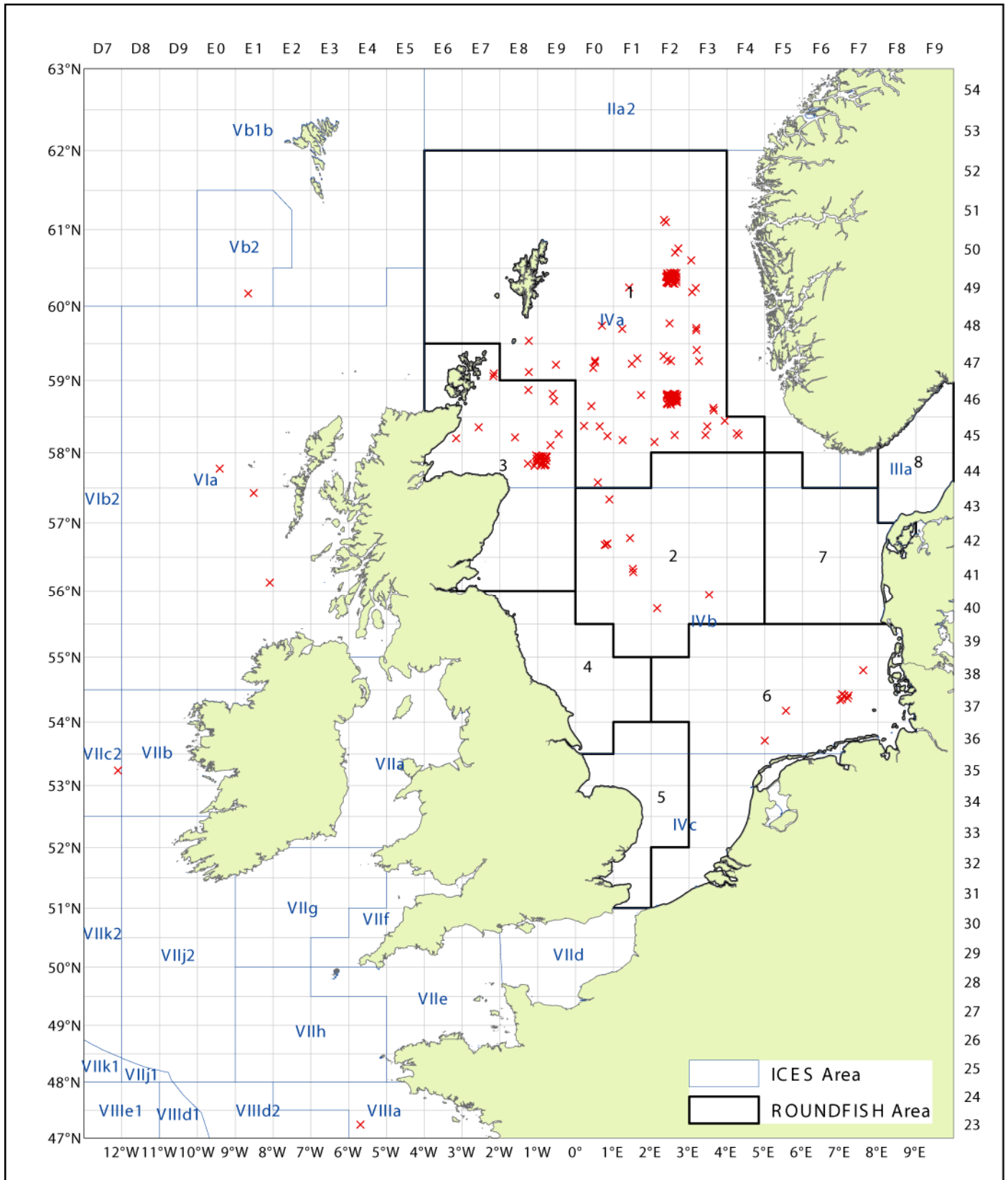


Method of Measurement

- Total length	male	-
- cm below	female	-
min length	undefined	492
max length	total numbers of data	492
6.5 [cm]		
46.5 [cm]		

Argentina sphyraena

Geographical distribution of data used for calculating the length-weight relationship



Argentina sphyraena

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0021

b = 3.346

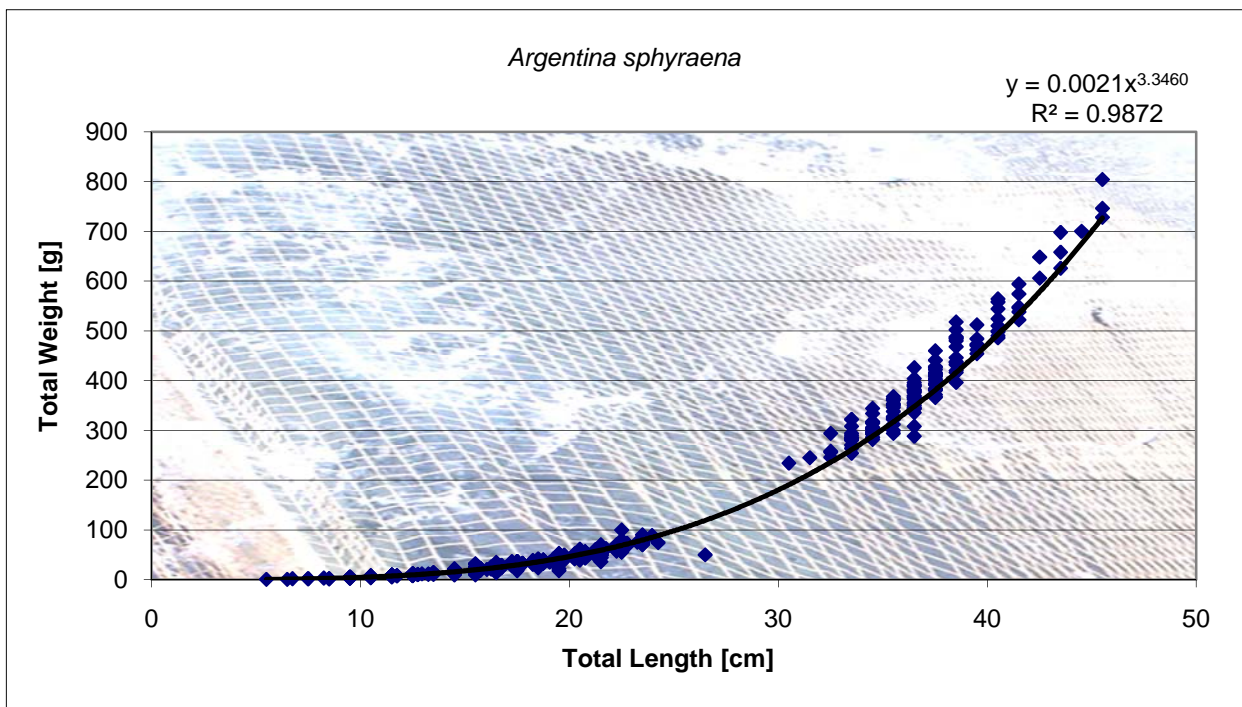
data collected

time period : 2000 - 2011

data source : research vessel, commercial trawler

numbers of data:

Quarter																											
1	2	3	4																								
95	137	515	1																								
Month																											
1	2	3	4	5	6	7	8	9	10	11	12																
30	61	4	135	-	2	288	227	-	-	-	1																
Subarea																											
1	2	3	4	5	6	7	8	9	10	12	14																
-	-	-	609	134	3	1	1	-	-	-	-																
Division																											
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F								
-	-	-	-	-	-	-	588	21	-	-	134	3	-	-	-	1	-	-	-								
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B													
-	-	-	-	1	-	-	-	-	-	-	-	-	-	-													
Roundfisharea											NAFO																
1	2	3	4	5	6	7	8	9										1A	1B	1C	1D	1E	1F	2G	2H	2J	
450	12	138	-	-	9	-	-	-										-	-	-	-	-	-	-	-	-	-

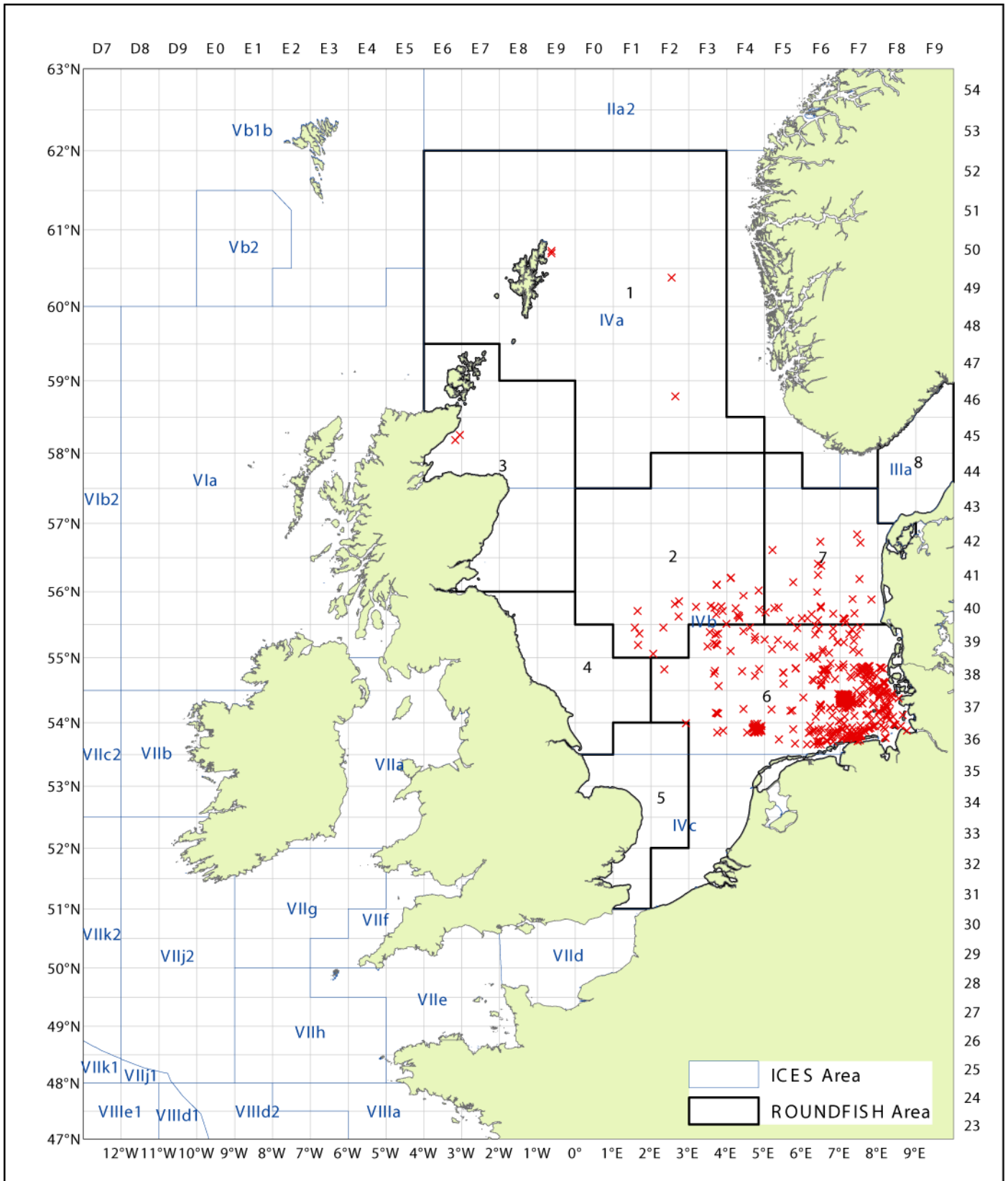


Method of Measurement

- Total length		male	-
- cm below, mm below		female	-
min length	5.5 [cm]	undefined	748
max length	45.5 [cm]	total numbers of data	748

Arnoglossus laterna

Geographical distribution of data used for calculating the length-weight relationship



Arnoglossus laterna

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0063

b = 3.084

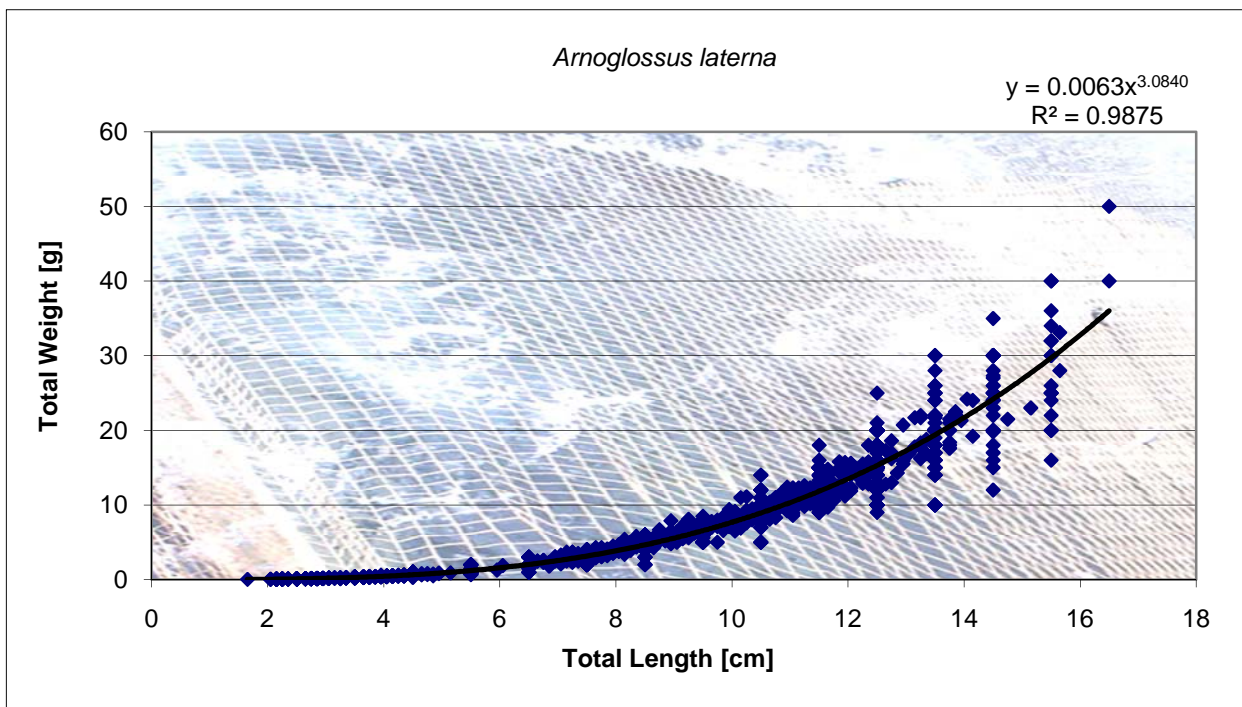
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
190	145	1160	23																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
170	20	-	10	133	2	422	722	16	3	16	4								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1518	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	10	1508	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
8	33	2	-	1	1415	59	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

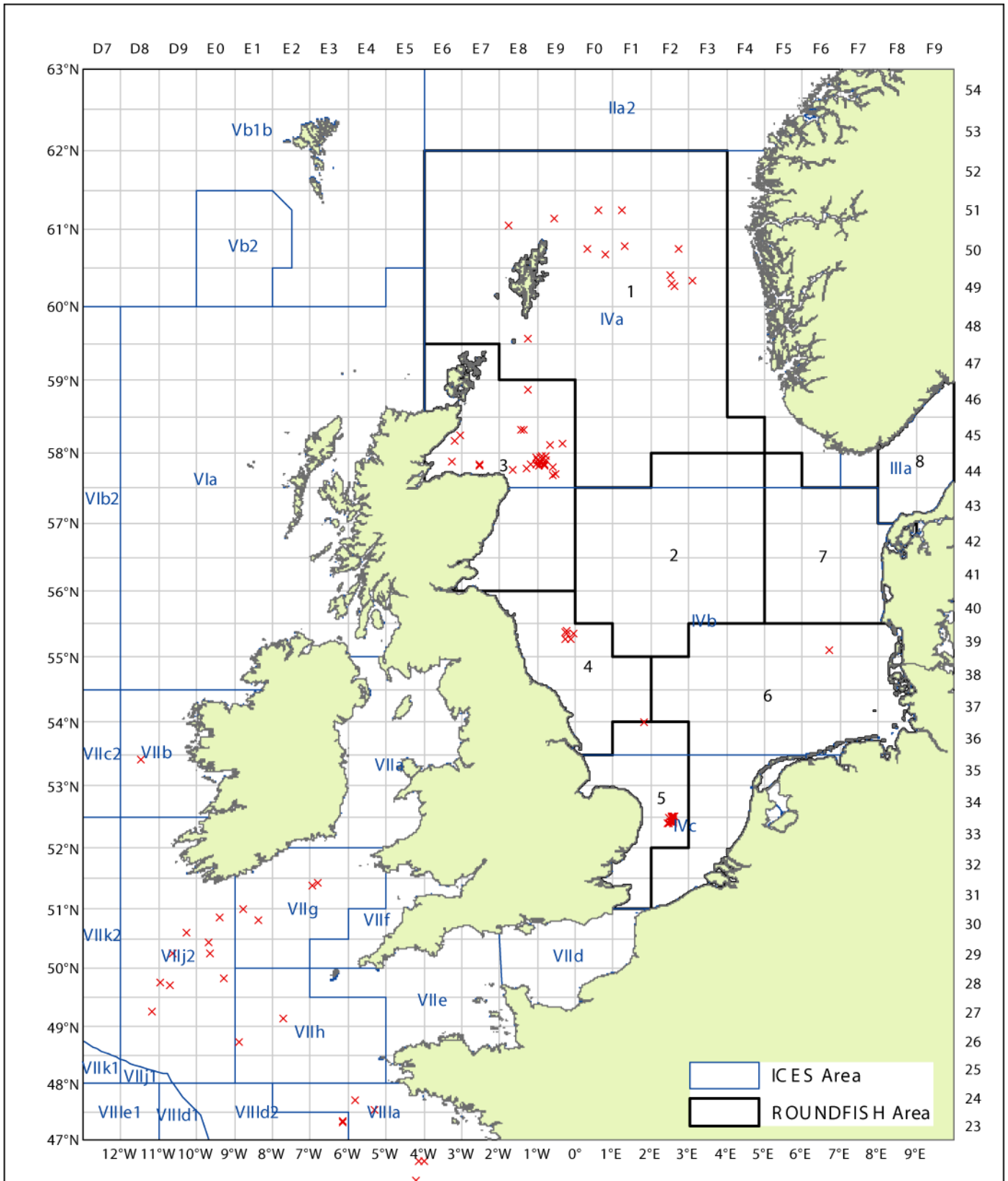


Method of Measurement

- Total length		male	-
- cm below, mm below		female	-
min length	1.65 [cm]	undefined	1518
max length	16.5 [cm]	total numbers of data	1518

Aspitrigla cuculus

Geographical distribution of data used for calculating the length-weight relationship



Aspitrigla cuculus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0061

b = 3.1054

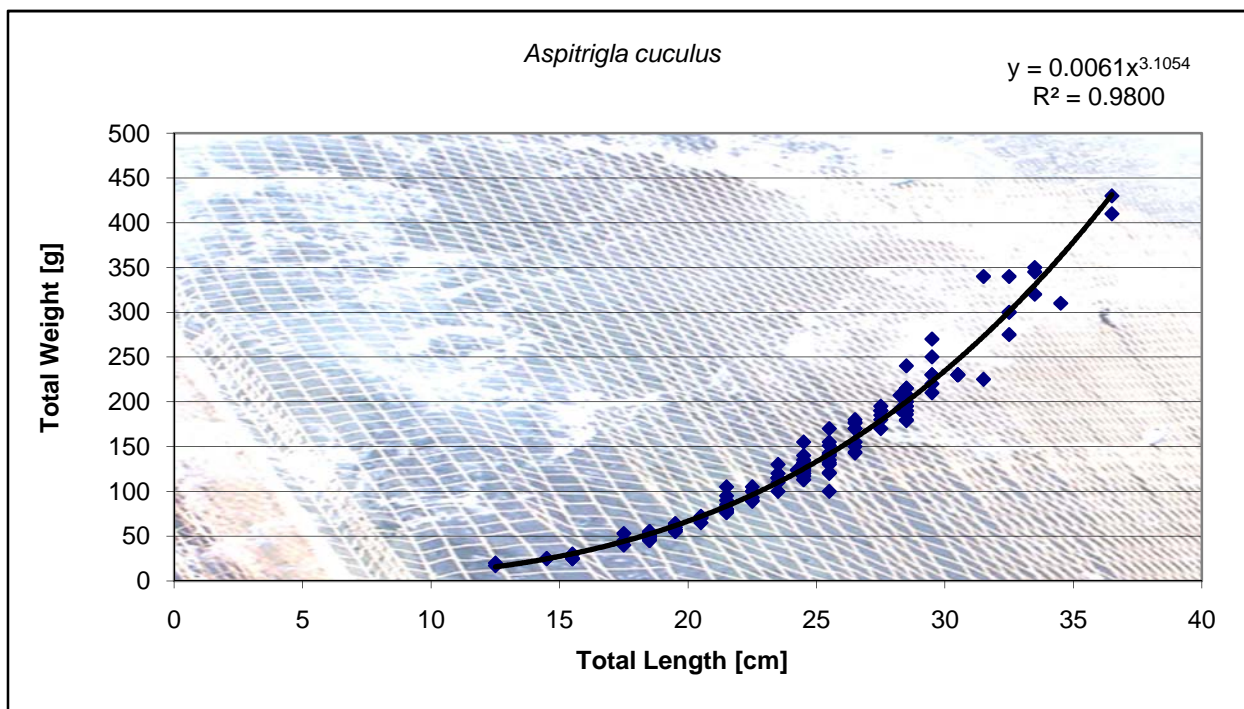
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
76	25	26	3																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
13	50	13	13	5	7	23	3	-	-	2	1								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	106	-	-	17	7	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	73	21	12	-	-	-	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
4	2	10	-	4	1	-	2	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
39	-	39	7	19	1	-	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	

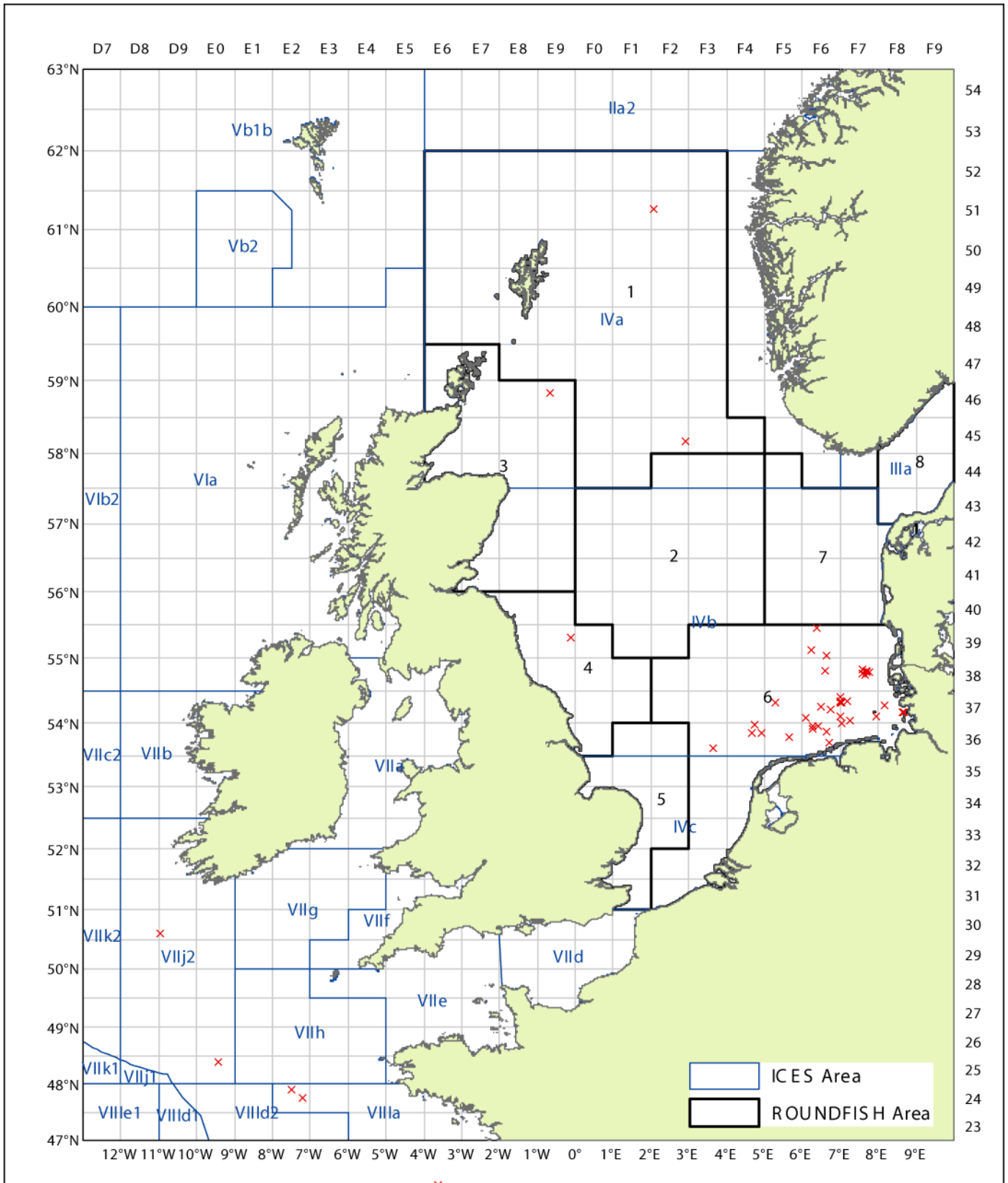


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	12.5 [cm]	undefined	130
max length	36.5 [cm]	total numbers of data	130

Belone belone

Geographical distribution of data used for calculating the length-weight relationship



Belone belone

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0011

b = 3.0368

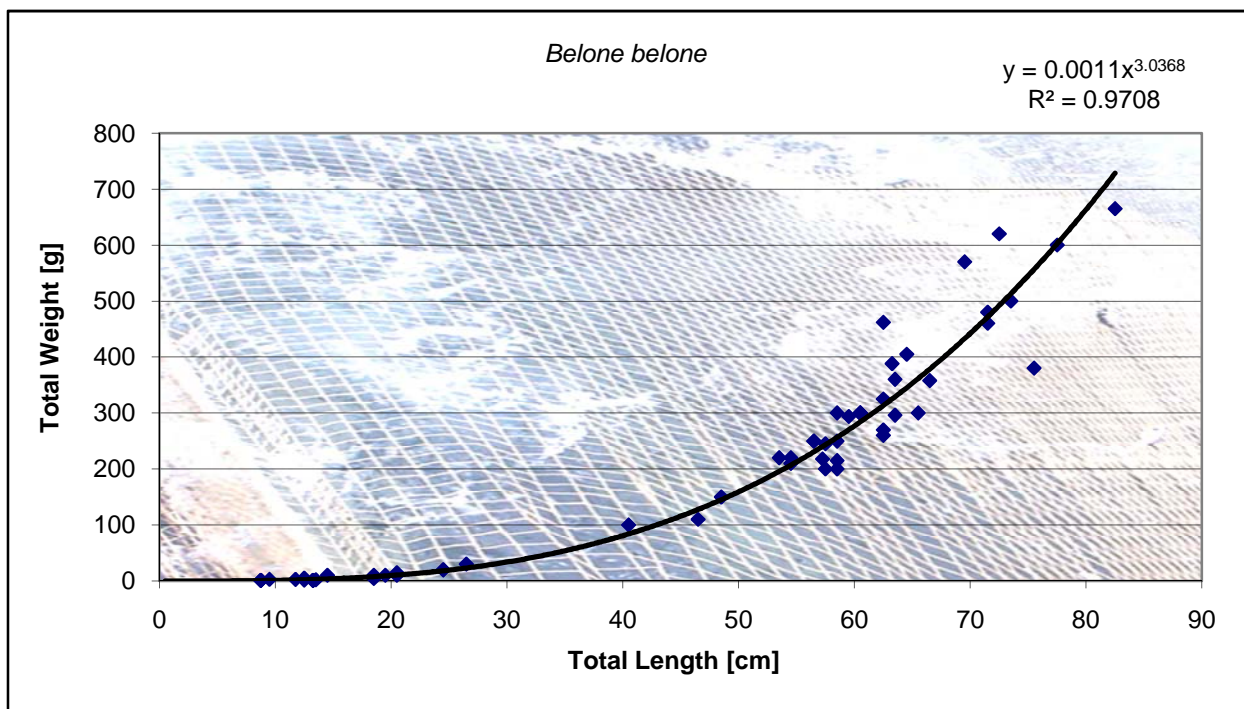
data collected

time period : 1970 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
5	12	40	3																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
2	2	1	4	2	6	16	22	2	-	3	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	54	-	-	2	4	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	3	51	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	2	-	3	1	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
1	-	1	1	-	49	1	-	-	-	-	-	-	-	-	-	-	-	-	-

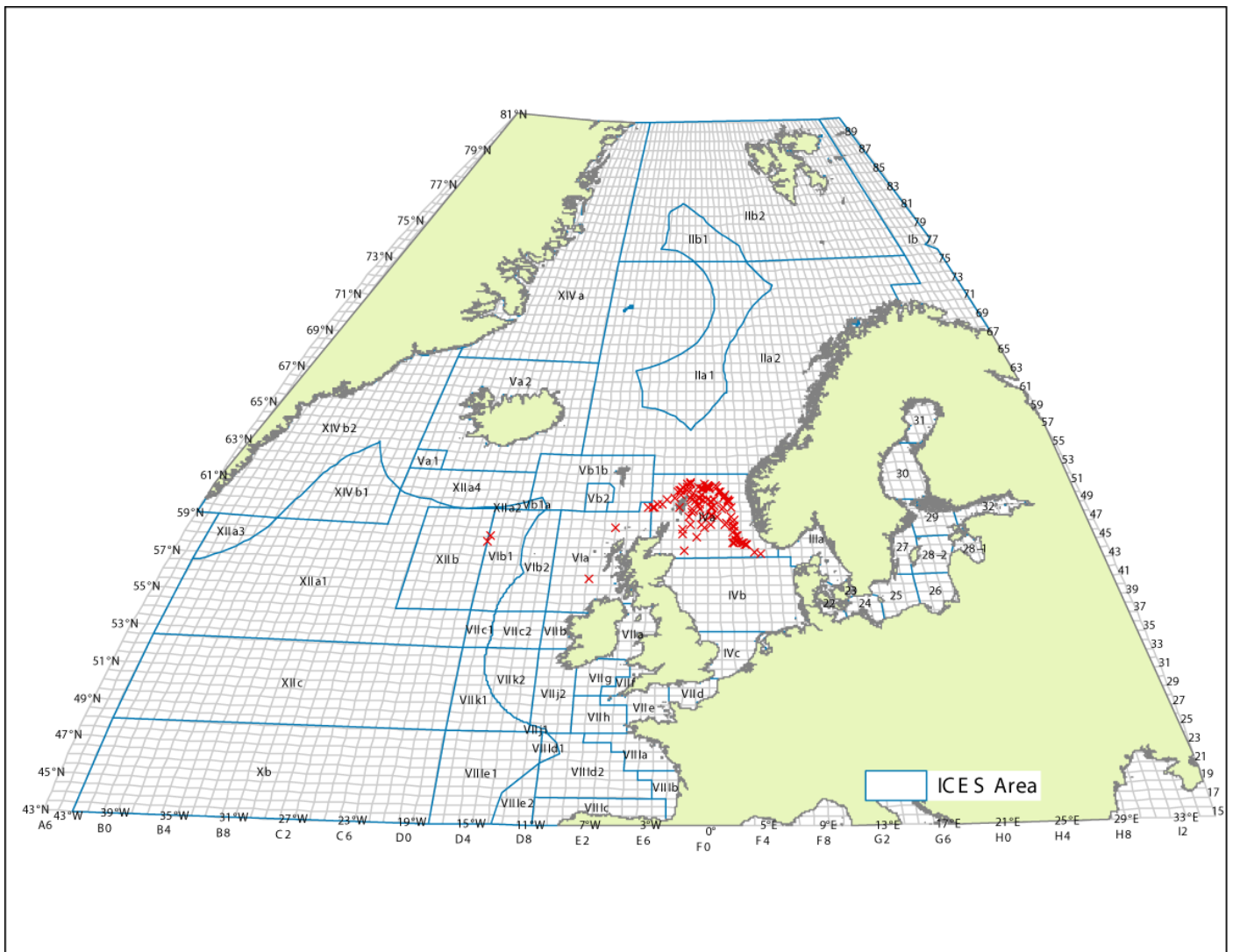


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	8.5 [cm]	undefined	60
max length	82.5 [cm]	total numbers of data	60

Brosme brosme

Geographical distribution of data used for calculating the length-weight relationship



Brosme brosme

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0036

b = 3.2609

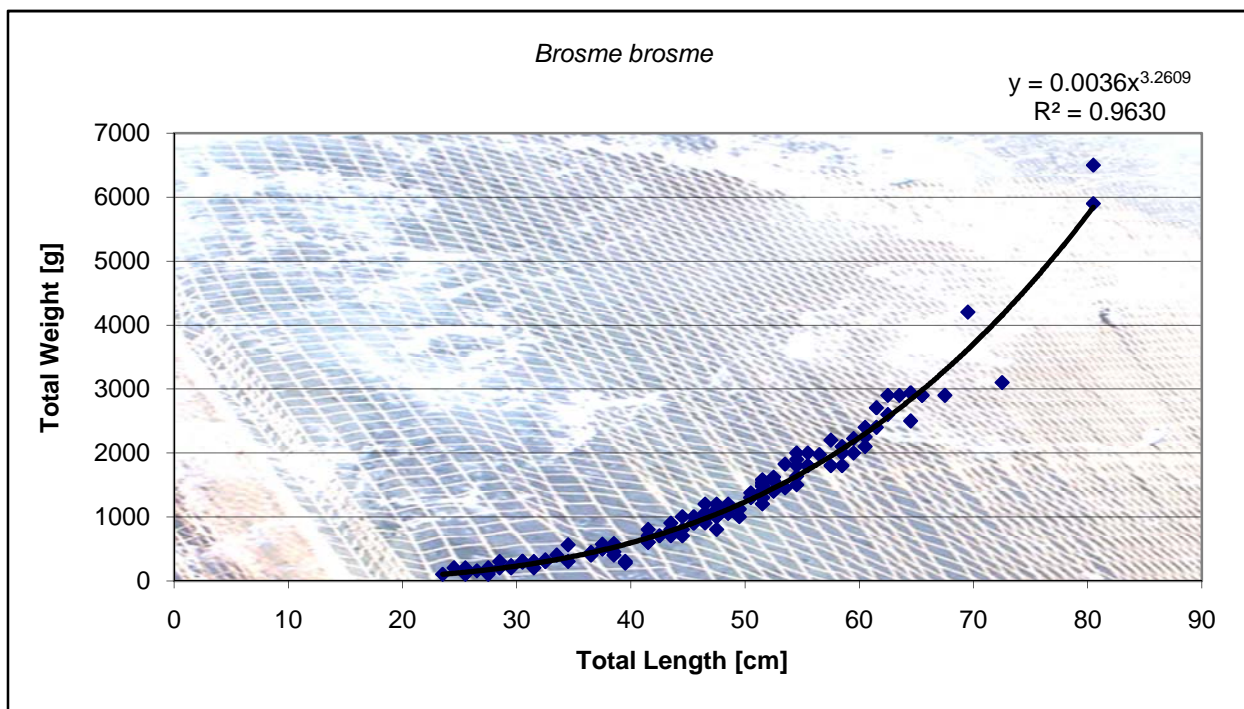
data collected

time period : 1975 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
76	8	30	7																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
13	50	13	-	1	7	29	1	-	-	7	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	116	-	5	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	115	1	-	-	-	3	2	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
112	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-		

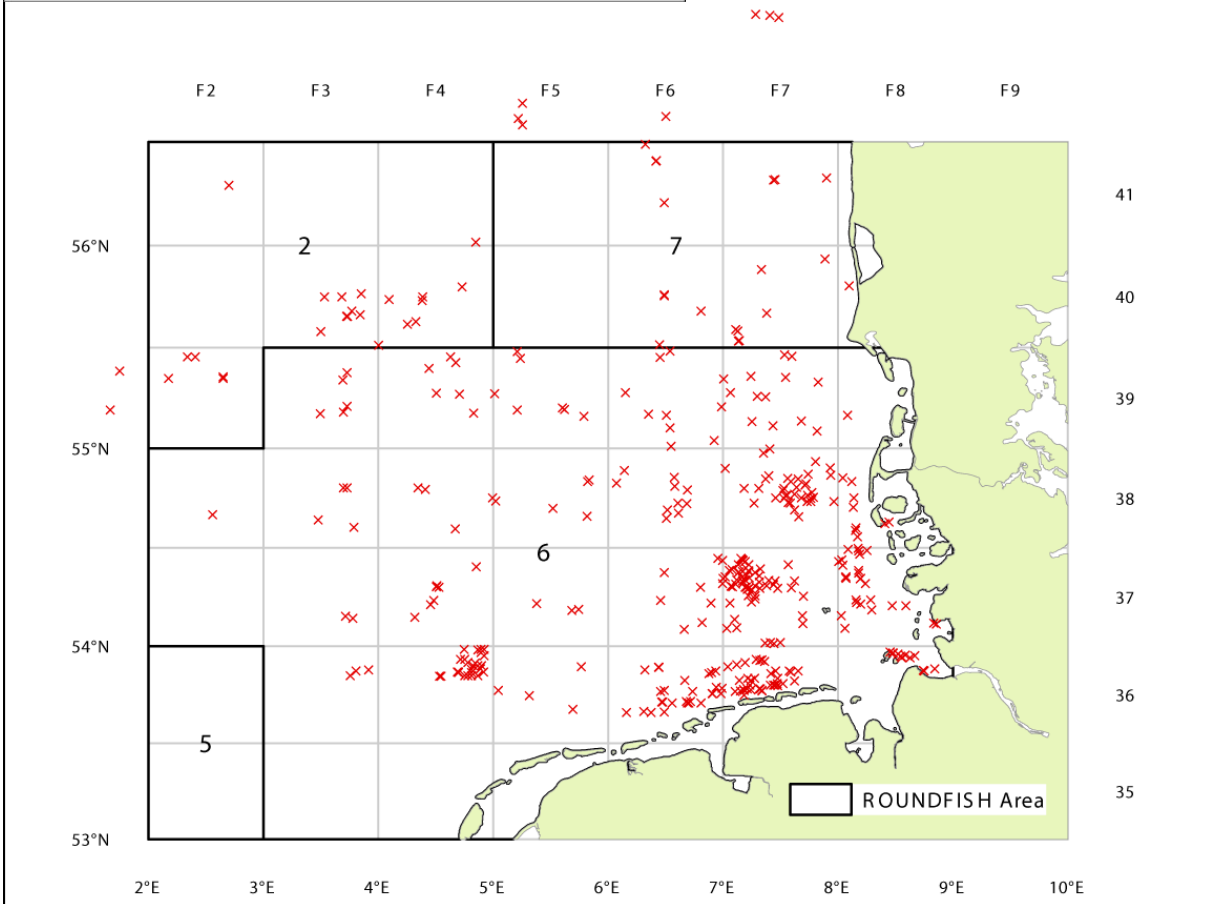
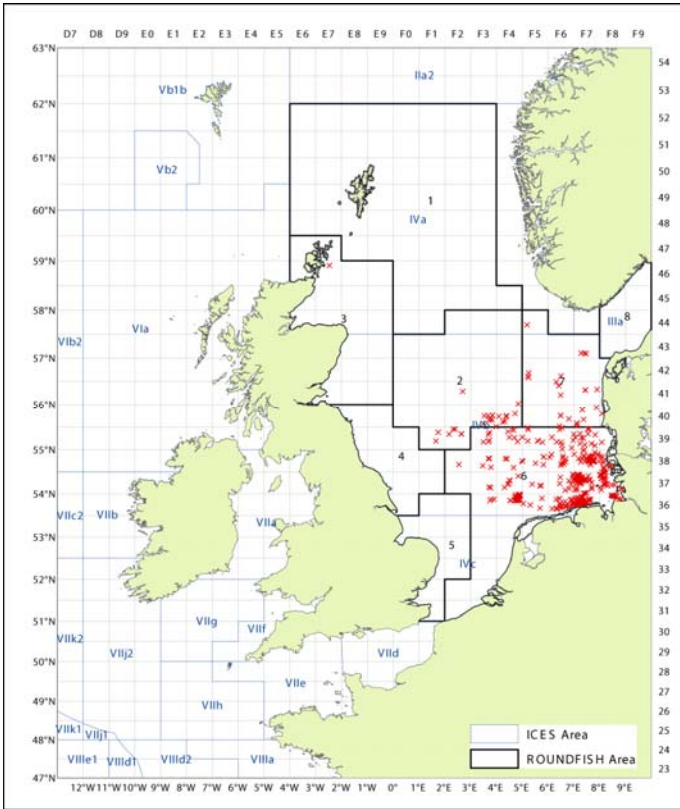


Method of Measurement

- Total length		male	-
- cm below		female	2
min length	23.5 [cm]	undefined	119
max length	80.5 [cm]	total numbers of data	121

Buglossidium luteum

Geographical distribution of data used for calculating the length-weight relationship



Buglossidium luteum

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0079

b = 3.1092

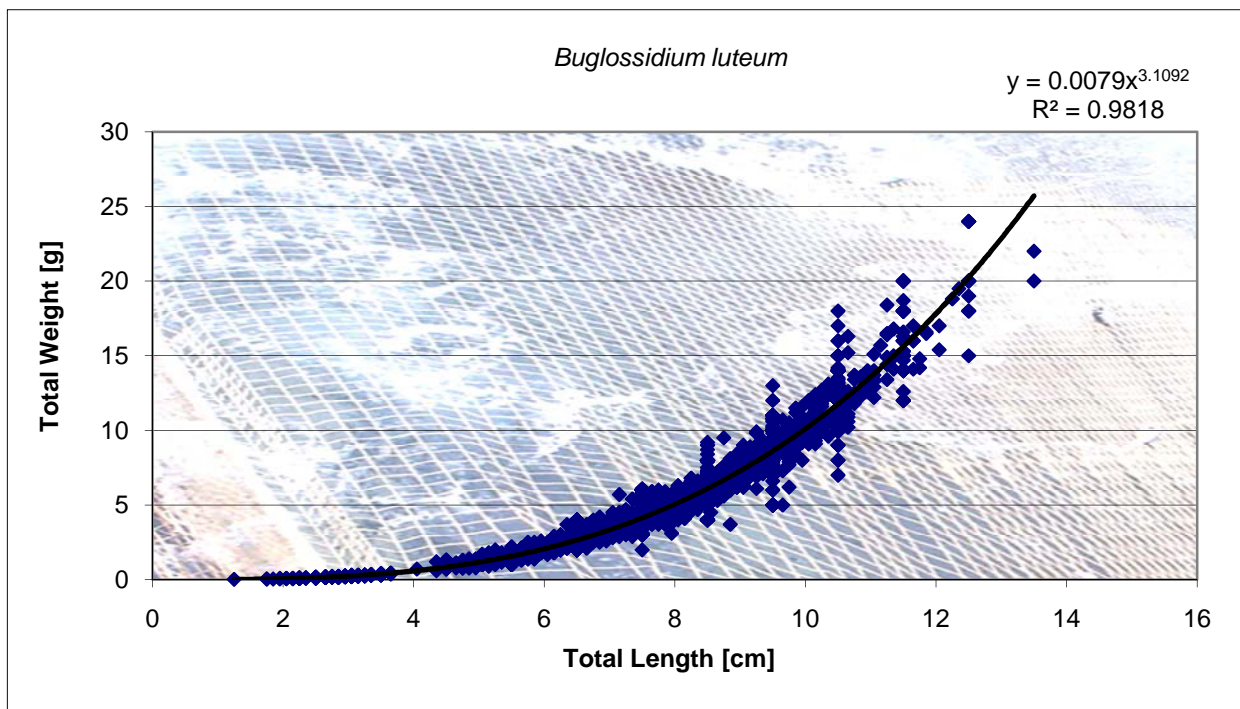
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
433	114	2513	22																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
415	17	1	17	94	3	1353	1151	9	1	14	7											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	3082	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	2	3080	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	25	1	-	-	2783	273	-	-						-	-	-	-	-	-	-	-	-

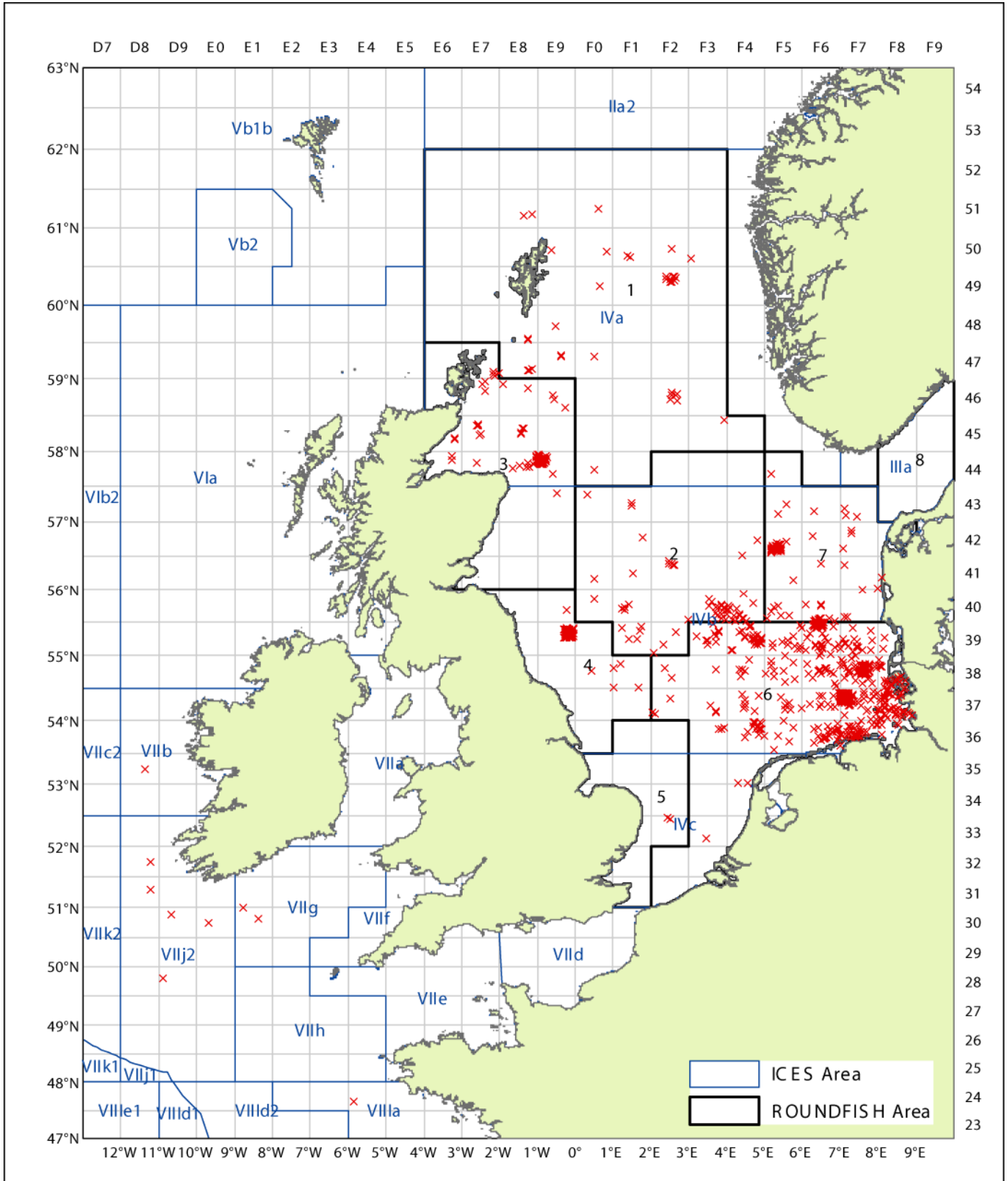


Method of Measurement

- Total length		male	-
- cm below, mm below		female	-
min length	1.25 [cm]	undefined	3082
max length	13.5 [cm]	total numbers of data	3082

Callionymus lyra

Geographical distribution of data used for calculating the length-weight relationship



Callionymus lyra

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0204

b = 2.5784

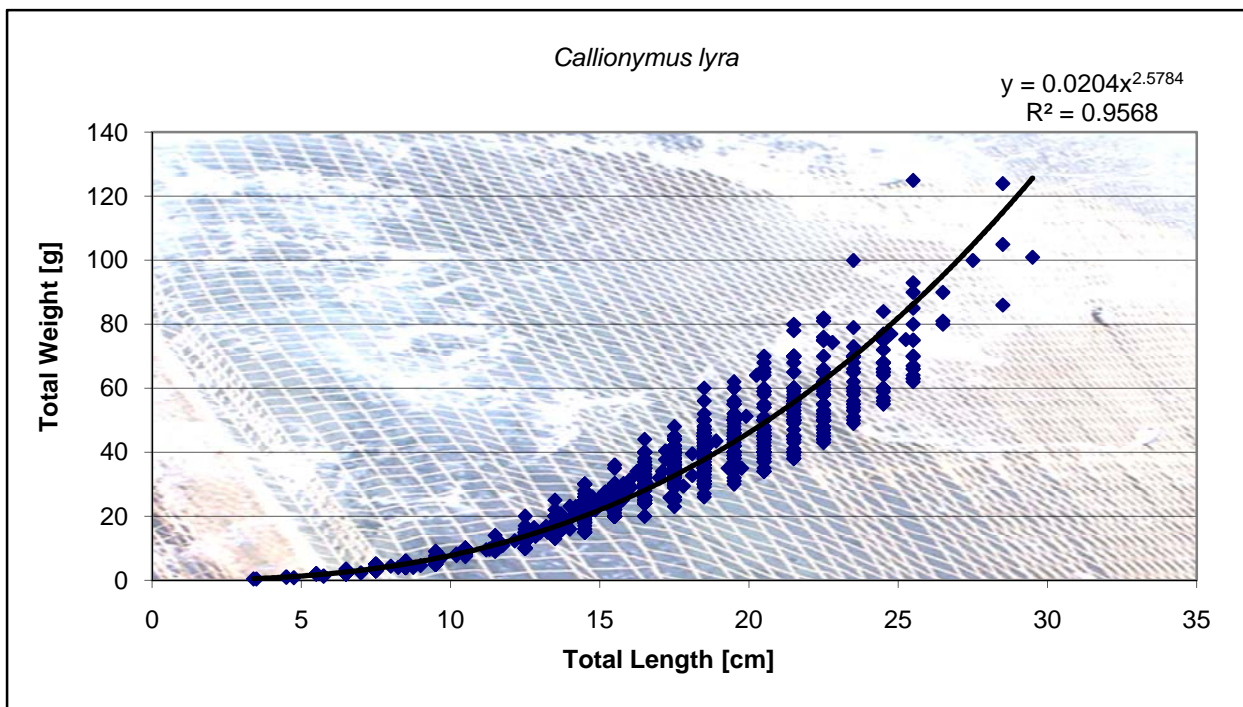
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																										
1	2	3	4																							
287	146	716	85																							
Month																										
1	2	3	4	5	6	7	8	9	10	11	12															
200	77	10	20	95	31	219	437	60	13	50	22															
Subarea																										
1	2	3	4	5	6	7	8	9	10	12	14															
-	-	-	1224	-	-	9	1	-	-	-	-															
Division																										
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F							
-	-	-	-	-	-	-	132	1089	3	-	-	-	-	-	1	-	-	-	-							
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B												
2	-	6	-	1	-	-	-	-	-	-	-	-	-	-												
Roundfisharea											NAFO															
1	2	3	4	5	6	7	8	9										1A	1B	1C	1D	1E	1F	2G	2H	2J
40	56	94	103	2	839	90	-	-										-	-	-	-	-	-	-	-	-

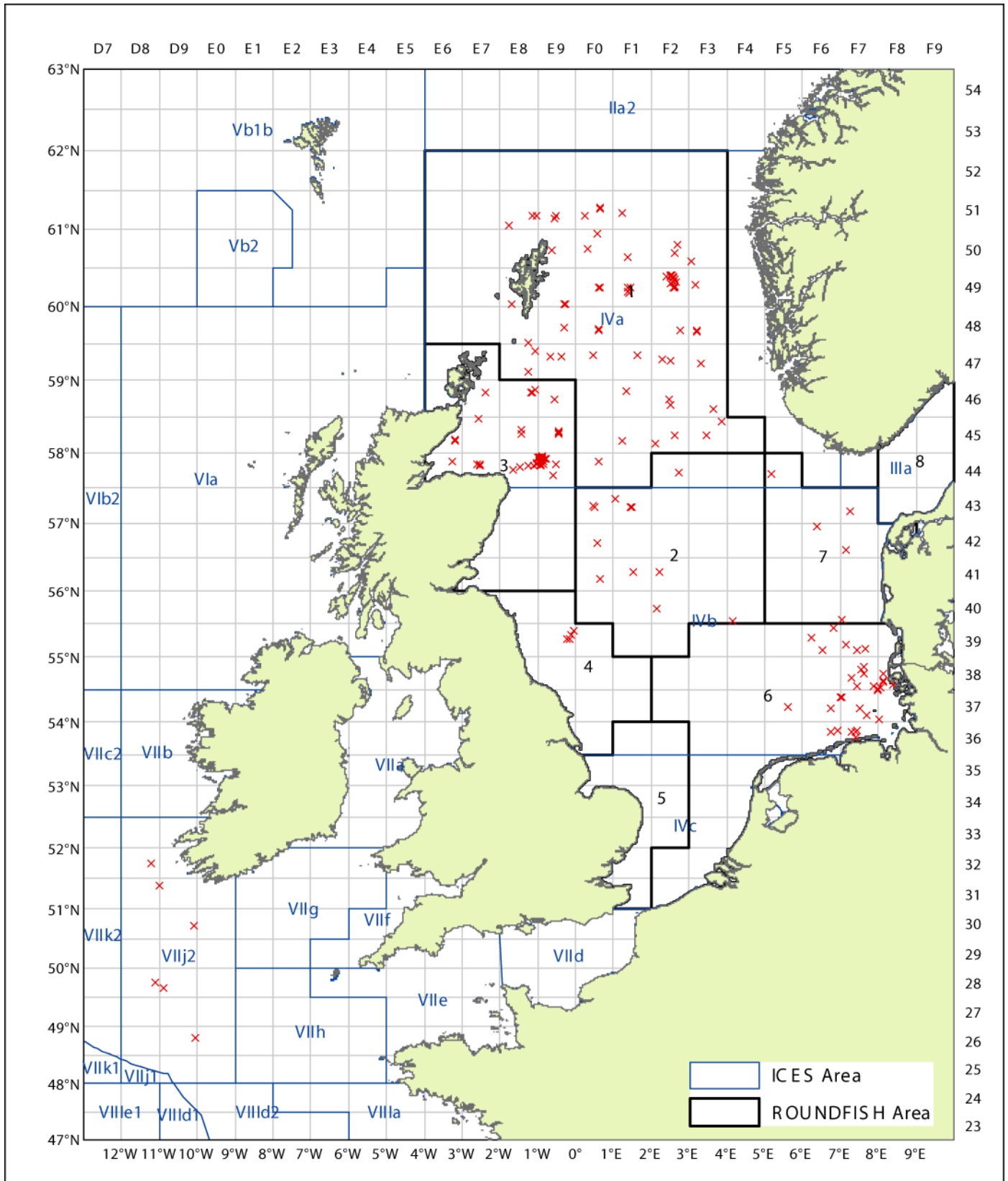


Method of Measurement

- Total length		male	30
- mm below, cm below		female	48
min length	3.4 [cm]	undefined	1156
max length	29.5 [cm]	total numbers of data	1234

Callionymus maculatus

Geographical distribution of data used for calculating the length-weight relationship



Callionymus maculatus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0282

b = 2.3129

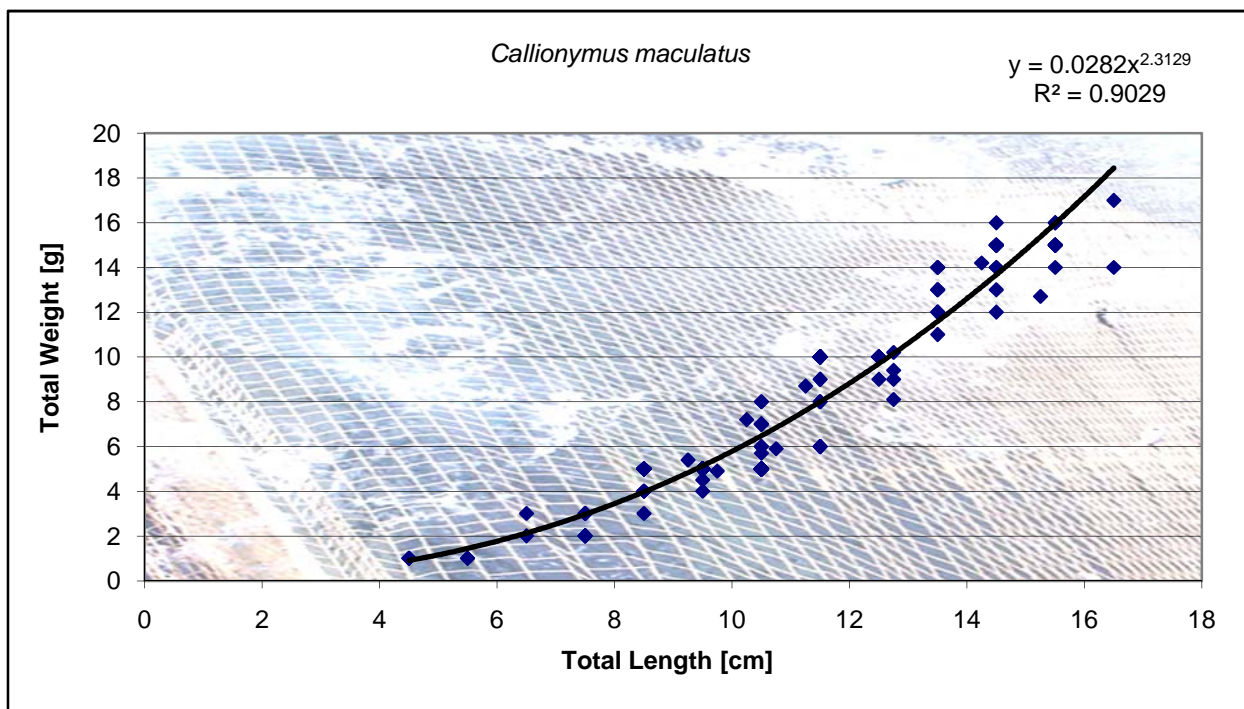
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
144	12	34	6																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
58	74	12	2	9	1	11	19	4	-	4	2								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	190	-	-	6	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	129	61	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	6	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
72	13	62	4	-	33	6	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

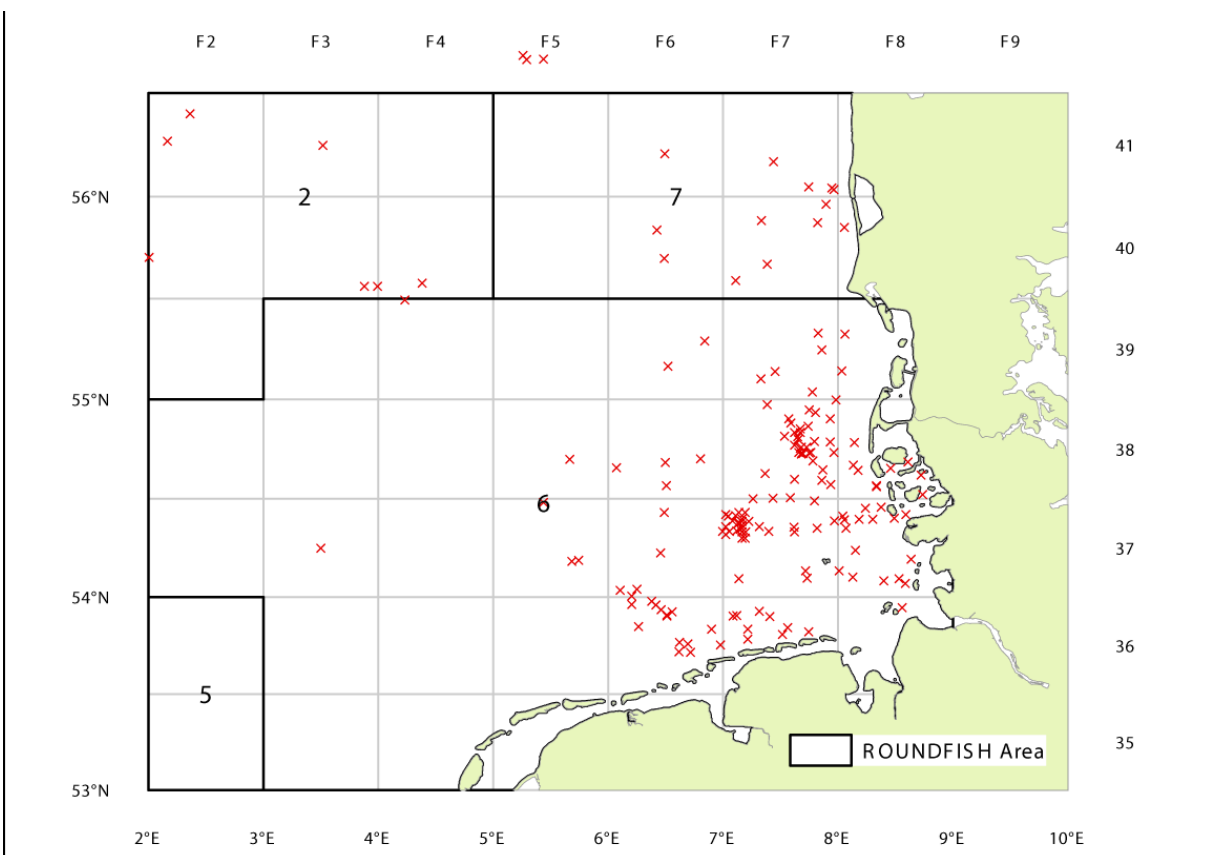
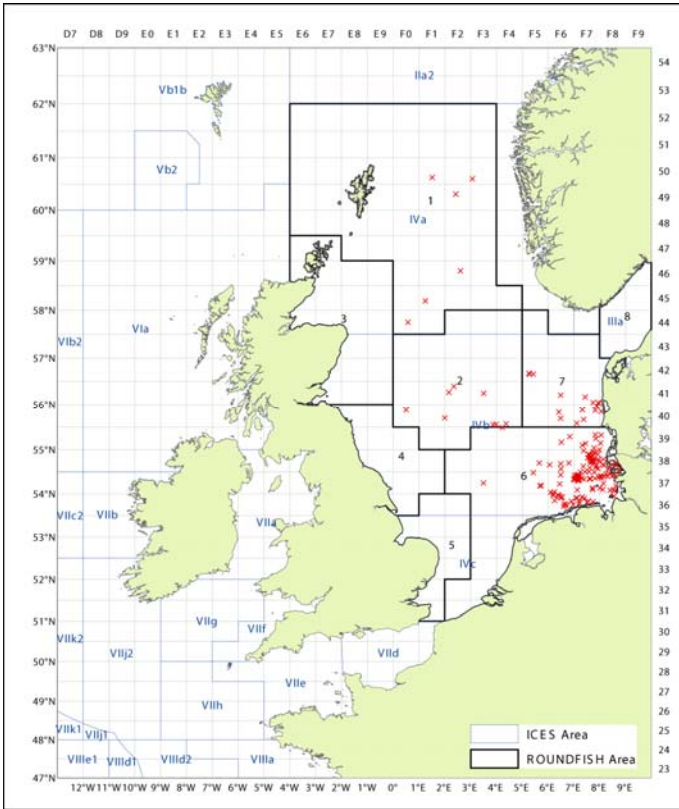


Method of Measurement

- Total length		male	2
- cm below		female	1
min length	4.5 [cm]	undefined	193
max length	16.5 [cm]	total numbers of data	196

Callionymus reticulatus

Geographical distribution of data used for calculating the length-weight relationship



Callionymus reticulatus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0159

b = 2.5712

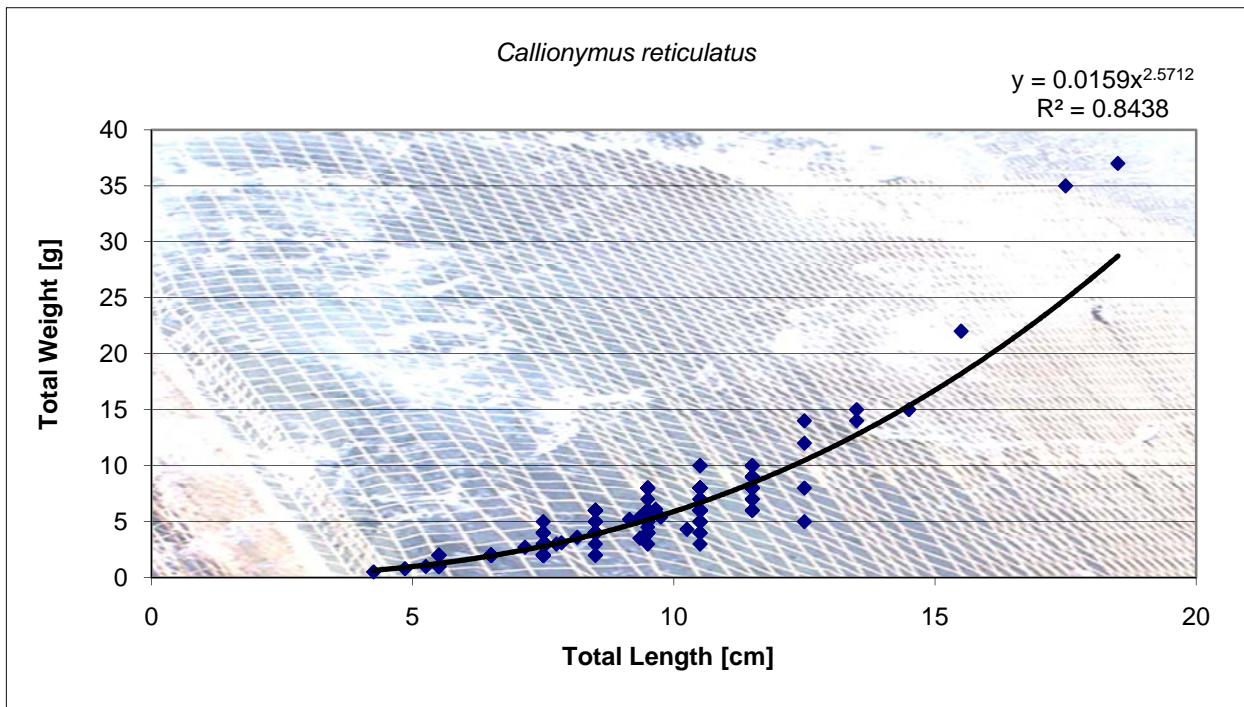
data collected

time period : 2002 - 2011

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
85	32	52	17																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
76	9	-	3	29	-	12	29	11	1	7	9									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	186	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	6	180	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
6	8	-	-	-	156	16	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

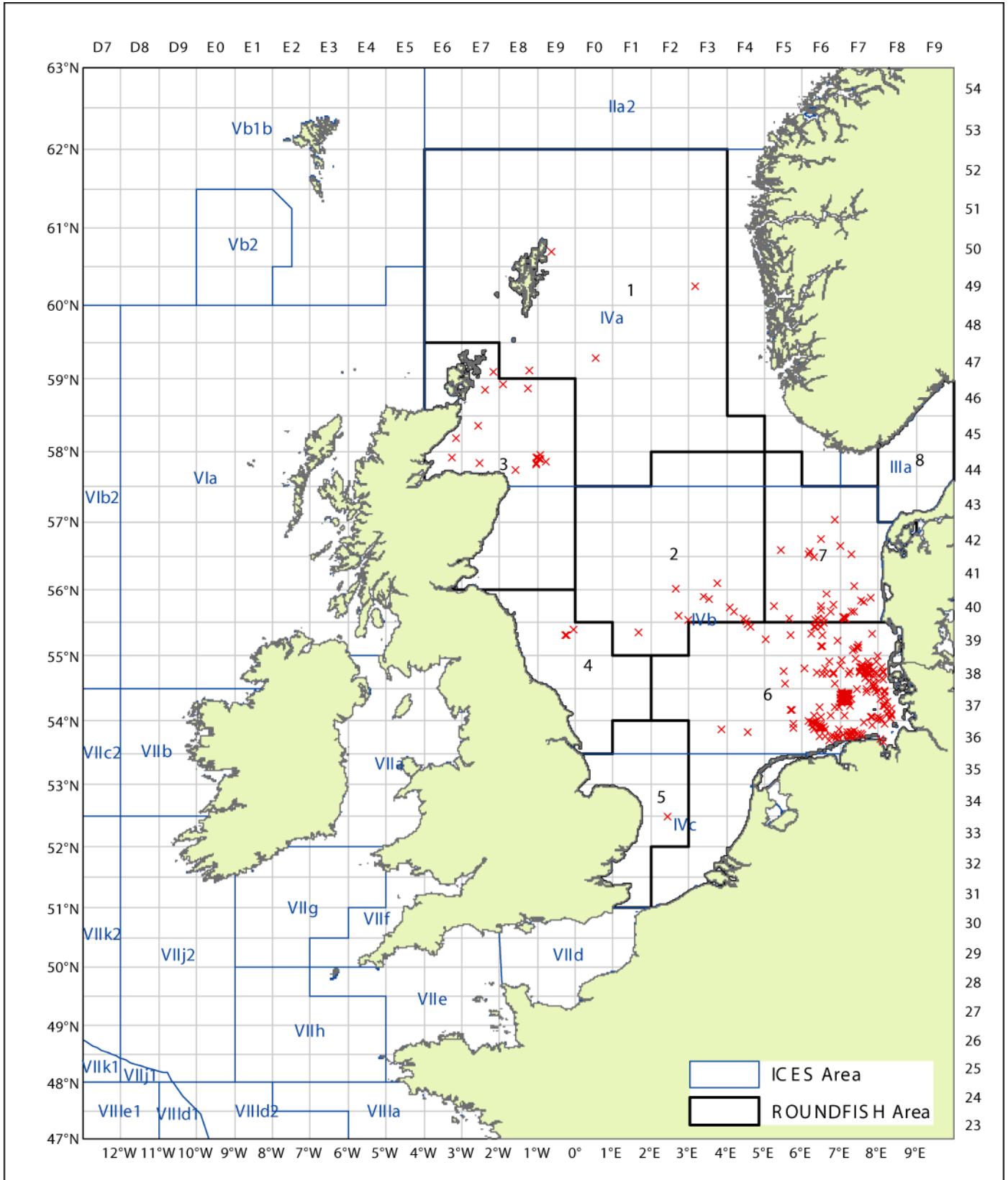


Method of Measurement

- Total length		male	-
- cm below, 1/2 cm below, mm below		female	-
min length	4.25 [cm]	undefined	186
max length	18.5 [cm]	total numbers of data	186

Cancer pagurus

Geographical distribution of data used for calculating the length-weight relationship



Cancer pagurus

Quarter: 1 - 4

$$Tw [g] = a * L [mm]^b$$

a = 0.00025

b = 2.90285

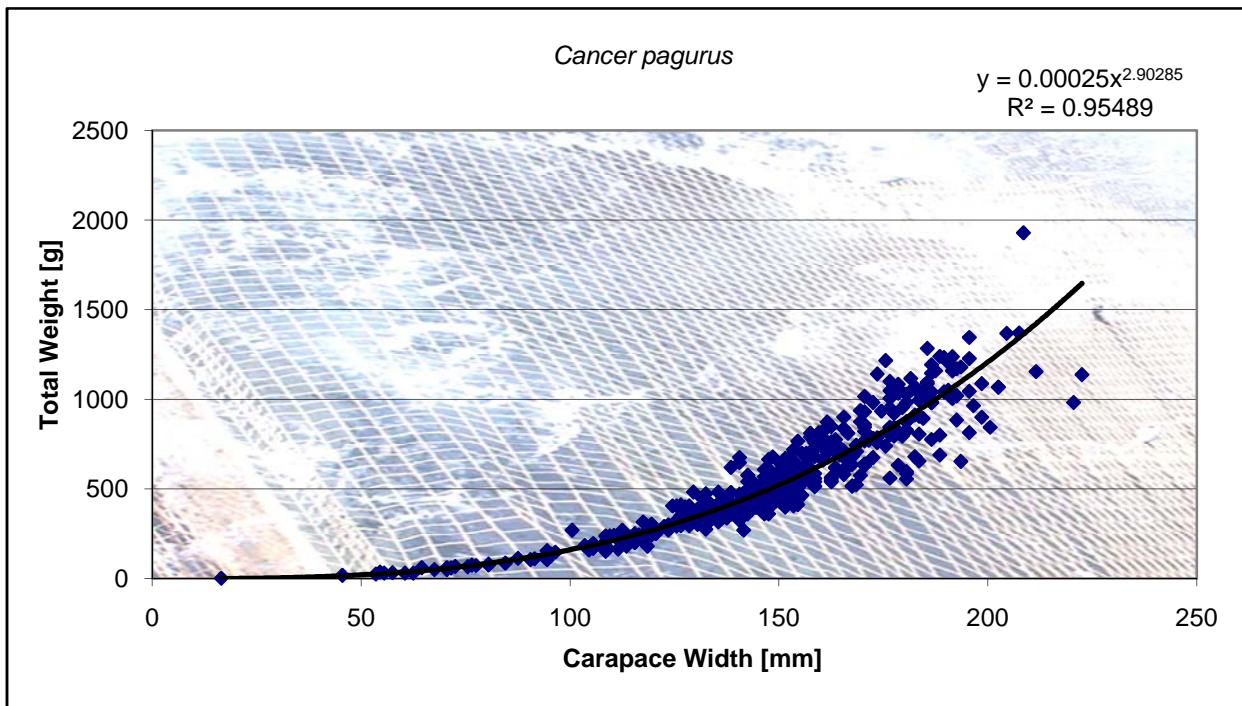
data collected

time period : 1990 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
39	101	262	17																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
30	9	-	-	90	11	58	196	8	-	13	4								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	419	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	33	386	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
7	11	26	4	1	315	55	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

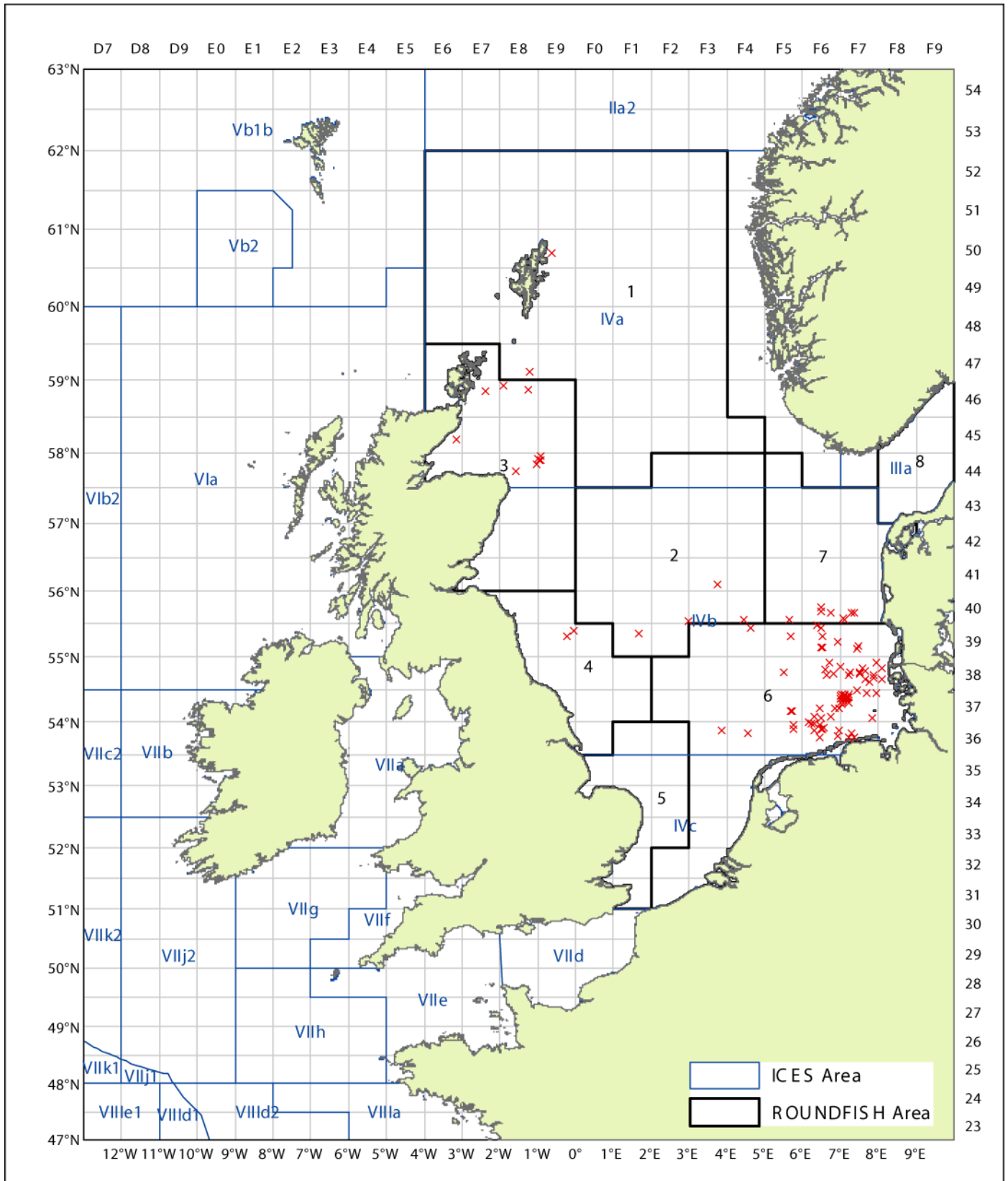


Method of Measurement

- Carapace width		male	218
- mm below		female	167
min length	16.5 [mm]	undefined	34
max length	222.5 [mm]	total numbers of data	419

Cancer pagurus ♀

Geographical distribution of data used for calculating the length-weight relationship



Cancer pagurus ♀

Quarter: 1 - 4

(female)

$$Tw [g] = a * L [mm]^b$$

a = 0.00028

b = 2.87693

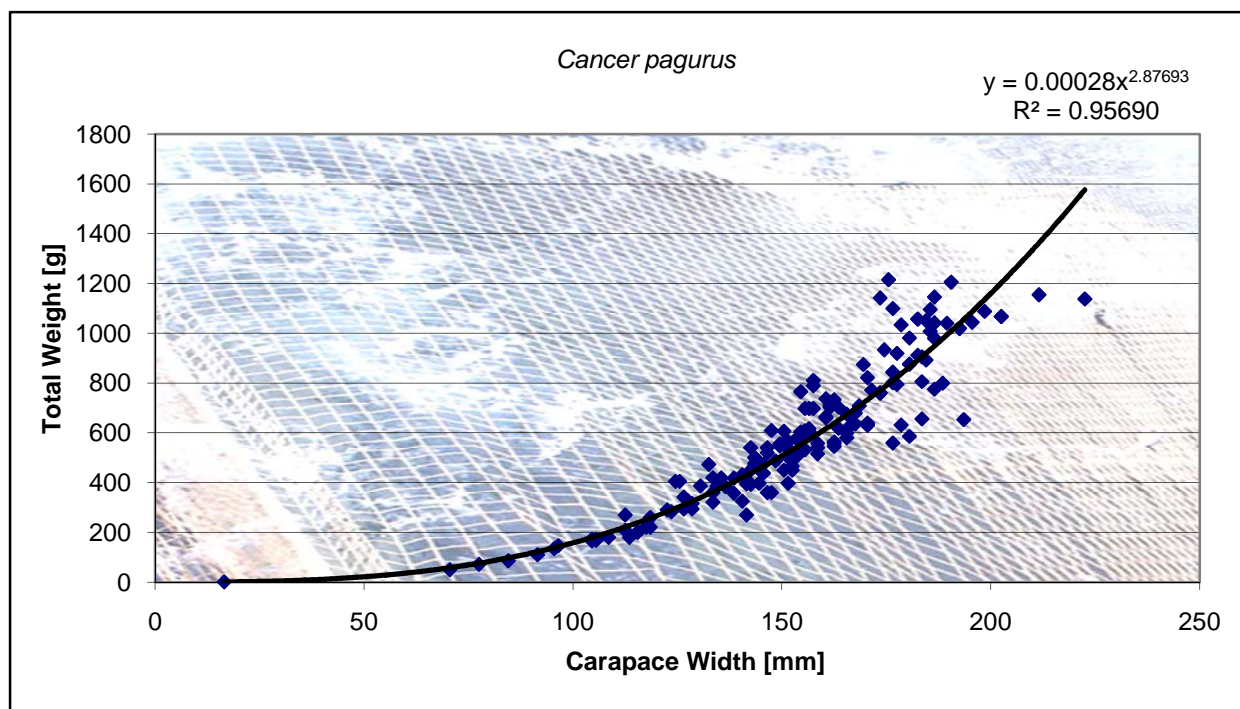
data collected

time period : 1992 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
18	33	112	4																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
15	3	-	-	27	6	23	85	4	-	1	3								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	167	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	19	148	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
2	4	17	3	-	116	25	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

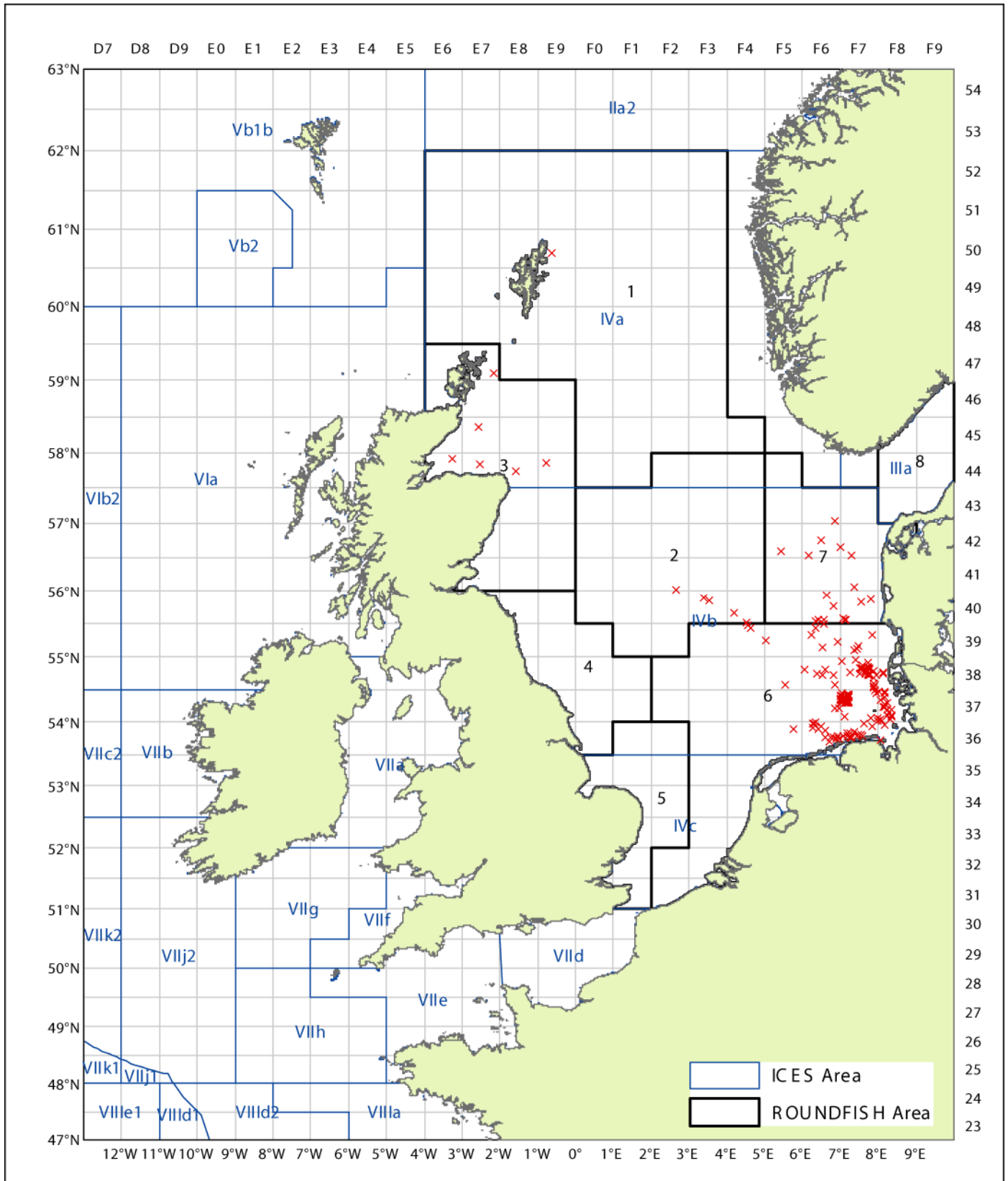


Method of Measurement

- Carapace width		male	-
- mm below		female	167
min length	16.5 [mm]	undefined	-
max length	222.5 [mm]	total numbers of data	167

Cancer pagurus ♂

Geographical distribution of data used for calculating the length-weight relationship



Cancer pagurus



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [mm]^b$$

a = 0.00019

b = 2.96327

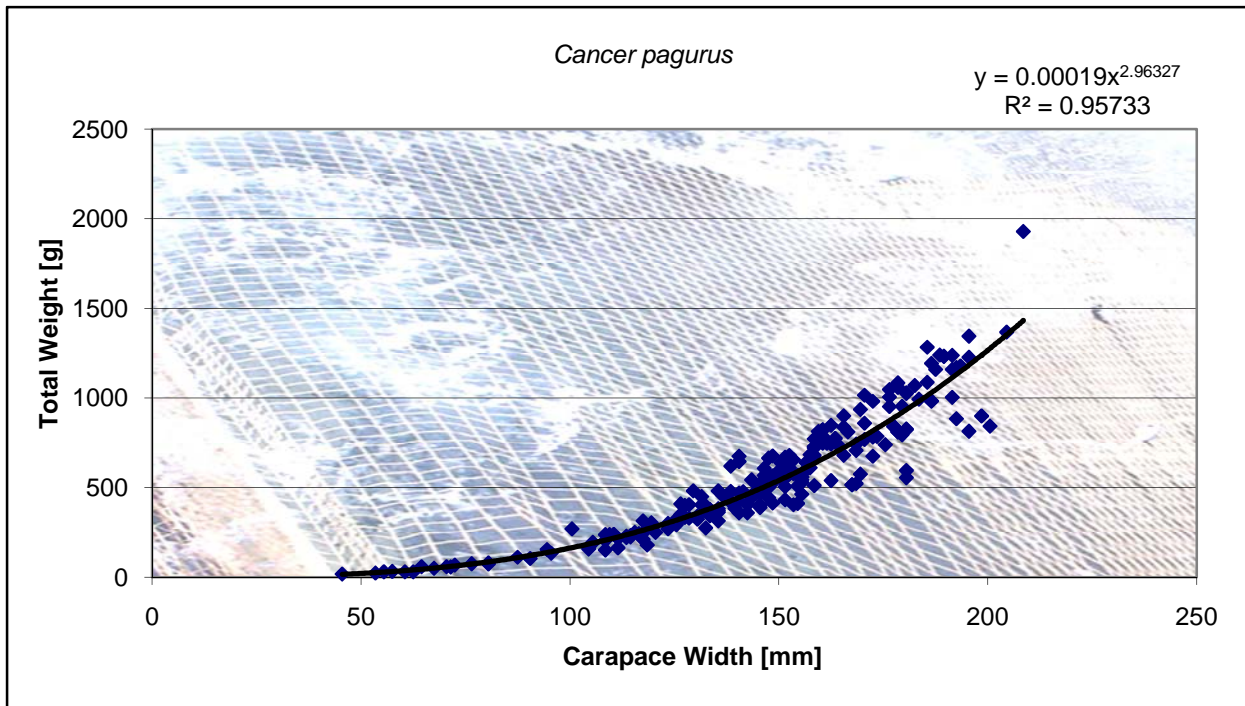
data collected

time period : 1990 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
18	63	125	12																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
13	5	-	-	58	5	32	90	3	-	11	1								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	218	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	9	209	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
3	5	6	-	-	179	25	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

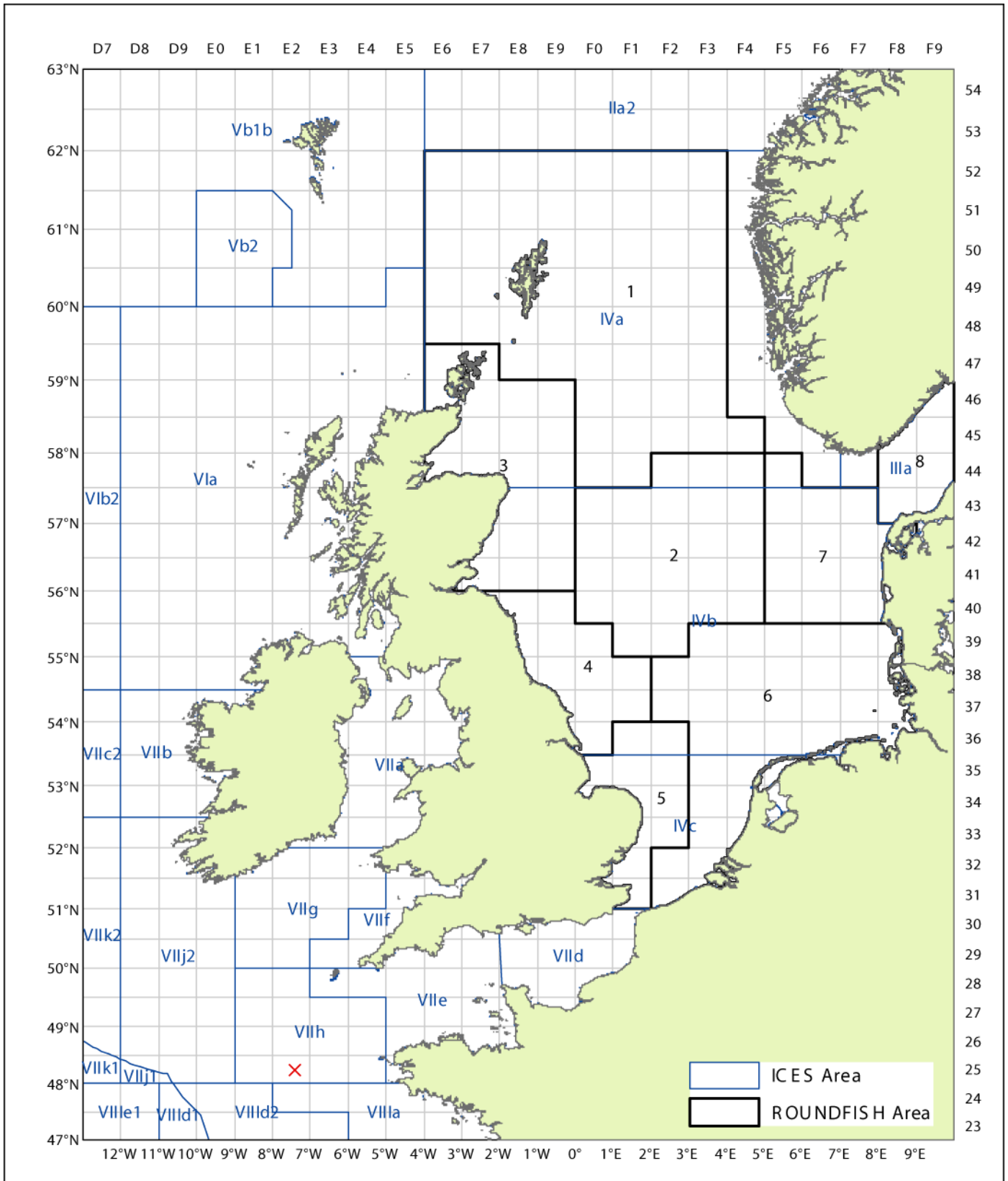


Method of Measurement

- Carapace width		male	218
- mm below		female	-
min length	45.5 [mm]	undefined	-
max length	208.5 [mm]	total numbers of data	218

Capros aper

Geographical distribution of data used for calculating the length-weight relationship



Capros aper

Quarter: 2

$$TW [g] = a * L [cm]^b$$

a = 0.0346

b = 2.7595

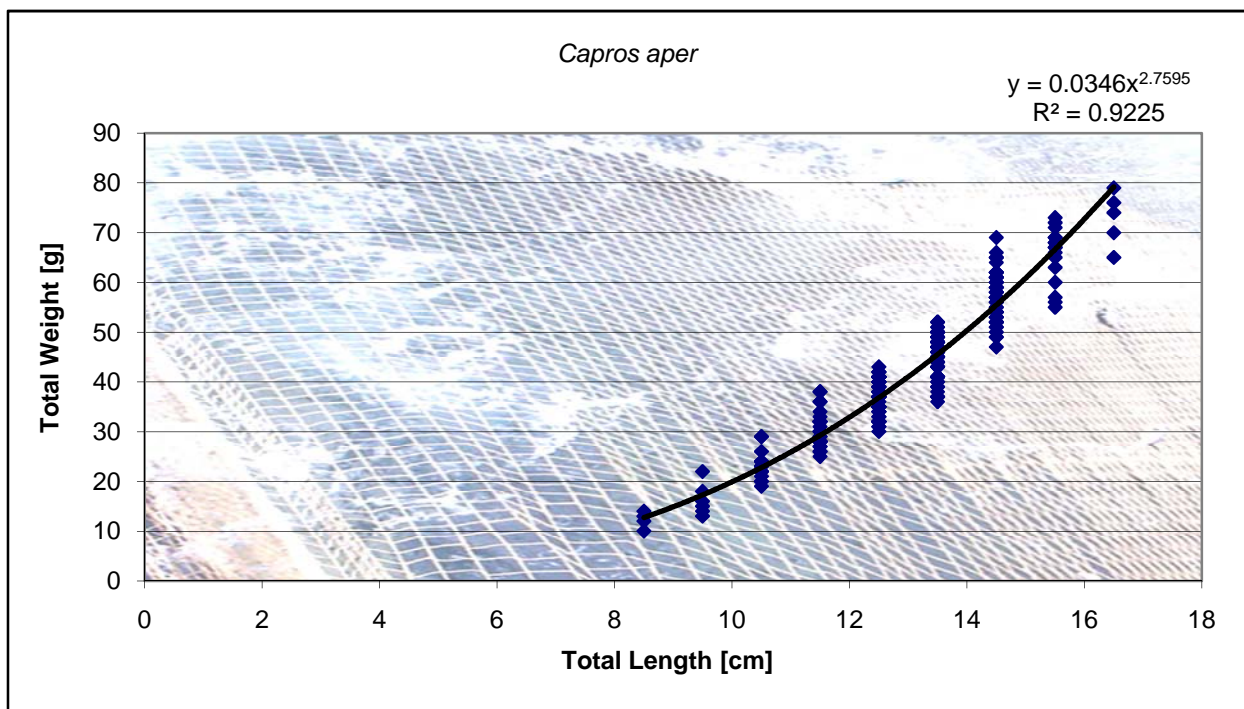
data collected

time period : 2001 - 2001

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	242	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	-	-	-	242	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

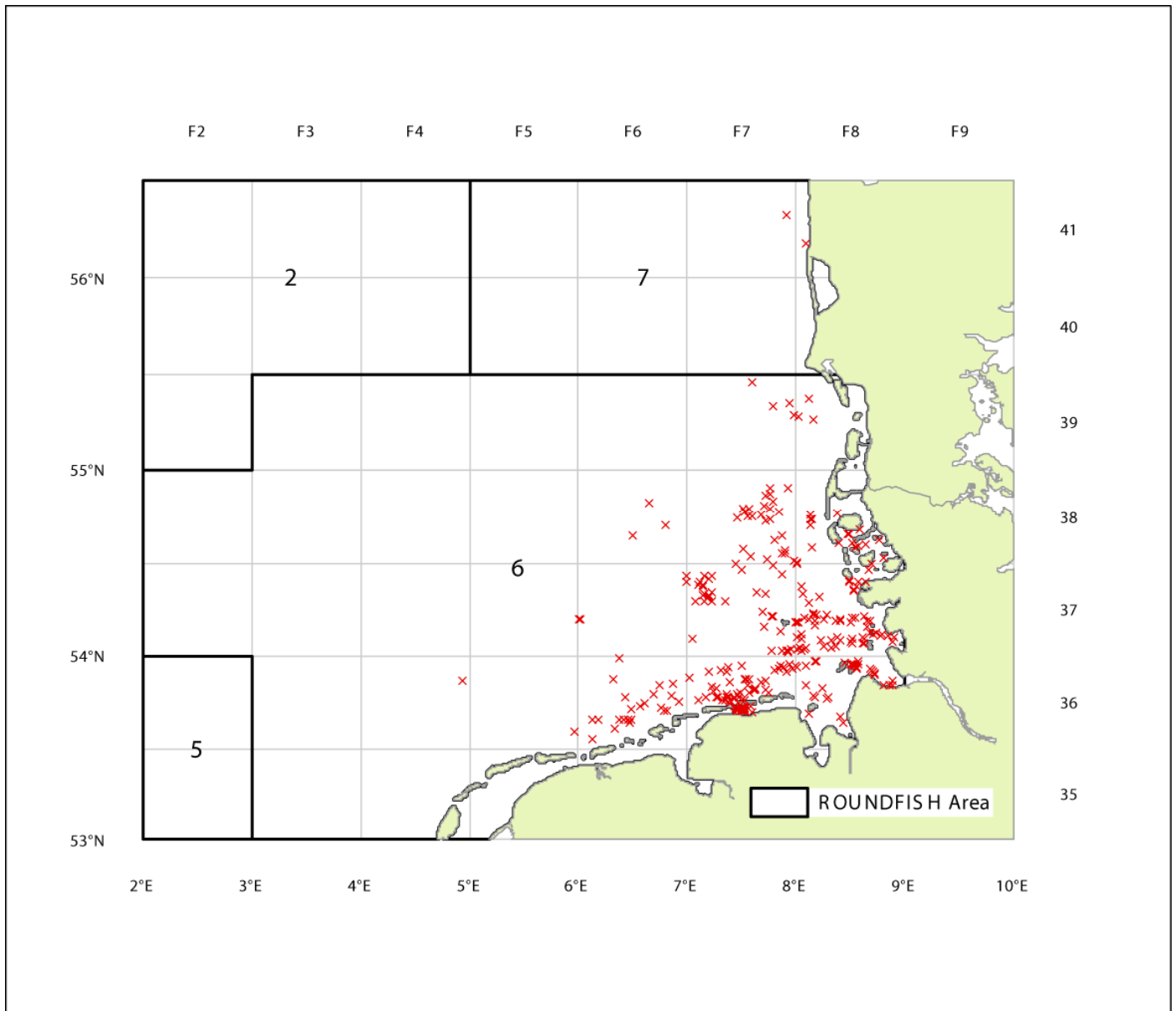


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	8.5 [cm]	undefined	242
max length	16.5 [cm]	total numbers of data	242

Ciliata mustela

Geographical distribution of data used for calculating the length-weight relationship



Ciliata mustela

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0052

b = 3.169

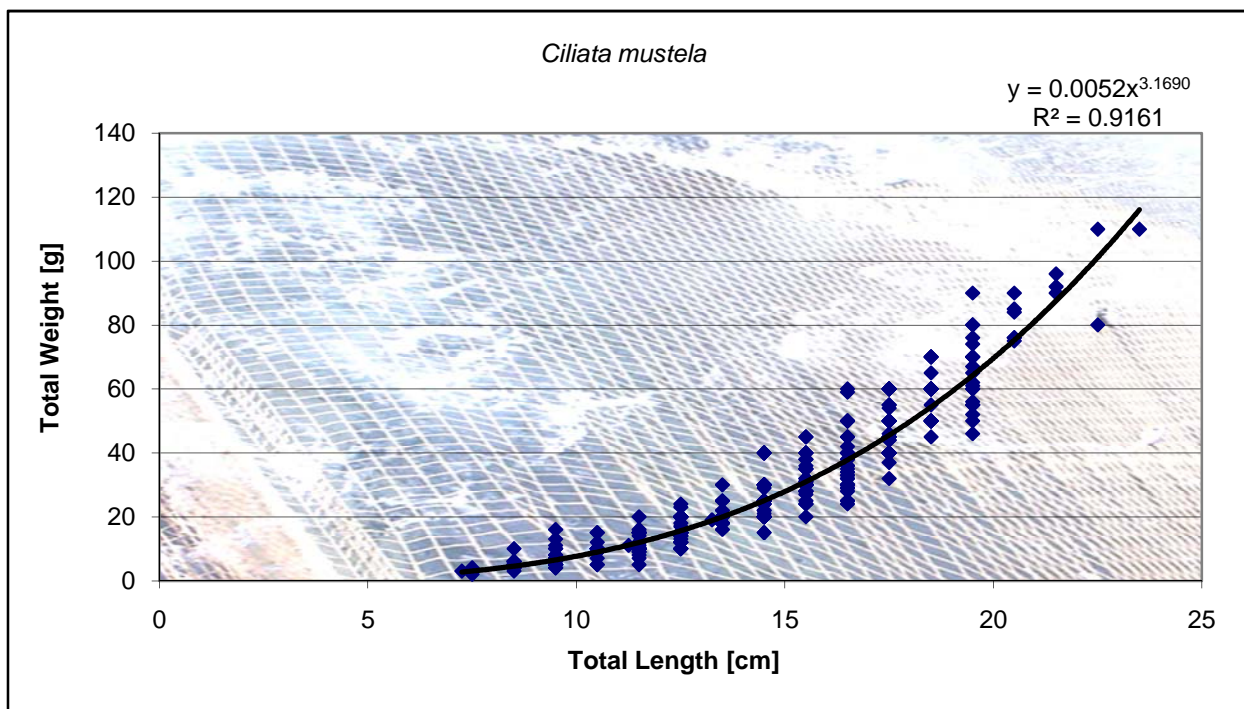
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
160	12	75	60																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
139	21	-	5	7	-	4	2	69	23	9	28								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	307	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	307	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	307	-	-	-	-	-	-	-	-	-	-	-	-		

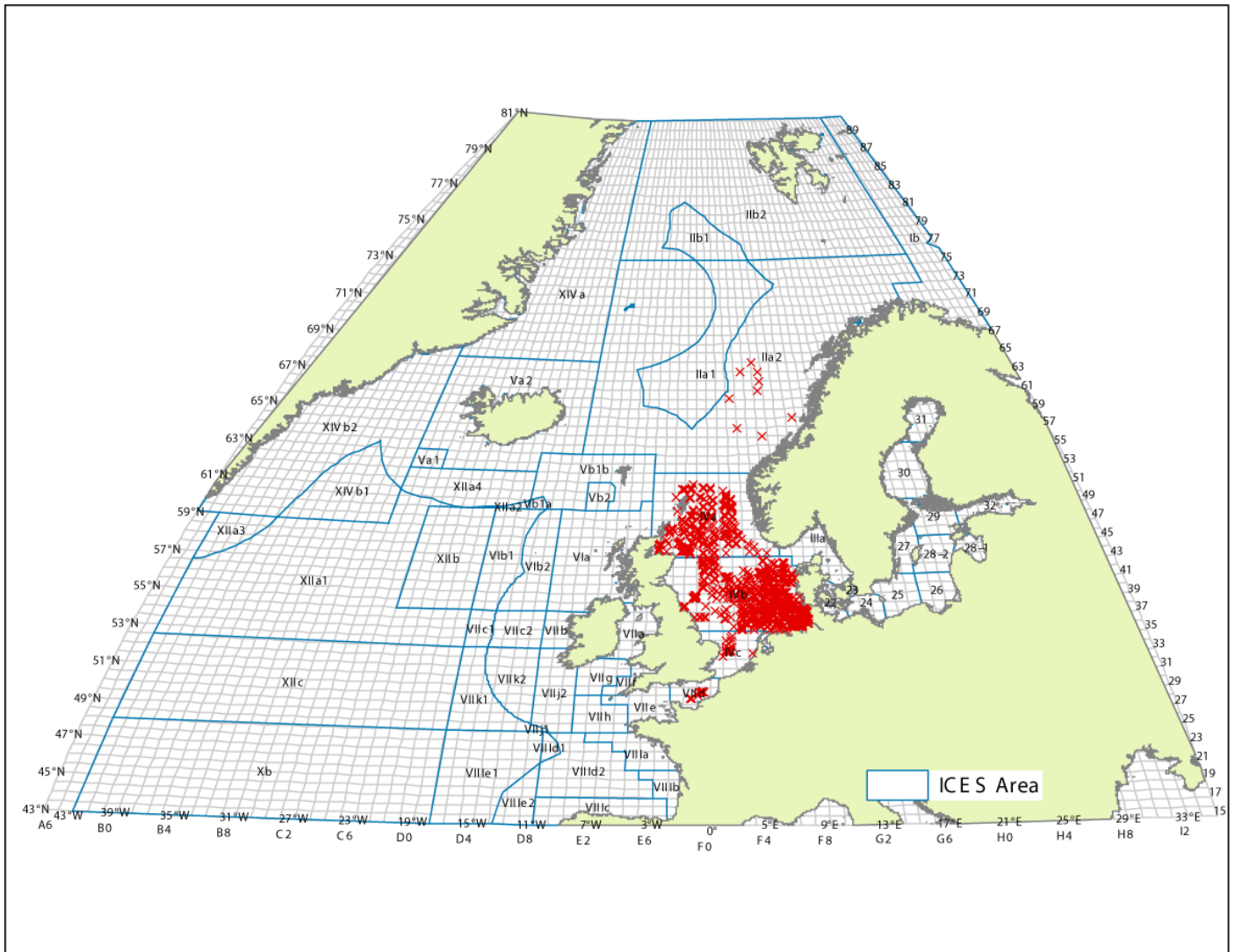


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	7.5 [cm]	undefined	307
max length	23.5 [cm]	total numbers of data	307

Clupea harengus

Geographic distribution of data used for calculating the length-weight relationship



Clupea harengus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0042

b = 3.1775

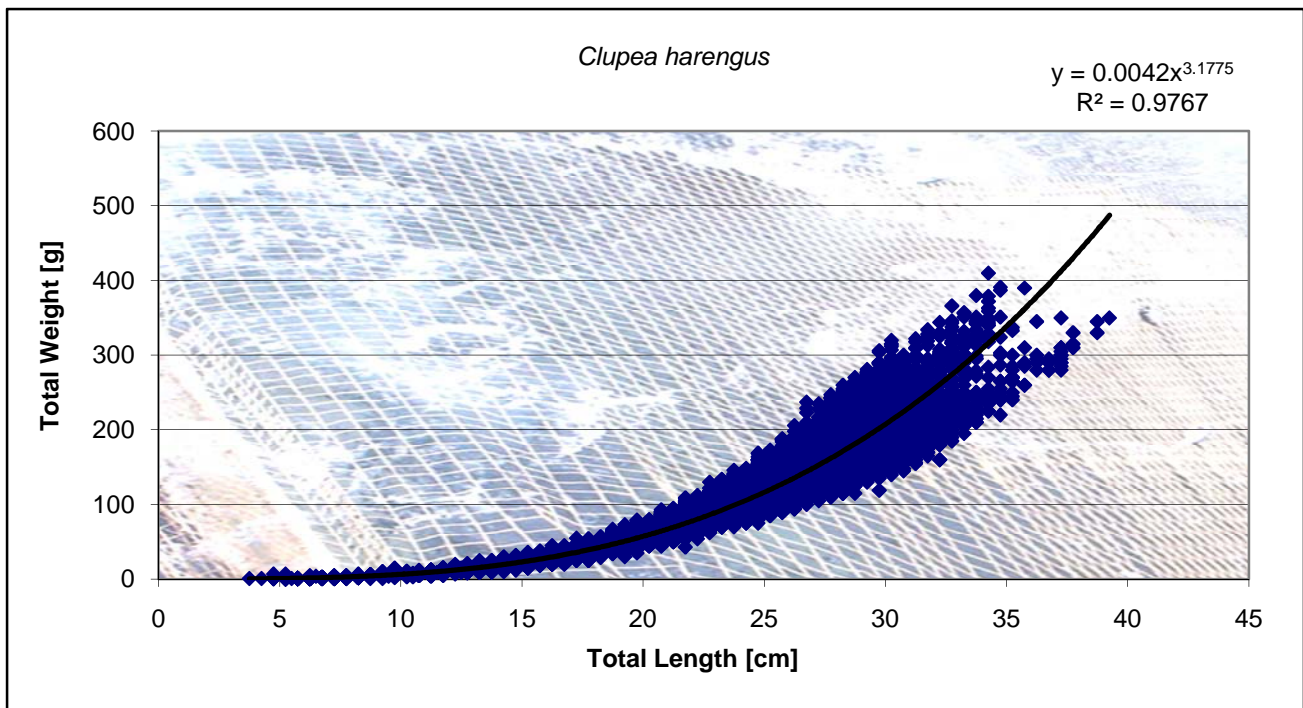
data collected

time period : 1996 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
9854	1761	11796	4012																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
4409	4814	631	156	91	1514	8655	2330	811	13	18	3981								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	631	-	23088	-	-	3704	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	631	-	-	-	-	-	7878	14661	549	-	-	-	-	-	-	-	3704	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
4153	2196	3432	1166	562	7203	4376	-	-	-	-	-	-	-	-	-	-	-	-	-

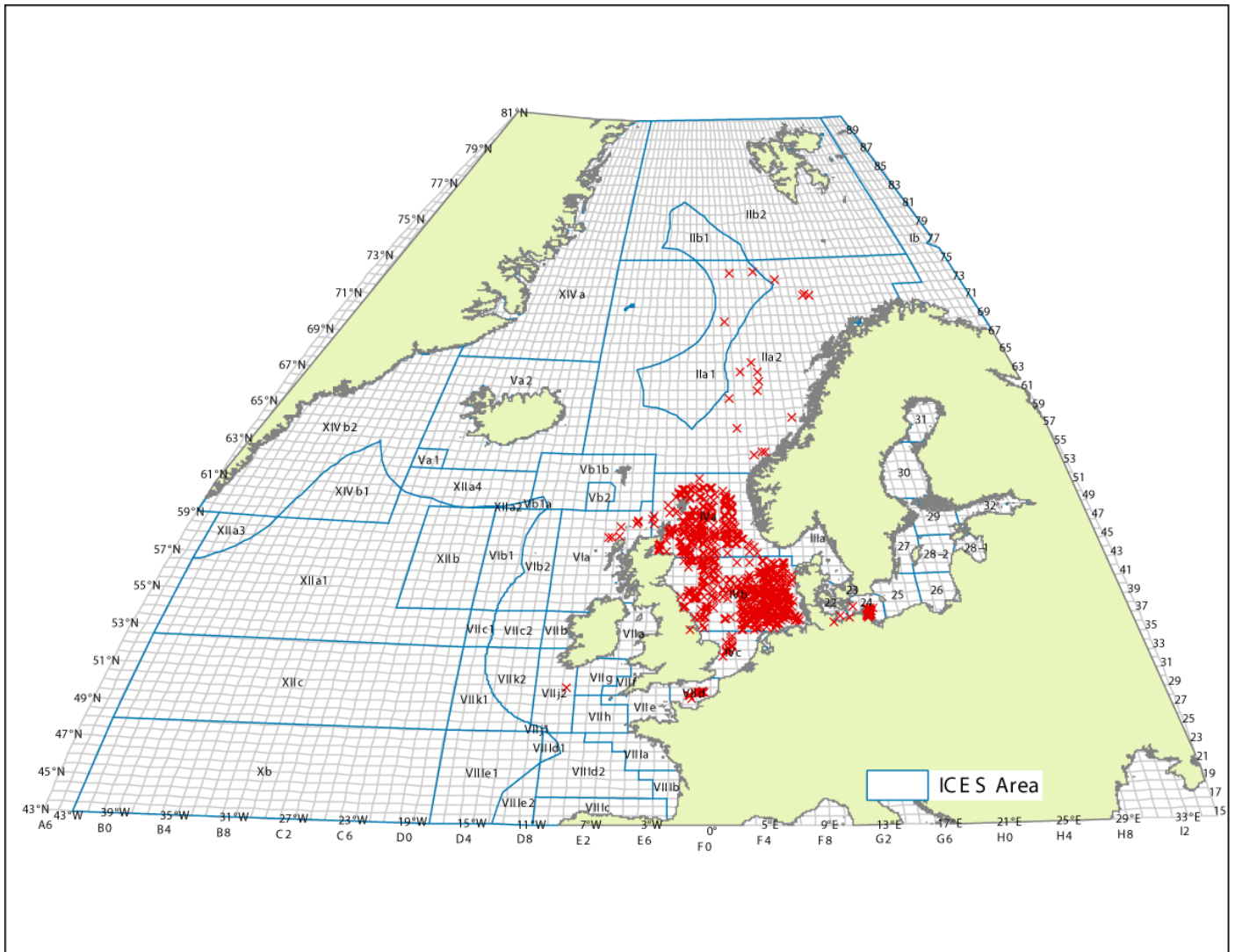


Method of Measurement

- Total length	male	10219
- 1/2 cm below	female	10292
min length	undefined	6911
max length		
3.75 [cm]		
39.25 [cm]	total numbers of data	27423

Clupea harengus ♀

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0036

b = 3.2448

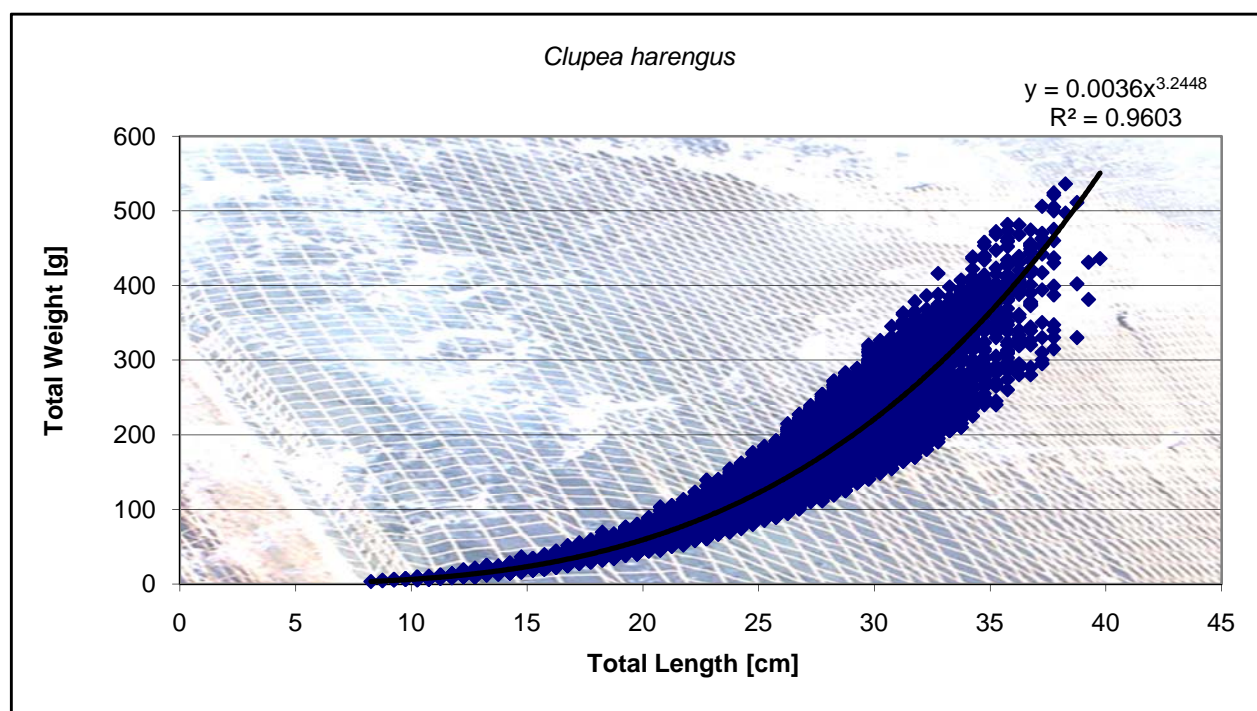
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
7271	2306	8969	3535																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
2718	3345	1208	640	509	1157	5755	2240	974	852	734	1949								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	1390	2387	15901	-	617	1786	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	1390	-	-	-	84	2303	7519	8240	142	-	-	617	-	-	-	-	1753	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	33	-	-	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9			1A	1B	1C	1D	1E	1F	2G	2H	2J
5105	1620	2978	1261	164	2734	1953	-	-			-	-	-	-	-	-	-	-	-



Method of Measurement

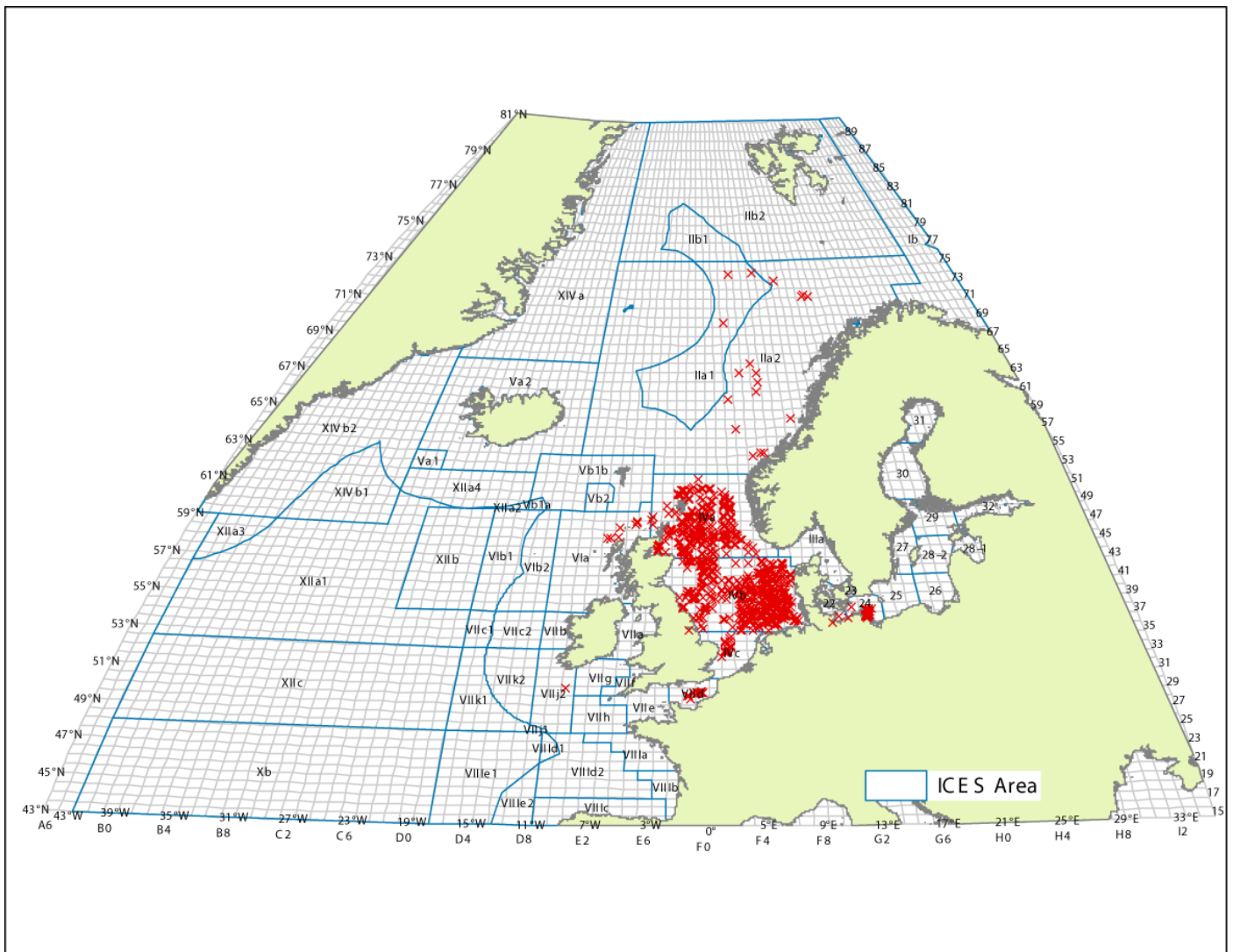
- Total length
- 1/2 cm below
 - min length
 - max length

6.25 [cm]
39.75 [cm]

male -
female 22081
undefined -
total numbers of data 22081

Clupea harengus ♂

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0035

b = 3.2585

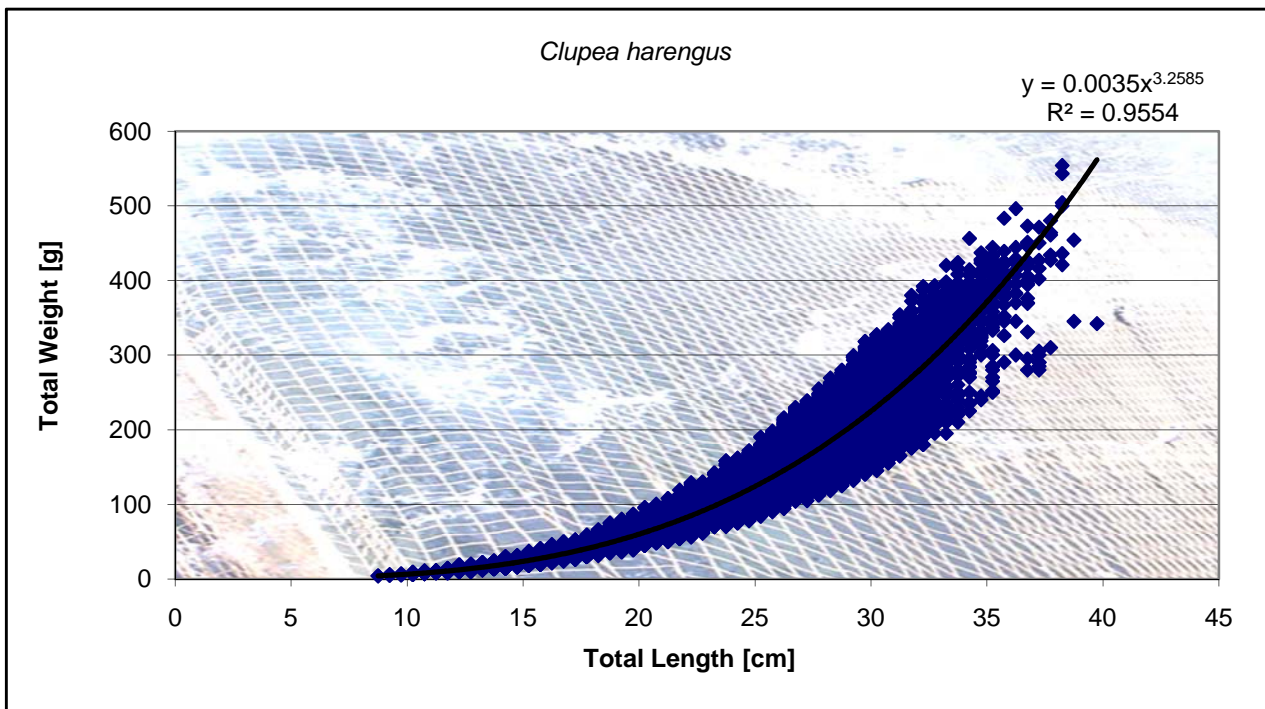
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
7115	2508	9163	3241																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
2643	3292	1180	586	603	1319	6081	2098	984	771	675	1795								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	1183	2230	16215	-	737	1662	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	1183	-	-	-	82	2148	7621	8398	196	-	-	737	-	-	-	-	1640	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	22	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
5006	1676	3247	1359	218	2564	2048	-	-		-	-	-	-	-	-	-	-	-	

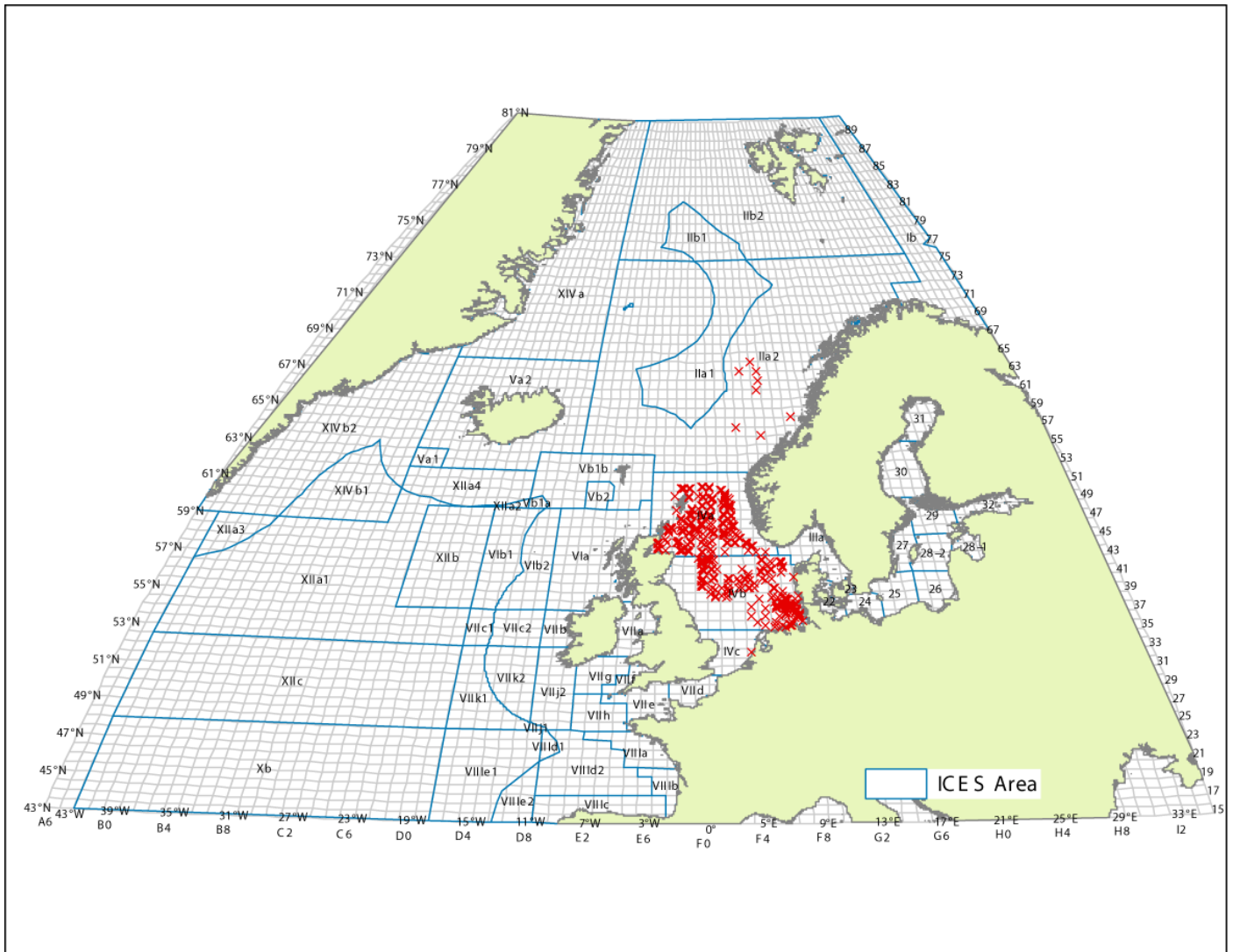


Method of Measurement

- Total length		male	22027
- 1/2 cm below		female	-
min length	6.25 [cm]	undefined	-
max length	39.75 [cm]	total numbers of data	22027

Clupea harengus Quarter 1

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

Quarter: 1

$$TW [g] = a * L [cm]^b$$

a = 0.0038

b = 3.164

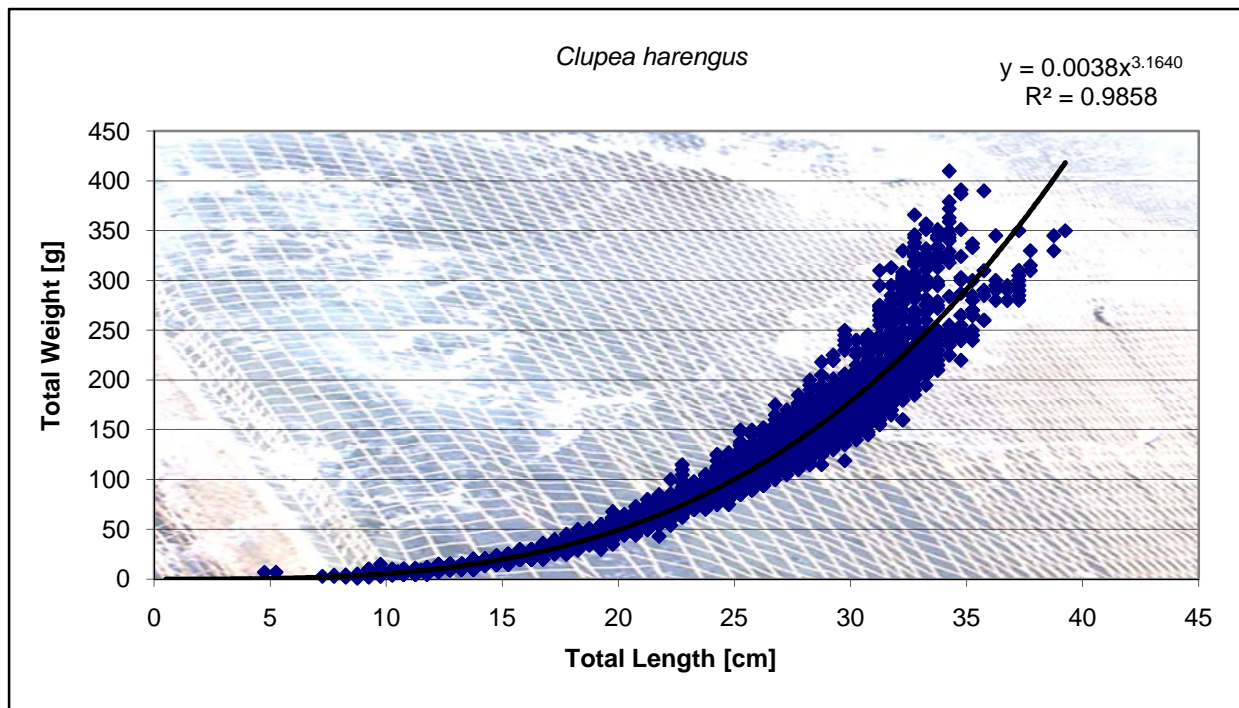
data collected

time period : 1996 - 2008

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
9854	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
4409	4814	631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	608	-	9246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	608	-	-	-	-	-	5314	3931	1	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
2939	1819	2099	-	-	1475	914	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

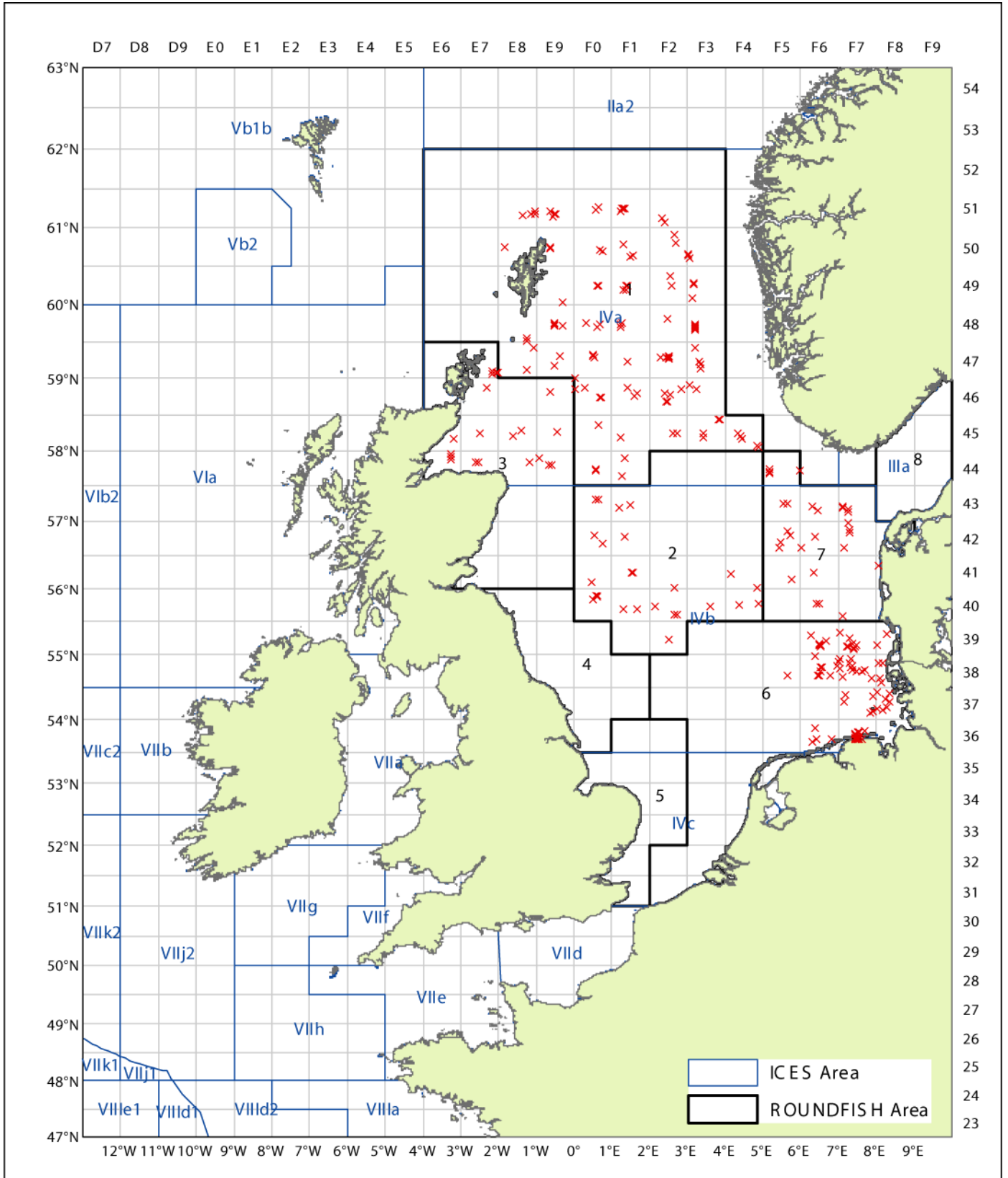


Method of Measurement

- Total length		male	4295
- 1/2 cm below		female	4388
min length	4.75 [cm]	undefined	1171
max length	39.25 [cm]	total numbers of data	9854

Clupea harengus January

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

January

$$TW [g] = a * L [cm]^b$$

a = 0.0036

b = 3.1839

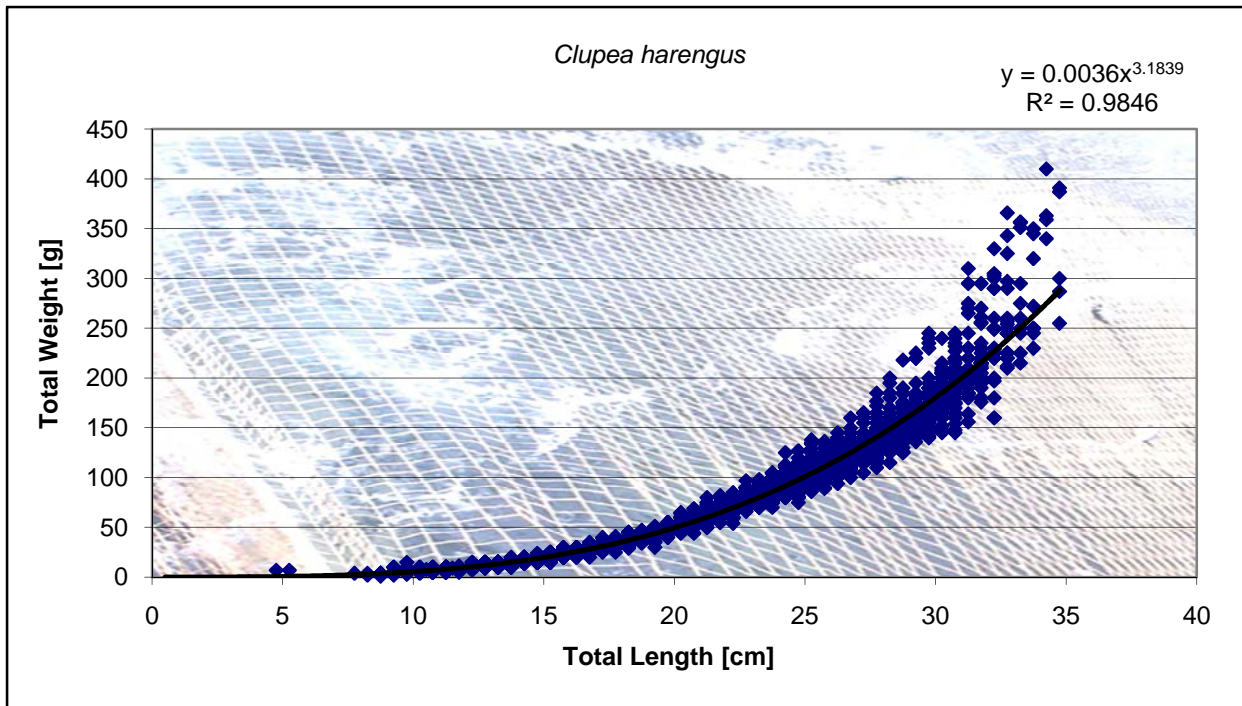
data collected

time period : 1996 - 2008

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
4409	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
4409	-	-	-	-	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	4409	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	2300	2109	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
1755	409	444	-	-	1070	731	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

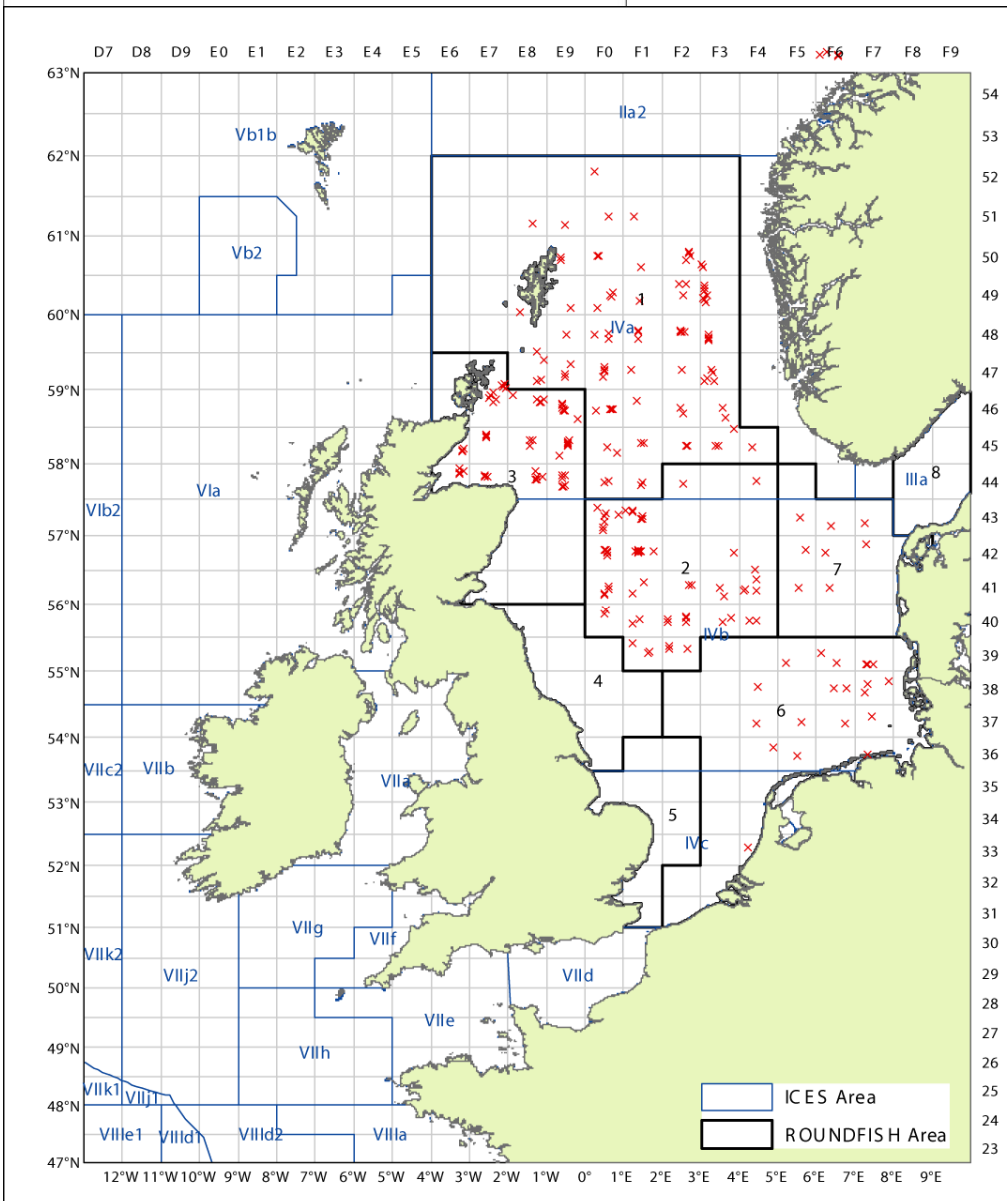
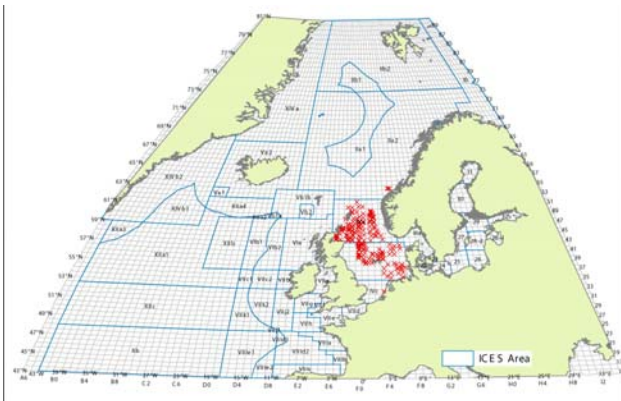


Method of Measurement

- Total length		male	1871
- 1/2 cm below		female	1913
min length	4.75 [cm]	undefined	625
max length	34.75 [cm]	total numbers of data	4409

Clupea harengus February

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

February

$$Tw [g] = a * L [cm]^b$$

a = 0.0029

b = 3.253

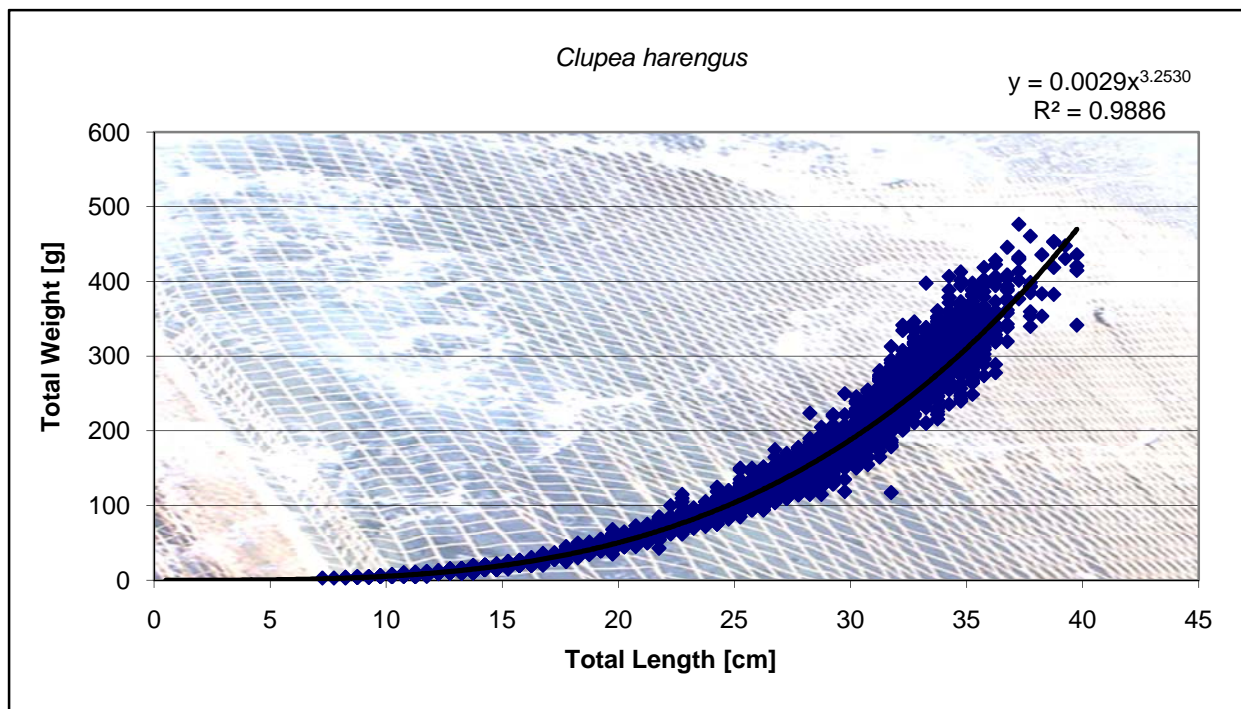
data collected

time period : 1996 - 2008

data source : research vessel

numbers of data:

Quarter																							
1	2	3	4																				
5749	-	-	-																				
Month																							
1	2	3	4	5	6	7	8	9	10	11	12												
-	5749	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Subarea																							
1	2	3	4	5	6	7	8	9	10	12	14												
-	730	-	5019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Division																							
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F				
-	730	-	-	-	-	-	3219	1799	1	-	-	-	-	-	-	-	-	-	-				
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Roundfisharea										NAFO													
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J	
1389	1410	1655	-	-	382	183	-	-						-	-	-	-	-	-	-	-	-	-

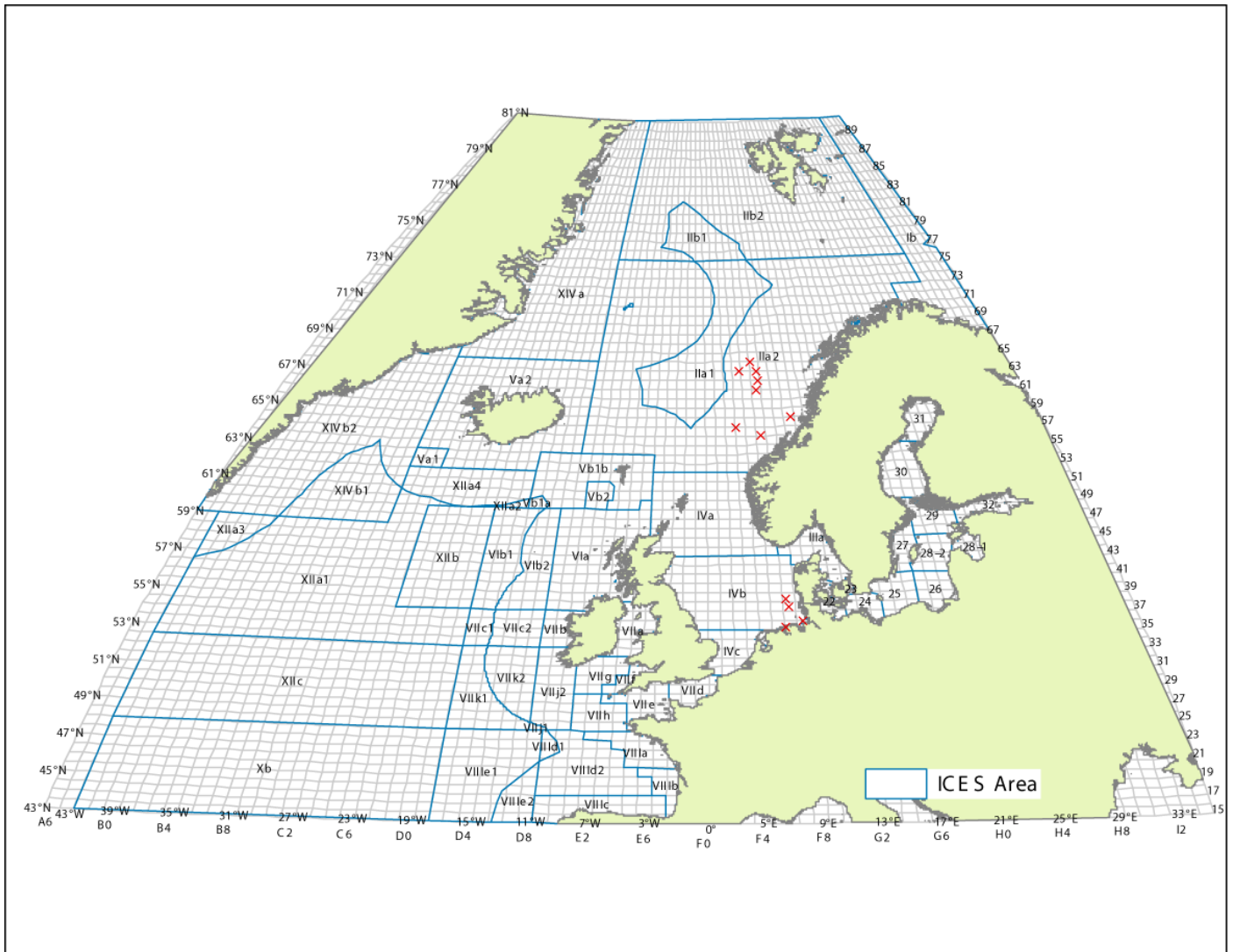


Method of Measurement

- Total length		male	2345
- 1/2 cm below		female	2358
min length	7.25 [cm]	undefined	1046
max length	39.75 [cm]	total numbers of data	5749

Clupea harengus March

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

March

$$TW [g] = a * L [cm]^b$$

a = 0.0046

b = 3.0789

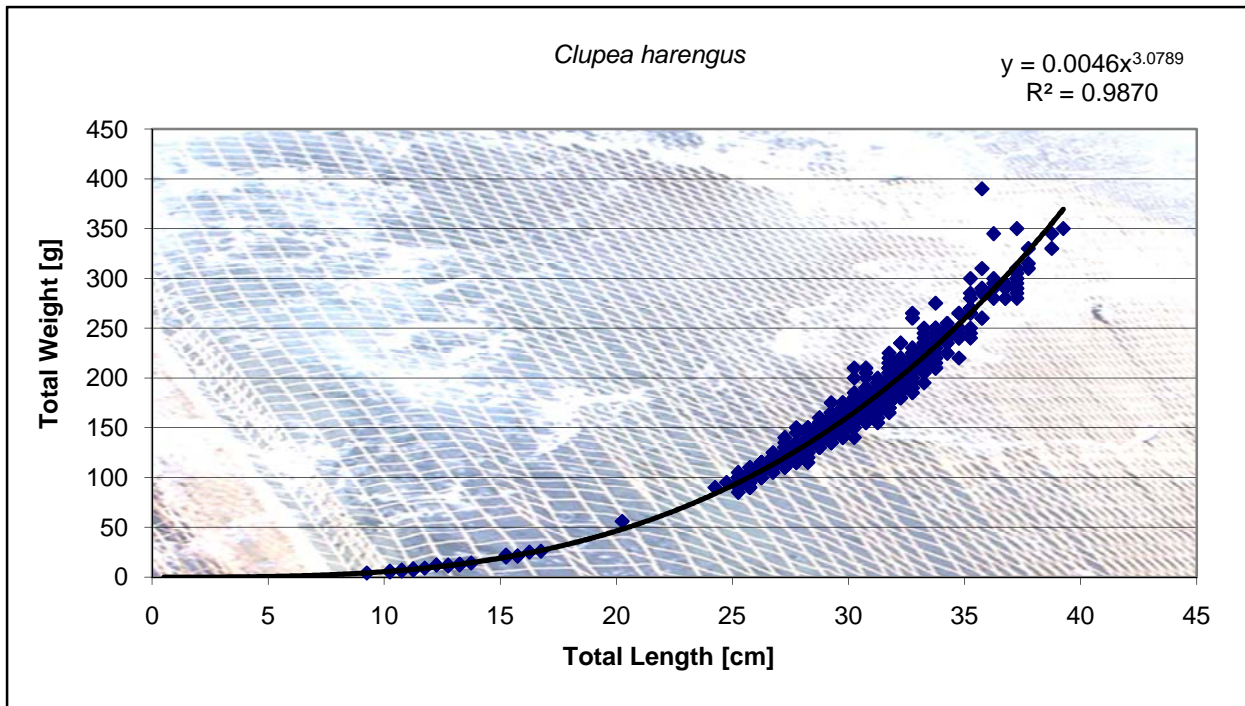
data collected

time period : 1997 - 2000

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
631	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	608	-	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	608	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-

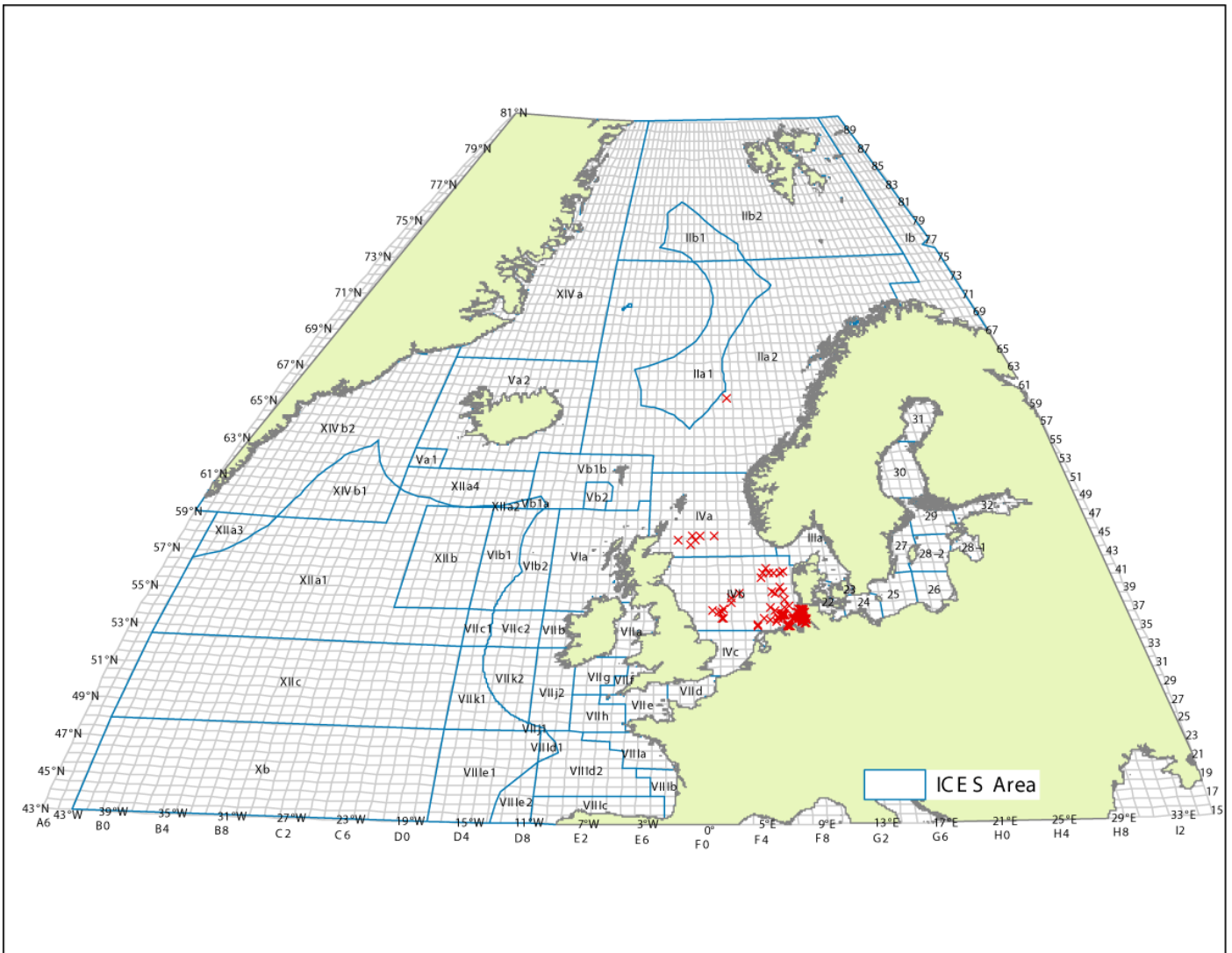


Method of Measurement

- Total length		male	256
- 1/2 cm below		female	330
min length	9.25 [cm]	undefined	45
max length	39.25 [cm]	total numbers of data	631

Clupea harengus Quarter 2

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

Quarter: 2

$$TW [g] = a * L [cm]^b$$

a = 0.0043

b = 3.1879

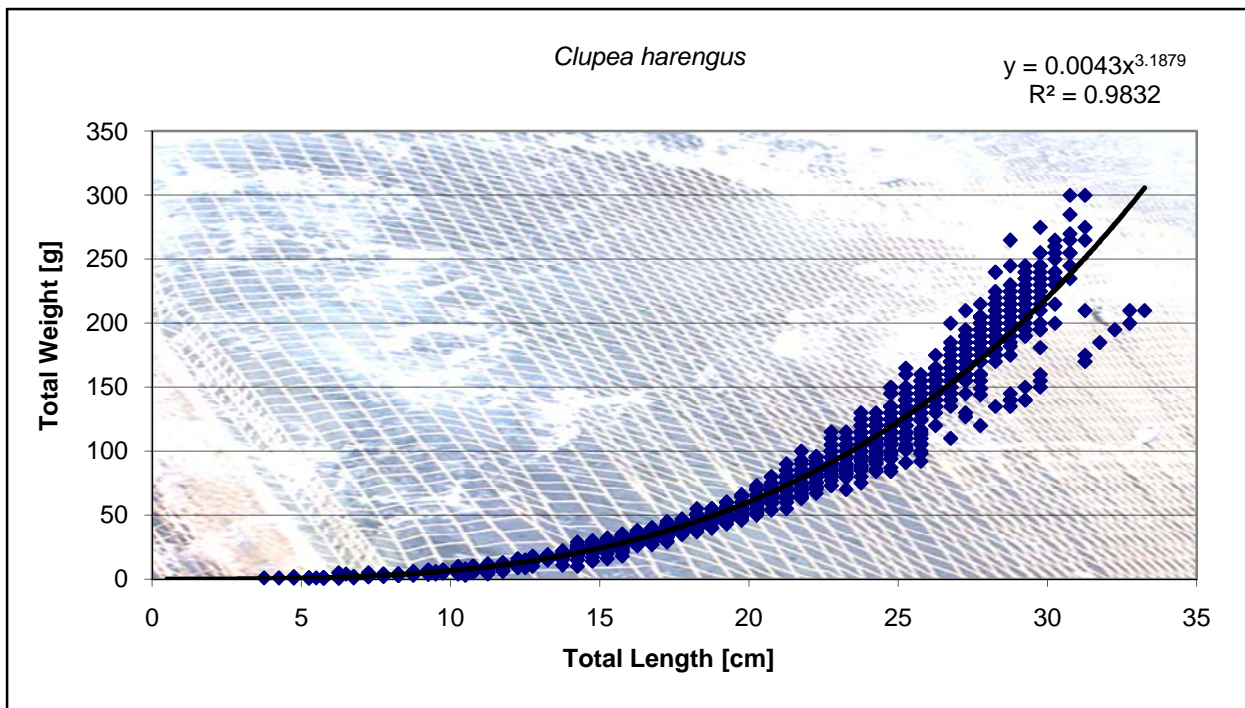
data collected

time period : 1996 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1761	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	156	91	1514	-	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	23	-	1738	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	23	-	-	-	-	-	750	988	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
381	1	369	1	-	545	441	-	-		-	-	-	-	-	-	-	-	-	

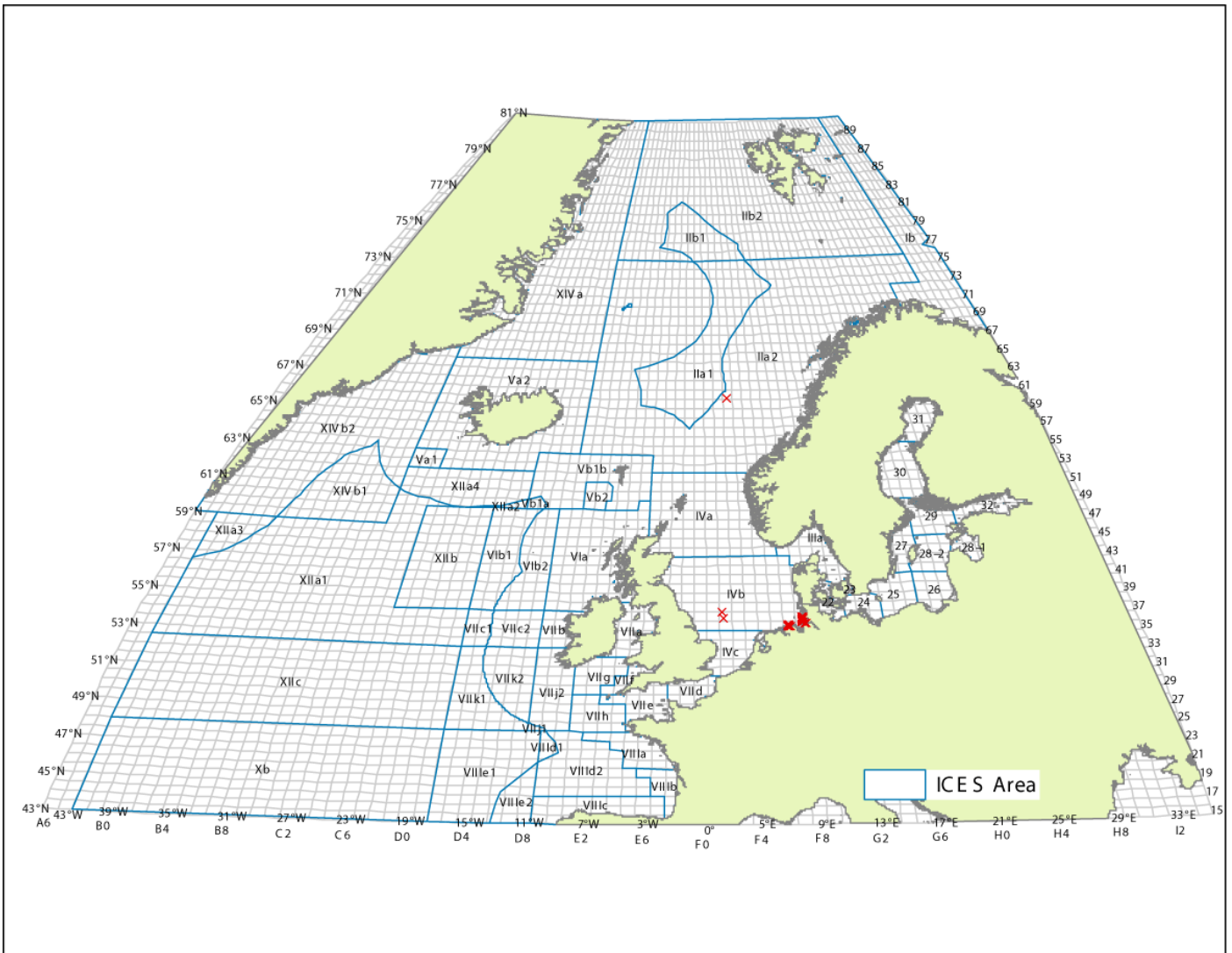


Method of Measurement

- Total length		male	723
- 1/2 cm below		female	622
min length	3.75 [cm]	undefined	416
max length	33.25 [cm]	total numbers of data	1761

Clupea harengus April

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

April

$$TW [g] = a * L [cm]^b$$

a = 0.0057

b = 3.0391

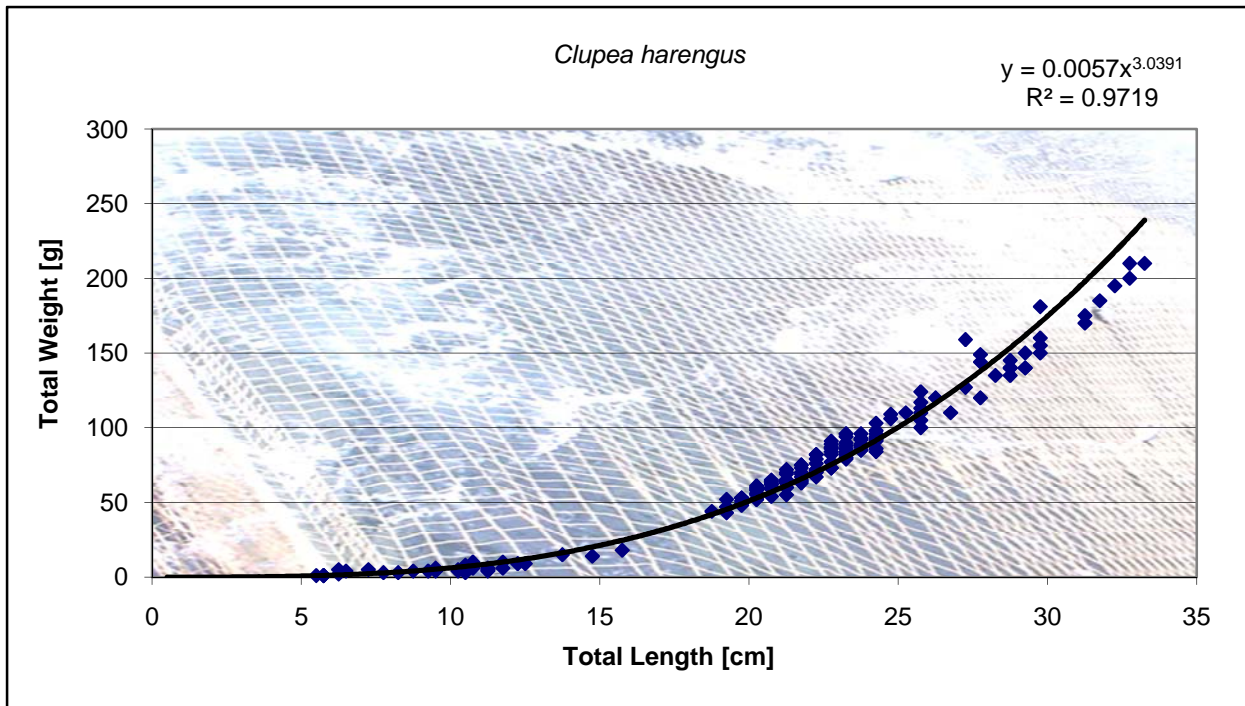
data collected

time period : 1996 - 2004

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	156	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	156	-	-	-	-	-	-	-	-	-							
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	23	-	133	-	-	-	-	-	-	-	-	-							
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	23	-	-	-	-	-	-	133	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	133	-	-	-	-	-	-	-	-	-	-	-	-		

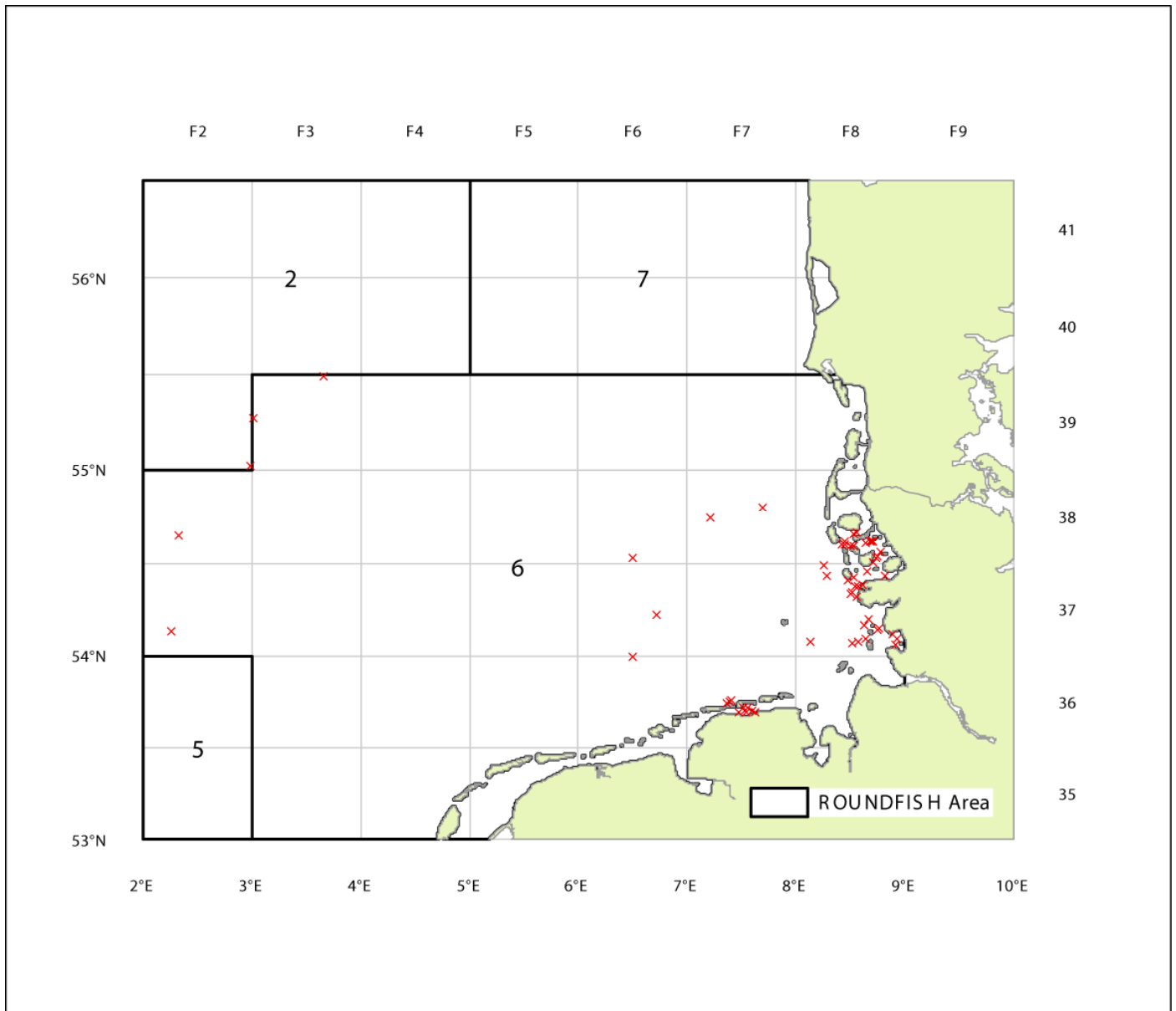


Method of Measurement

- Total length		male	66
- 1/2 cm below		female	57
min length	5.25 [cm]	undefined	33
max length	33.25 [cm]	total numbers of data	156

Clupea harengus May

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

May

$$TW [g] = a * L [cm]^b$$

a = 0.0076

b = 2.9252

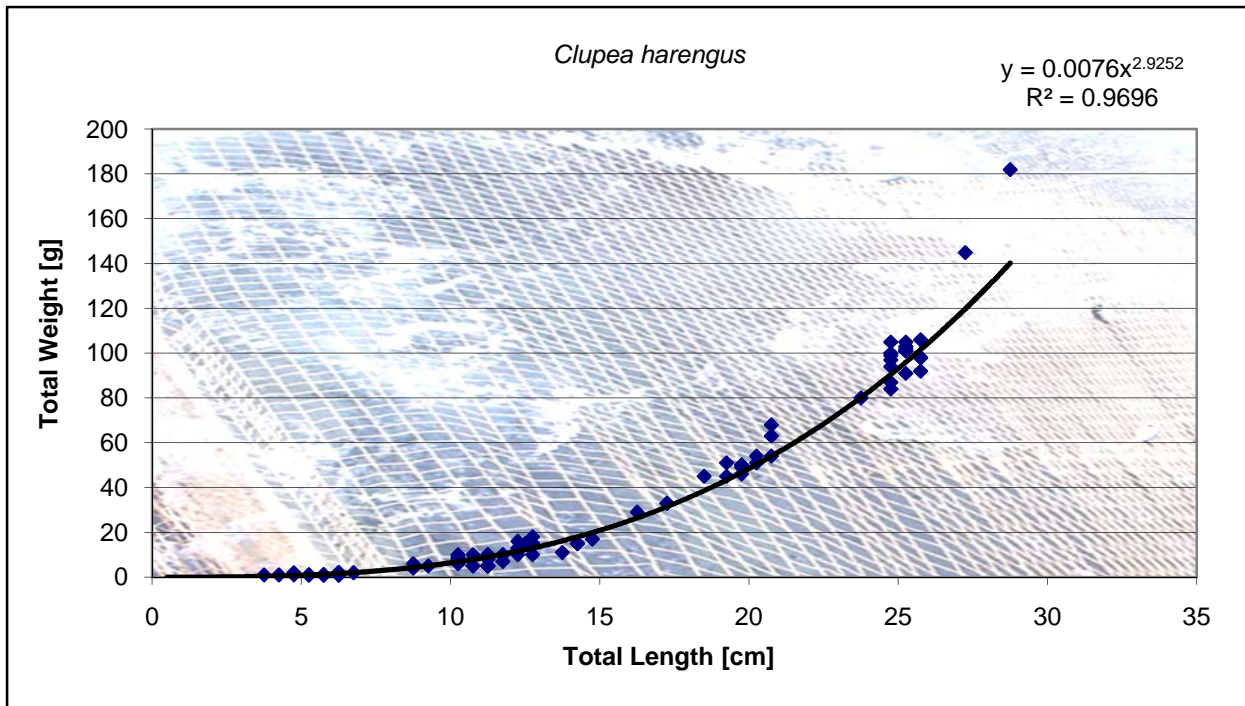
data collected

time period : 1996 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	91	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	91	-	-	-	-	-	-	-	-							
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	91	-	-	-	-	-	-	-	-	-							
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	1	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-		

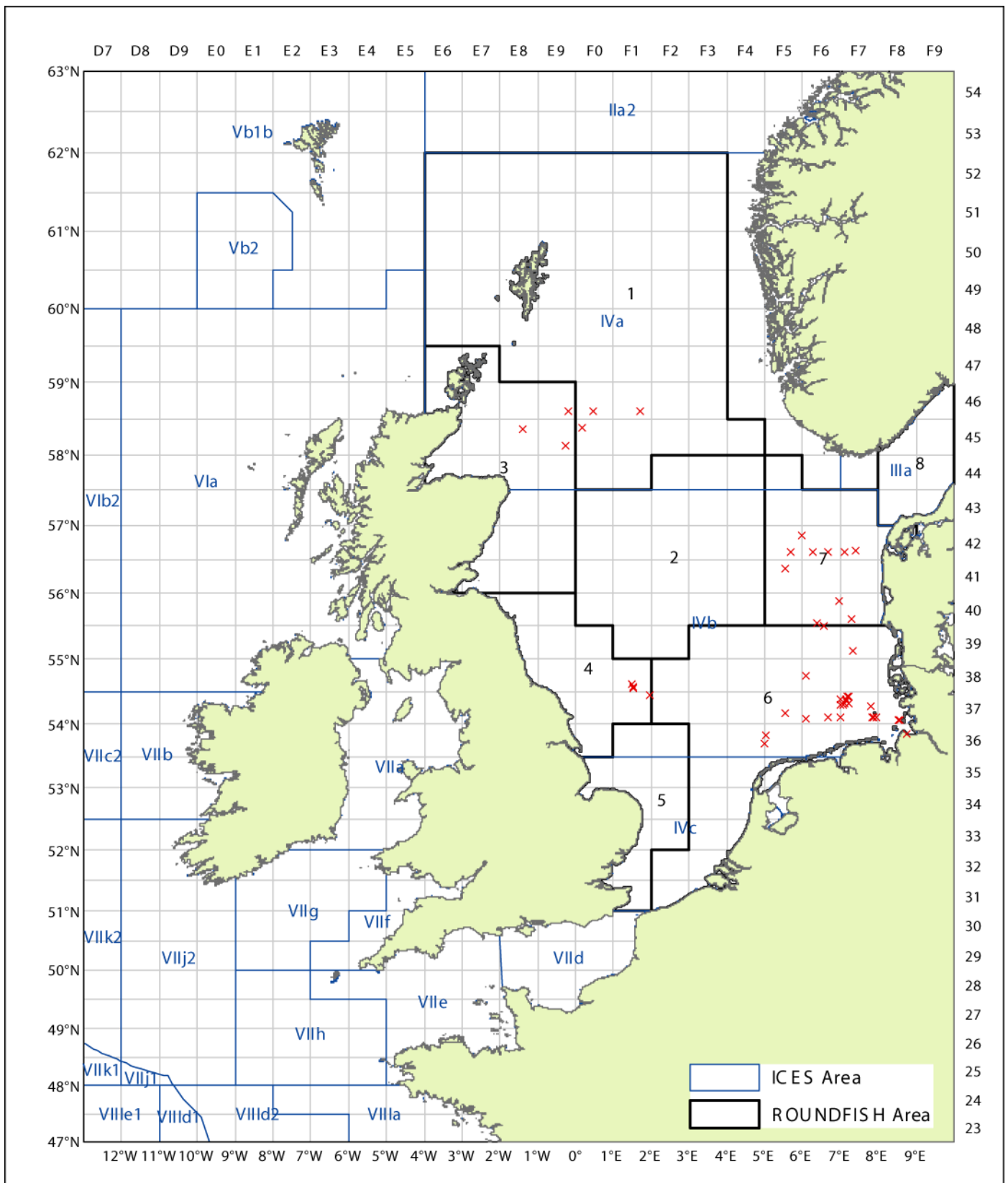


Method of Measurement

- Total length		male	19
- 1/2 cm below		female	11
min length	3.75 [cm]	undefined	61
max length	28.75 [cm]	total numbers of data	91

Clupea harengus June

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

June

$$TW [g] = a * L [cm]^b$$

a = 0.0038

b = 3.2383

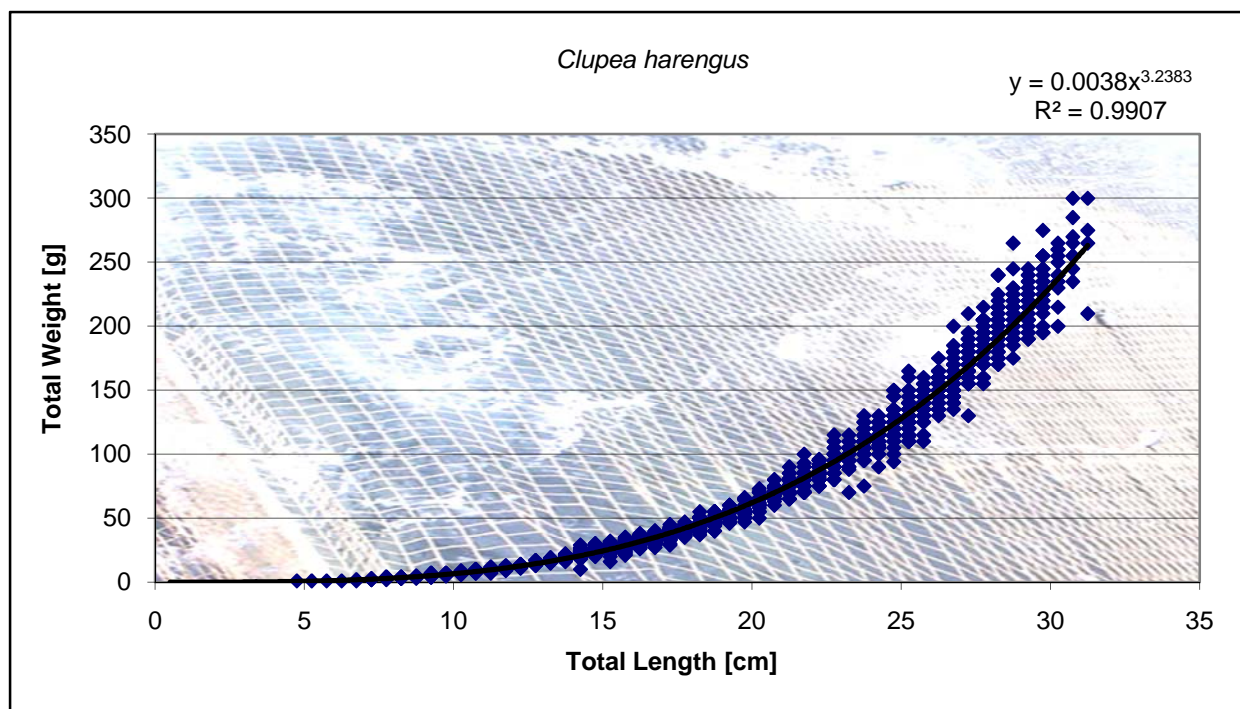
data collected

time period : 1996 - 2004

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1514	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	1514	-	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1514	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	750	764	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
381	-	369	1	-	322	441	-	-											
									1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length

- 1/2 cm below

min length

max length

4.75 [cm]

31.25 [cm]

male

female

undefined

638

554

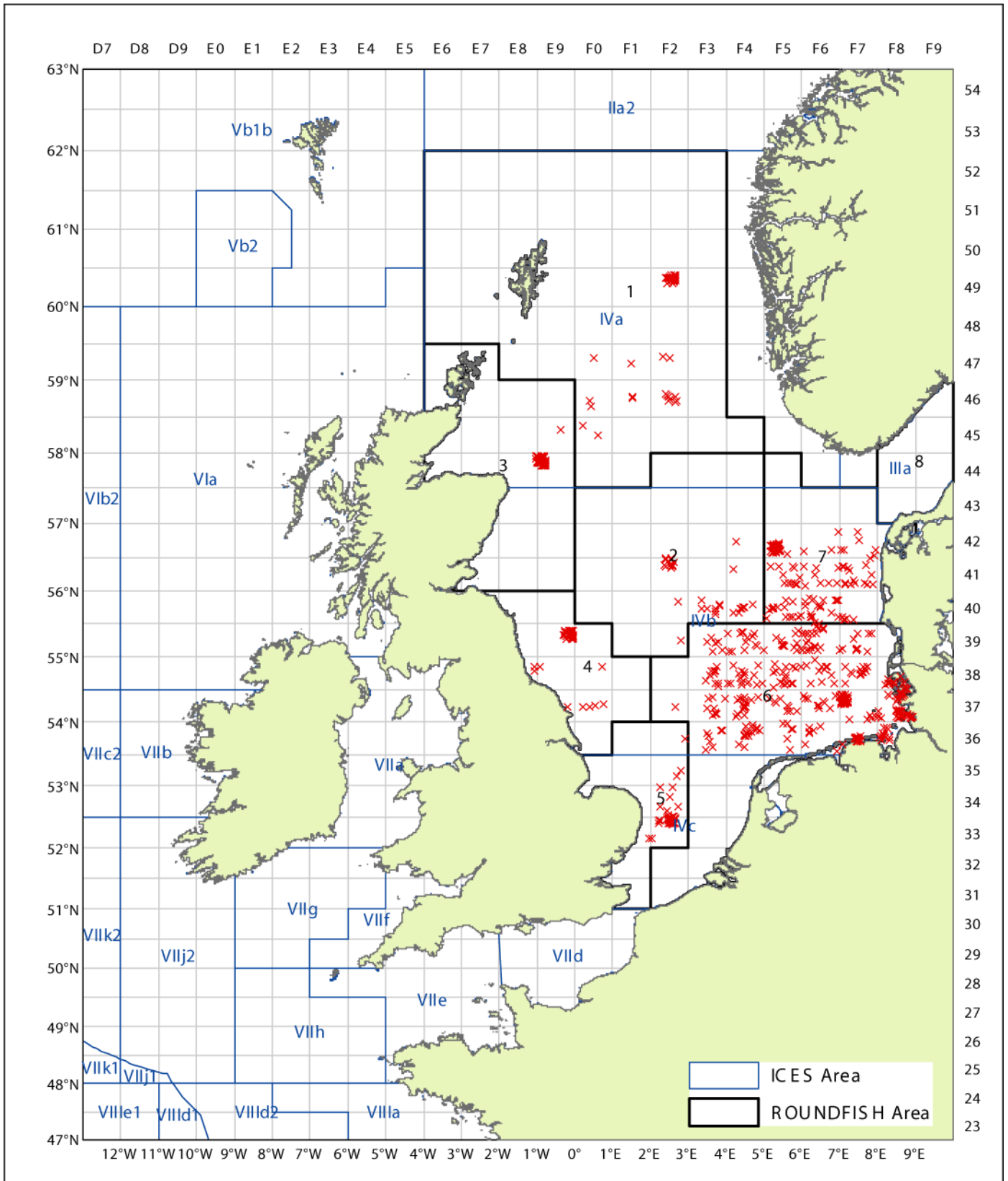
322

total numbers of data

1514

Clupea harengus Quarter 3

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

Quarter: 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0033

b = 3.2912

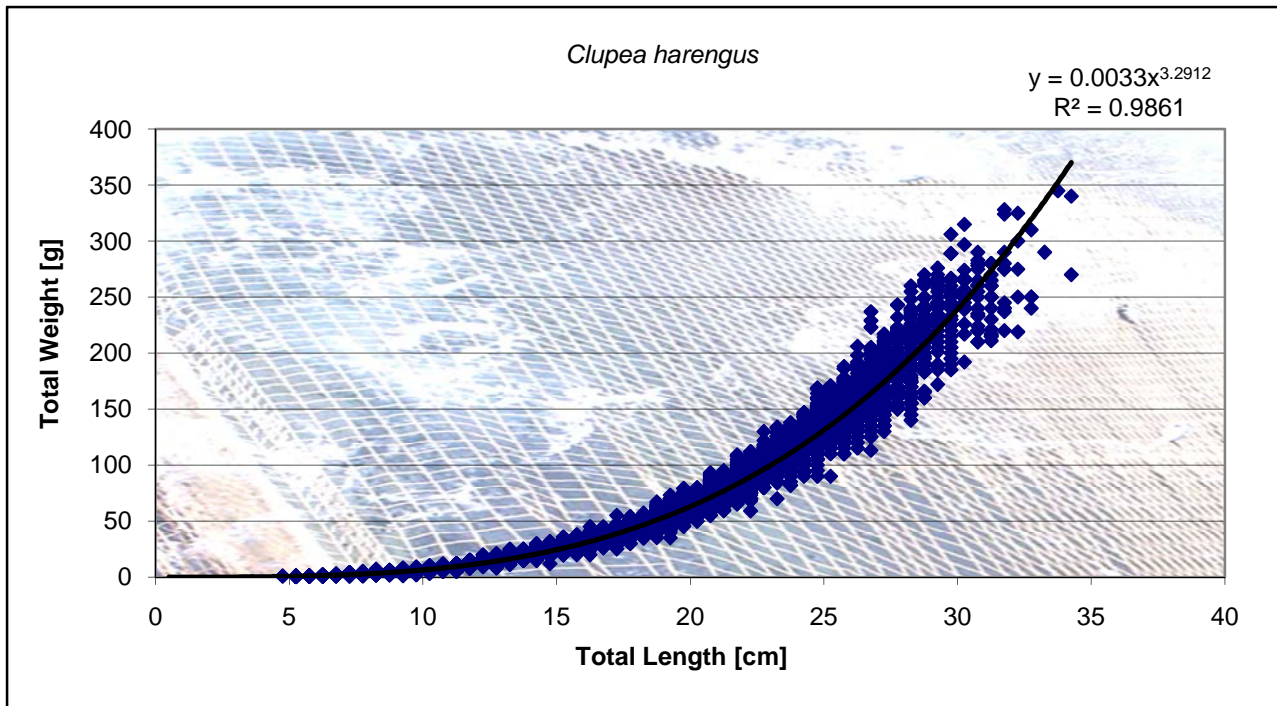
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	11796	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	8655	2330	811	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	11796	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	1539	9709	548	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
558	375	961	1165	562	5154	3021	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

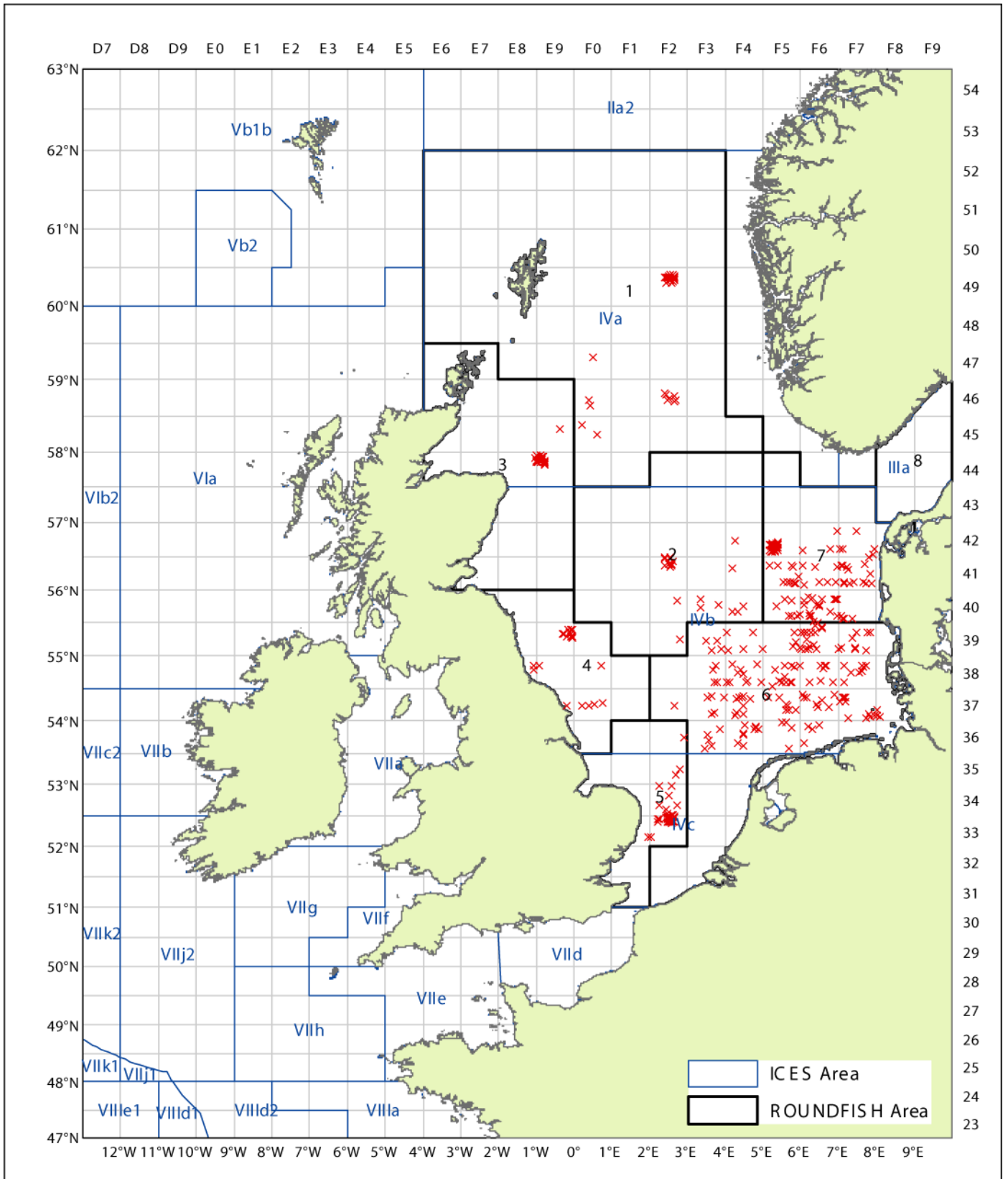


Method of Measurement

- Total length		male	4323
- 1/2 cm below		female	4323
min length	4.75 [cm]	undefined	3150
max length	34.25 [cm]	total numbers of data	11796

Clupea harengus July

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

July

$$TW [g] = a * L [cm]^b$$

a = 0.0032

b = 3.3017

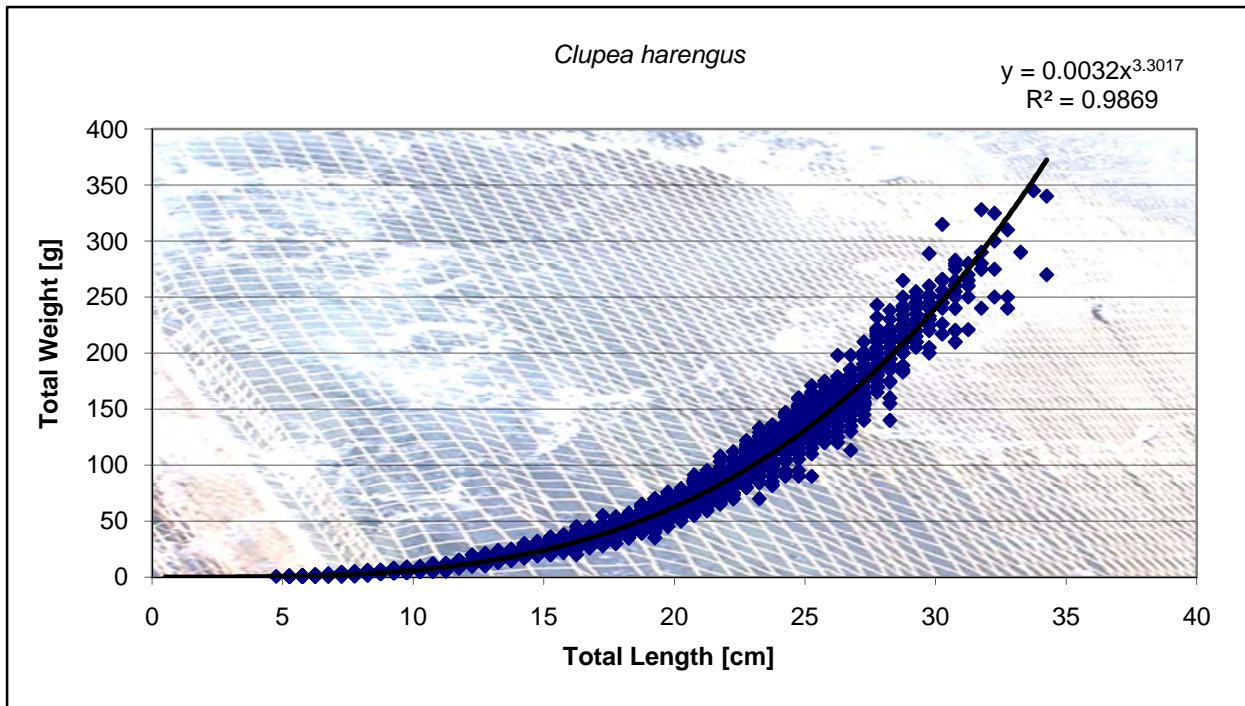
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	8655	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	8655	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	8655	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	870	7237	548	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
337	250	519	730	561	3685	2573	-	-	-	-	-	-	-	-	-	-	-	-	-

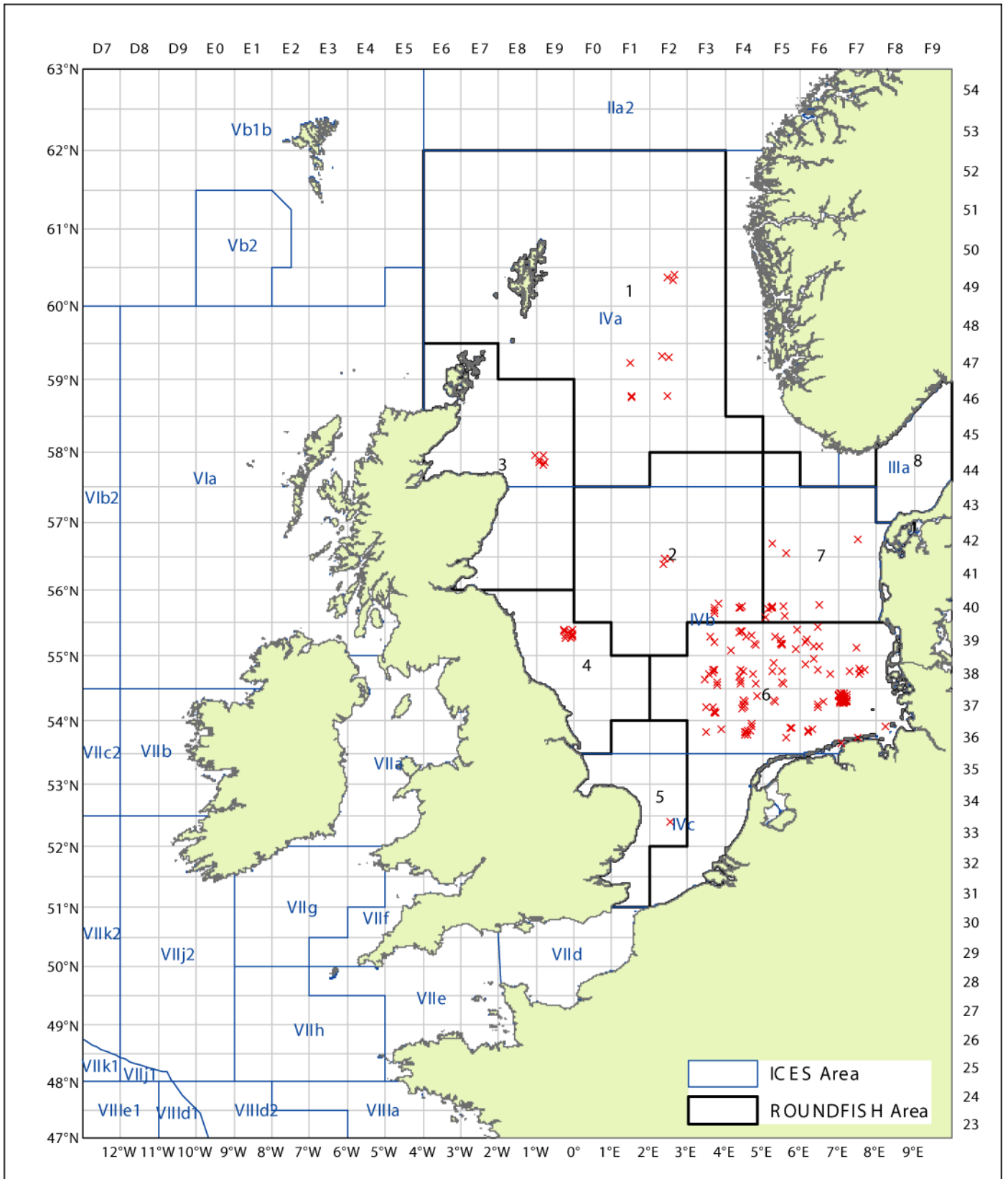


Method of Measurement

- Total length		male	3247
- 1/2 cm below		female	3138
min length	4.75 [cm]	undefined	2270
max length	34.25 [cm]	total numbers of data	8655

Clupea harengus August

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

August

$$TW [g] = a * L [cm]^b$$

a = 0.0037

b = 3.2582

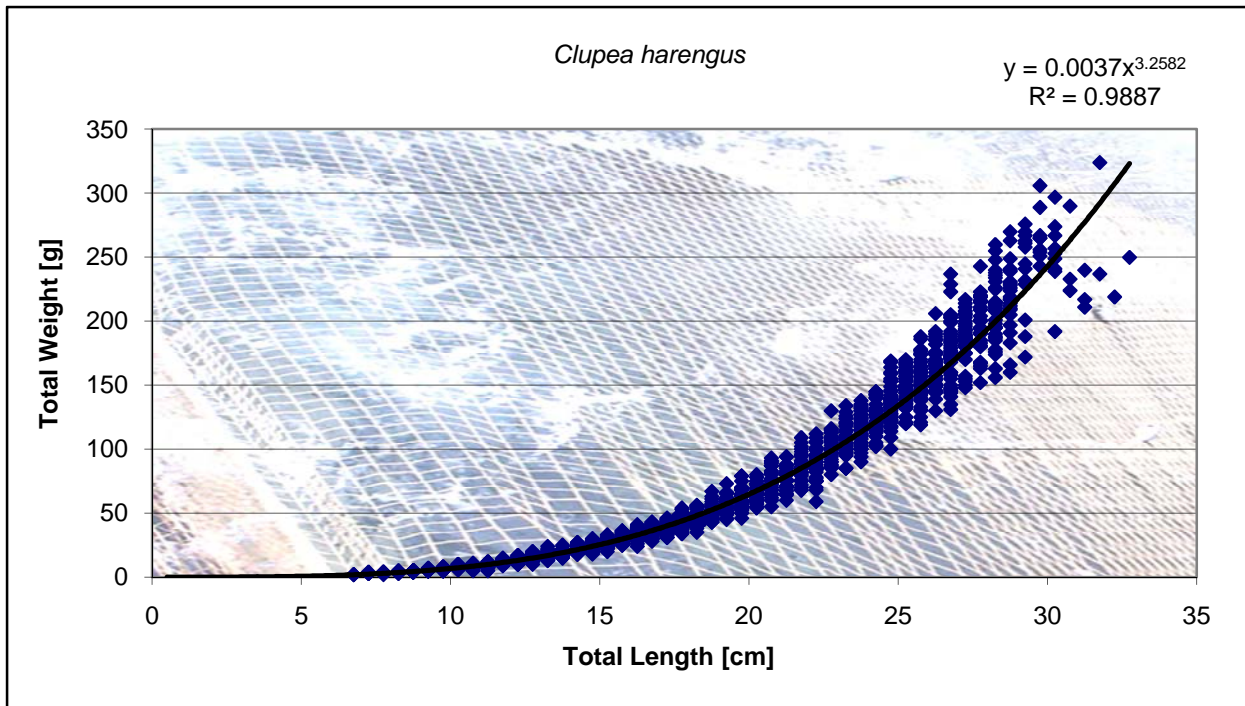
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	2330	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	2330	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2330	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	426	1904	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
221	81	199	261	1	1263	304	-	-	-	-	-	-	-	-	-	-	-		

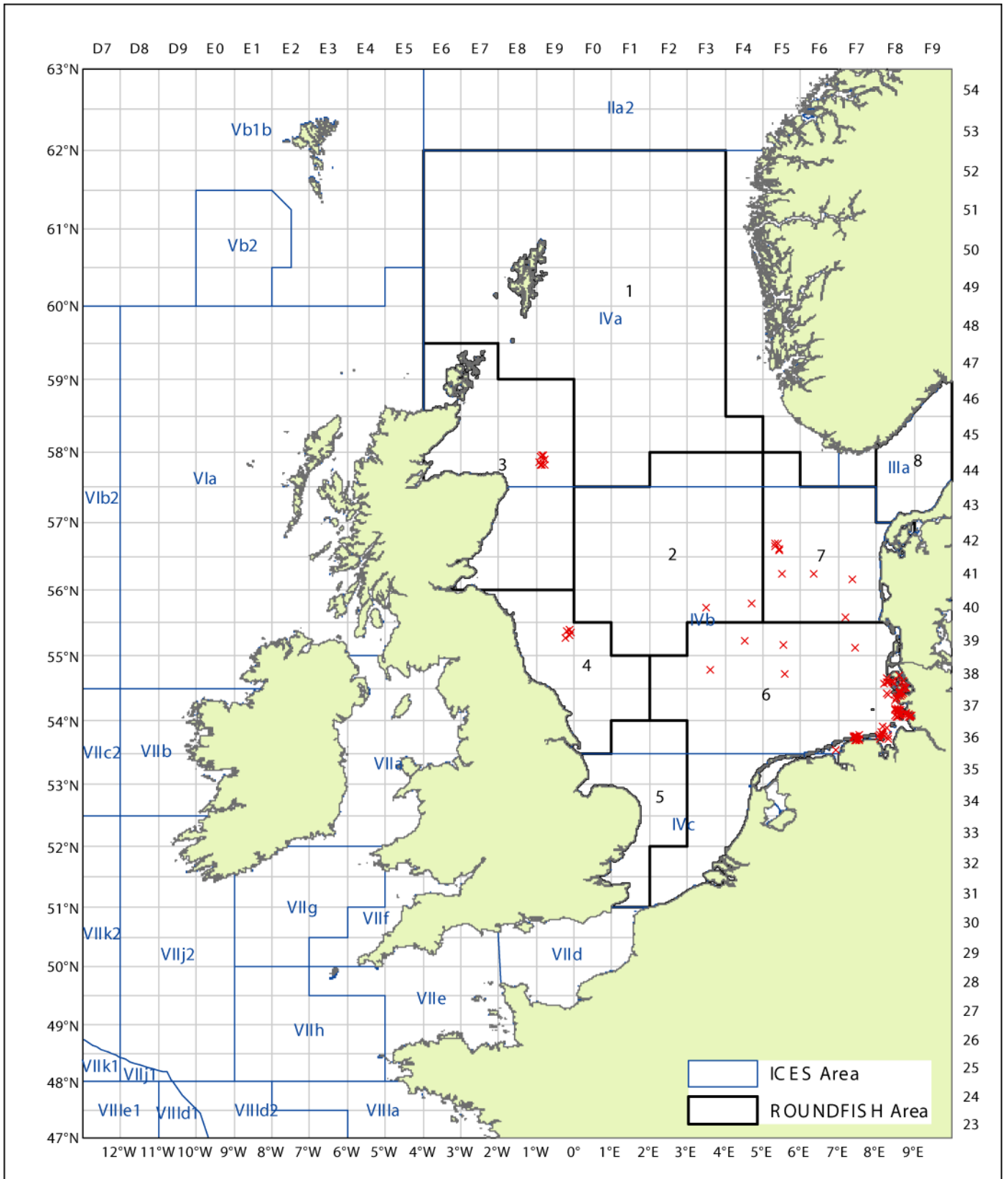


Method of Measurement

- Total length		male	727
- 1/2 cm below		female	865
min length	6.75 [cm]	undefined	738
max length	32.75 [cm]	total numbers of data	2330

Clupea harengus September

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

September

$$TW [g] = a * L [cm]^b$$

a = 0.0027

b = 3.338

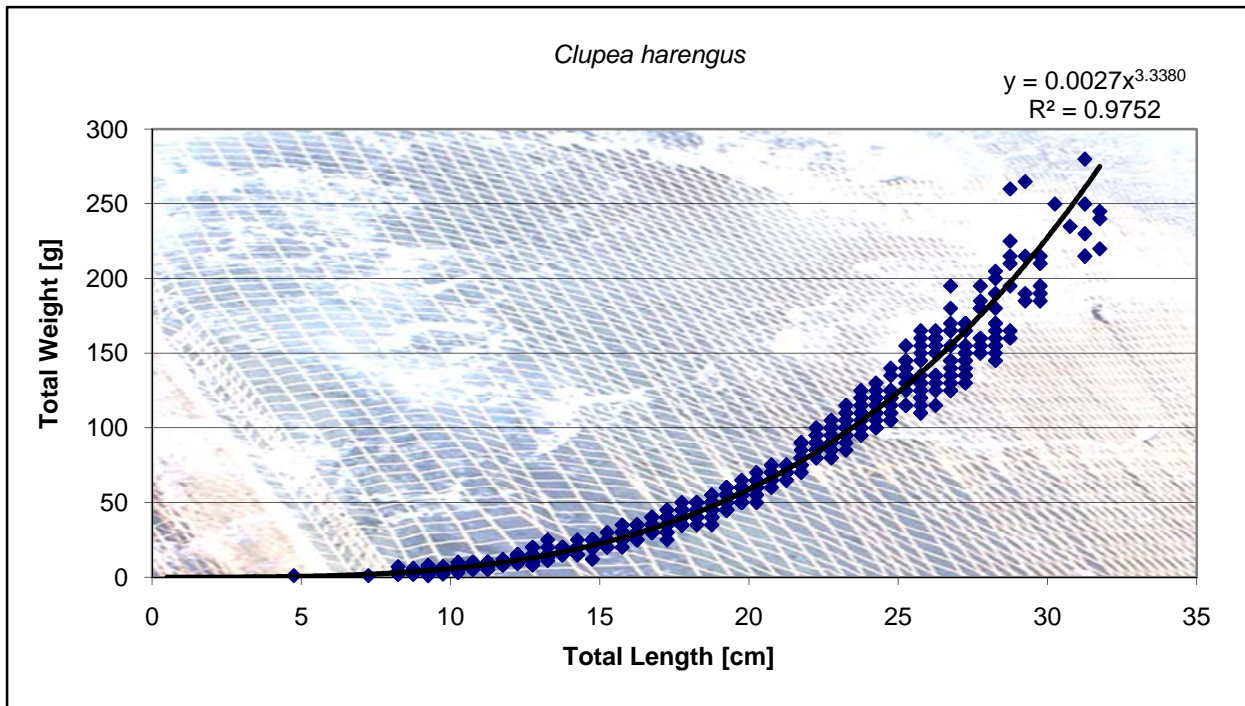
data collected

time period : 1996 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	811	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	811	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	811	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	243	568	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	44	243	174	-	206	144	-	-		-	-	-	-	-	-	-	-	-	

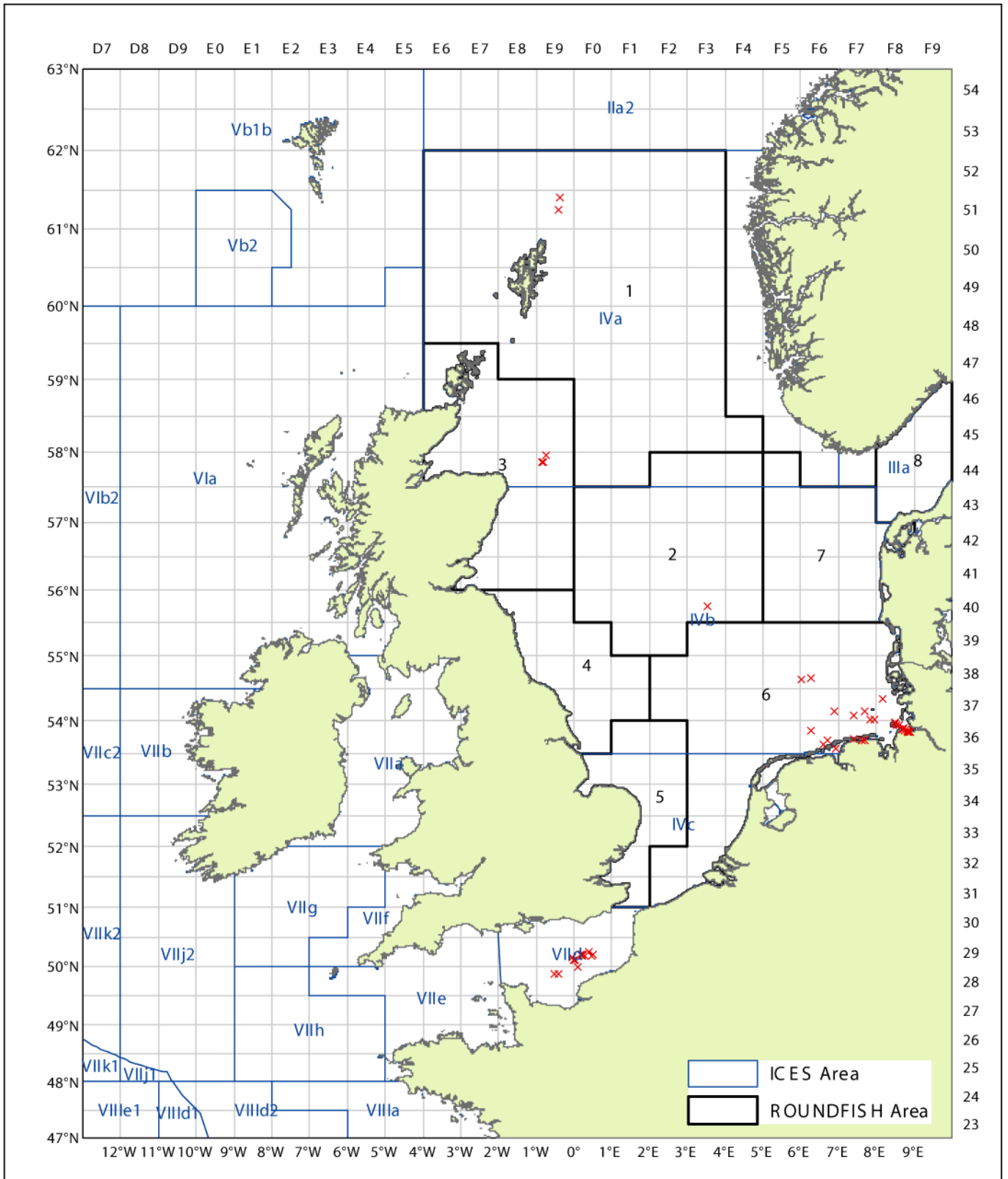


Method of Measurement

- Total length		male	349
- 1/2 cm below		female	320
min length	4.75 [cm]	undefined	142
max length	31.75 [cm]	total numbers of data	811

Clupea harengus Quarter 4

Geographical distribution of data used for calculating the length-weight relationship



Clupea harengus

Quarter: 4

$$TW [g] = a * L [cm]^b$$

a = 0.003

b = 3.3231

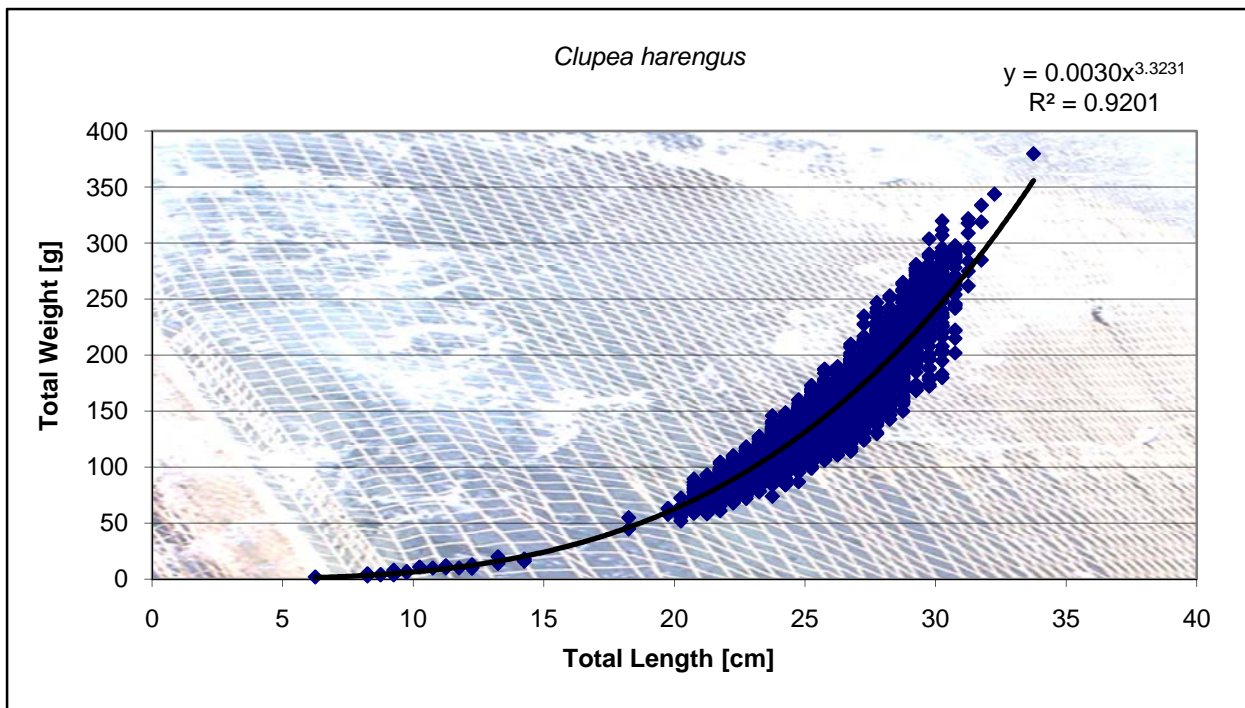
data collected

time period : 1996 - 2006

data source : commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	4012																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	13	18	3981								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	308	-	-	3704	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	275	33	-	-	-	-	-	-	-	-	3704	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
275	1	3	-	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-

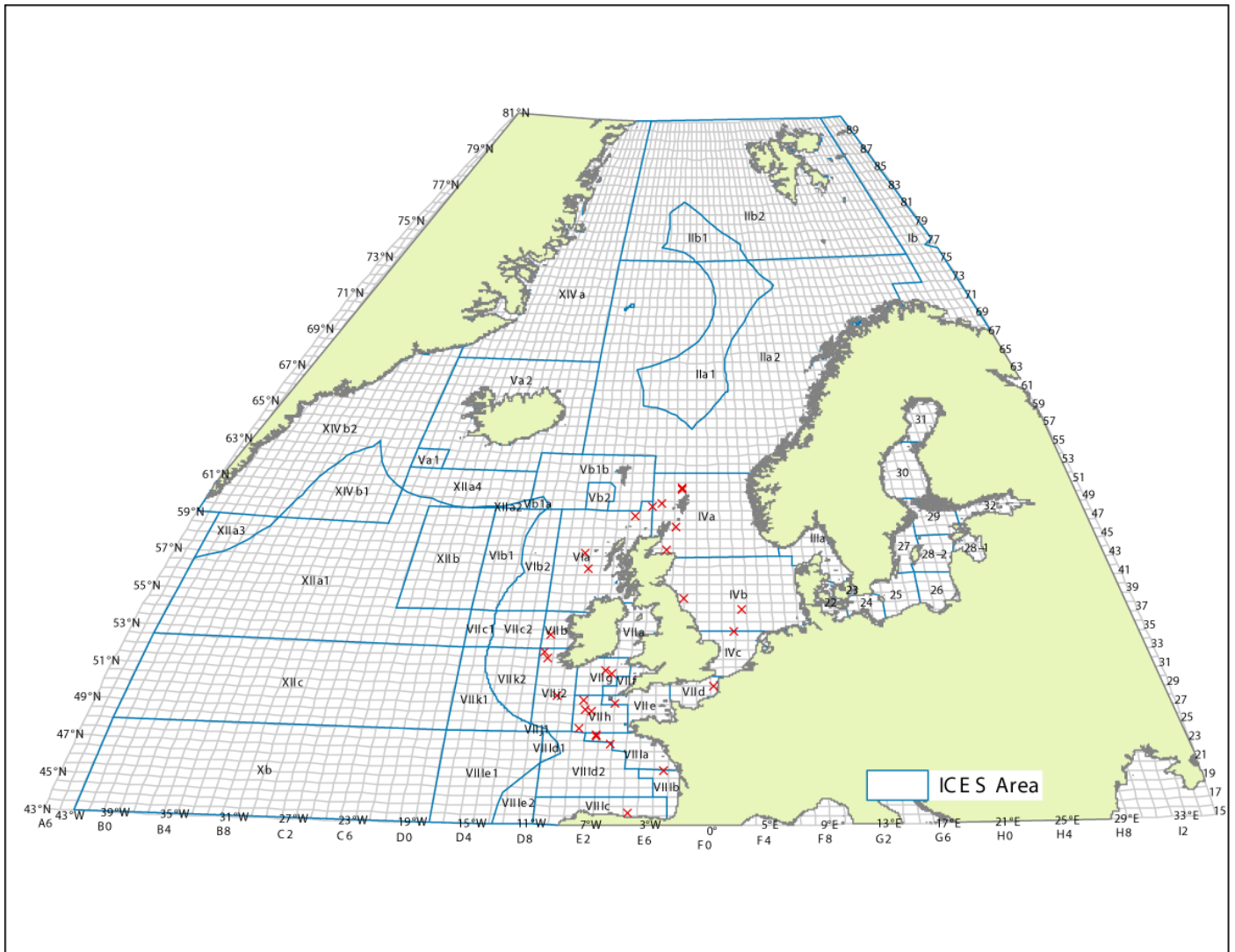


Method of Measurement

- Total length		male	878
- 1/2 cm below		female	959
min length	6.25 [cm]	undefined	2174
max length	33.75 [cm]	total numbers of data	4012

Conger conger

Geographical distribution of data used for calculating the length-weight relationship



Conger conger

Quarter: 1 - 3

$$TW [g] = a * L [cm]^b$$

a = 0.0001

b = 3.7272

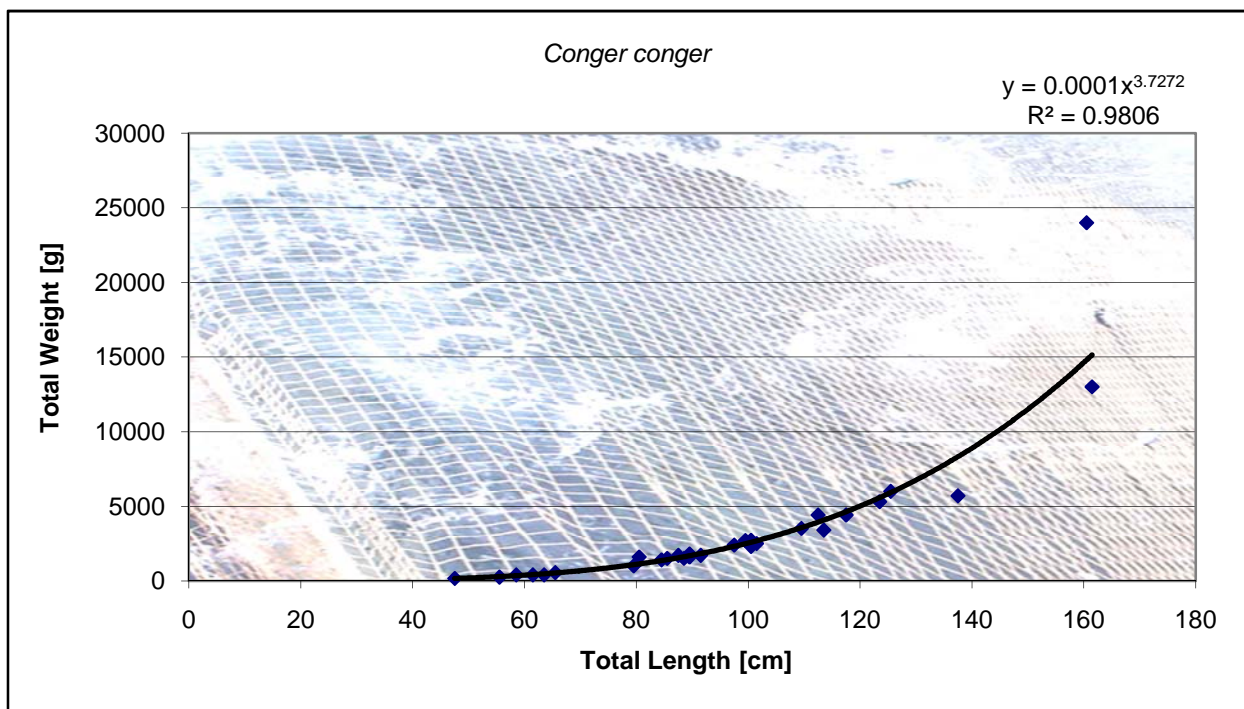
data collected

time period : 1962 - 2007

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
21	6	2	-																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
5	8	8	6	-	-	-	-	2	-	-	-										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	9	-	3	13	4	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	6	3	-	-	-	3	-	-	1	-	1	1	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B											
2	4	4	-	2	-	1	1	-	-	-											
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9													
5	-	1	1	1	1	-	-	-													
											1A	1B	1C	1D	1E	1F	2G	2H	2J		
											-	-	-	-	-	-	-	-	-		

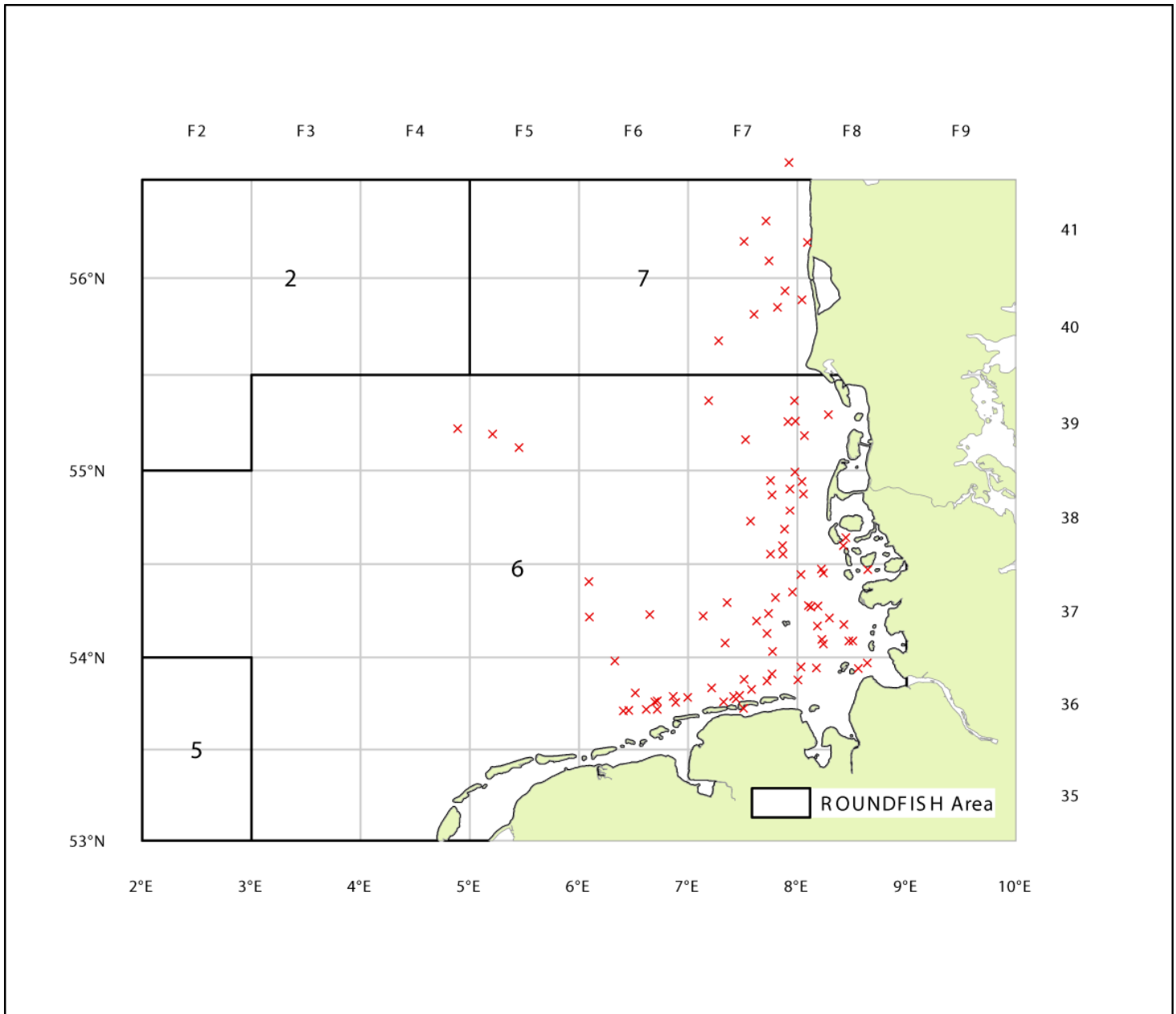


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	47.5 [cm]	undefined	29
max length	161.5 [cm]	total numbers of data	29

Crangon allmanni

Geographical distribution of data used for calculating the length-weight relationship



Crangon allmanni

Quarter: 1 - 4

$$TW [g] = a * L [mm]^b$$

a = 0.0000016

b = 3.3272115

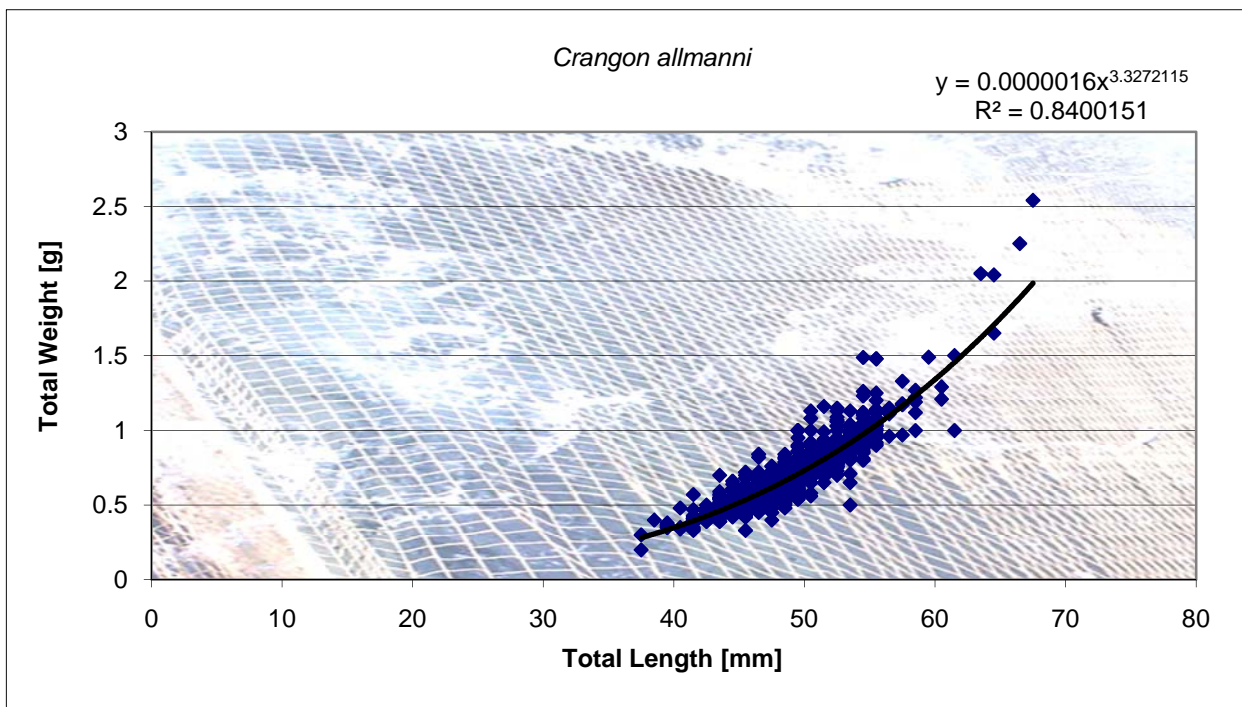
data collected

time period : 2001 - 2010

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
1087	10	3	2																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
1087	-	-	2	8	-	-	-	3	2	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	1102	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	1102	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	-	-	-	-	937	165	-	-						-	-	-	-	-	-	-	-	-

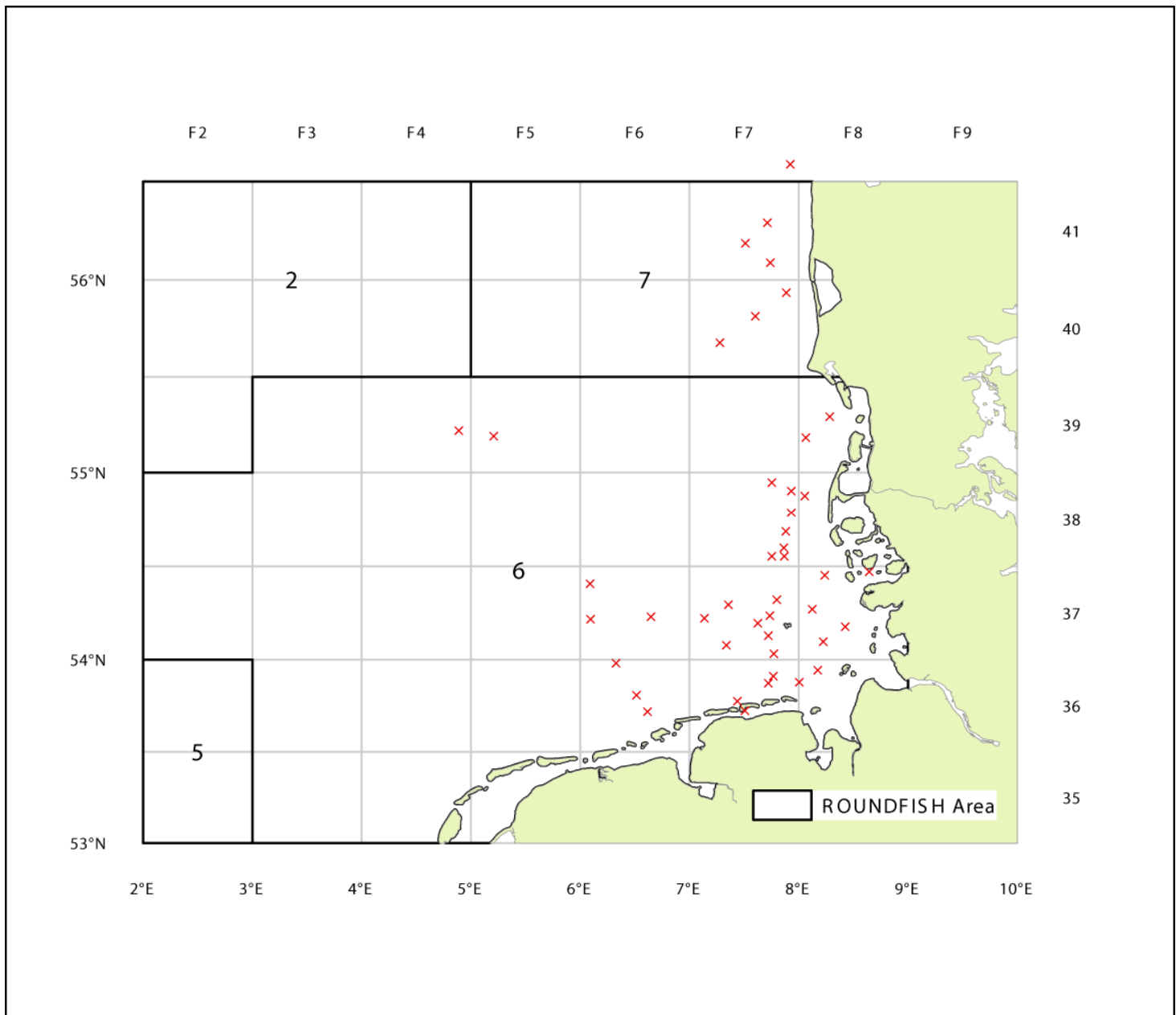


Method of Measurement

- Total length		male	69
- mm below		female	292
min length	37.5 [mm]	undefined	741
max length	67.5 [mm]	total numbers of data	1102

Crangon allmanni ♀

Geographical distribution of data used for calculating the length-weight relationship



Crangon allmanni ♀

Quarter: 1 - 3

$$TW [g] = a * L [mm]^b$$

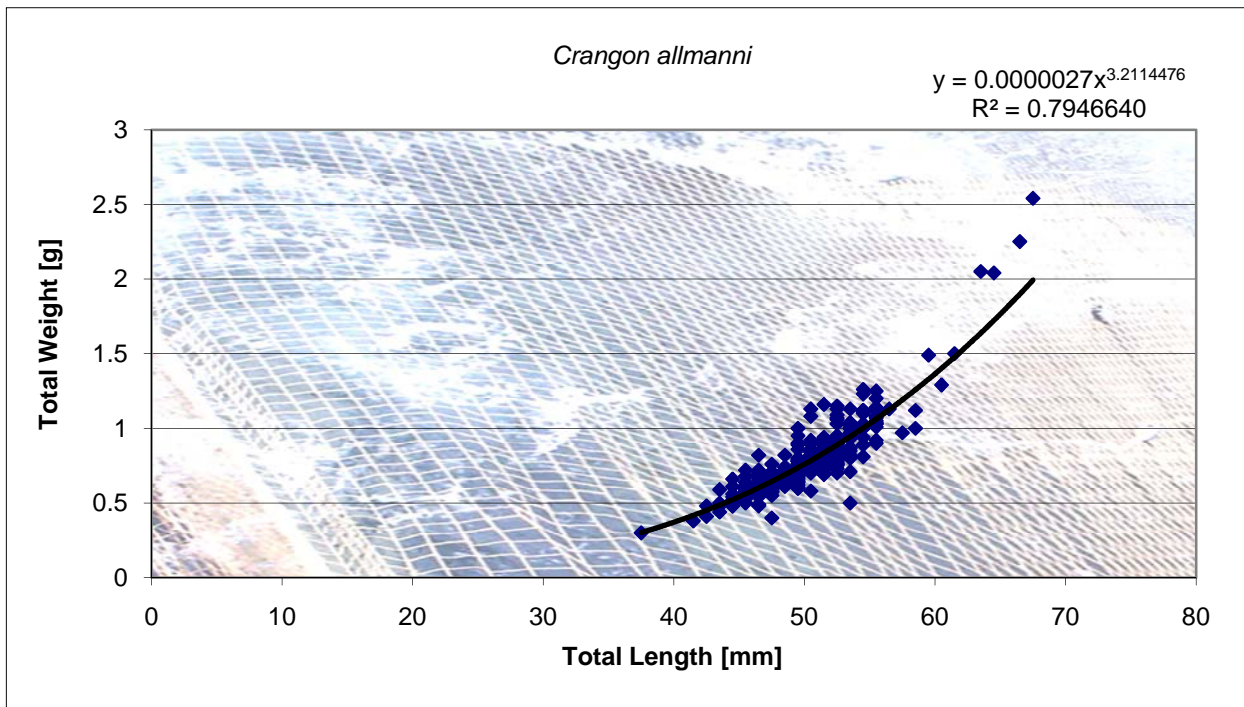
$a = 0.0000027$
 $b = 3.2114476$

data collected

time period : 2001 - 2010
 data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
285	5	2	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
285	-	-	1	4	-	-	-	2	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	292	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	292	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	-	-	-	-	233	59	-	-						-	-	-	-	-	-	-	-	-

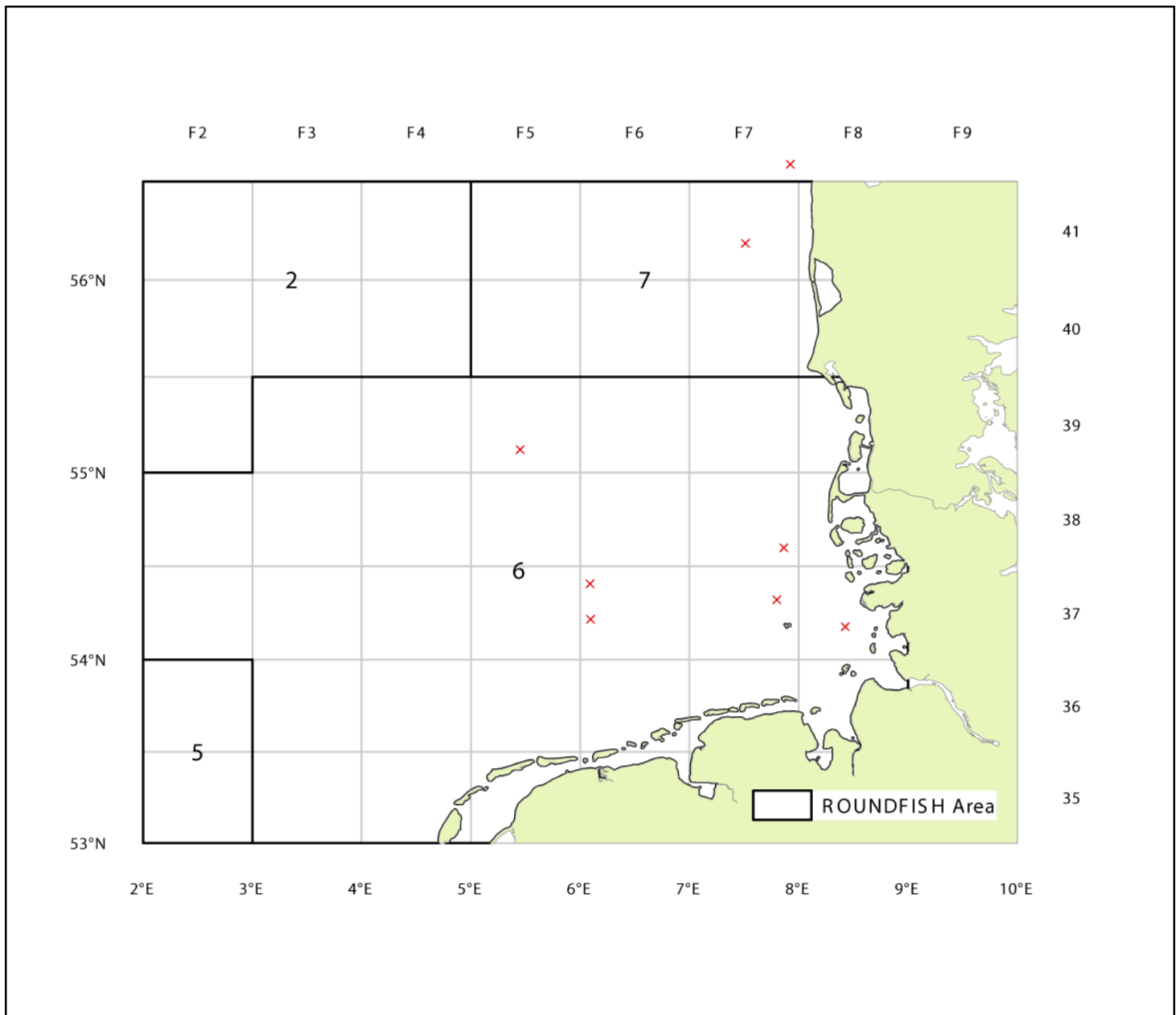


Method of Measurement

- Total length		male	-
- mm below		female	292
min length	37.5 [mm]	undefined	-
max length	67.5 [mm]	total numbers of data	292

Crangon allmanni ♂

Geographical distribution of data used for calculating the length-weight relationship



Crangon allmanni ♂

Quarter: 1

$$Tw [g] = a * L [mm]^b$$

a = 0.0000192

b = 2.6677417

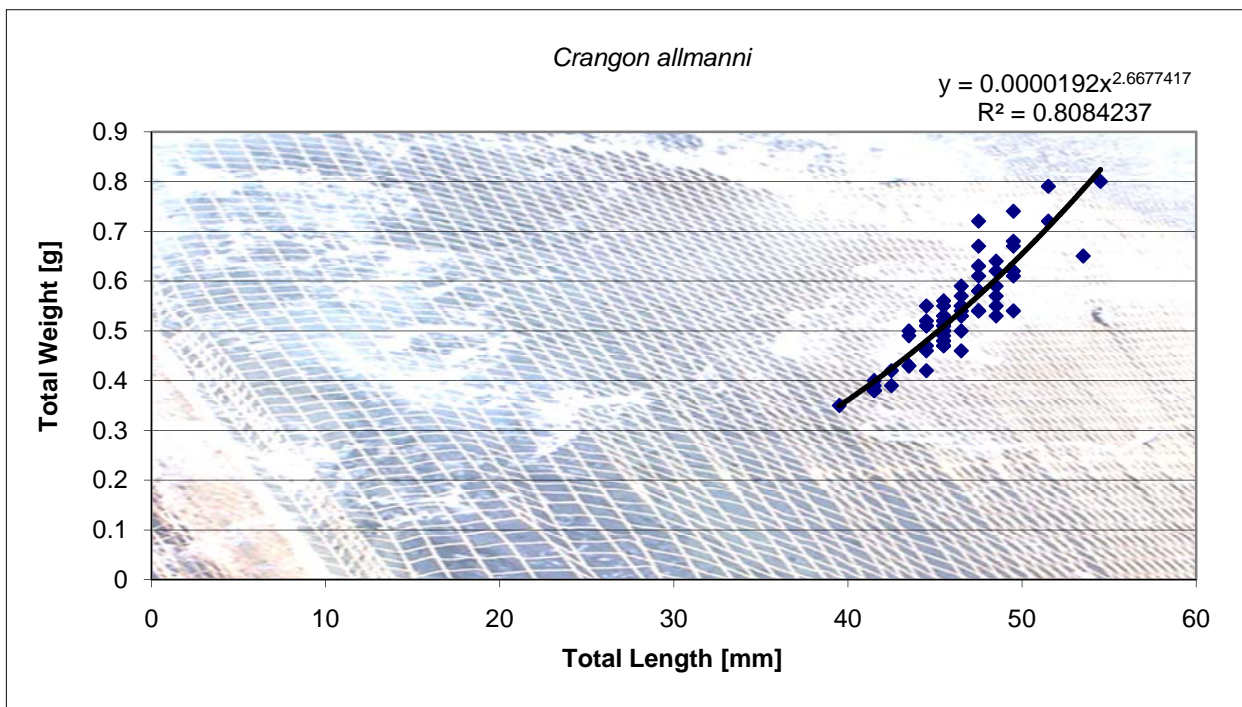
data collected

time period : 2009 - 2010

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
69	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
69	-	-	-	-	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	69	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	-	69	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	41	28	-	-	-	-	-	-	-	-	-	-	-			

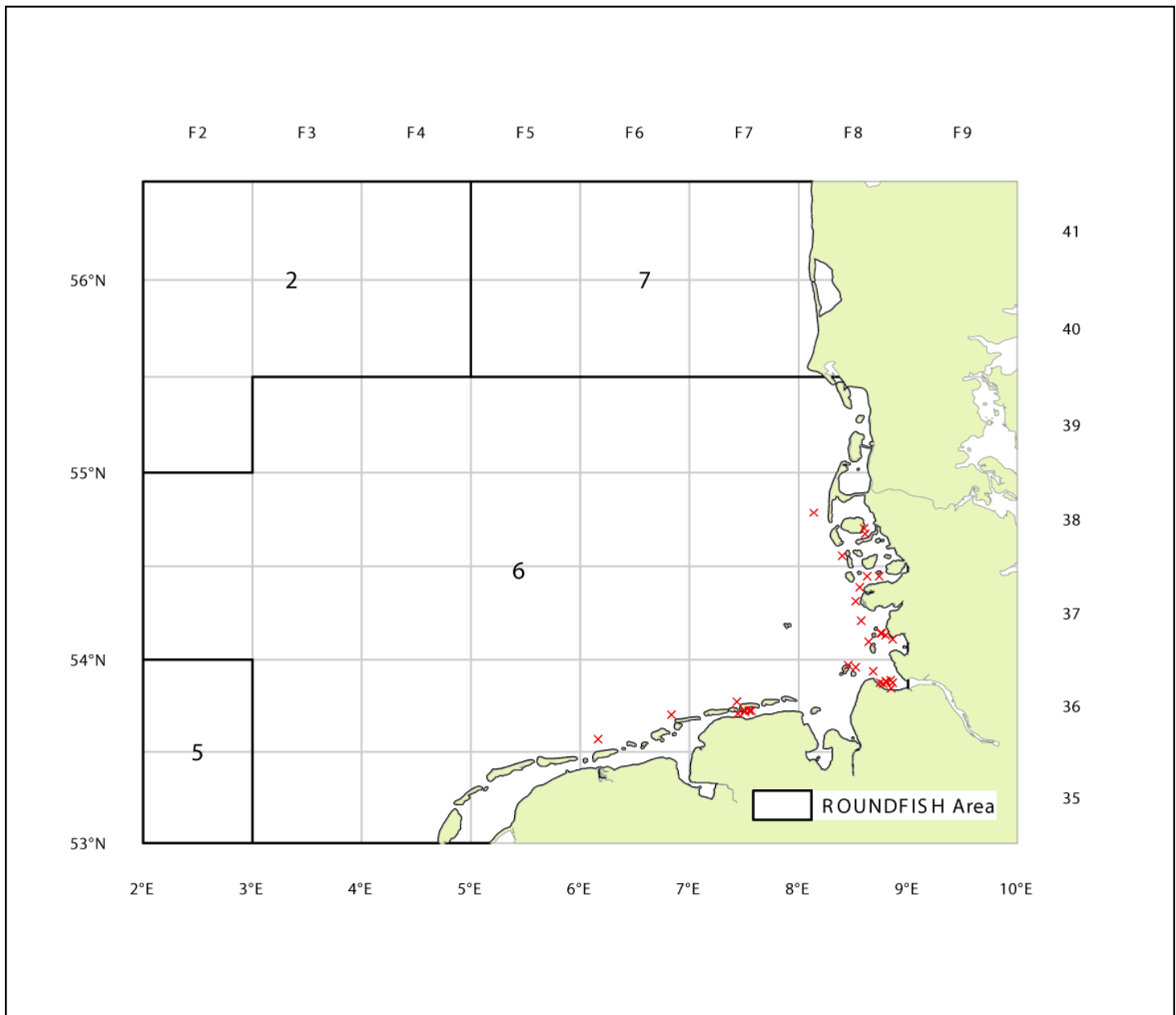


Method of Measurement

- Total length		male	69
- mm below		female	-
min length	39.5 [mm]	undefined	-
max length	54.5 [mm]	total numbers of data	69

Crangon crangon

Geographical distribution of data used for calculating the length-weight relationship



Crangon crangon

Quarter: 1 - 4

$$Tw [g] = a * L [mm]^b$$

a = 0.0000022

b = 3.278553

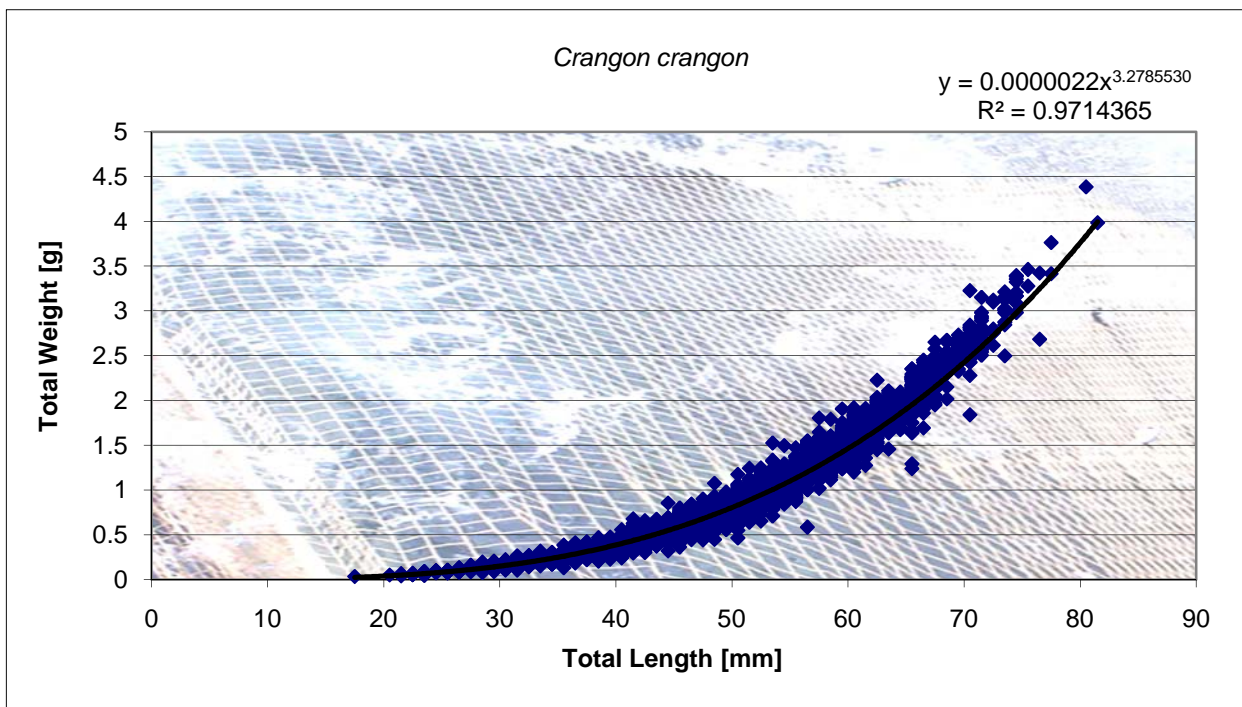
data collected

time period : 2002 - 2008

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
1504	1467	3360	1586																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
1504	-	-	427	1040	-	-	-	3360	1586	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	7917	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	7917	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	-	-	-	-	7917	-	-	-						-	-	-	-	-	-	-	-	-

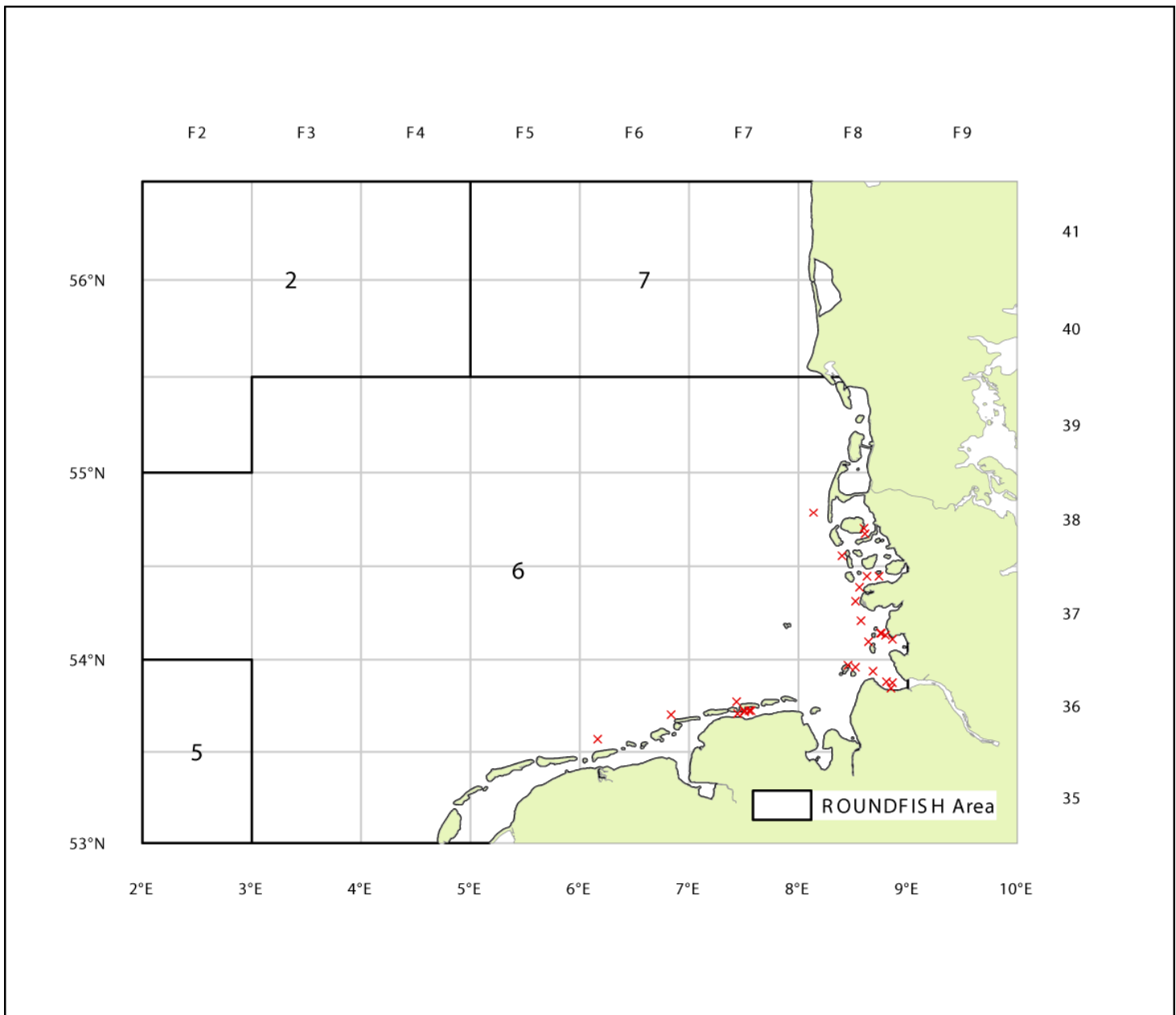


Method of Measurement

- Total length		male	3108
- mm below		female	4000
min length	17.5 [mm]	undefined	808
max length	81.5 [mm]	total numbers of data	7917

Crangon crangon ♀

Geographical distribution of data used for calculating the length-weight relationship



Crangon crangon



Quarter: 1 - 4

$$TW [g] = a * L [mm]^b$$

a = 0.0000021

b = 3.2878593

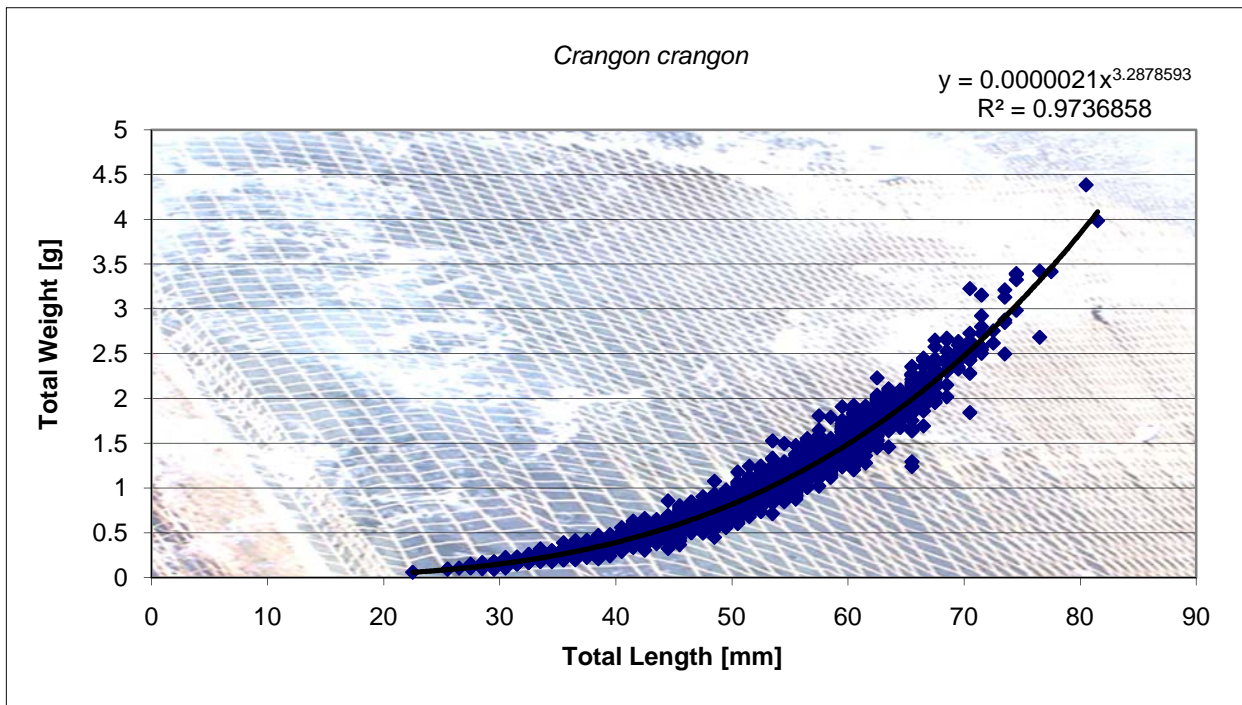
data collected

time period : 2002 - 2003

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
976	737	1814	473																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
976	-	-	254	483	-	-	-	1814	473	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	4000	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	4000	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	-	-	-	-	4000	-	-	-		-	-	-	-	-	-	-	-	-	

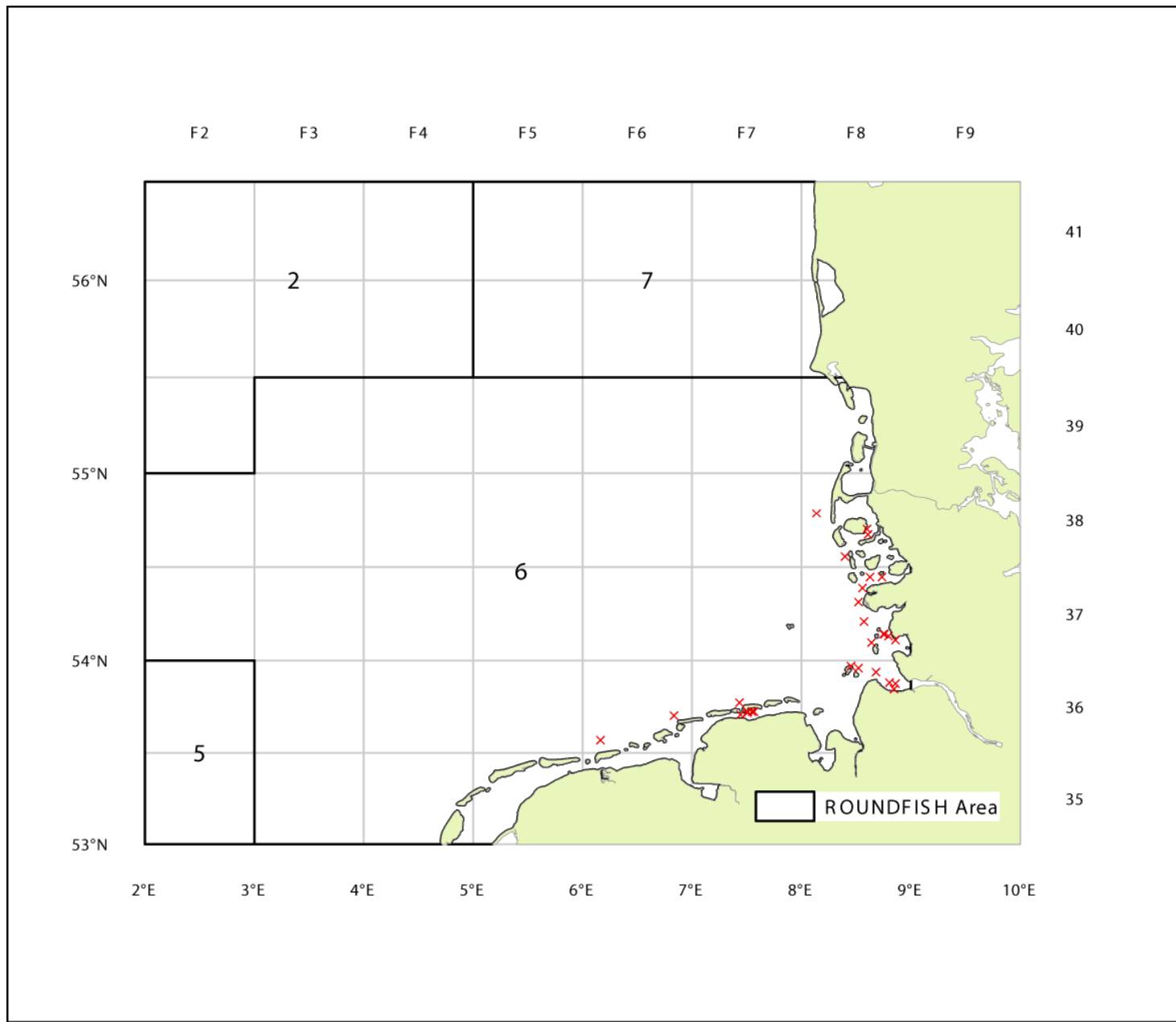


Method of Measurement

- Total length		male	-
- mm below		female	4000
min length	22.5 [mm]	undefined	-
max length	81.5 [mm]	total numbers of data	4000

Crangon crangon ♂

Geographical distribution of data used for calculating the length-weight relationship



Crangon crangon

Quarter: 1 - 4

$$Tw [g] = a * L [mm]^b$$

a = 0.0000049

b = 3.0488185

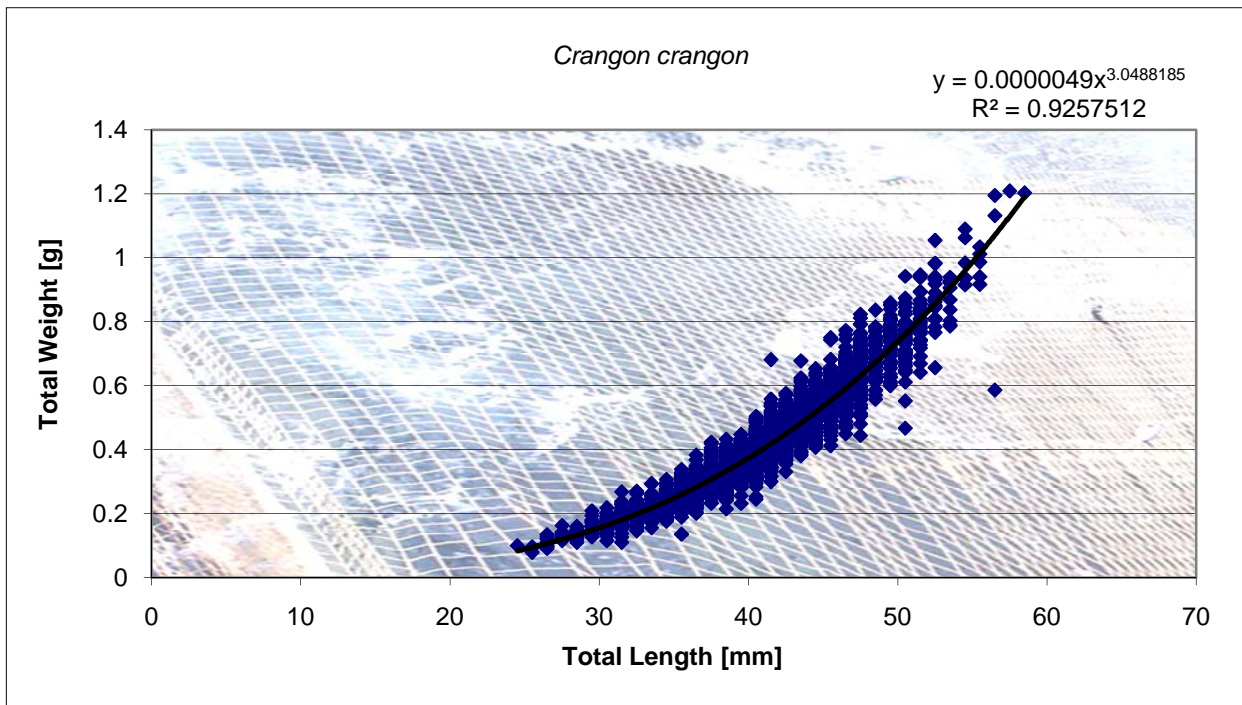
data collected

time period : 2002 - 2003

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
482	713	1488	425																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
482	-	-	164	549	-	-	-	1488	425	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	3108	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	3108	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	-	-	-	-	3108	-	-	-						-	-	-	-	-	-	-	-	-

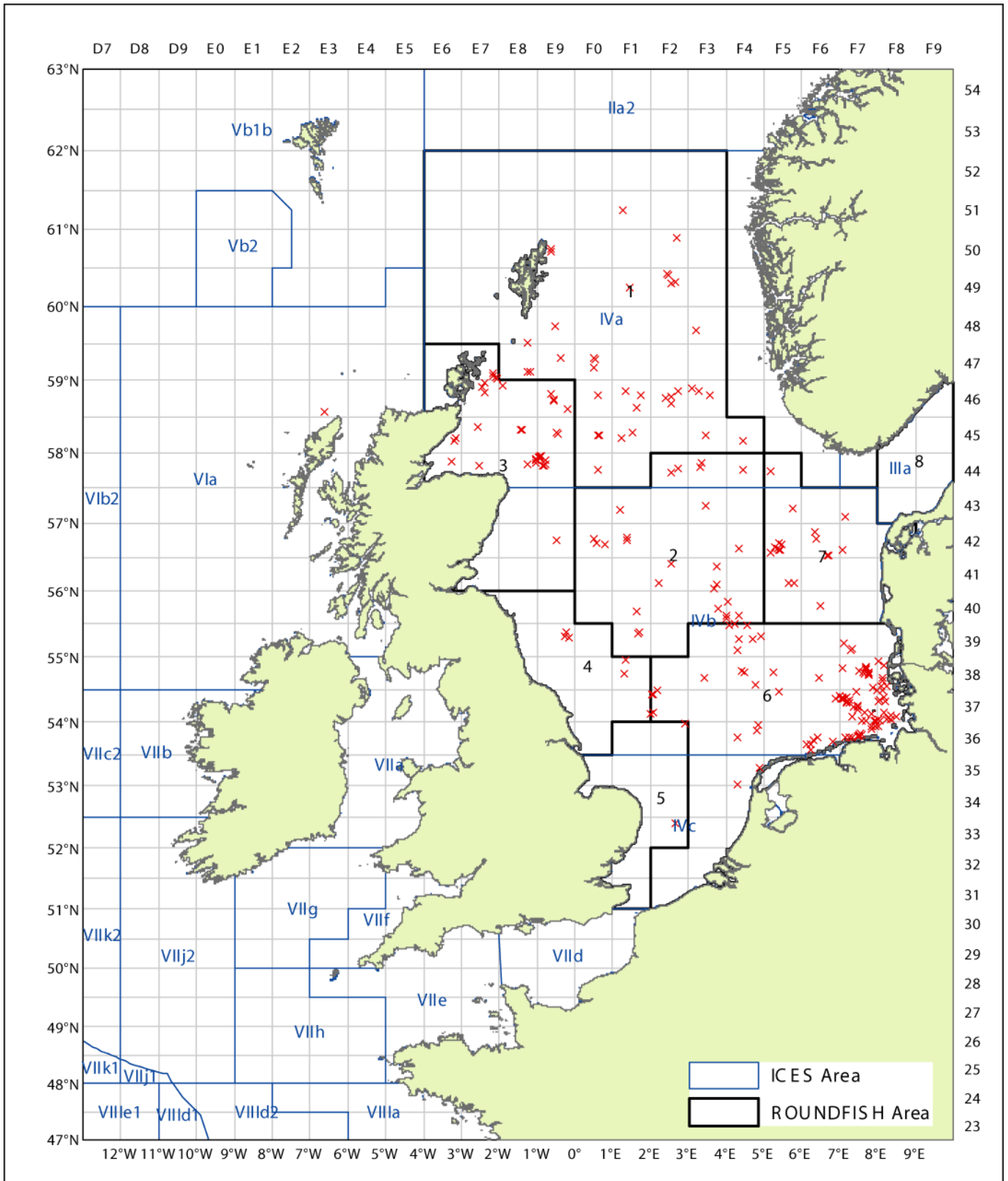


Method of Measurement

- Total length		male	3108
- mm below		female	-
min length	24.5 [mm]	undefined	-
max length	58.5 [mm]	total numbers of data	3108

Cyclopterus lumpus

Geographical distribution of data used for calculating the length-weight relationship



Cyclopterus lumpus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.063

b = 2.9405

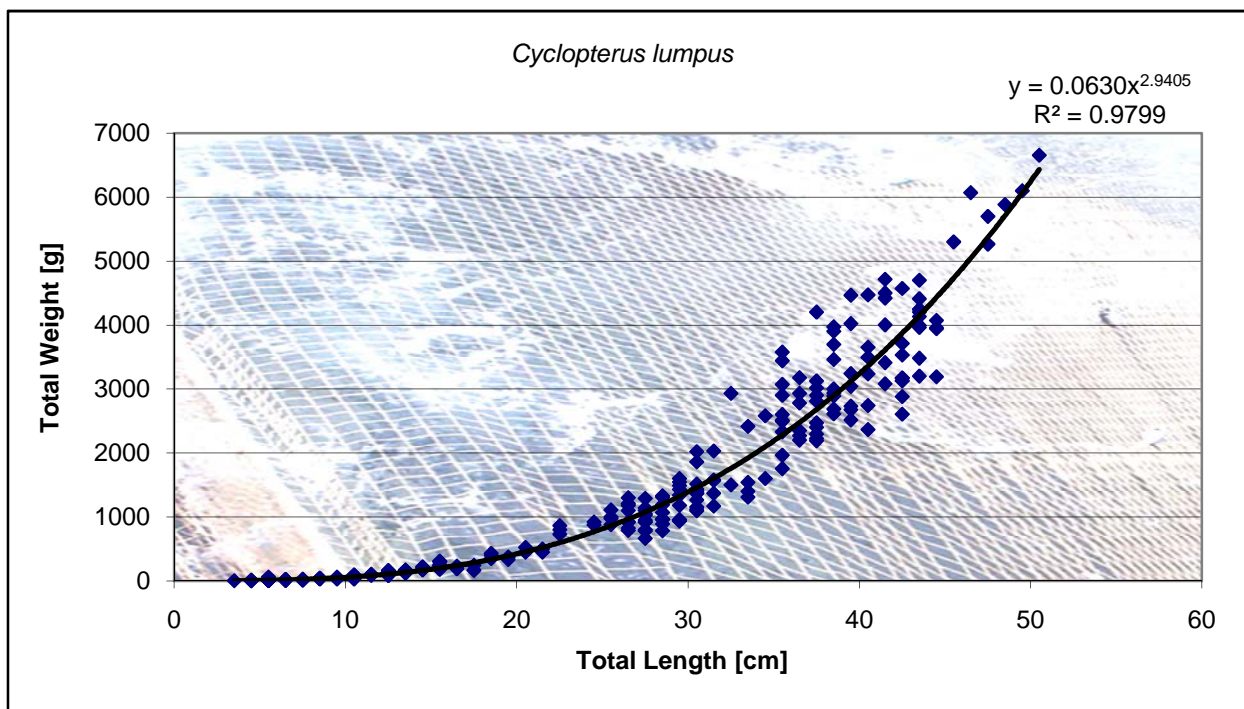
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
164	24	37	14																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
79	72	13	5	14	5	20	14	3	1	9	4								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	1	-	237	-	1	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	1	-	-	-	-	-	78	156	3	-	-	1	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
39	25	35	4	1	111	22	-	-	-	-	-	-	-	-	-	-	-	-	-

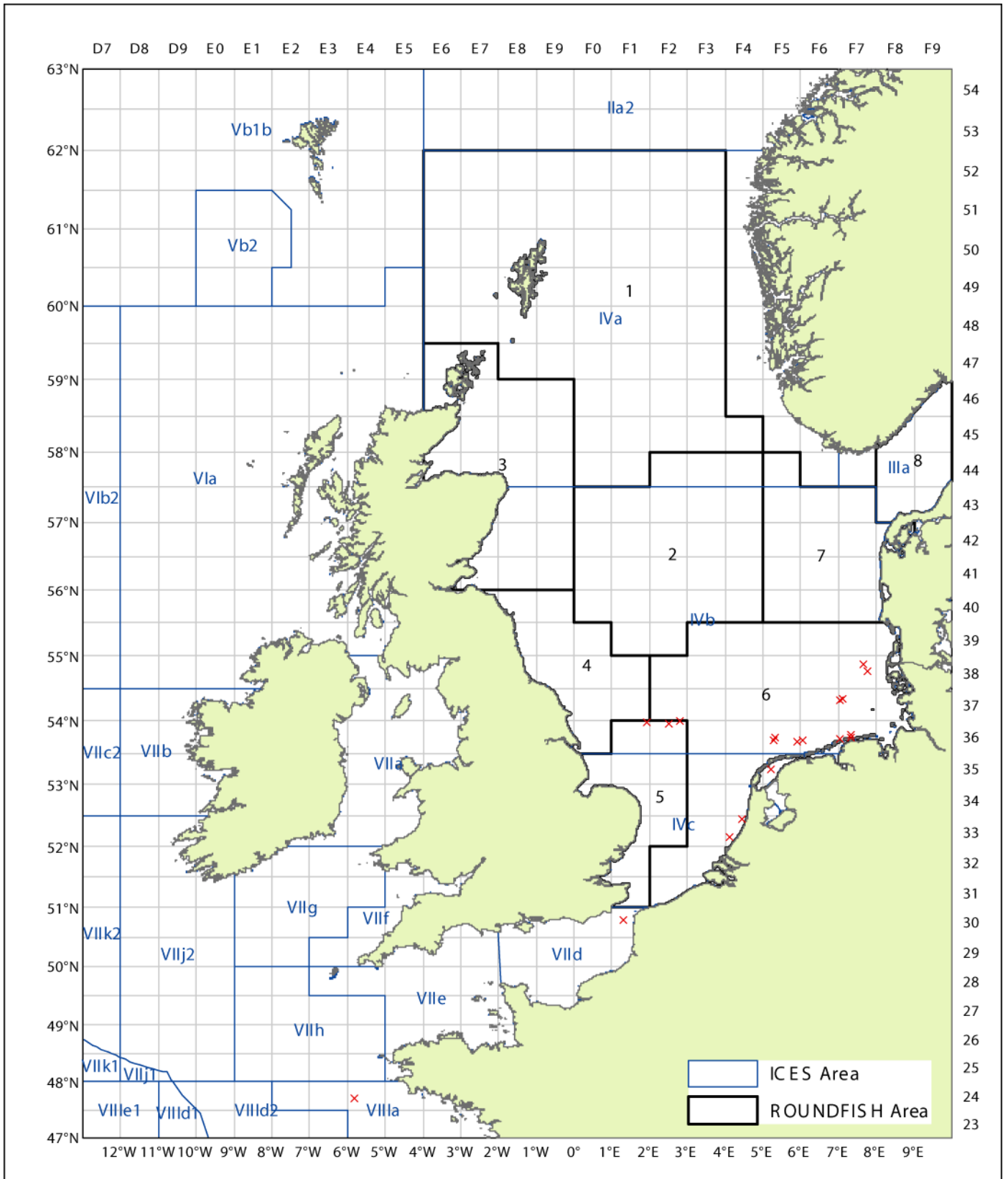


Method of Measurement

- Total length	male	2
- cm below	female	3
min length	undefined	234
max length	total numbers of data	239
		3.5 [cm]
		50.5 [cm]

Dicentrarchus labrax

Geographical distribution of data used for calculating the length-weight relationship



Dicentrarchus labrax

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0258

b = 2.7287

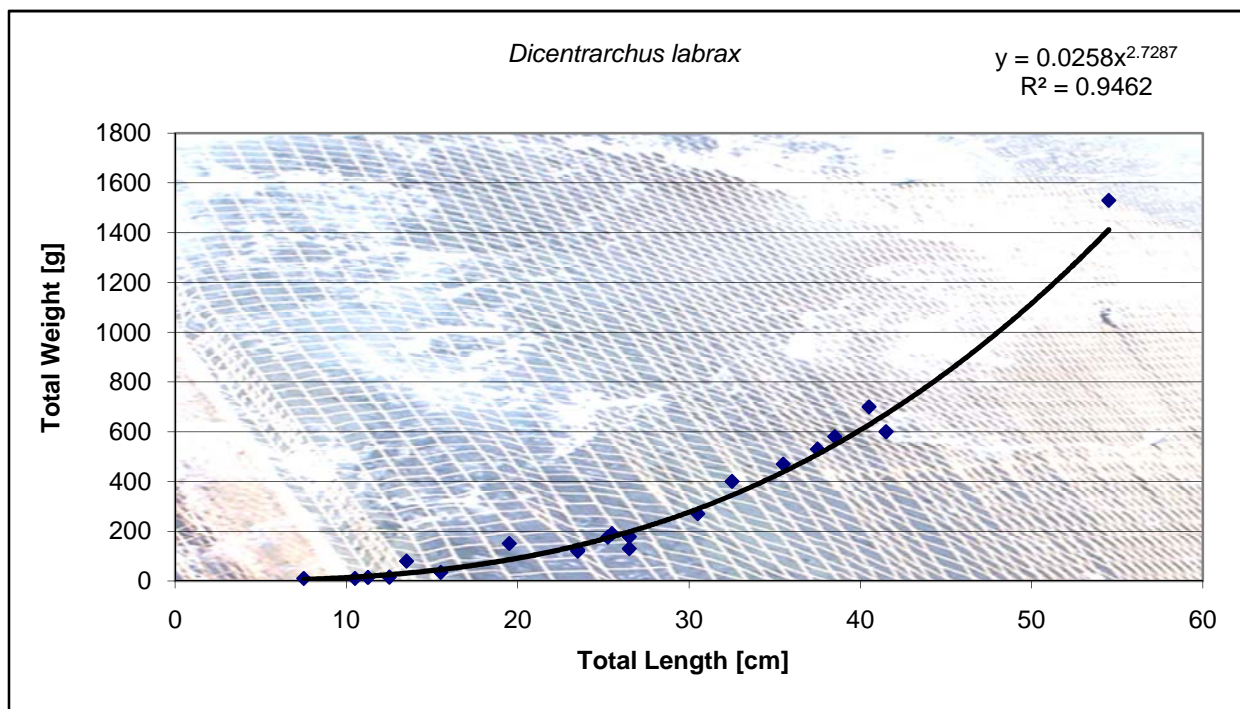
data collected

time period : 1990 - 2004

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
9	5	1	6																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
6	2	1	1	3	1	-	-	1	-	1	5								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	19	-	-	2	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	16	3	-	-	-	-	-	-	-	1	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	1	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-

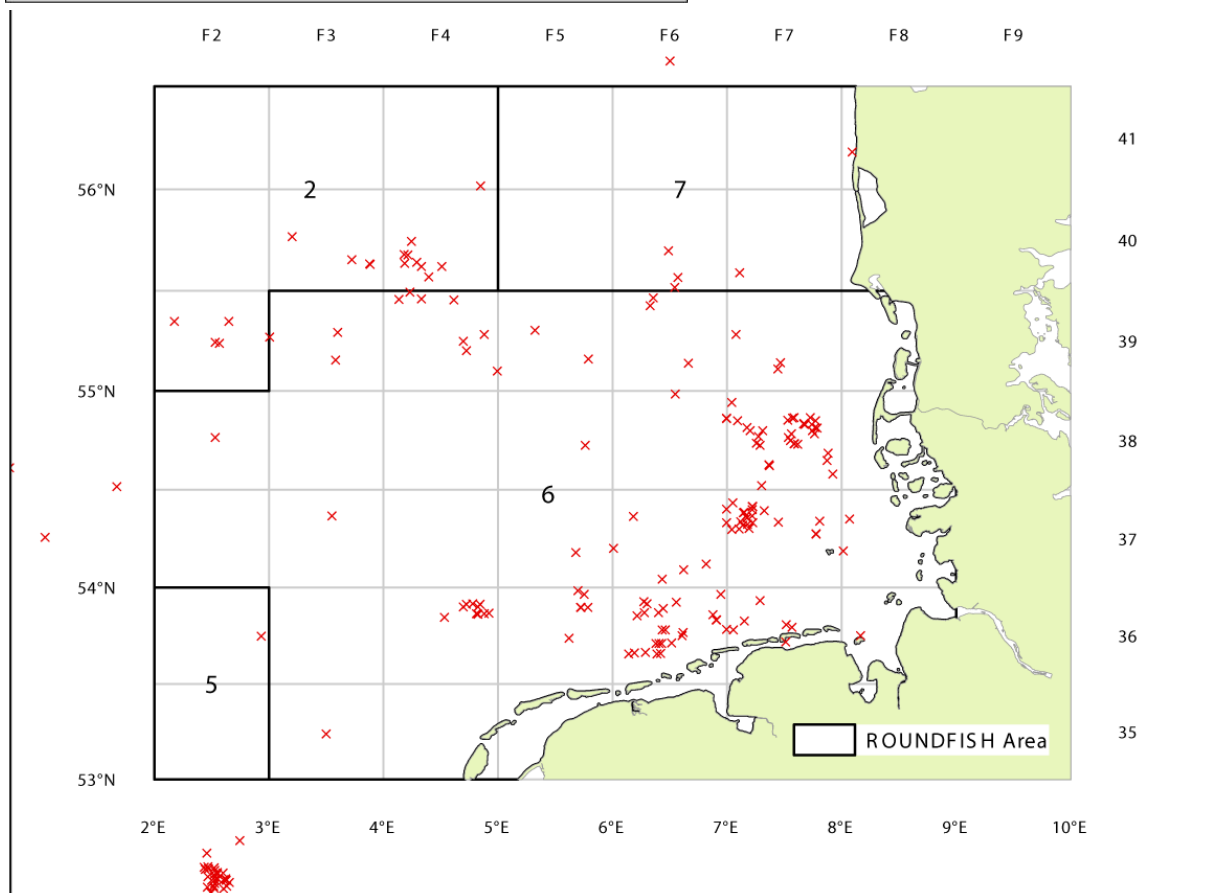
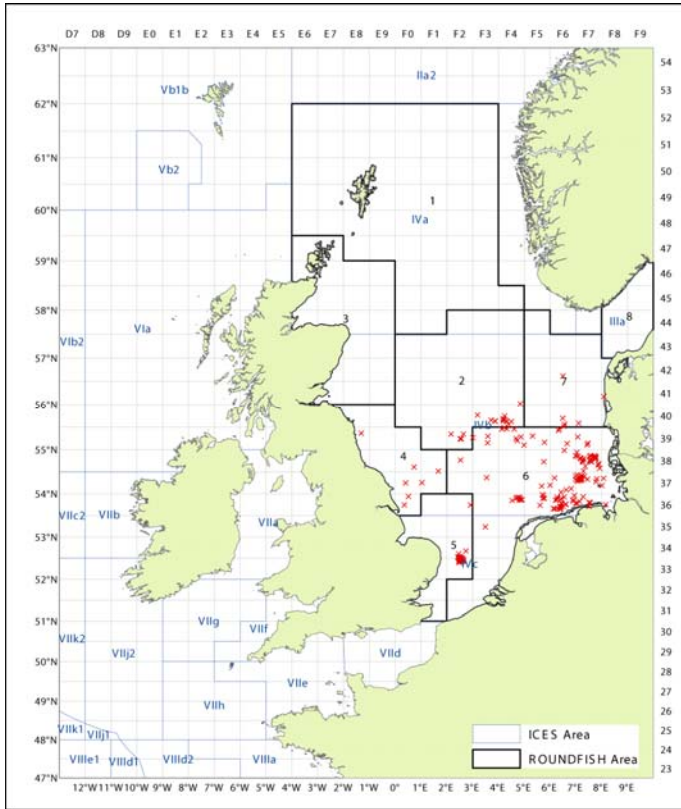


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	7.5 [cm]	undefined	21
max length	54.5 [cm]	total numbers of data	21

Echiichthys vipera

Geographical distribution of data used for calculating the length-weight relationship



Echiichthys vipera

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0115

b = 2.9894

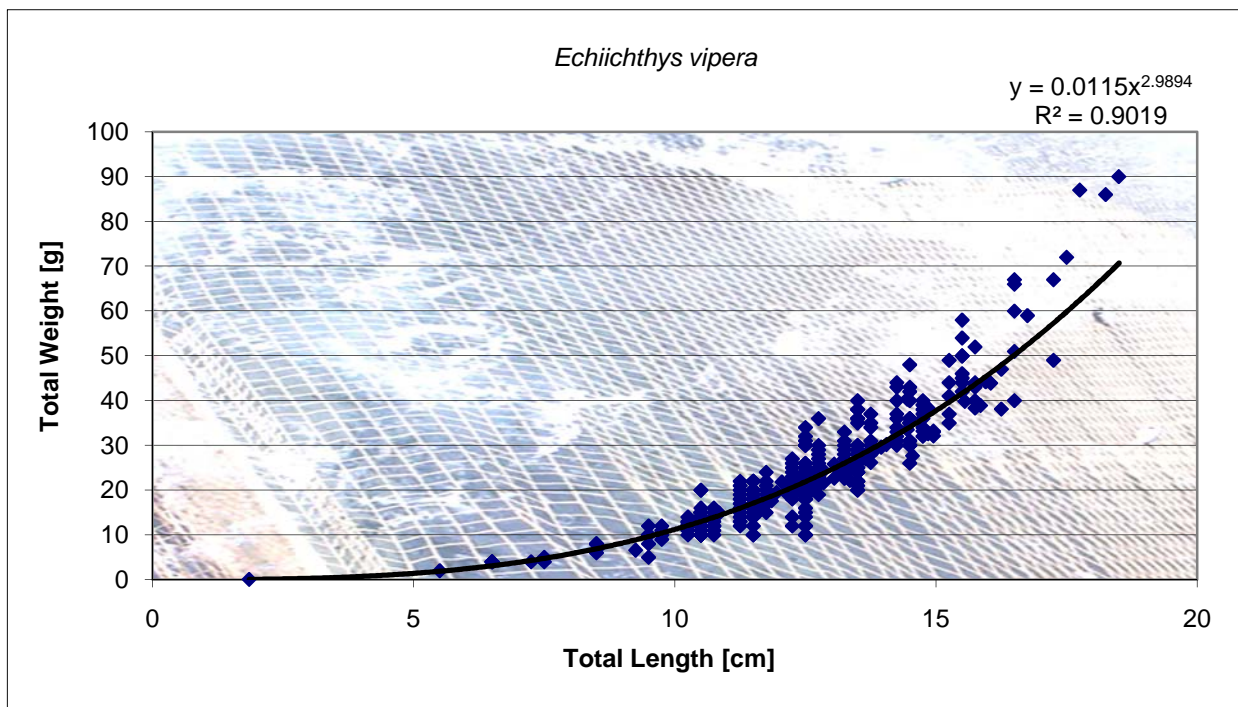
data collected

time period : 2000 - 2010

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
42	127	188	23																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
32	9	1	1	126	-	57	128	3	2	11	10									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	380	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	-	350	30	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	18	-	113	30	212	7	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

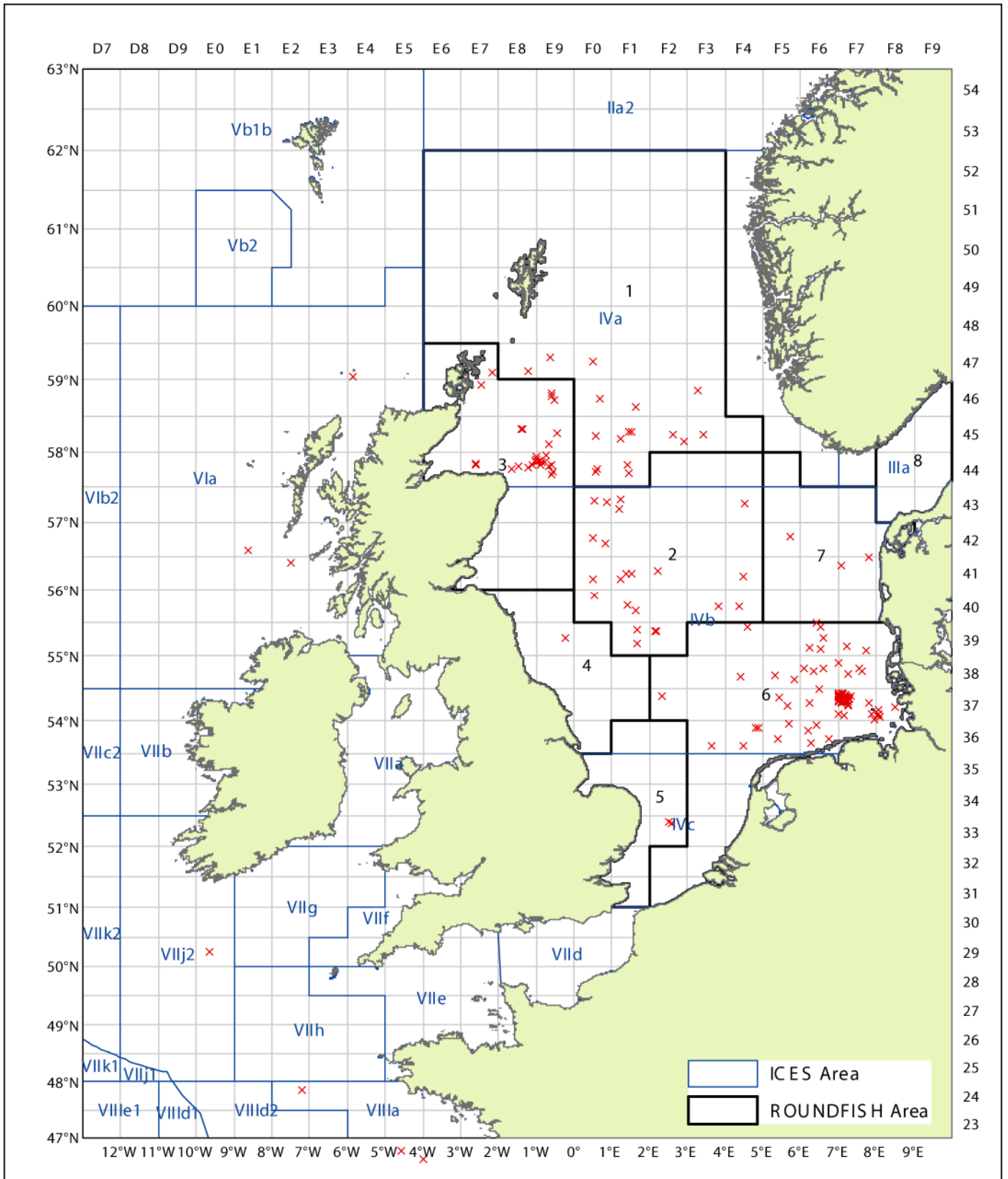


Method of Measurement

- Total length		male	-
- cm below, mm below		female	-
min length	1.85 [cm]	undefined	380
max length	18.5 [cm]	total numbers of data	380

Engraulis encrasicolus

Geographical distribution of data used for calculating the length-weight relationship



Engraulis encrasicolus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0041

b = 3.147

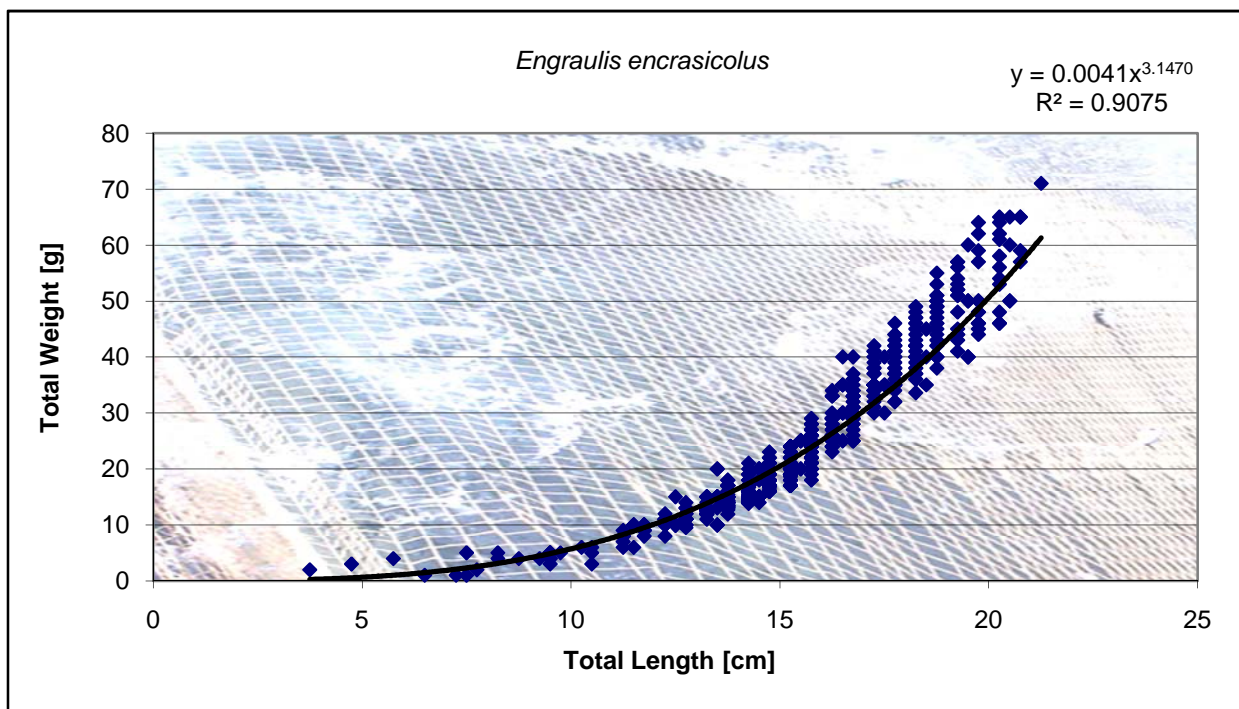
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
331	45	221	19																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
166	159	6	2	3	40	197	22	2	3	14	2								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	608	-	3	2	3	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	145	462	1	-	-	3	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	2	-	3	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9			1A	1B	1C	1D	1E	1F	2G	2H	2J
22	156	132	1	2	291	4	-	-			-	-	-	-	-	-	-	-	-

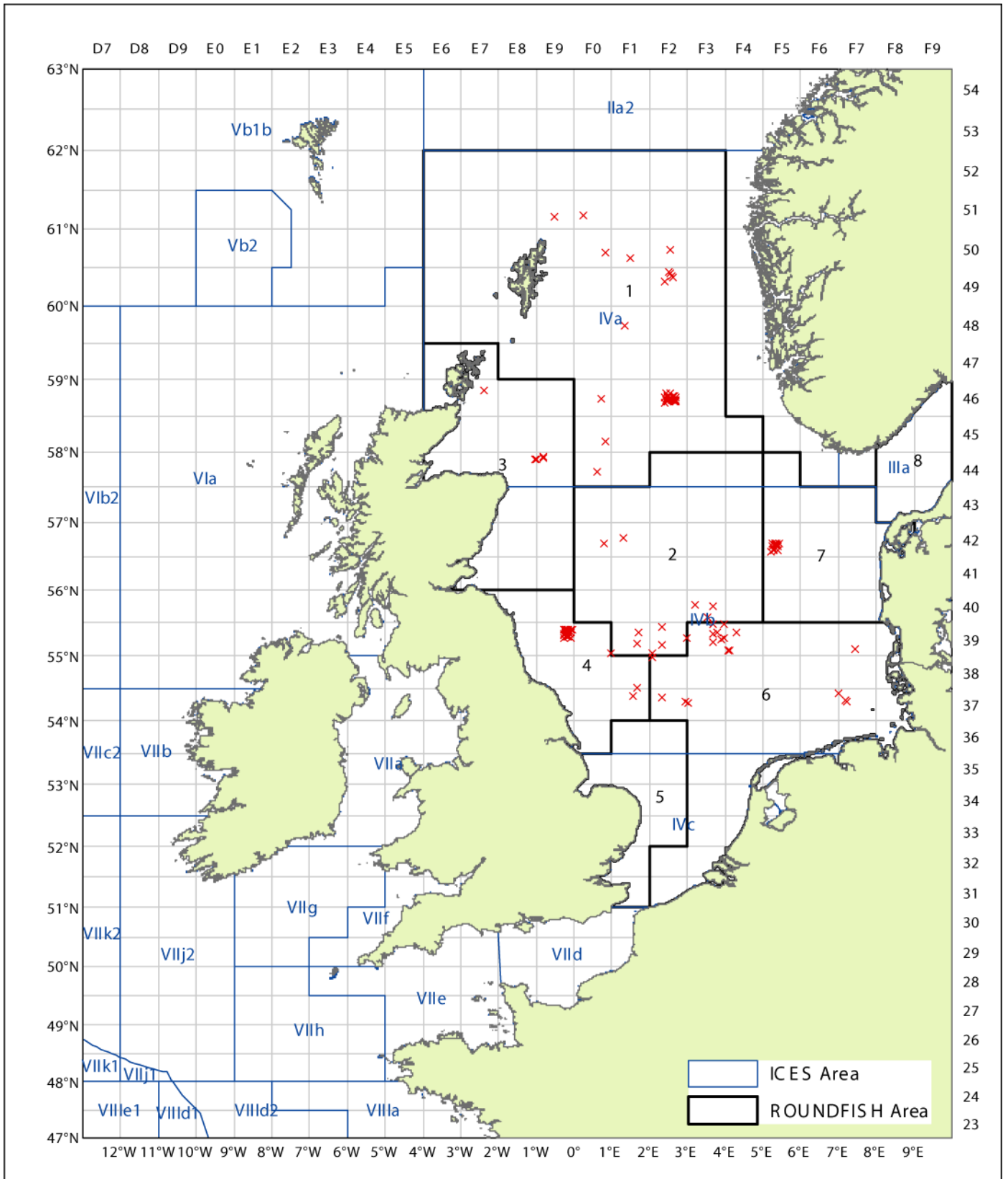


Method of Measurement

- Total length		male	186
- 1/2 cm below		female	194
min length	3.75 [cm]	undefined	236
max length	21.25 [cm]	total numbers of data	616

Entelurus aequoreus

Geographical distribution of data used for calculating the length-weight relationship



Entelurus aequoreus

Quarter: 1 - 3

$$TW [g] = a * L [cm]^b$$

a = 0.0003

b = 2.7807

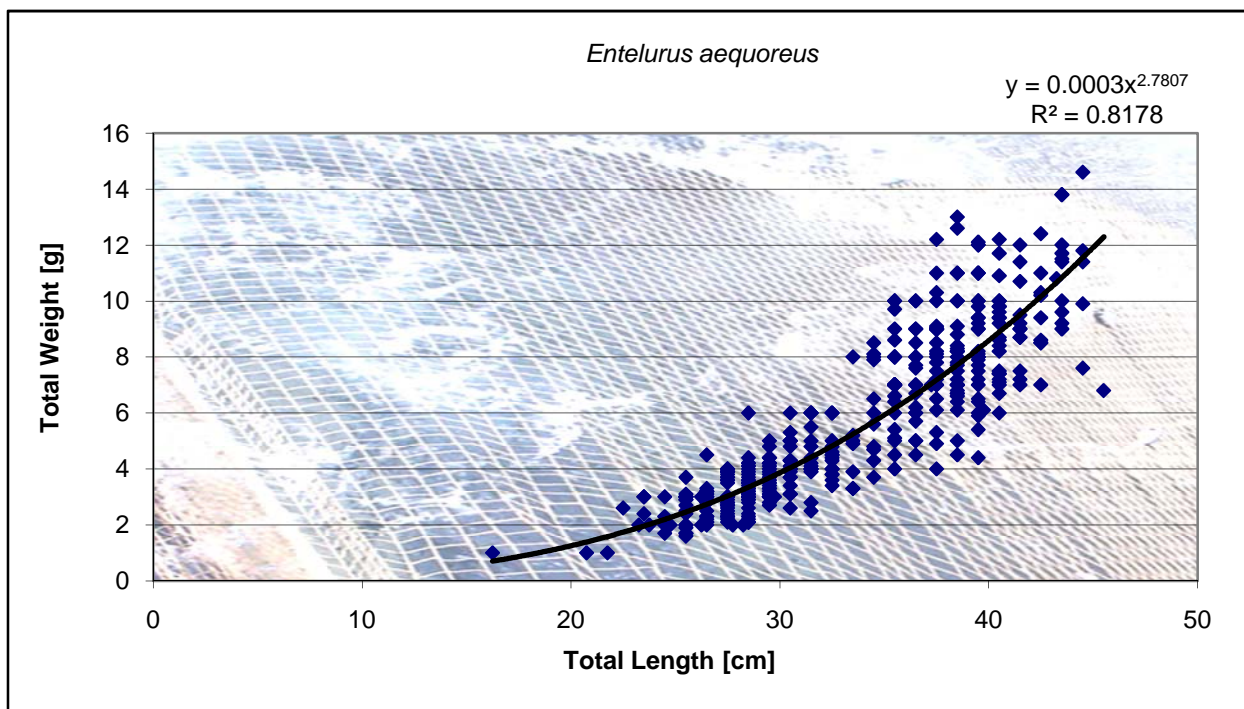
data collected

time period : 2004 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
32	66	307	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
17	15	-	7	59	-	121	186	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	405	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	199	206	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
114	13	54	123	-	20	31	-	-	-	-	-	-	-	-	-	-	-		

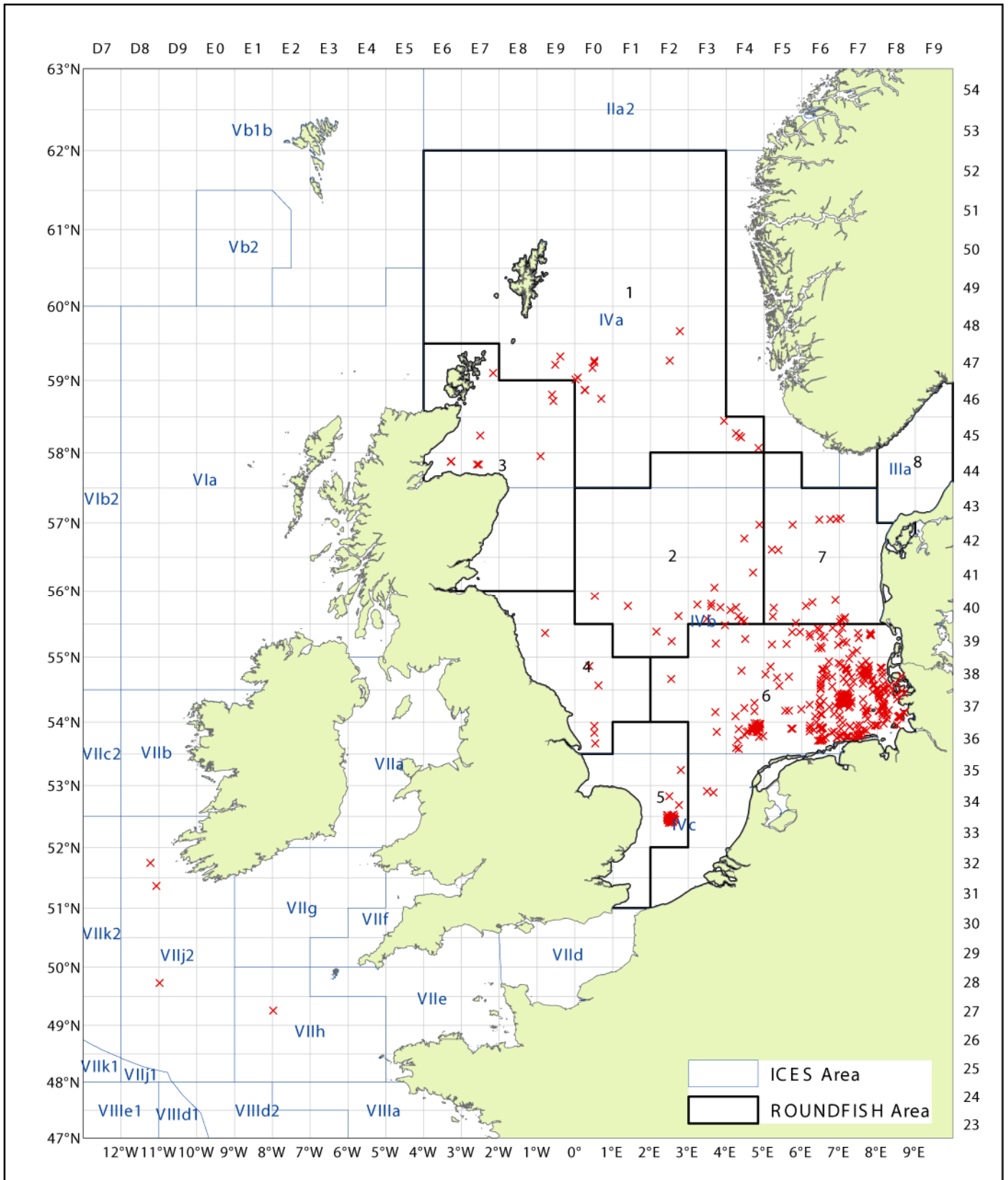


Method of Measurement

- Total length		male	70
- cm below		female	74
min length	16.5 [cm]	undefined	261
max length	45.5 [cm]	total numbers of data	405

Eutrigla gurnardus

Geographical distribution of data used for calculating the length-weight relationship



Eutrigla gurnardus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0112

b = 2.8774

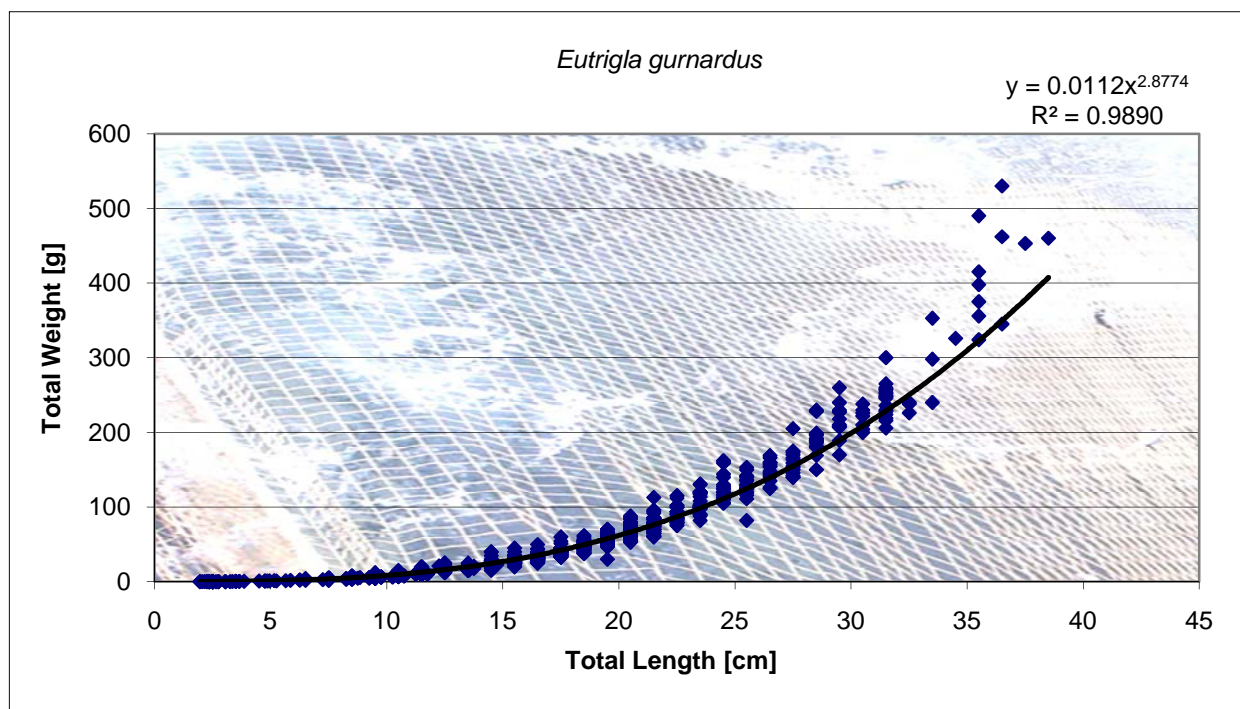
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
346	150	190	36																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
171	171	4	6	139	5	77	99	14	3	16	17											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	718	-	-	4	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	138	544	36	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	1	3	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
20	127	118	6	34	395	18	-	-						-	-	-	-	-	-	-	-	-

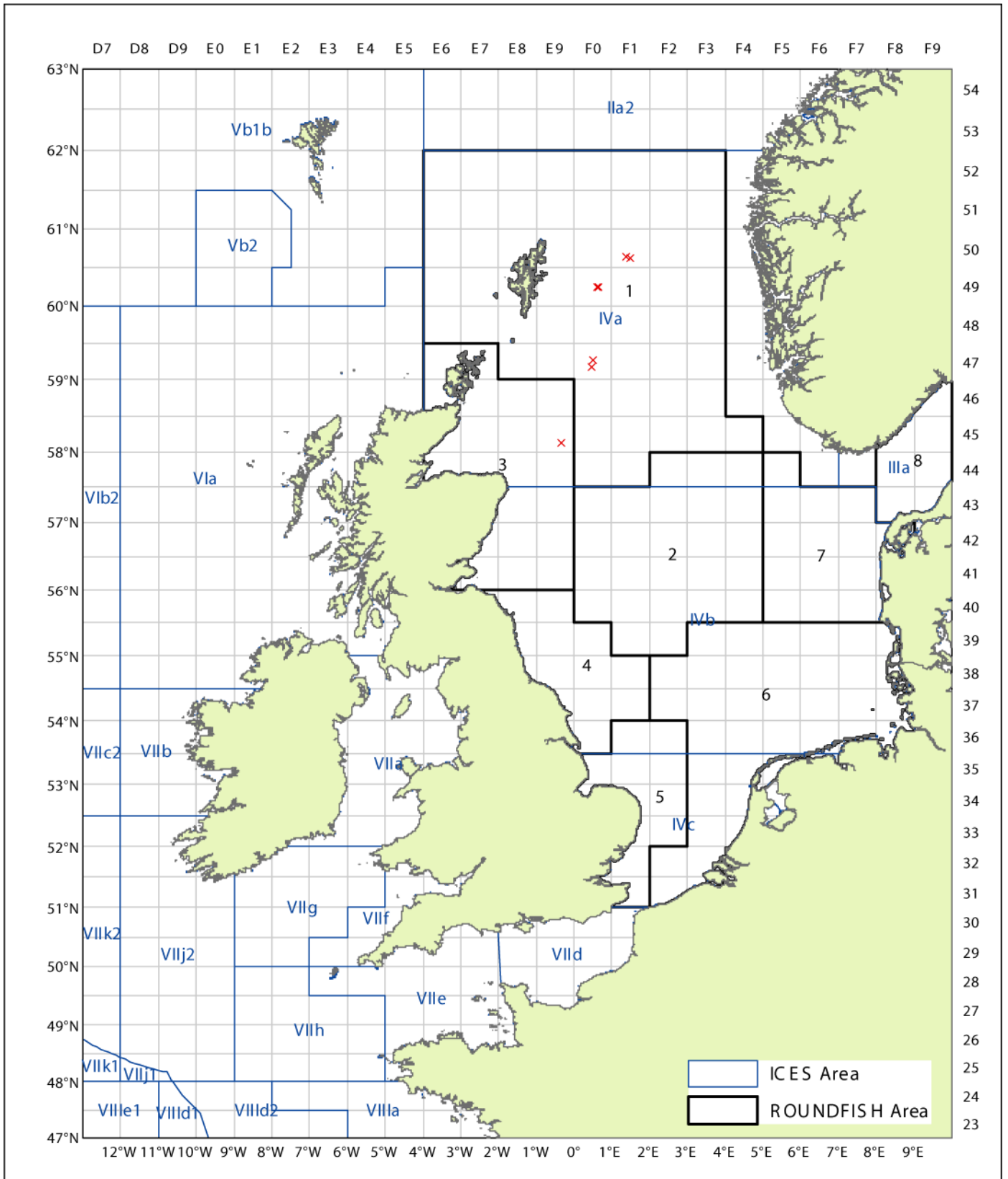


Method of Measurement

- Total length		male	-
- cm below, mm below		female	-
min length	1.95 [cm]	undefined	722
max length	38.5 [cm]	total numbers of data	722

Gadiculus argenteus

Geographical distribution of data used for calculating the length-weight relationship



Gadiculus argenteus

Quarter: 1 - 2

$$TW [g] = a * L [cm]^b$$

a = 0.0154

b = 2.7217

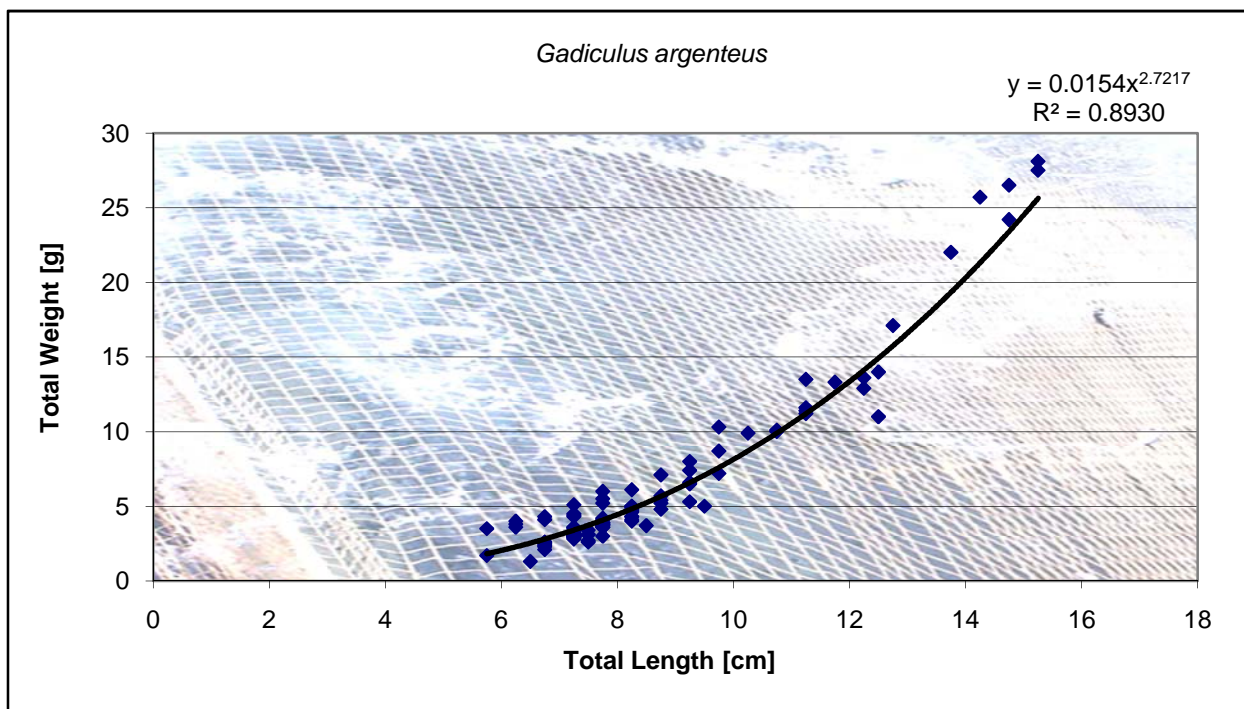
data collected

time period : 1995 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
83	19	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
71	12	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
101	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

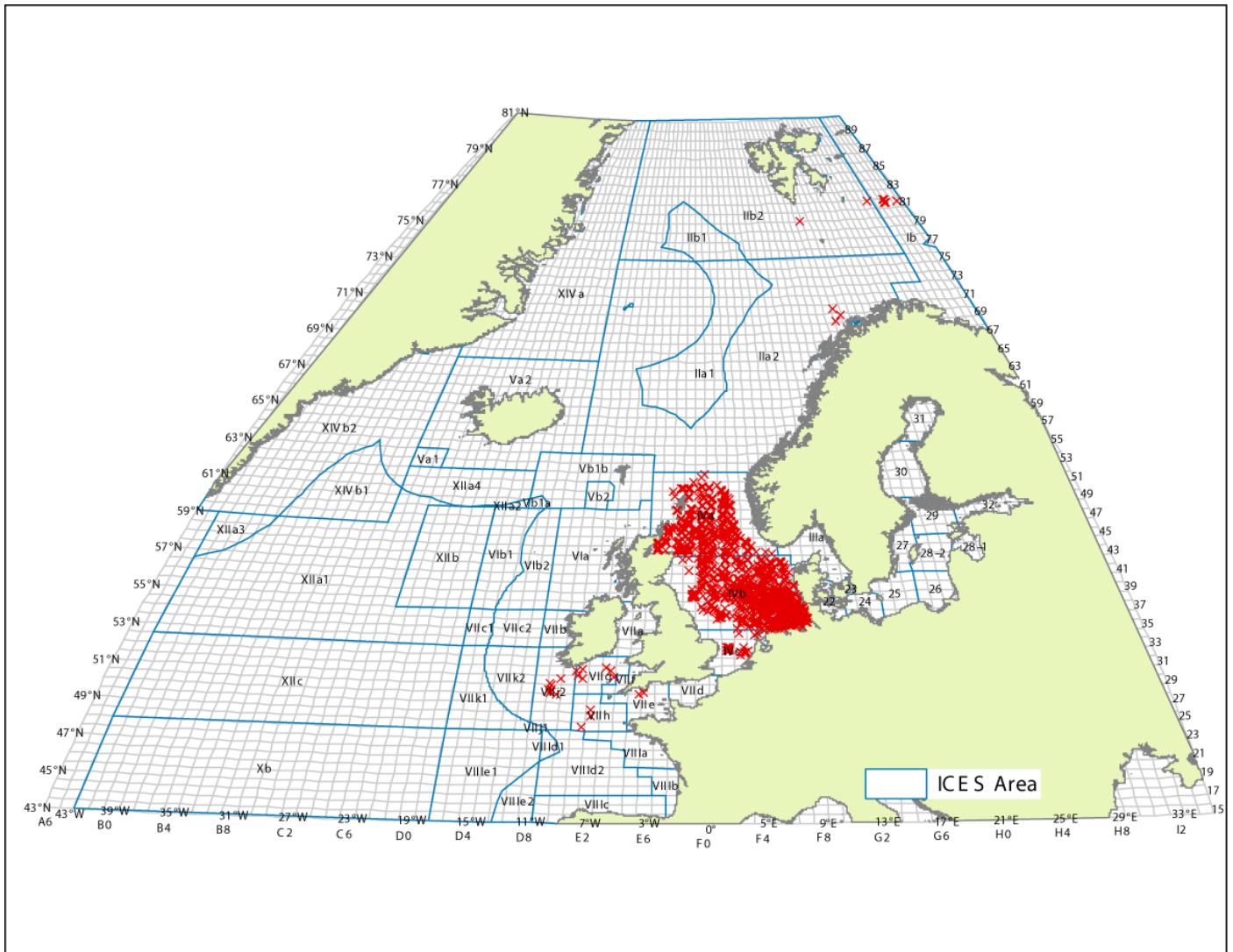


Method of Measurement

- Total length		male	-
- cm below, 1/2 cm below		female	-
min length	5.75 [cm]	undefined	102
max length	15.25 [cm]	total numbers of data	102

Gadus morhua

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0065

b = 3.0982

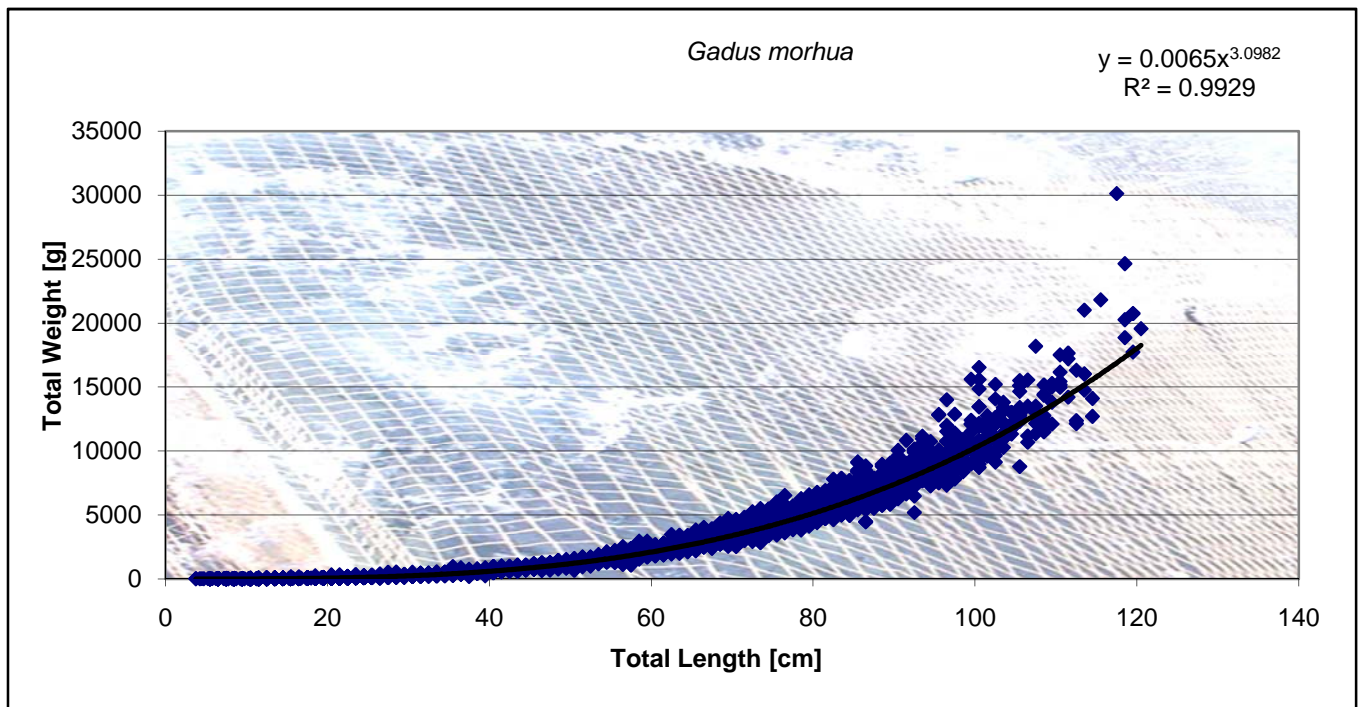
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
6400	2529	5999	1737																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
3280	2769	351	101	1386	1042	2908	2446	645	1210	445	82								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
711	833	-	15056	-	-	65	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
711	451	382	-	-	-	-	7084	7935	37	-	-	-	-	-	-	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
47	2	14	-	-	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
4874	2088	1601	1716	129	2644	2003	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	

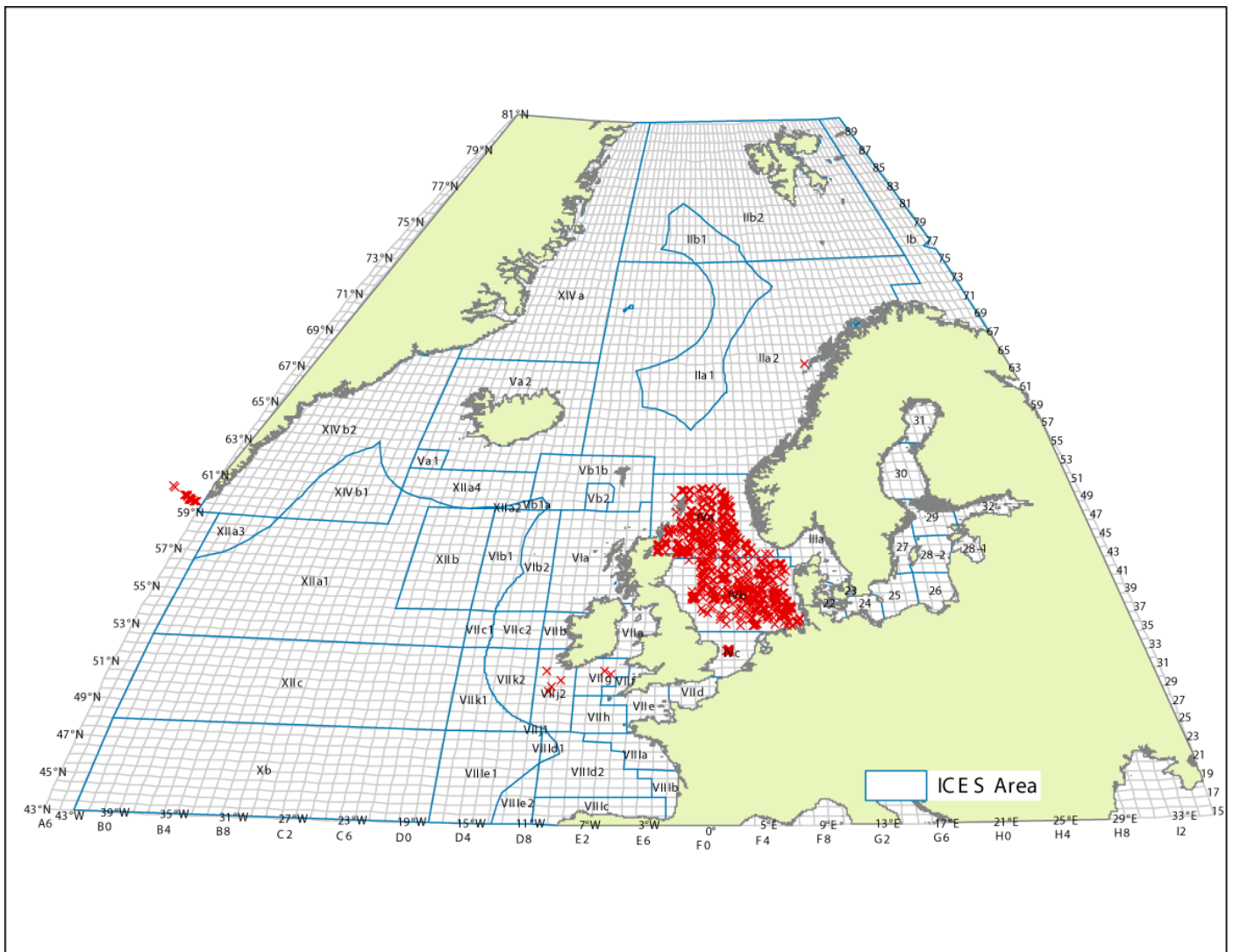


Method of Measurement

- Total length		male	6647
- cm below		female	6608
min length	3.5 [cm]	undefined	3410
max length	120.5 [cm]	total numbers of data	16665

Gadus morhua ♀

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0061

b = 3.1144

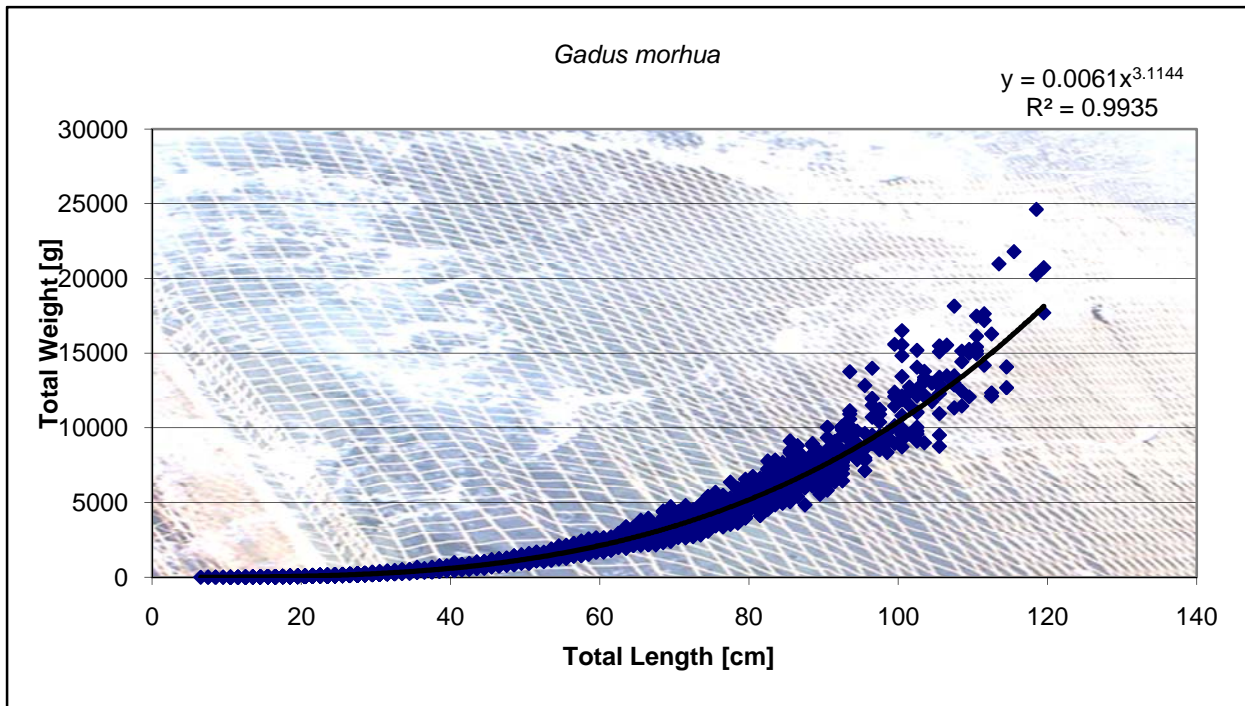
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
3024	1239	3061	46																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
1464	1400	160	38	675	526	1260	1459	342	-	30	16									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
314	2	-	7042	-	-	12	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	2	-	-	-	-	-	3628	3413	1	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
7	-	5	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea											NAFO									
1	2	3	4	5	6	7	8	9			1A	1B	1C	1D	1E	1F	2G	2H	2J	
2526	995	768	847	124	840	918	-	-			-	-	-	-	-	314	-	-	-	

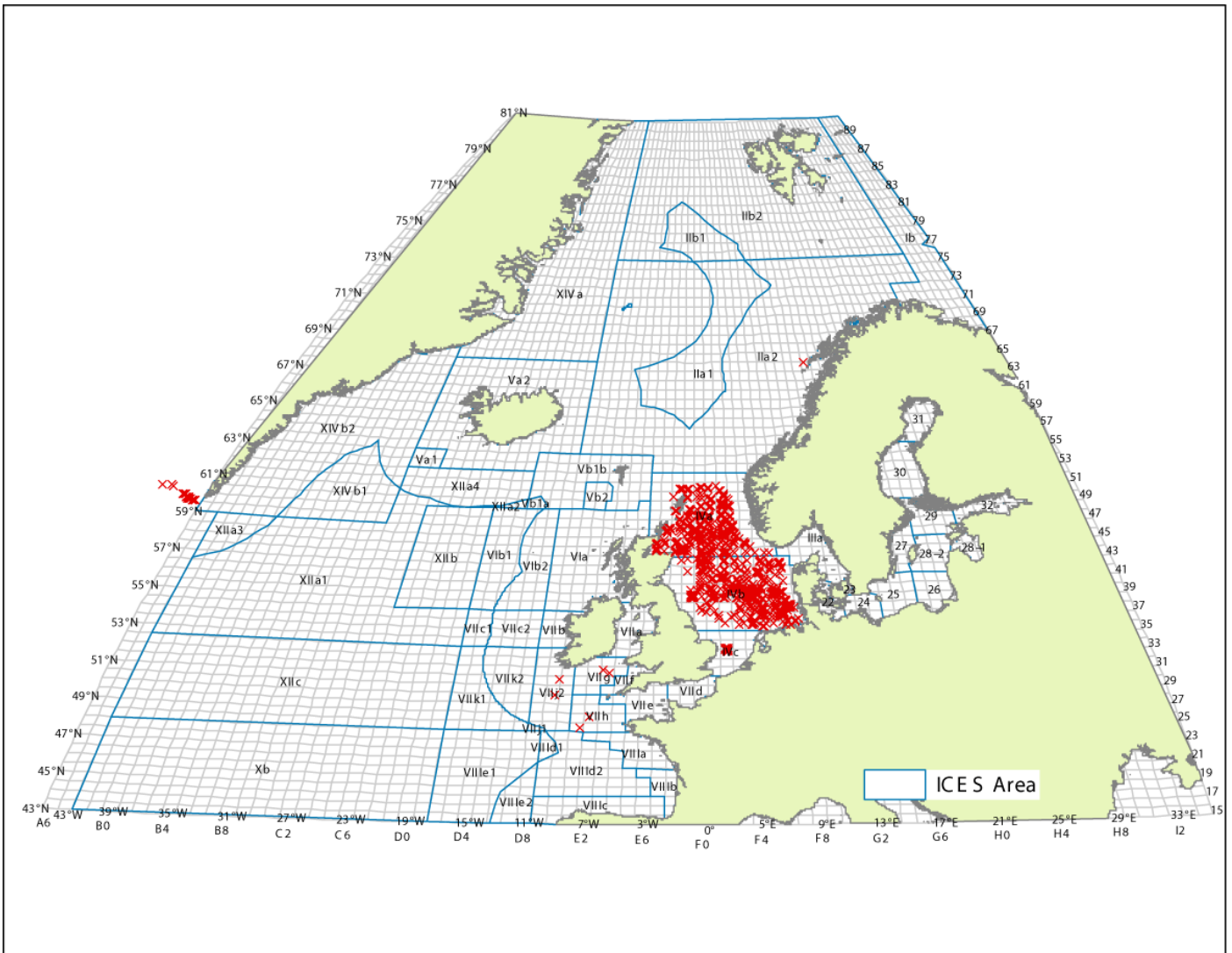


Method of Measurement

- Total length		male	-
- cm below		female	7370
min length	6.5 [cm]	undefined	-
max length	119.5 [cm]	total numbers of data	7370

Gadus morhua ♂

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0062

b = 3.1113

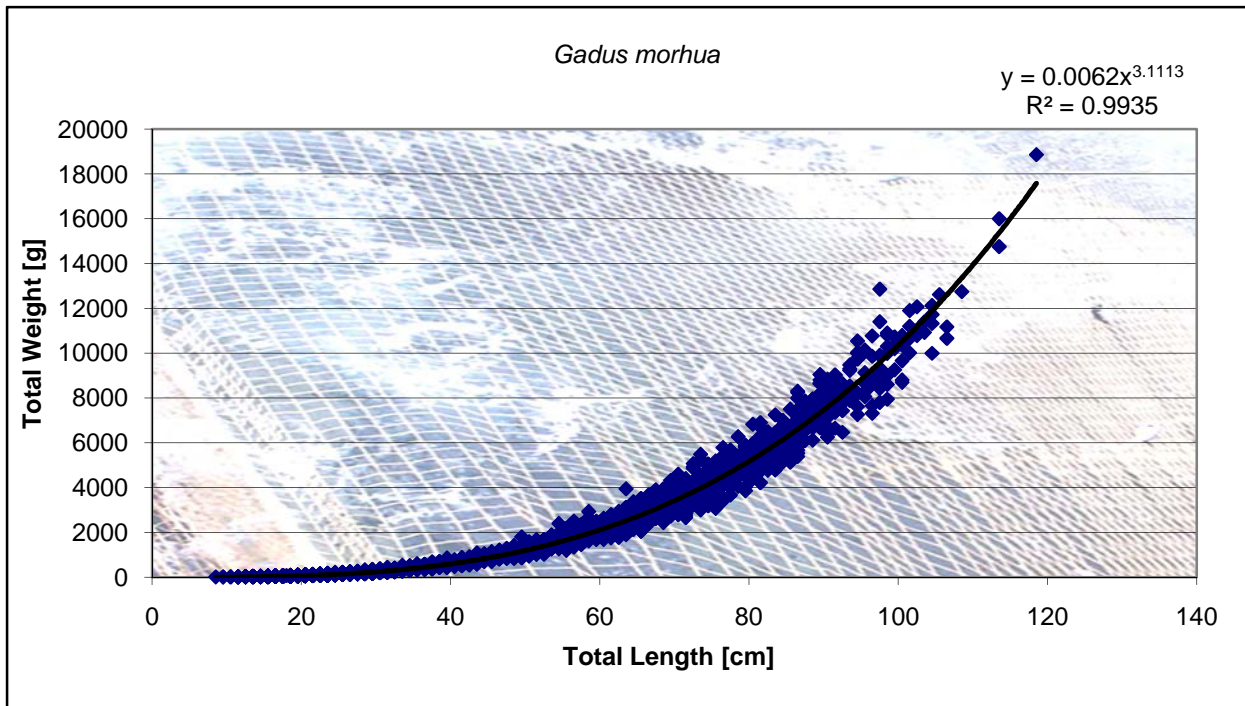
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
3170	1096	3008	43																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
1502	1489	179	41	597	458	1329	1338	341	-	22	21									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
238	9	-	7063	-	-	7	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	9	-	-	-	-	-	3610	3450	3	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
3	1	3	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea											NAFO									
1	2	3	4	5	6	7	8	9			1A	1B	1C	1D	1E	1F	2G	2H	2J	
2536	1023	748	803	126	895	903	-	-			-	-	-	-	-	238	-	-	-	

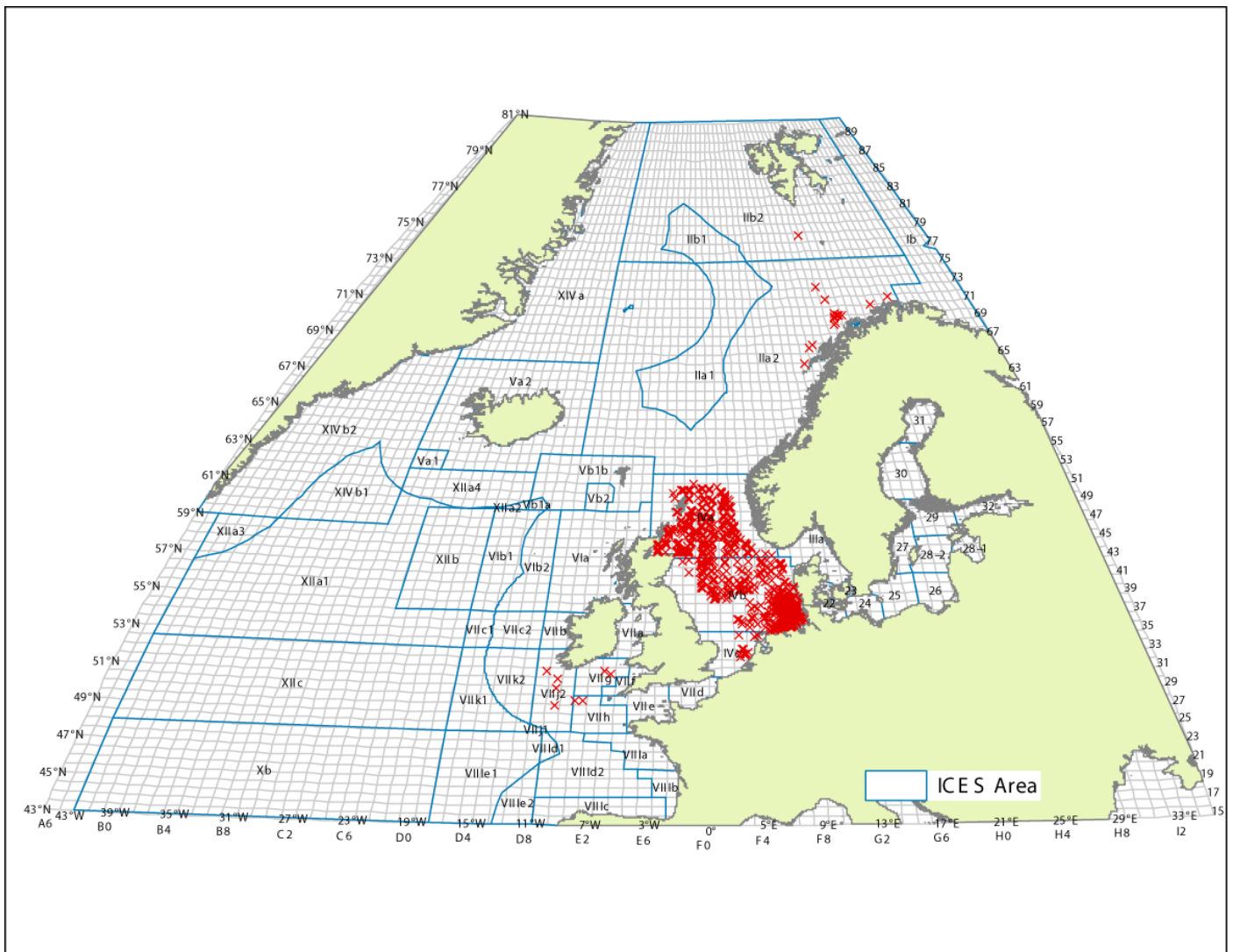


Method of Measurement

- Total length		male	7317
- cm below		female	-
min length	8.5 [cm]	undefined	-
max length	118.5 [cm]	total numbers of data	7317

Gadus morhua Quarter 1

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

Quarter: 1

$$Tw [g] = a * L [cm]^b$$

a = 0.005

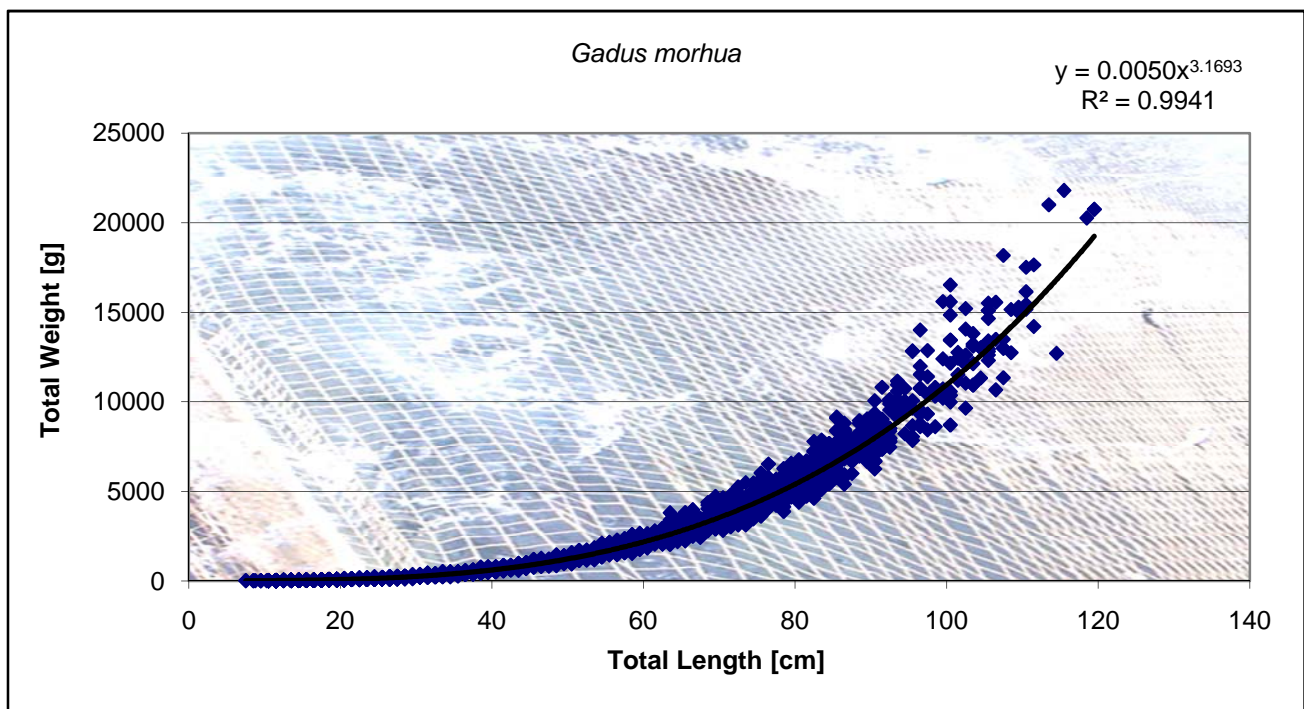
b = 3.1693

data collected

time period : 1994 - 2007
 data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
9355	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
5440	3533	382	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	2996	-	6339	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	2711	285	-	-	-	-	4334	1983	22	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
13	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
3242	895	708	-	-	866	627	-	-	-	-	-	-	-	-	-	-	-	-	-

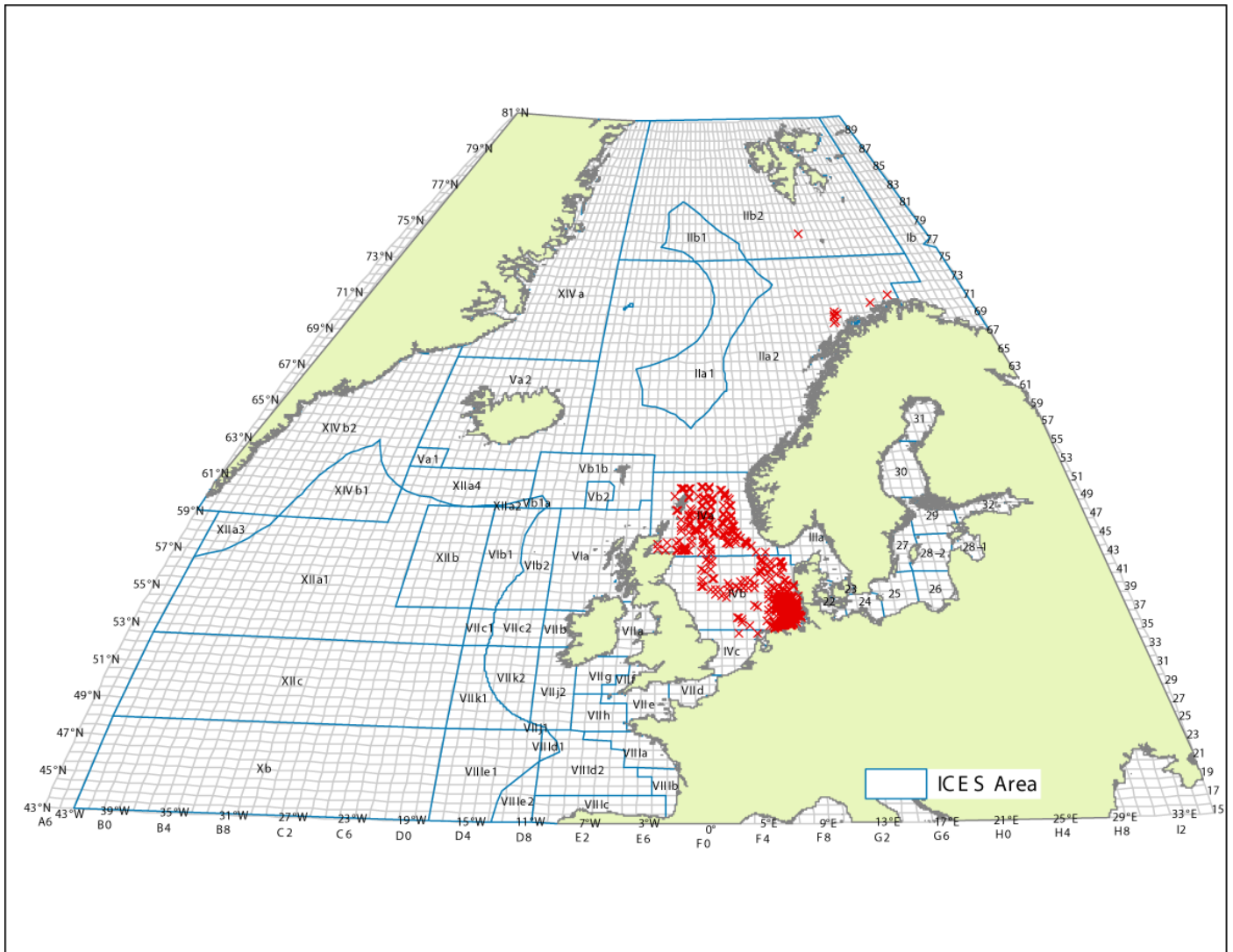


Method of Measurement

- Total length	male	2940
- cm below	female	2768
min length	undefined	3647
max length	7.5 [cm]	
	126.5 [cm]	
	total numbers of data	9355

Gadus morhua January

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

January

$$TW [g] = a * L [cm]^b$$

a = 0.0073

b = 3.052

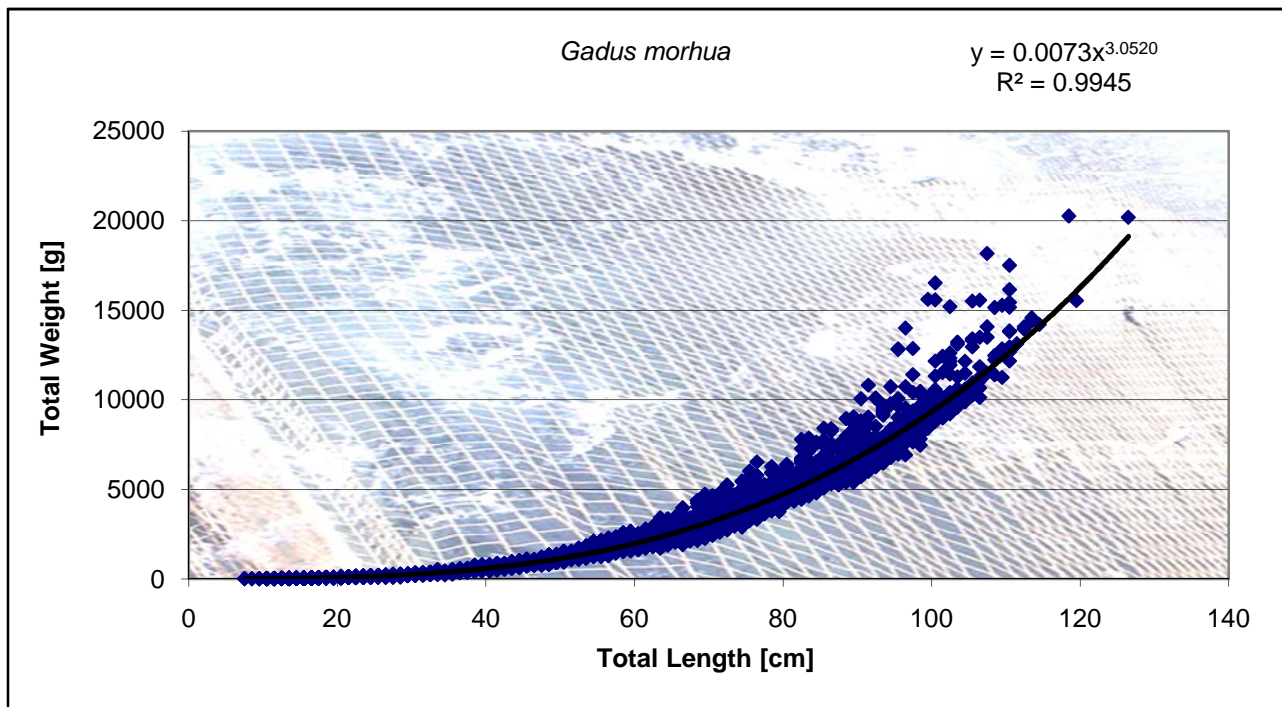
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
5436	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
5436	-	-	-	-	-	-	-	-	-	-	-	-								
Subarea																				
	1	2	3	4	5	6	7	8	9	10	12	14								
-	2212	-	3224	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	1927	285	-	-	-	-	2088	1135	1	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J			
1611	133	226	-	-	713	541	-	-	-	-	-	-	-	-	-	-	-			

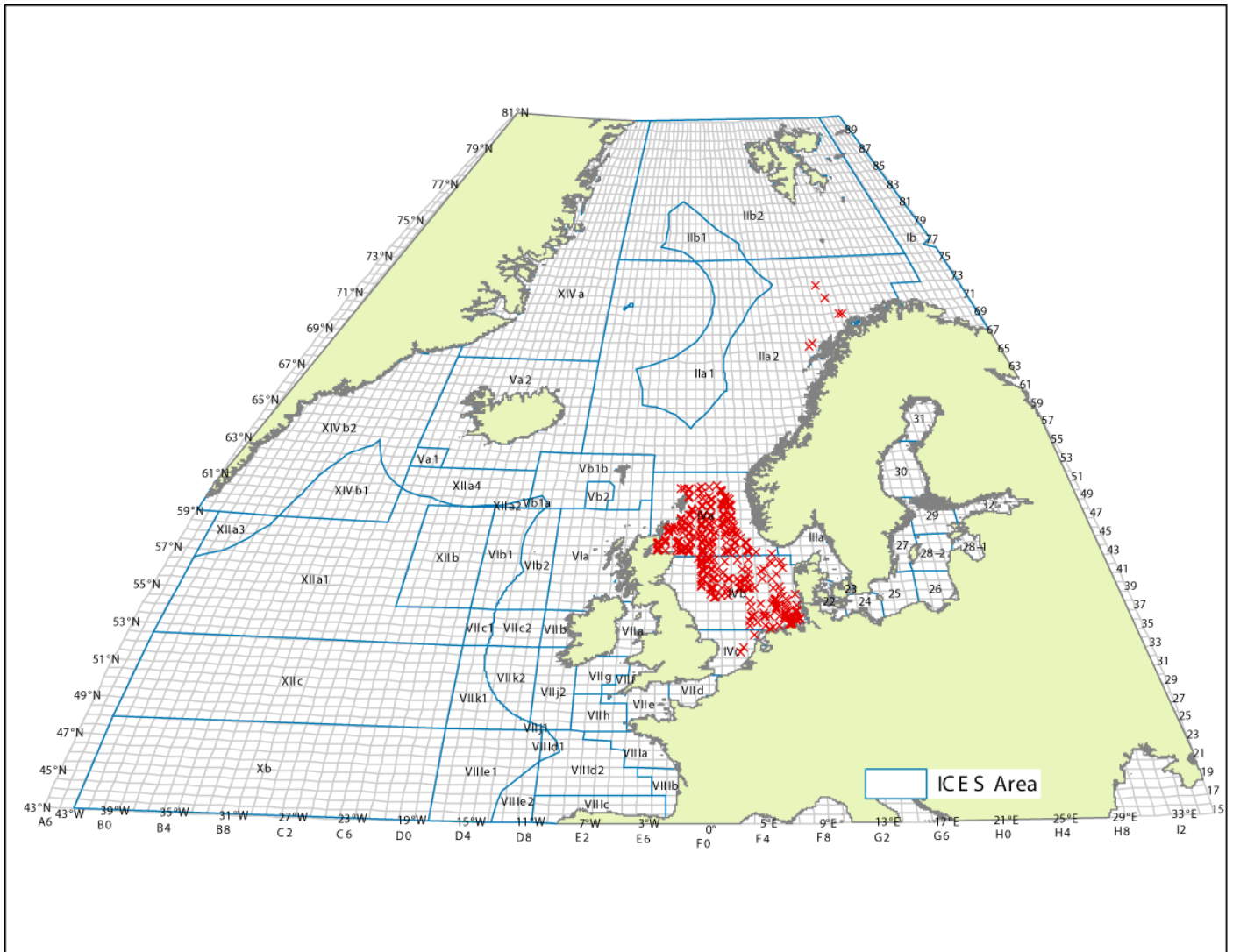


Method of Measurement

- Total length		male	1416
- cm below		female	1373
min length	7.5 [cm]	undefined	2647
max length	126.5 [cm]	total numbers of data	5436

Gadus morhua February

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

February

$$TW [g] = a * L [cm]^b$$

a = 0.006

b = 3.111

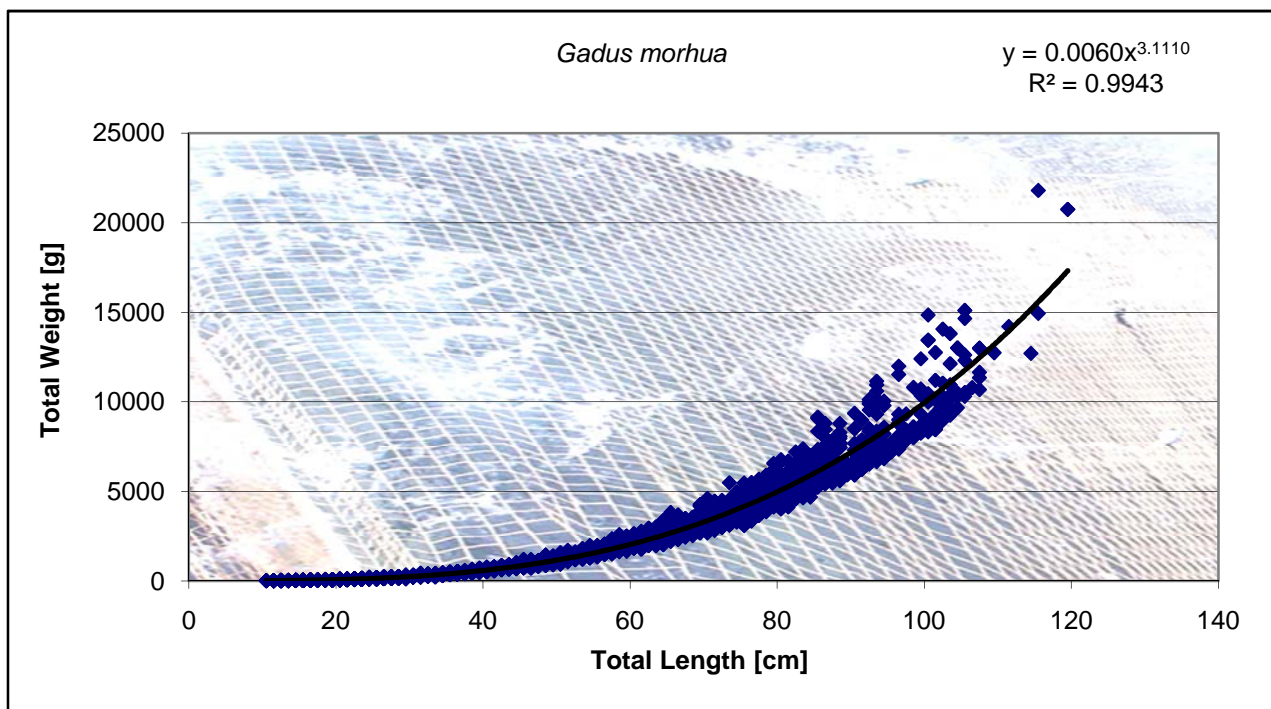
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
3533	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	3533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	773	-	2760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	773	-	-	-	-	-	2021	736	3	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
1452	686	428	-	-	109	84	-	-	-	-	-	-	-	-	-	-	-	-	-

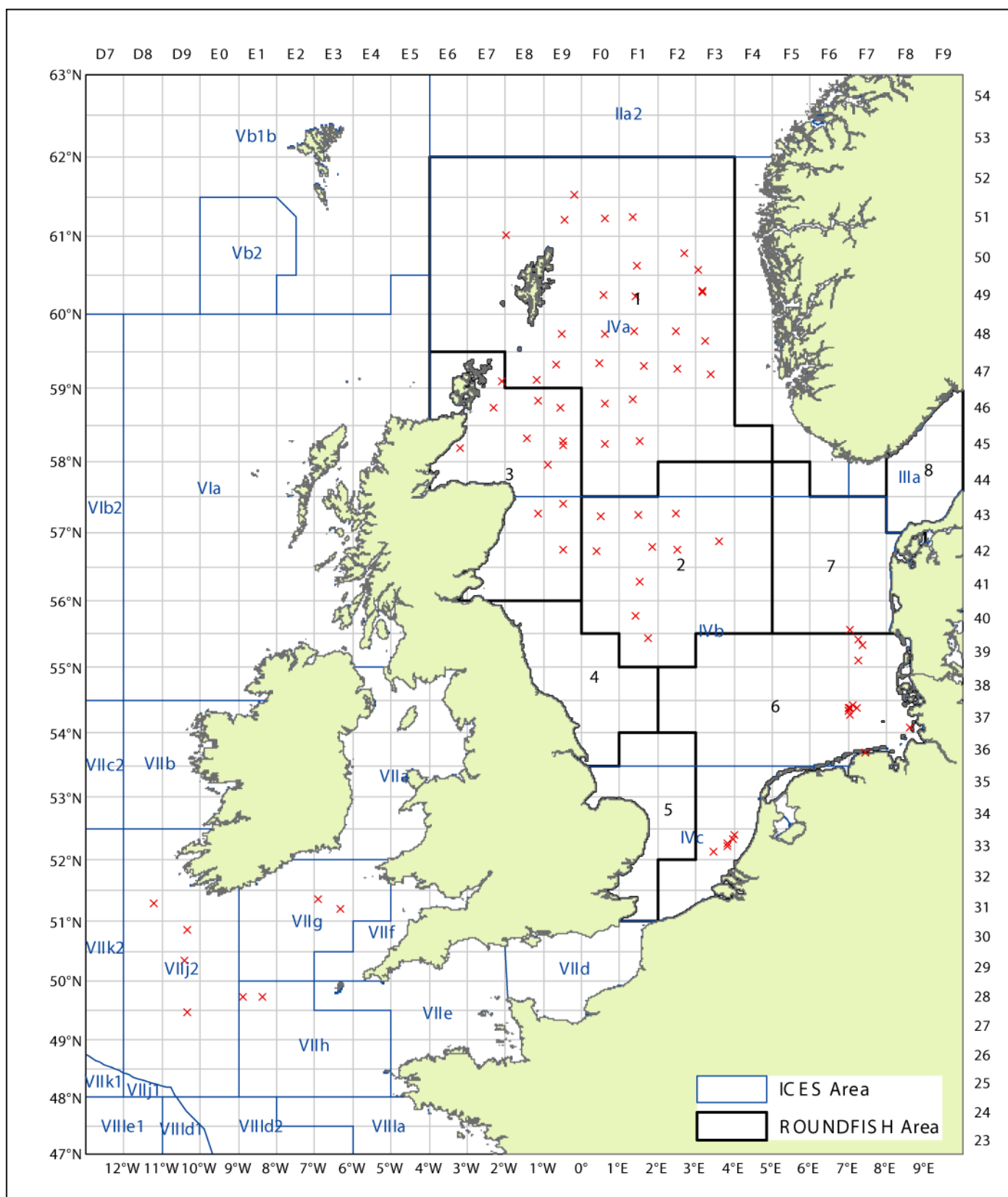


Method of Measurement

- Total length		male	1337
- cm below		female	1235
min length	10.5 [cm]	undefined	961
max length	119.5 [cm]	total numbers of data	3533

Gadus morhua March

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

March

$$TW [g] = a * L [cm]^b$$

a = 0.0053

b = 3.1528

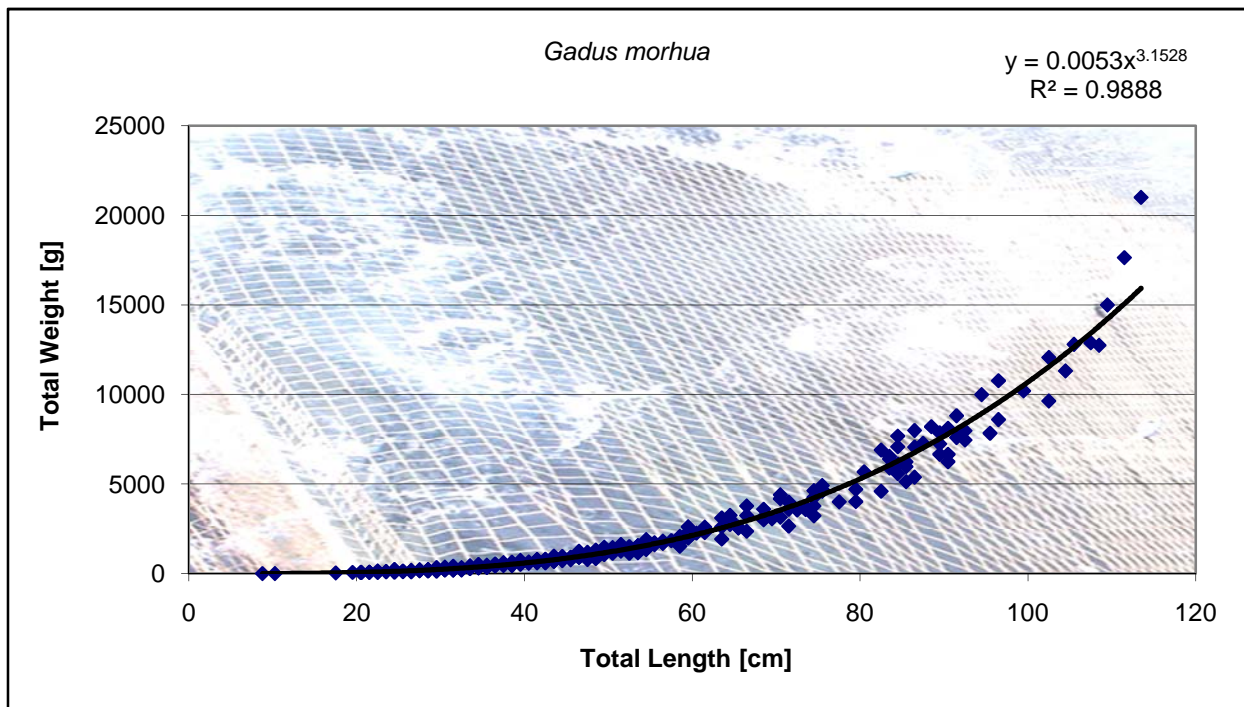
data collected

time period : 1994 - 2005

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
382	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	382	-	-	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	11	-	351	-	-	20	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	11	-	-	-	-	-	225	109	17	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
13	2	5	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
179	76	54	-	-	40	2	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

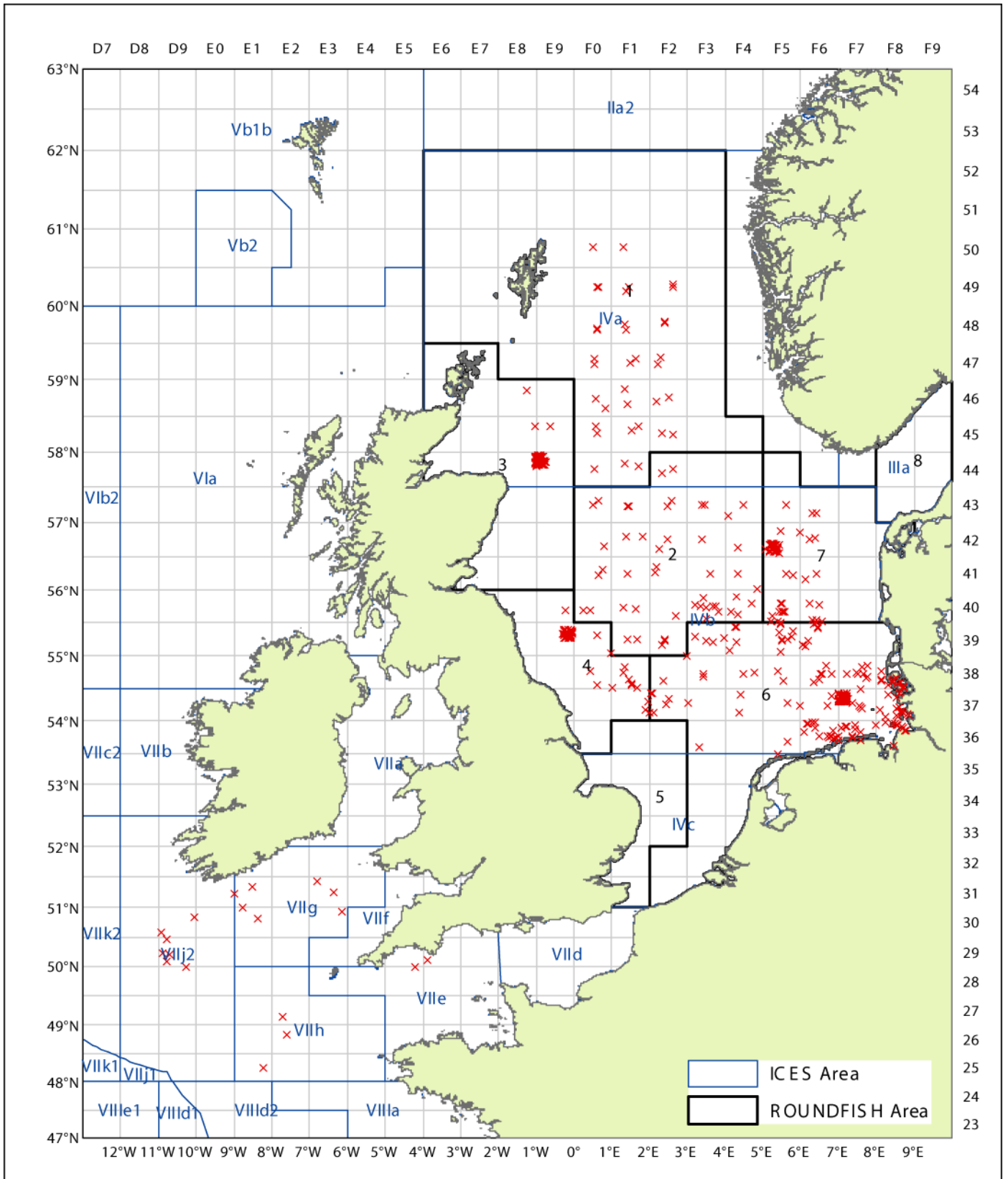


Method of Measurement

- Total length		male	187
- cm below		female	160
min length	8.5 [cm]	undefined	35
max length	113.5 [cm]	total numbers of data	382

Gadus morhua Quarter 2

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

Quarter: 2

$$Tw [g] = a * L [cm]^b$$

a = 0.0069

b = 3.0855

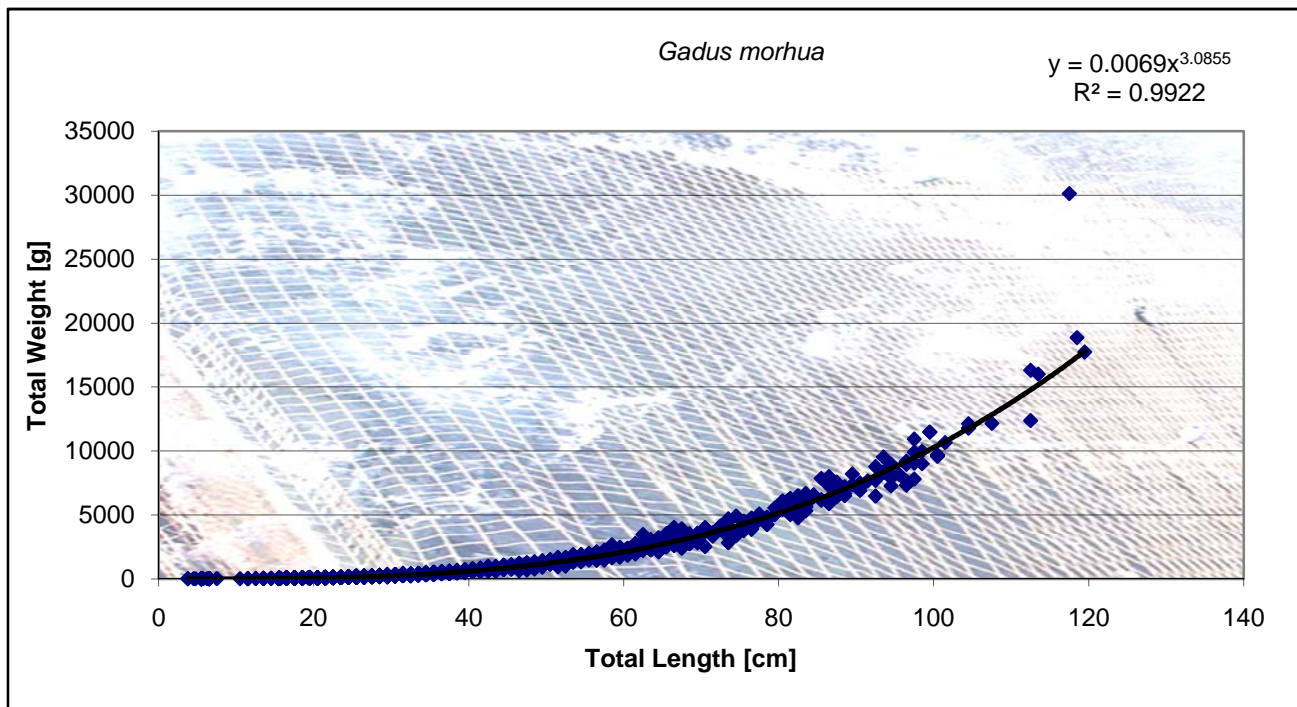
data collected

time period : 1994 - 2006

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	2529	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	101	1386	1042	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	2464	-	-	65	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	735	1729	-	-	-	-	-	-	-	-	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
47	2	14	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J			
341	499	381	235	-	625	383	-	-	-	-	-	-	-	-	-	-	-	-	-	

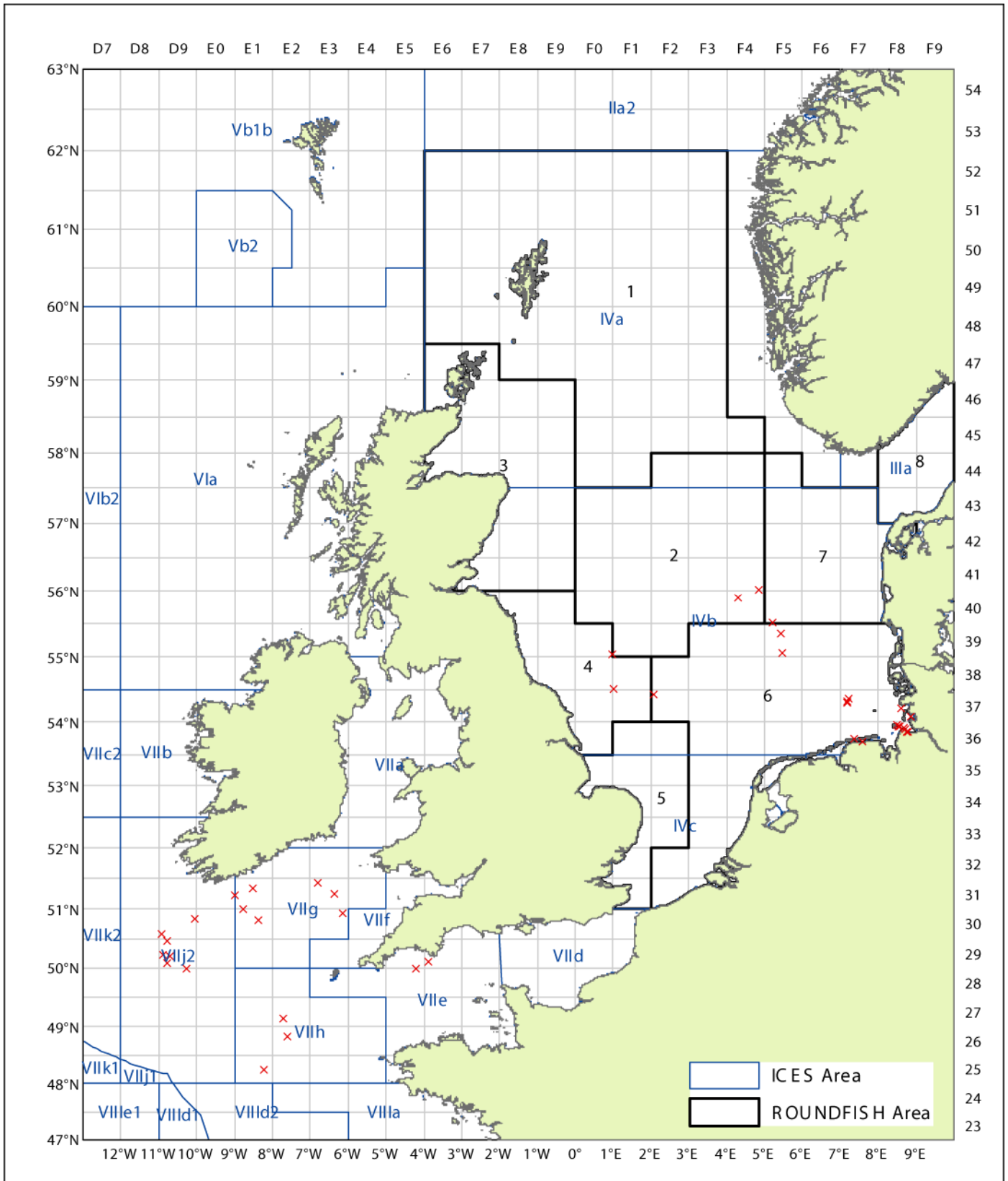


Method of Measurement

- Total length	male	1035
- cm below	female	1182
min length	undefined	312
max length	3.5 [cm]	
	119.5 [cm]	
	total numbers of data	2529

***Gadus morhua* April**

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

April

$$TW [g] = a * L [cm]^b$$

a = 0.0053

b = 3.1666

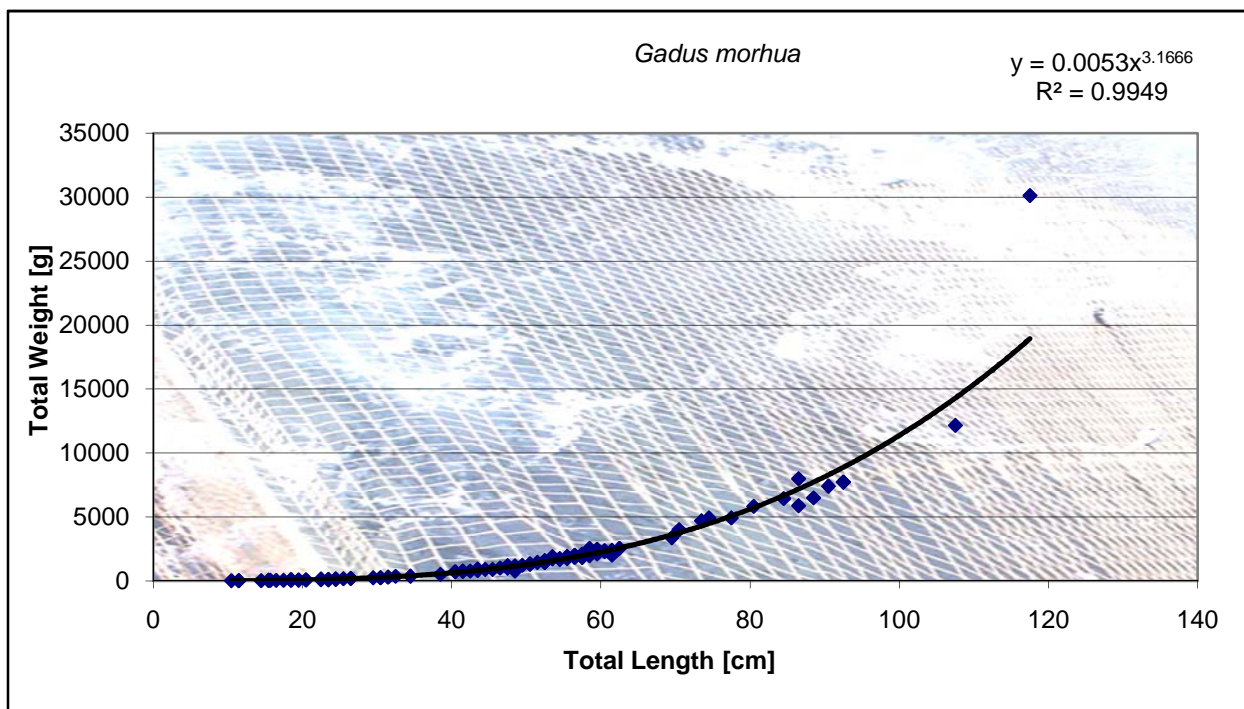
data collected

time period : 1995 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	101	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	101	-	-	-	-	-	-	-	-	-							
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	36	-	-	65	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	36	-	-	-	-	-	-	-	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
47	2	14	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	4	-	5	-	26	1	-	-	-	-	-	-	-	-	-	-	-		

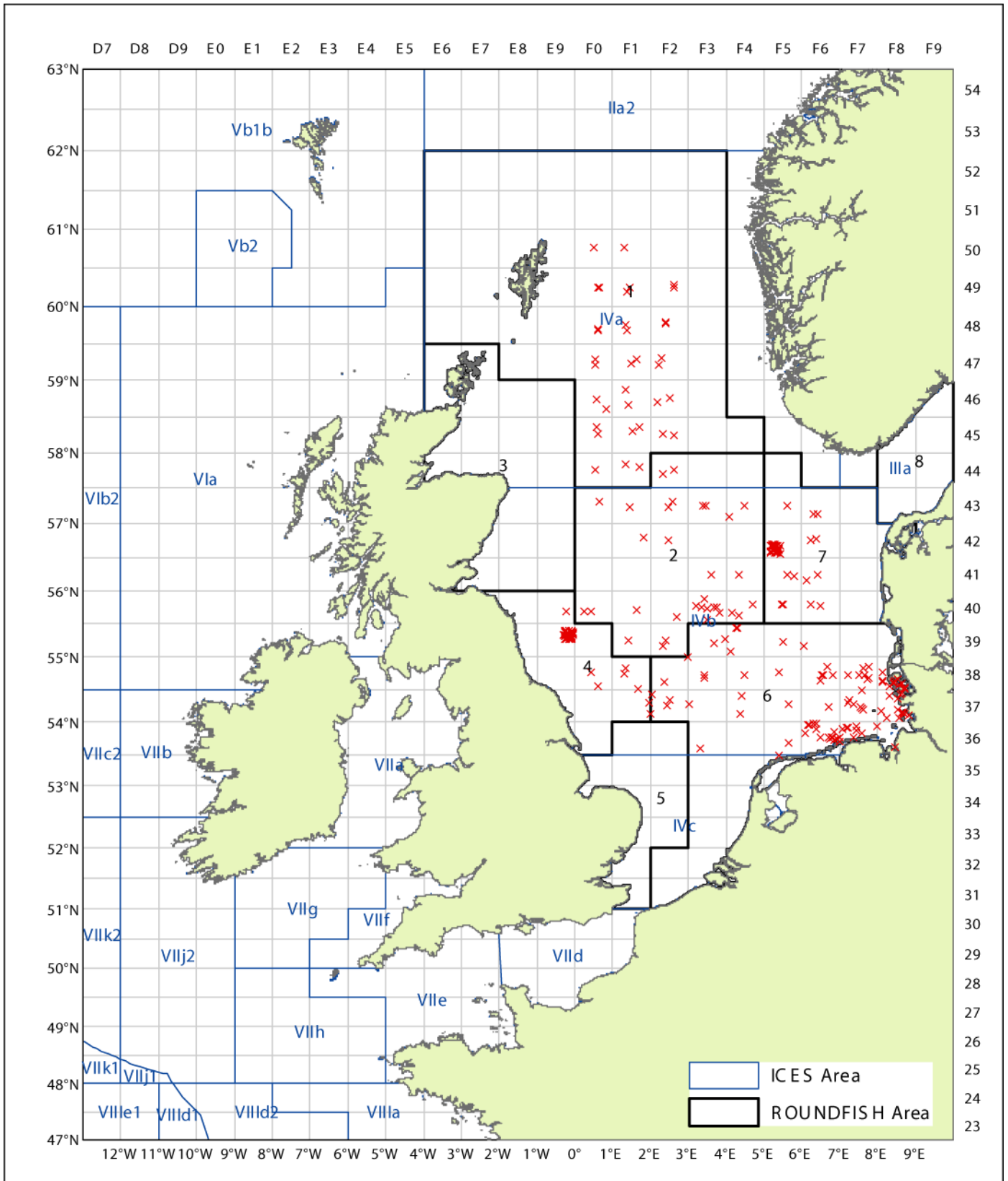


Method of Measurement

- Total length	male	13
- cm below	female	14
min length	undefined	74
max length	total numbers of data	101
		10.5 [cm]
		117.5 [cm]

Gadus morhua May

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

May

$$TW [g] = a * L [cm]^b$$

a = 0.0067

b = 3.0873

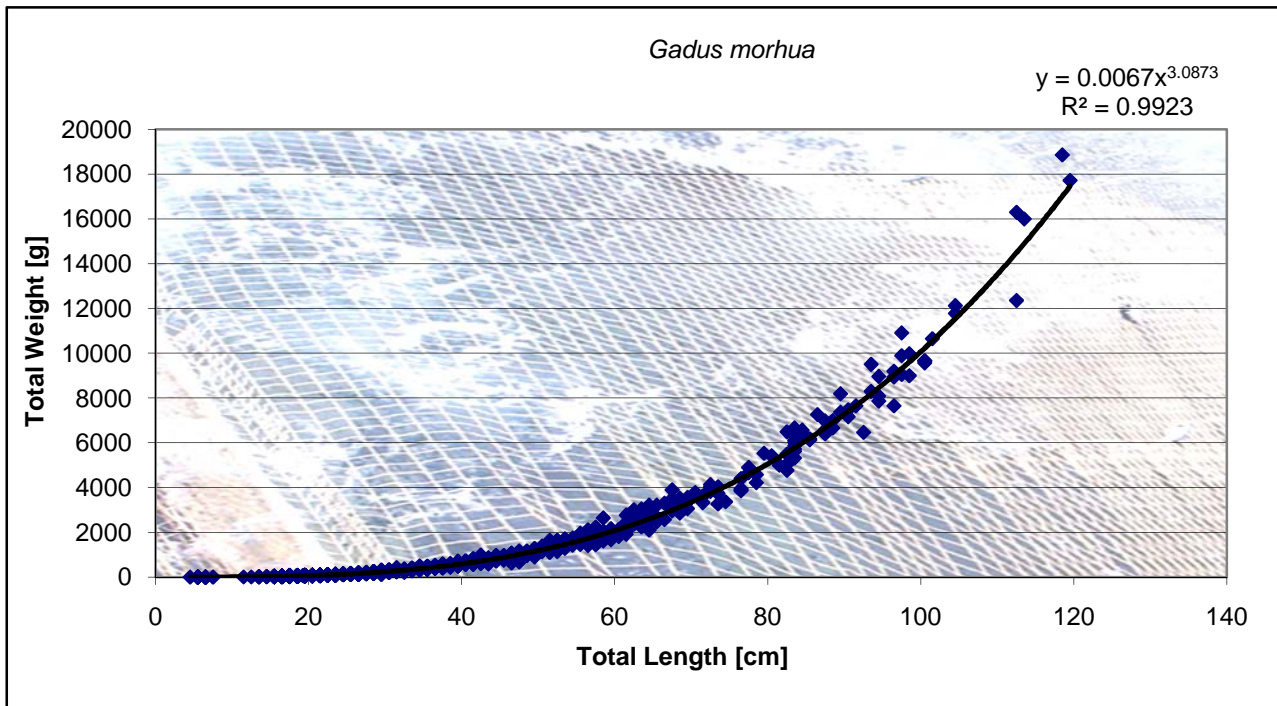
data collected

time period : 1994 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1386	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	1386	-	-	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1386	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	354	1032	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
341	380	-	204	-	130	331	-	-	-	-	-	-	-	-	-	-	-		

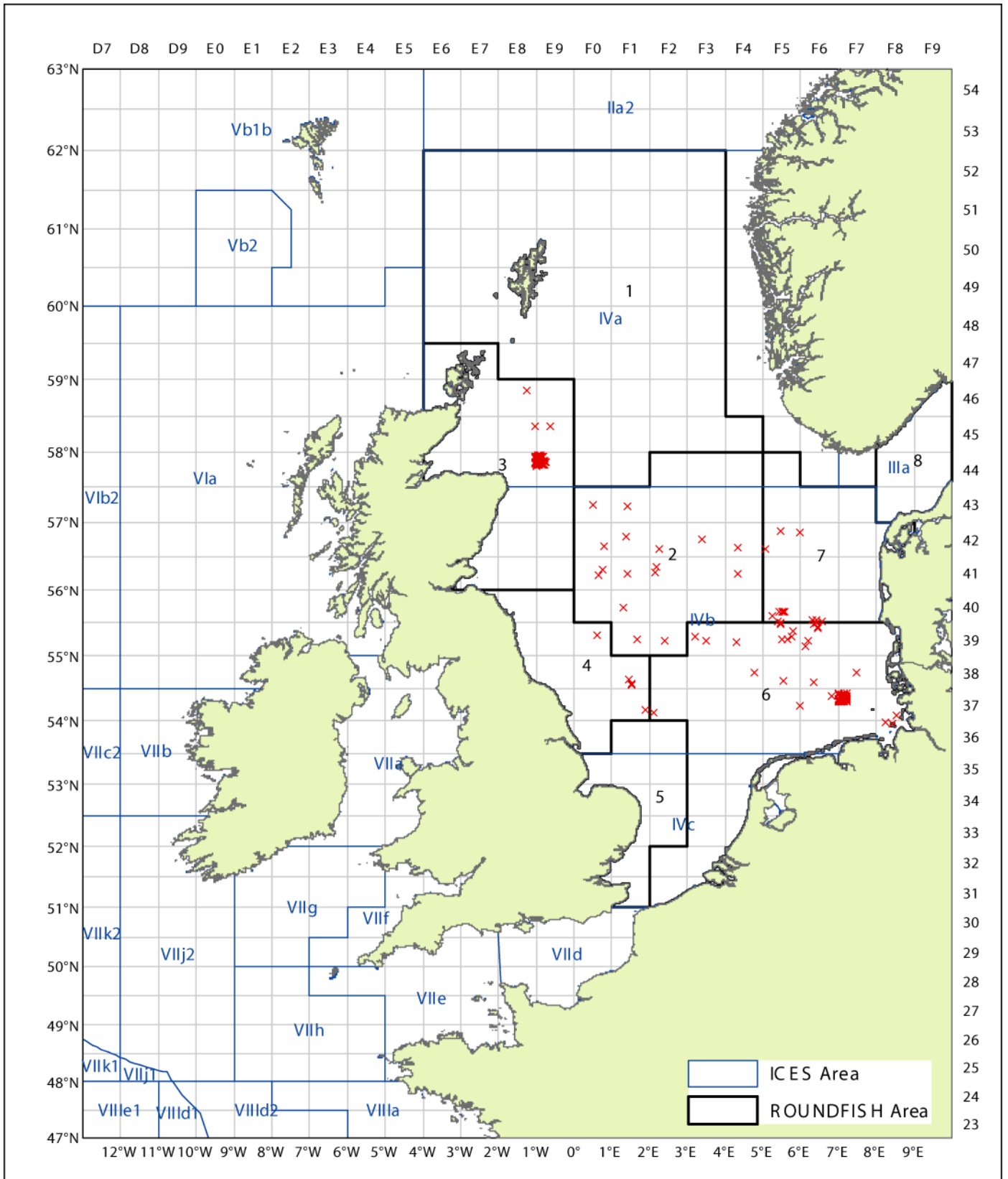


Method of Measurement

- Total length		male	600
- cm below		female	680
min length	4.5 [cm]	undefined	106
max length	119.5 [cm]	total numbers of data	1386

Gadus morhua June

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

June

$$TW [g] = a * L [cm]^b$$

a = 0.0081

b = 3.0489

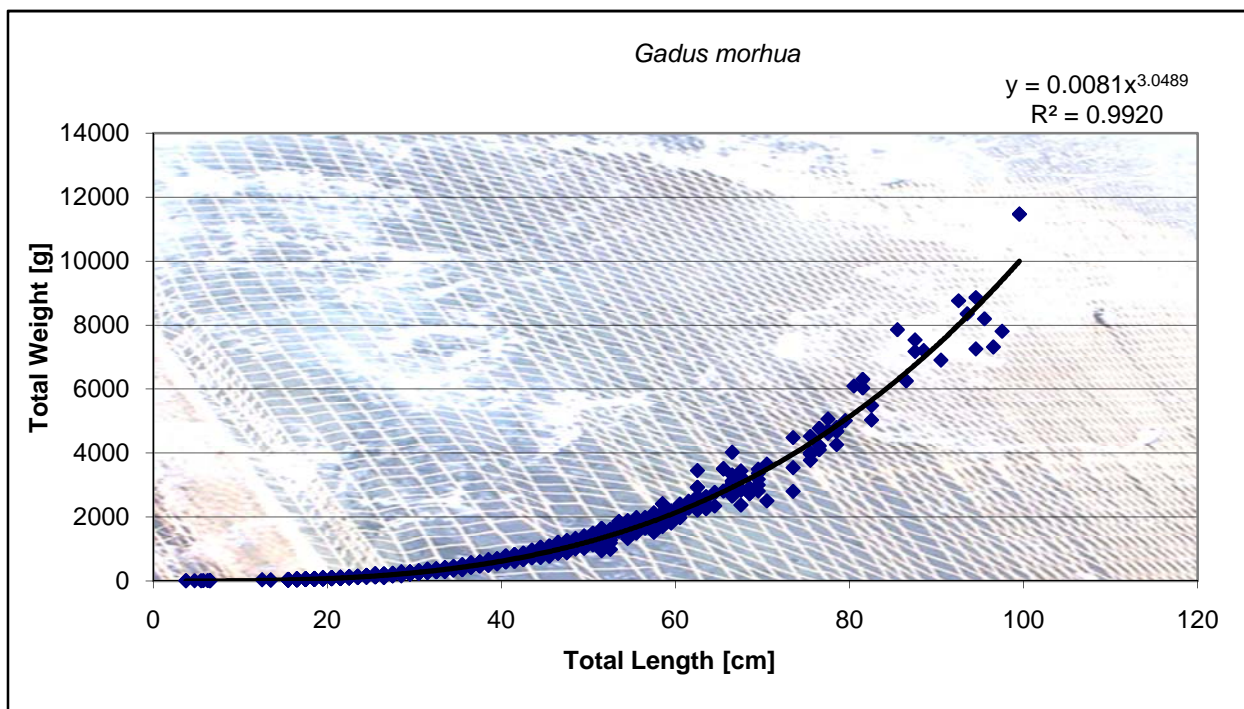
data collected

time period : 1994 - 2005

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	1042	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	1042	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	1042	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	381	661	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	115	381	26	-	469	51	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

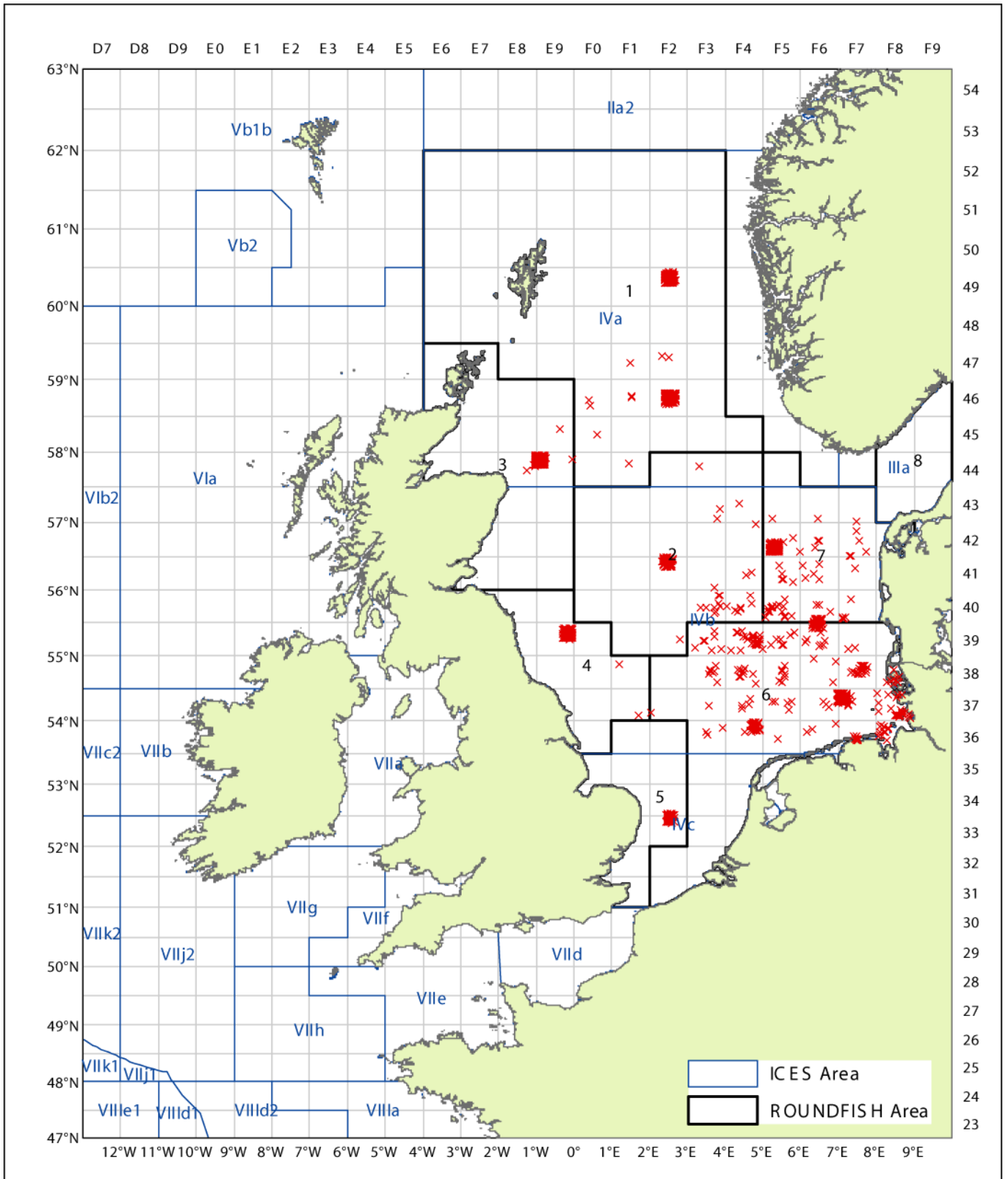


Method of Measurement

- Total length		male	422
- cm below		female	488
min length	3.5 [cm]	undefined	132
max length	99.5 [cm]	total numbers of data	1042

Gadus morhua Quarter 3

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

Quarter: 3

$$TW [g] = a * L [cm]^b$$

a = 0.0072

b = 3.0723

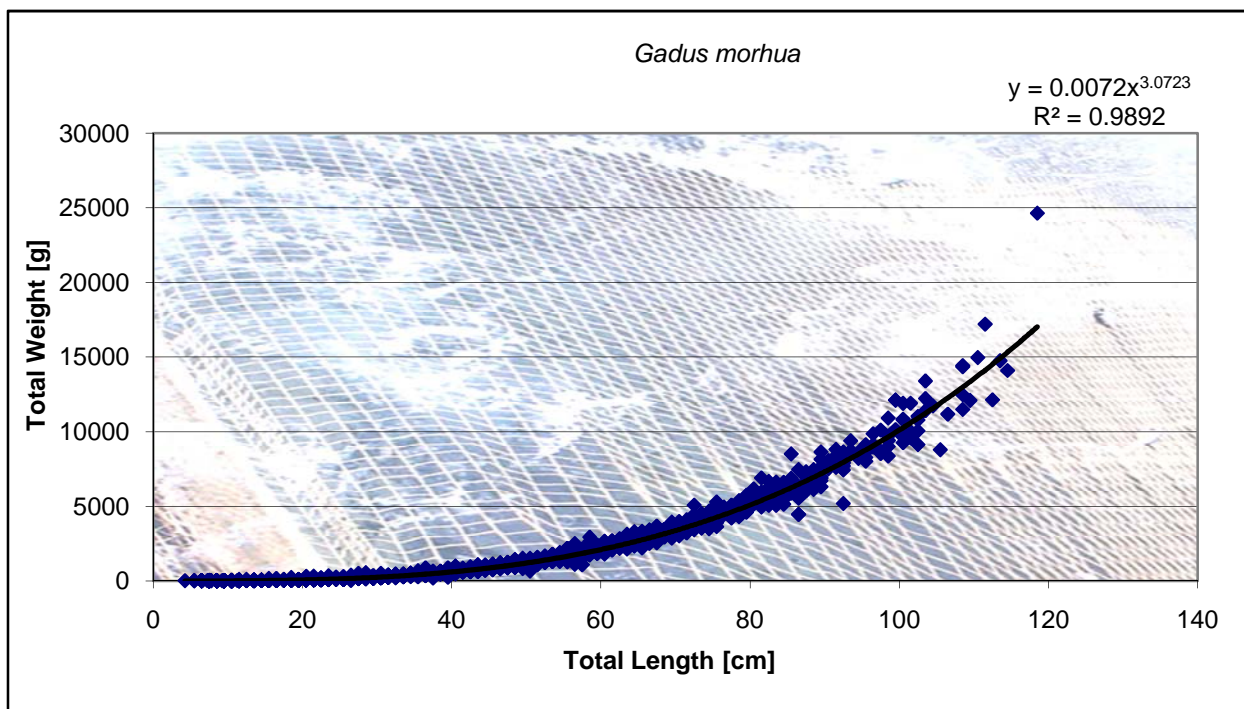
data collected

time period : 1994 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	5714	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	2718	2351	645	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	5714	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	1822	3876	16	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
1127	657	473	1440	129	926	962	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

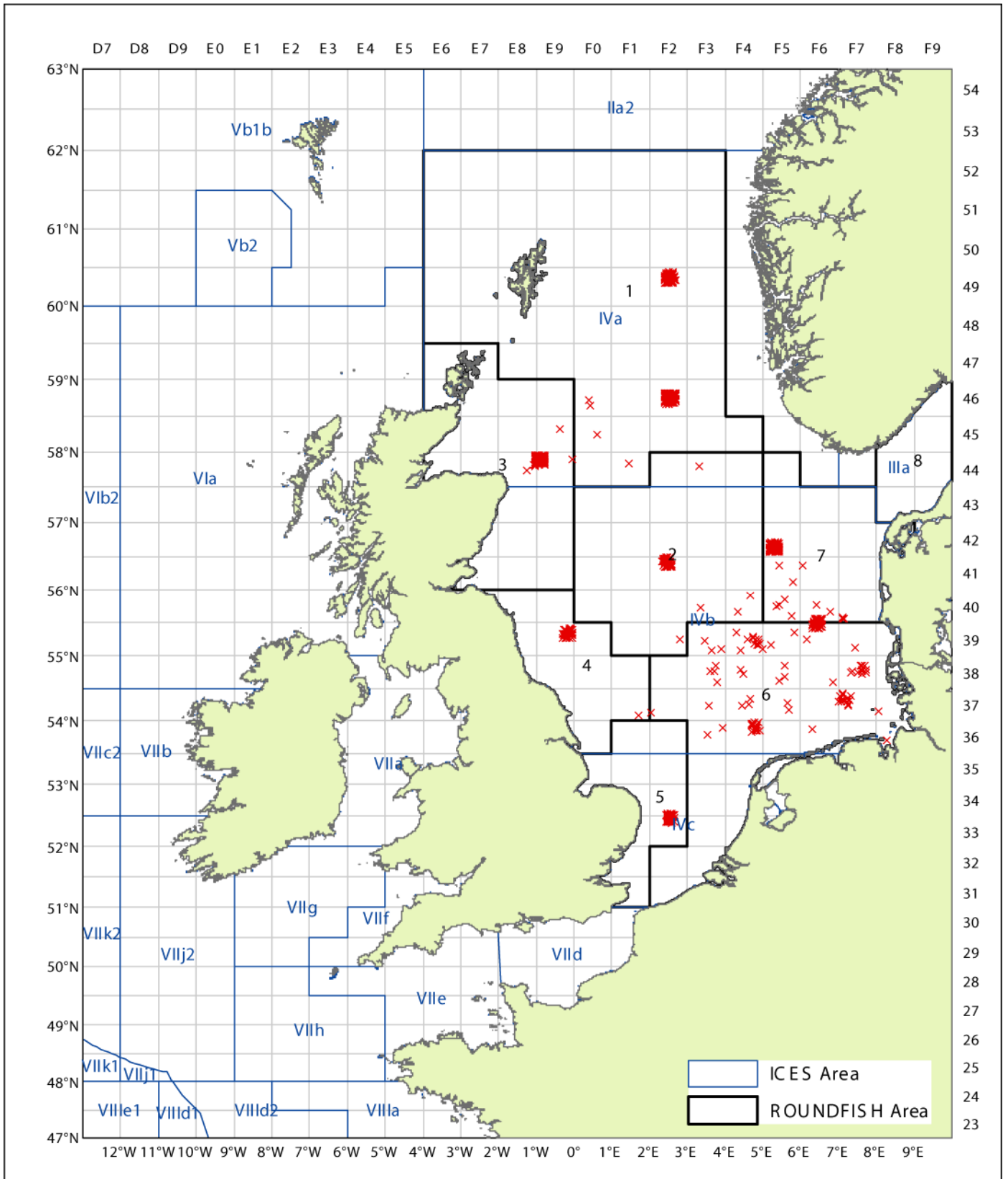


Method of Measurement

- Total length		male	2482
- cm below		female	2522
min length	4.5 [cm]	undefined	710
max length	118.5 [cm]	total numbers of data	5714

Gadus morhua July

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

July

$$TW [g] = a * L [cm]^b$$

a = 0.0074

b = 3.0693

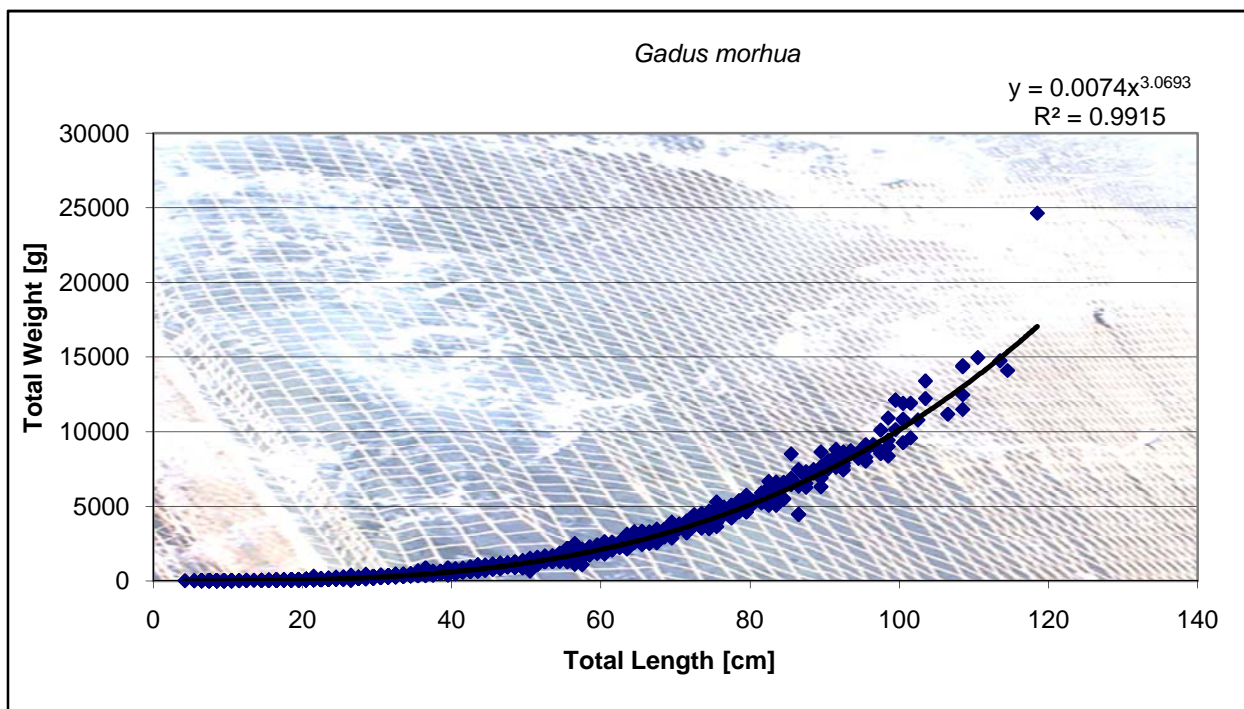
data collected

time period : 1994 - 2006

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	2718	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	2718	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	2718	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	1257	1445	16	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
853	300	287	240	126	270	642	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

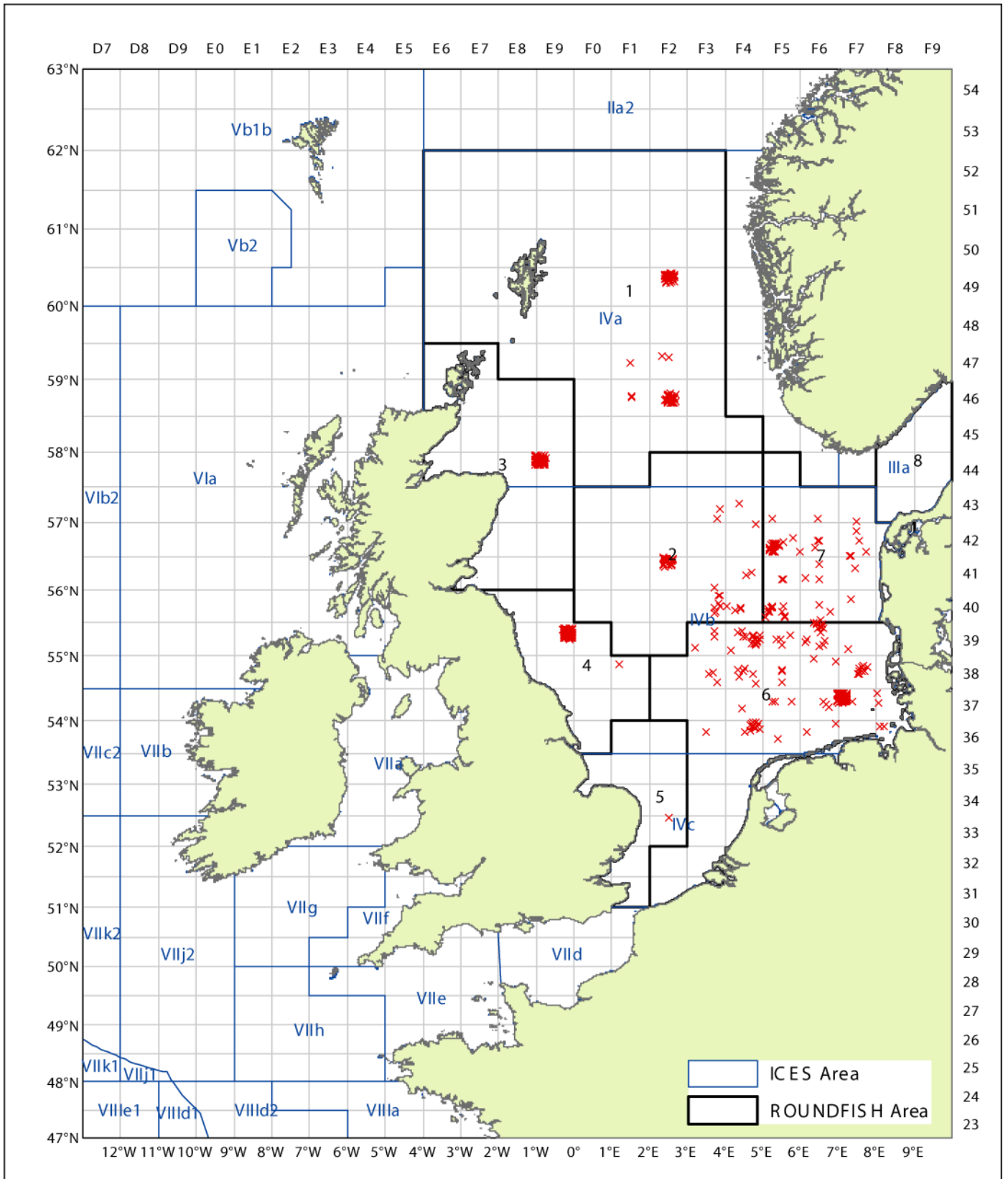


Method of Measurement

- Total length		male	1204
- cm below		female	1197
min length	4.5 [cm]	undefined	317
max length	118.5 [cm]	total numbers of data	2718

Gadus morhua August

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

August

$$TW [g] = a * L [cm]^b$$

a = 0.0075

b = 3.0613

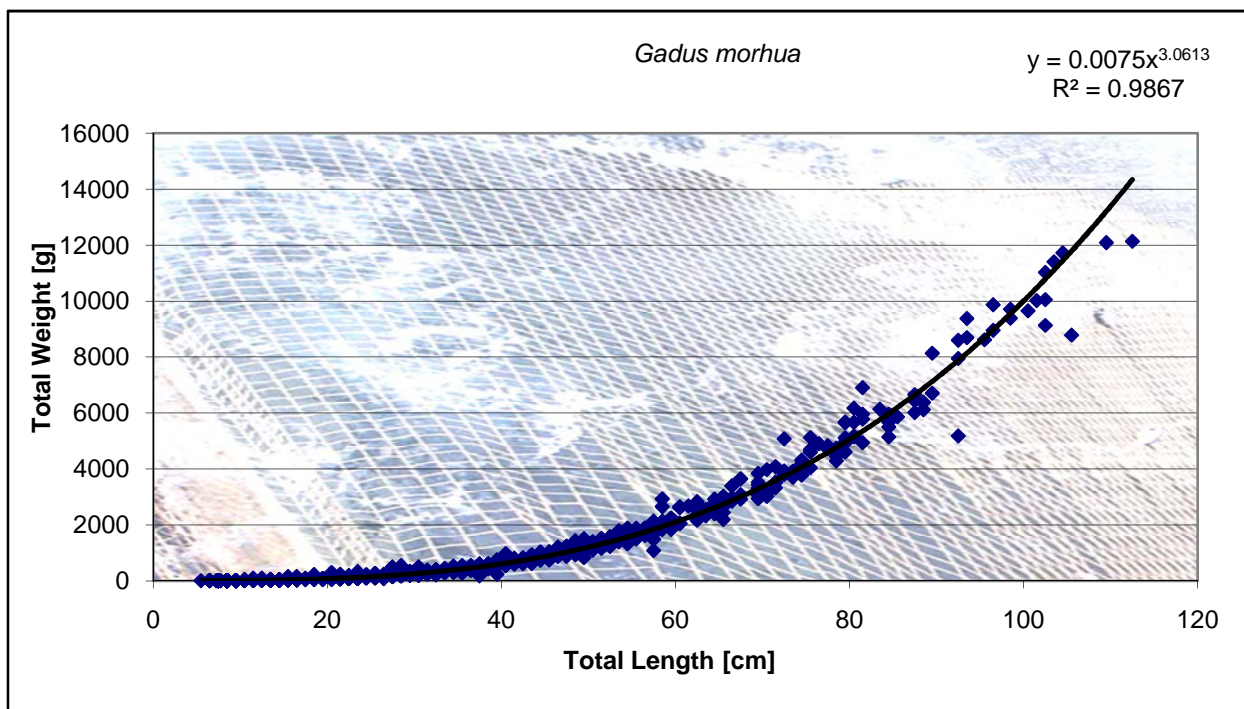
data collected

time period : 1994 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	2351	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	2351	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2351	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	526	1825	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
274	307	147	1036	3	426	158	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	-

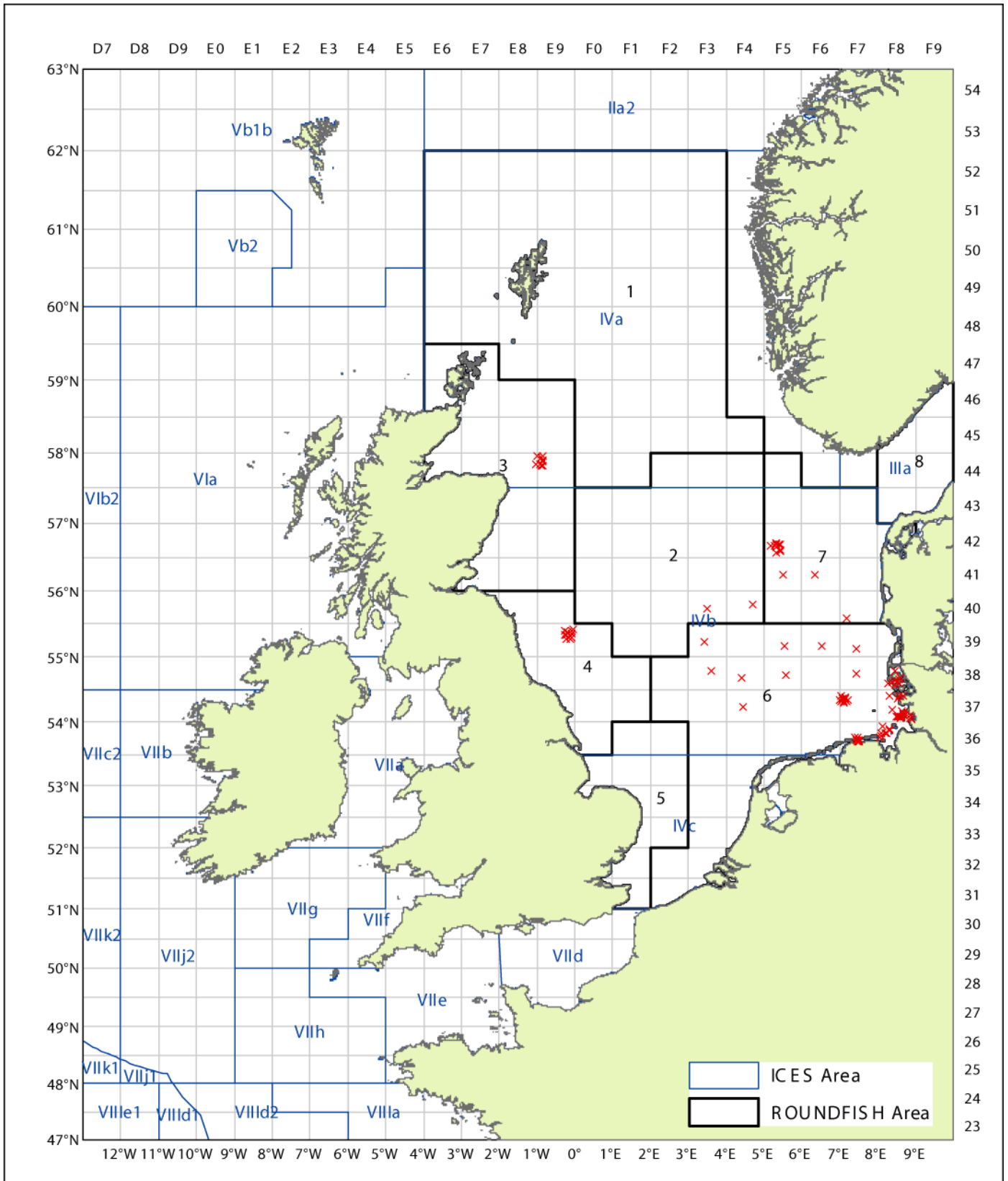


Method of Measurement

- Total length		male	976
- cm below		female	1043
min length	5.5 [cm]	undefined	332
max length	112.5 [cm]	total numbers of data	2351

Gadus morhua September

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

September

$$TW [g] = a * L [cm]^b$$

a = 0.0062

b = 3.1121

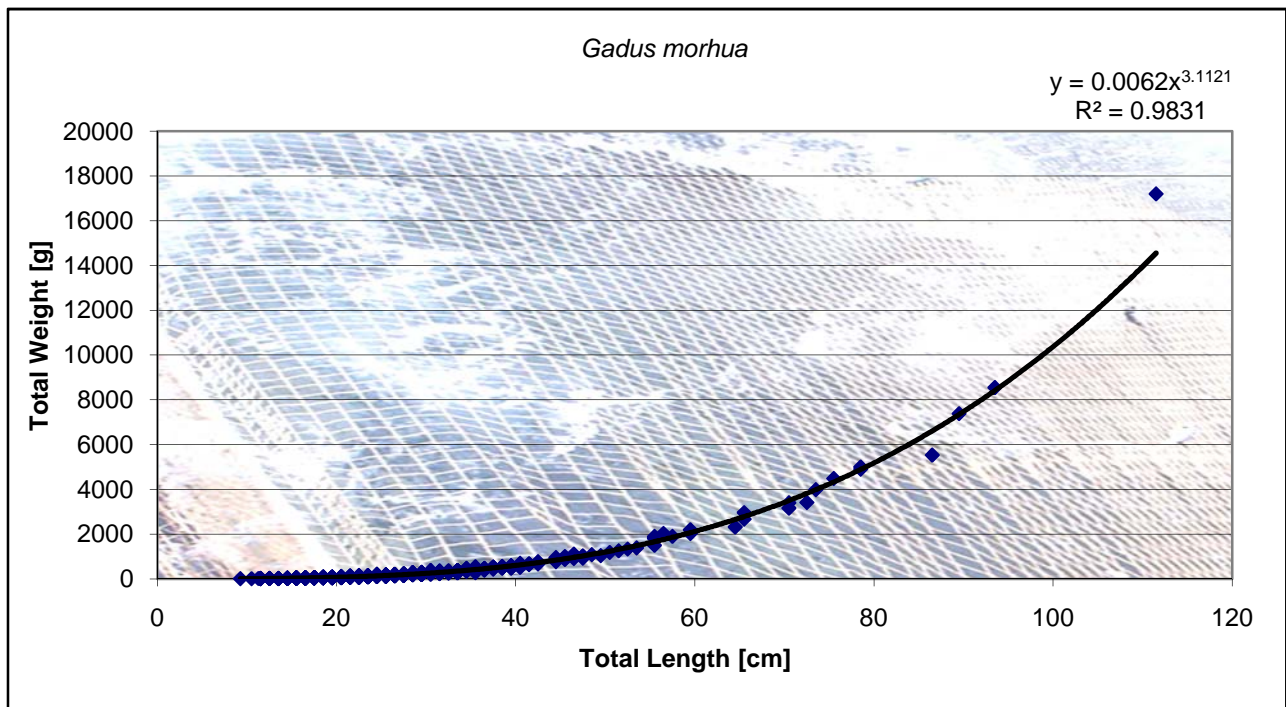
data collected

time period : 1995 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	645	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	645	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	645	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	39	606	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	50	39	164	-	230	162	-	-	-	-	-	-	-	-	-	-	-	-	-

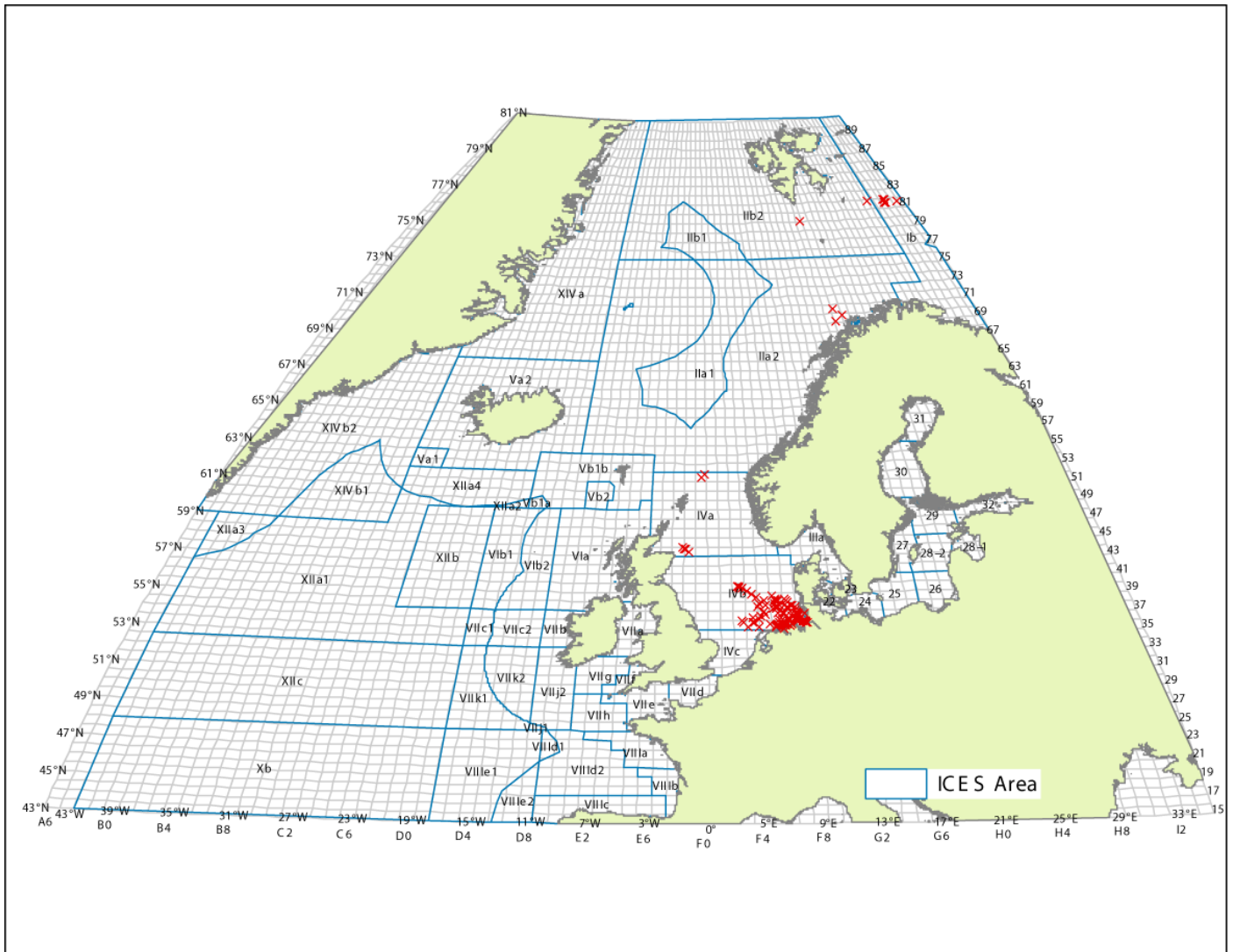


Method of Measurement

- Total length		male	302
- cm below		female	282
min length	9.5 [cm]	undefined	61
max length	111.5 [cm]	total numbers of data	645

Gadus morhua Quarter 4

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

Quarter: 4

$$TW [g] = a * L [cm]^b$$

a = 0.0076

b = 3.0488

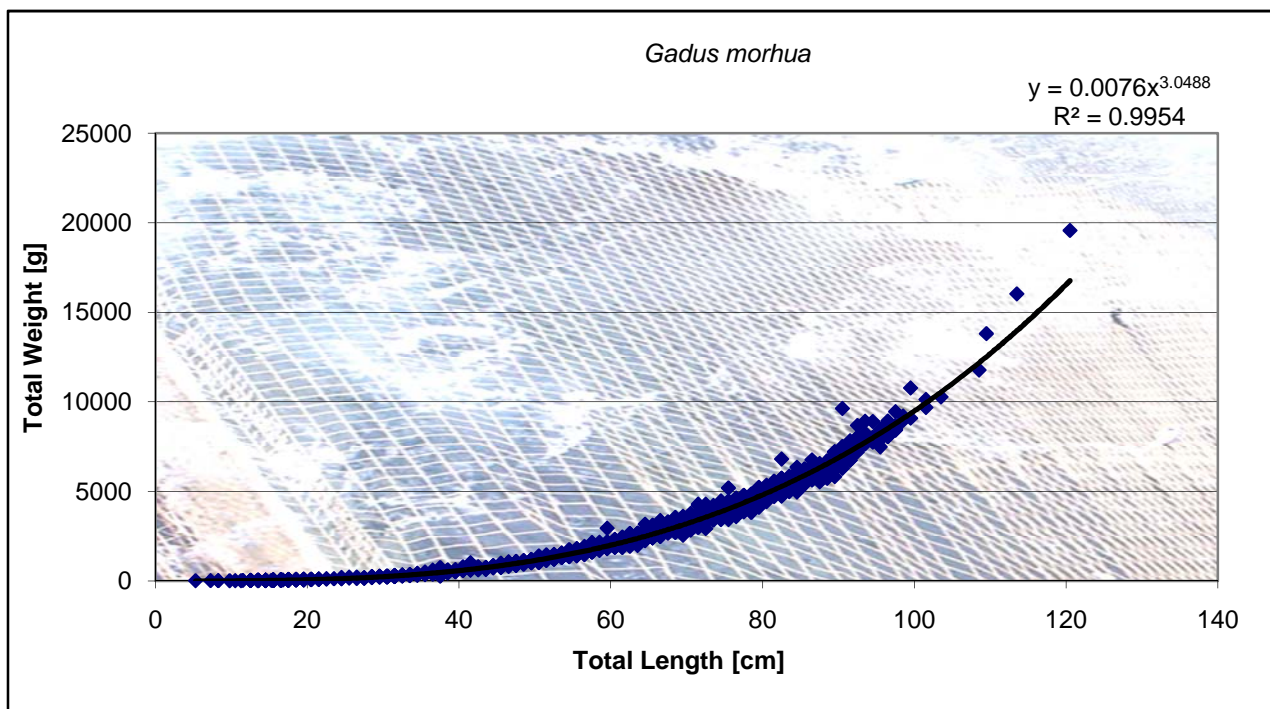
data collected

time period : 1994 - 2006

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	1737																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	1210	445	82								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
711	833	-	193	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
711	451	382	-	-	-	-	2	191	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2	26	6	-	-	159	-	-	-	-	-	-	-	-	-	-	-	-	-	-

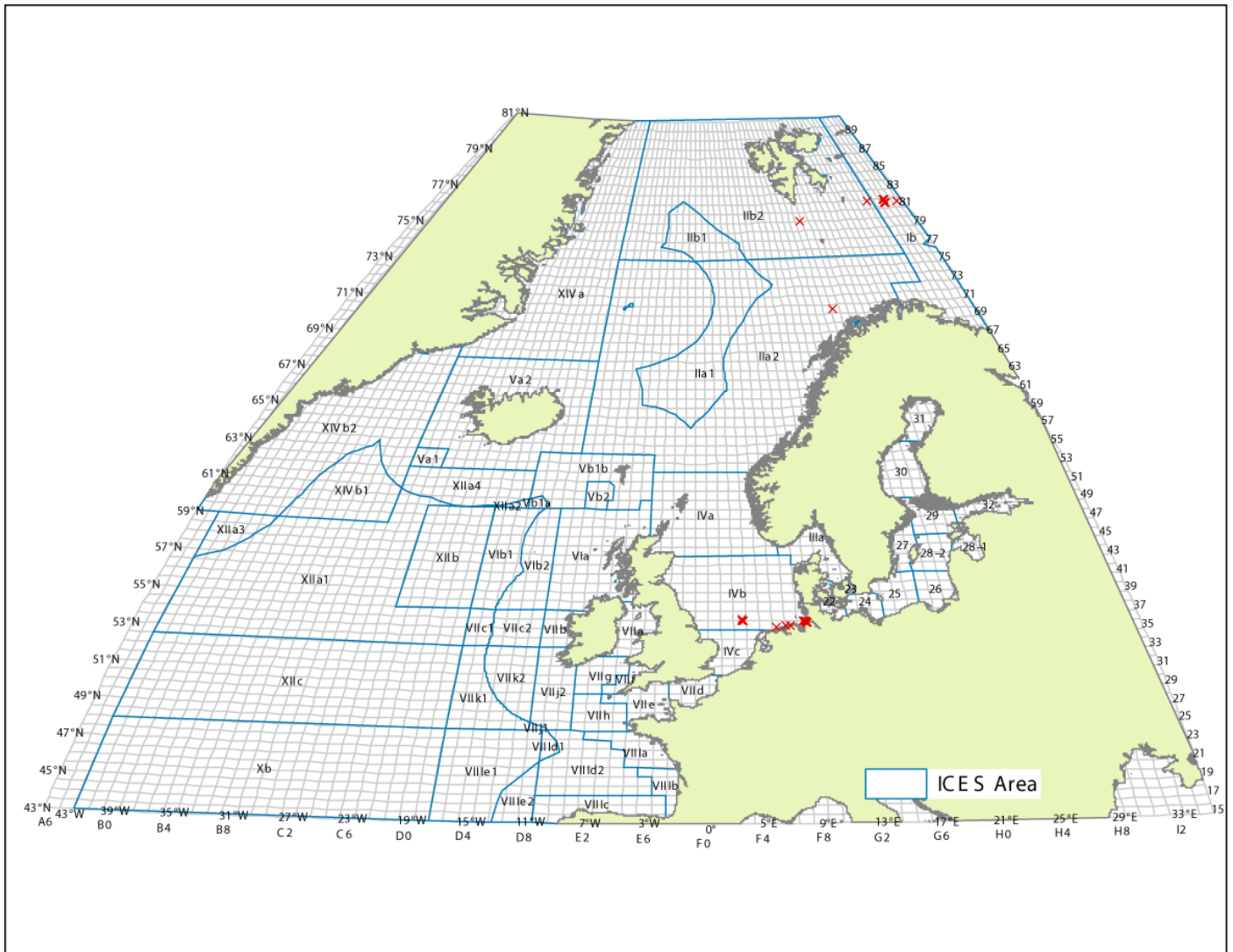


Method of Measurement

- Total length		male	28
- cm below		female	31
min length	5.5 [cm]	undefined	1678
max length	120.5 [cm]	total numbers of data	1737

Gadus morhua October

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

October

$$TW [g] = a * L [cm]^b$$

a = 0.008

b = 3.0347

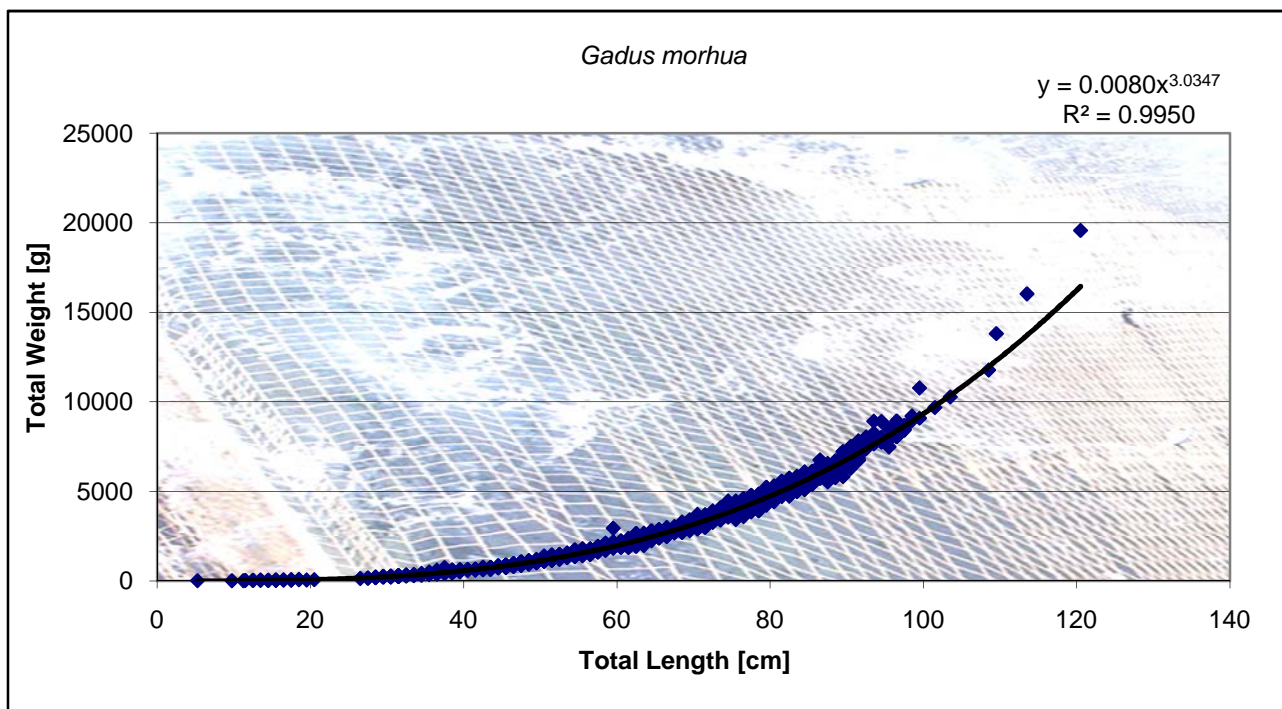
data collected

time period : 1995 - 2006

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	1210																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	1210	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
711	468	-	31	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
711	86	382	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-

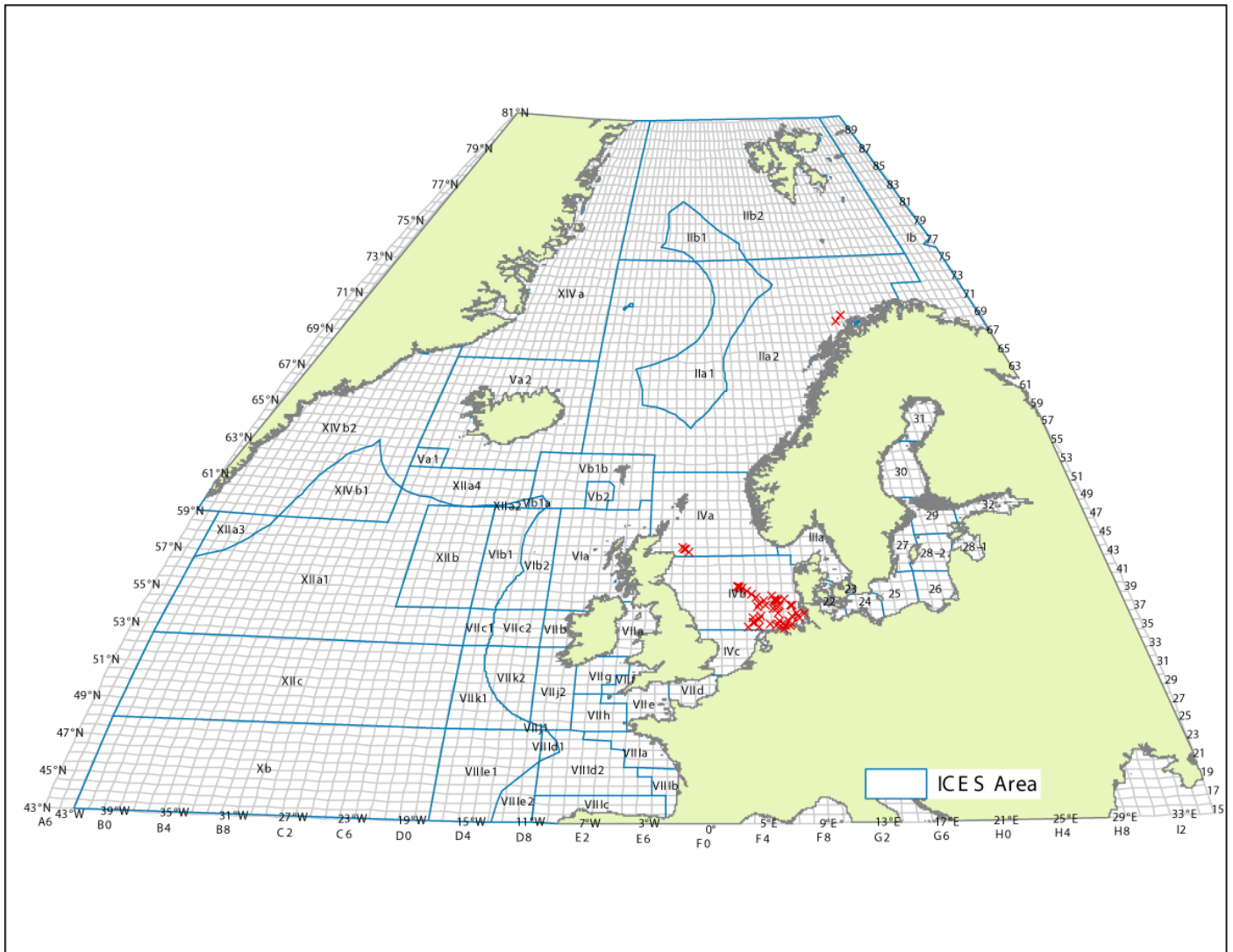


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	5.5 [cm]	undefined	1210
max length	120.5 [cm]	total numbers of data	1210

Gadus morhua November

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

November

$$TW [g] = a * L [cm]^b$$

a = 0.006

b = 3.1119

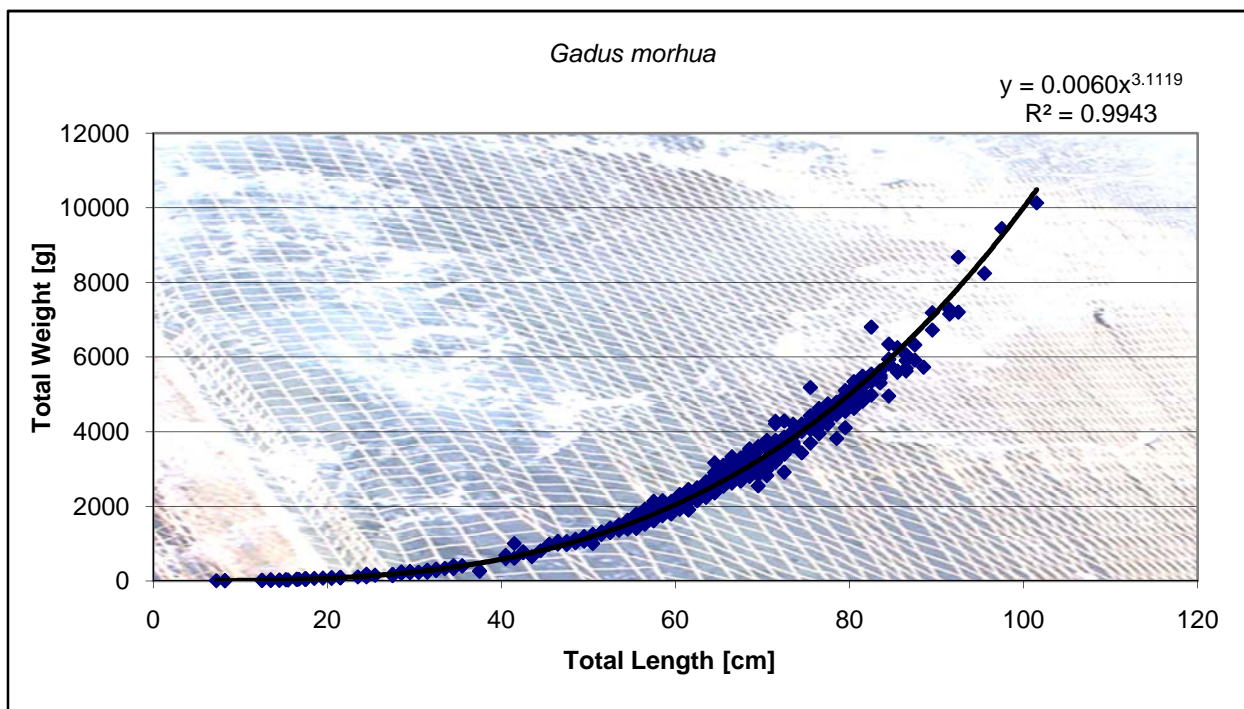
data collected

time period : 1996 - 2006

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	445																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	-	445	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	365	-	80	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	365	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	26	6	-	-	48	-	-	-		-	-	-	-	-	-	-	-	-	

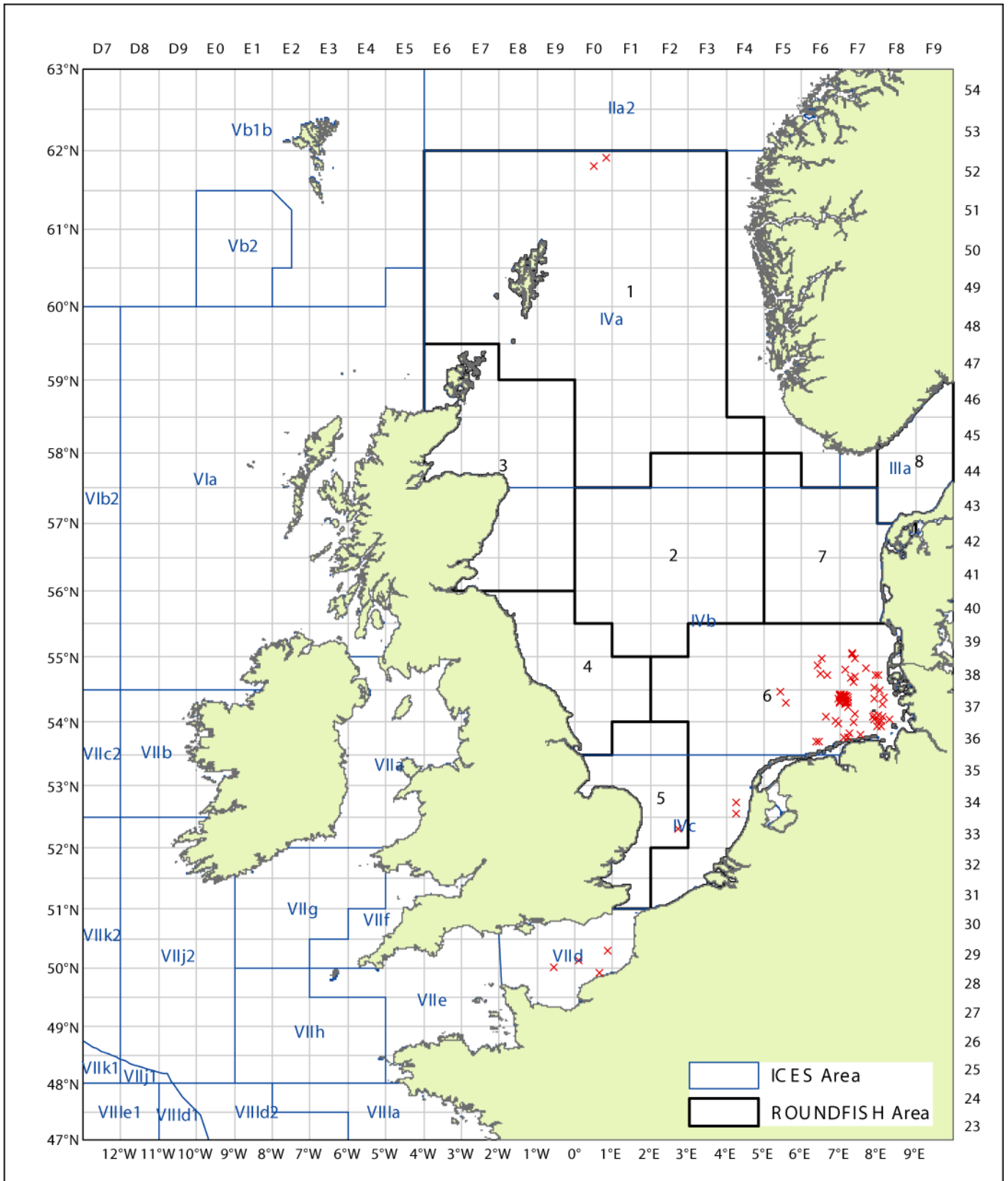


Method of Measurement

- Total length		male	12
- cm below		female	17
min length	7.5 [cm]	undefined	416
max length	101.5 [cm]	total numbers of data	445

Gadus morhua December

Geographical distribution of data used for calculating the length-weight relationship



Gadus morhua

December

$$TW [g] = a * L [cm]^b$$

a = 0.0055

b = 3.1707

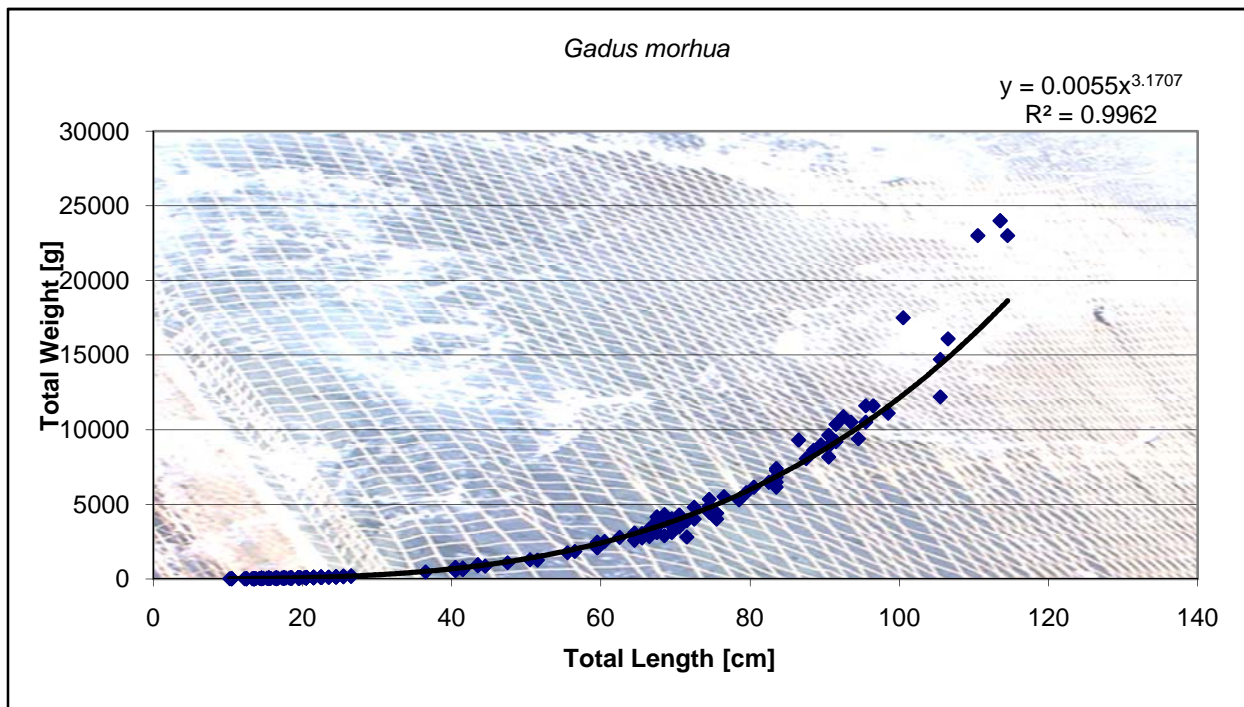
data collected

time period : 1990 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	300																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	-	-	300								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	296	-	-	4	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2	293	1	-	-	-	-	-	-	-	4	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2	-	-	-	-	294	-	-	-	-	-	-	-	-	-	-	-	-	-	-

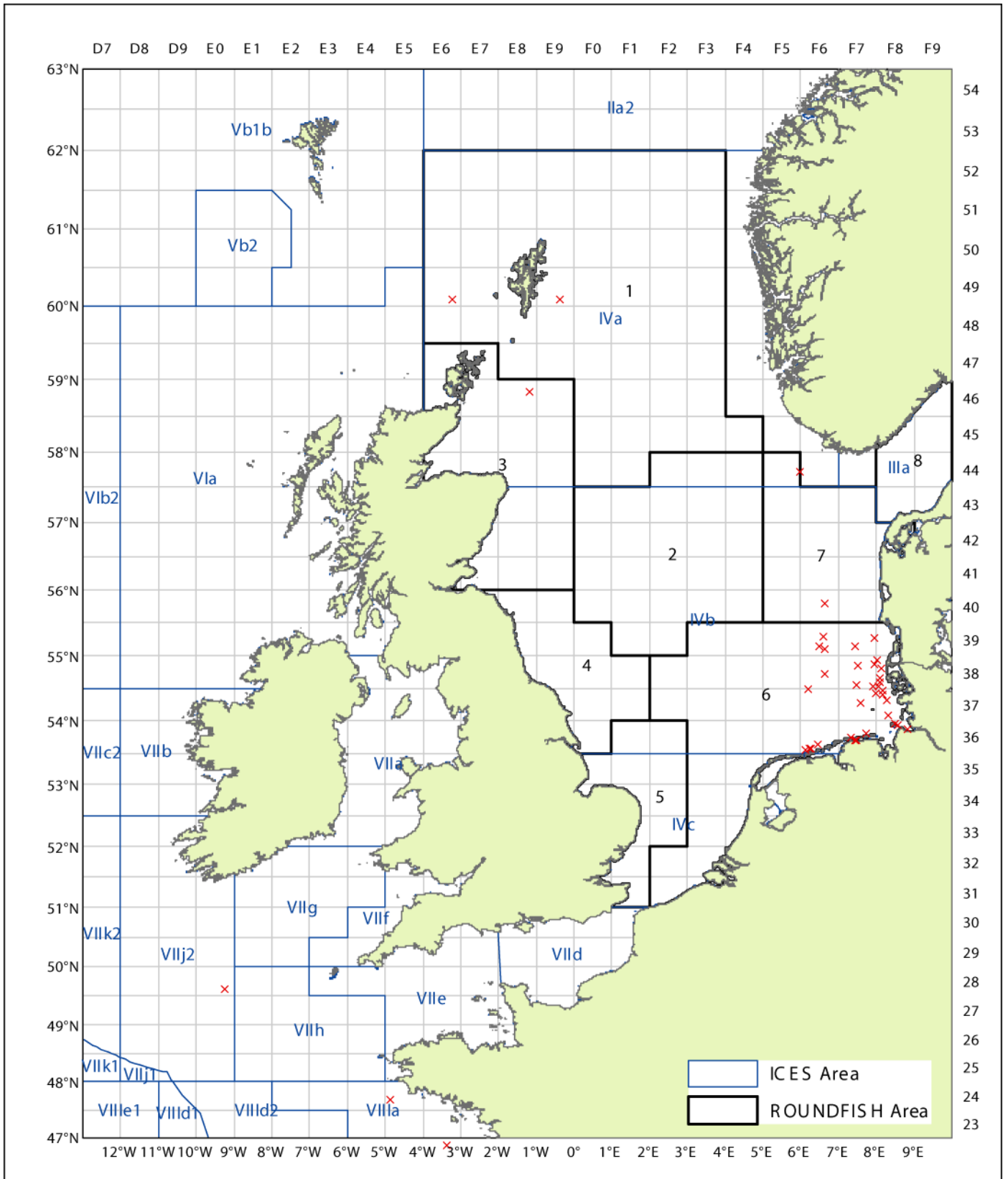


Method of Measurement

- Total length		male	52
- cm below		female	43
min length	10.5 [cm]	undefined	205
max length	114.5 [cm]	total numbers of data	300

Gaidropsarus vulgaris

Geographical distribution of data used for calculating the length-weight relationship



Gaidropsarus vulgaris

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0172

b = 2.7135

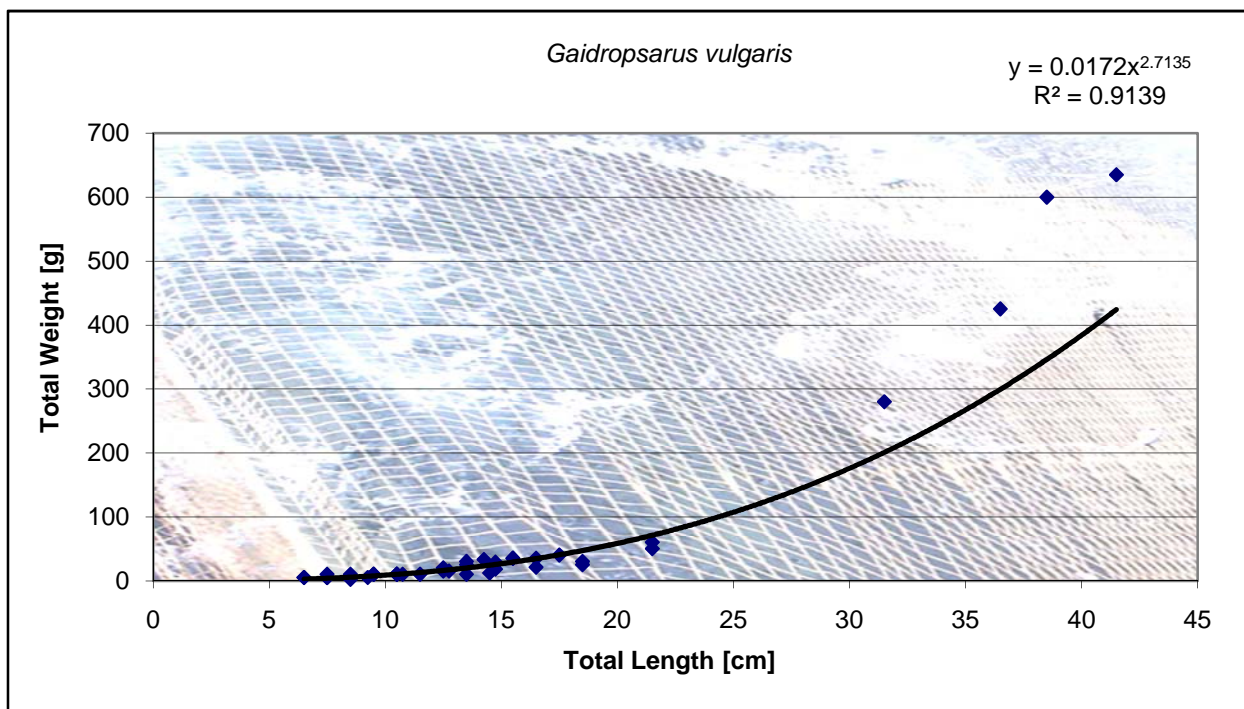
data collected

time period : 1977 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
40	5	1	3																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
31	6	3	2	1	2	-	1	-	3	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	46	-	-	1	2	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	4	42	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	1	-	2	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2	-	1	-	-	41	2	-	-	-	-	-	-	-	-	-	-	-	-	-

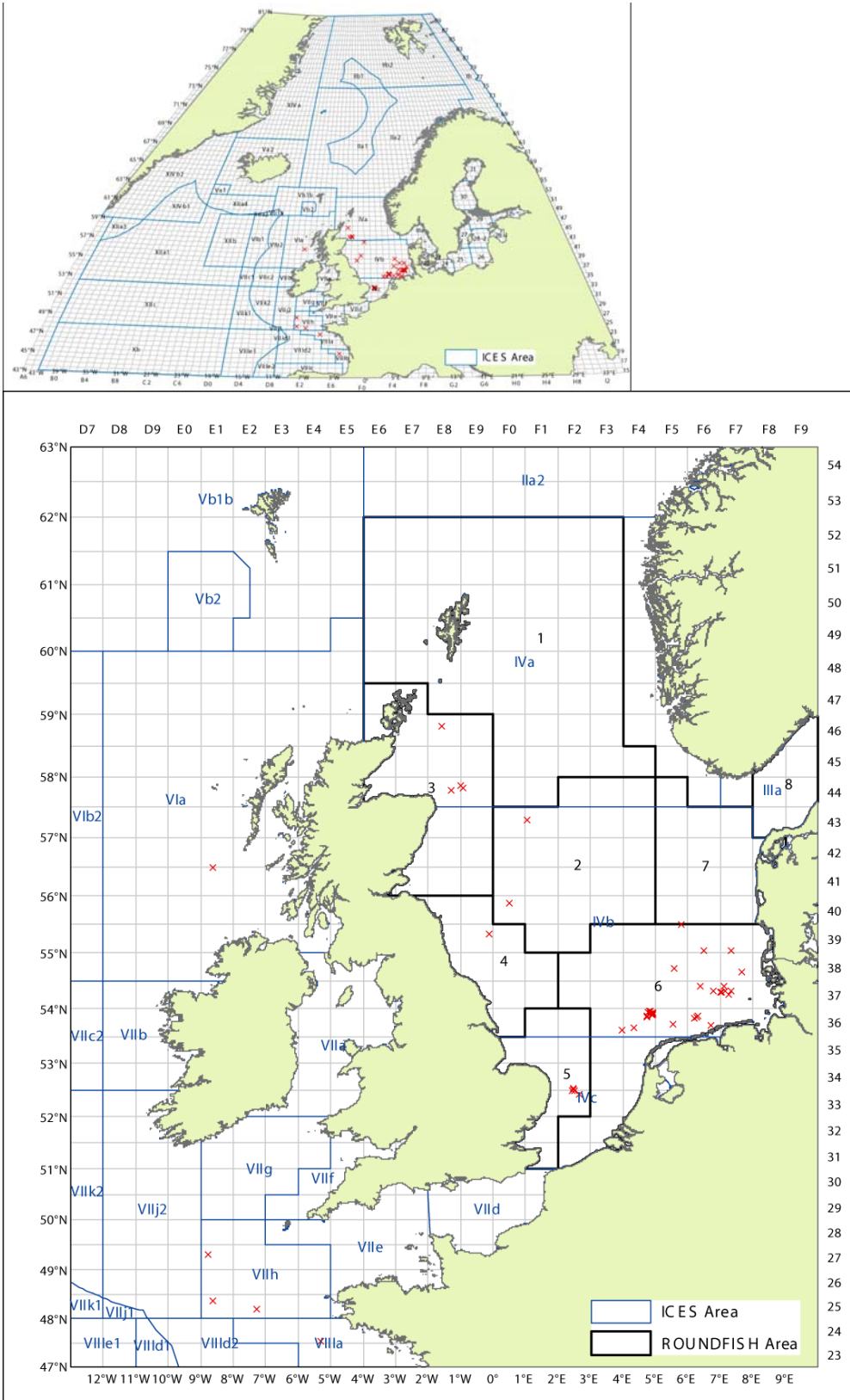


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	6.5 [cm]	undefined	49
max length	41.5 [cm]	total numbers of data	49

Galeorhinus galeus

Geographical distribution of data used for calculating the length-weight relationship



Galeorhinus galeus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0049

b = 2.9819

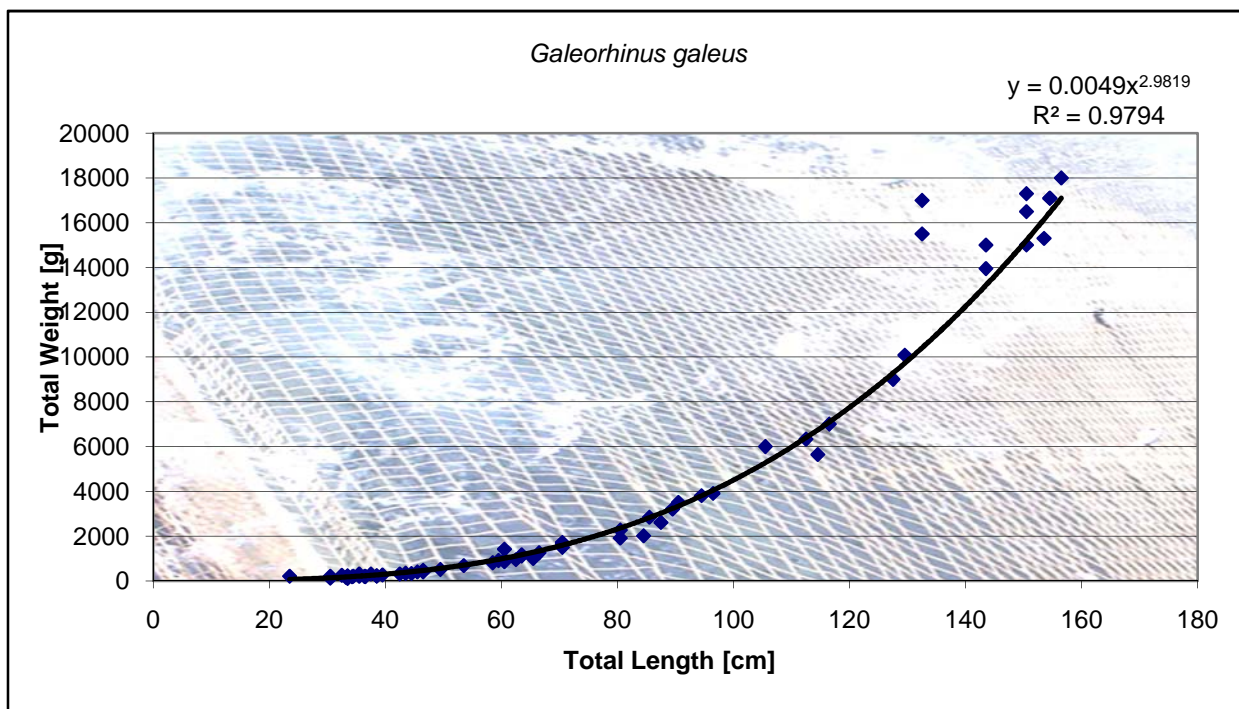
data collected

time period : 1963 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
8	6	49	7																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
3	3	2	3	-	3	35	13	1	1	6	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	64	-	1	3	2	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2	56	6	-	-	1	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	3	-	-	1	1	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
-	3	4	1	6	50	-	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
											-	-	-	-	-	-	-	-	-

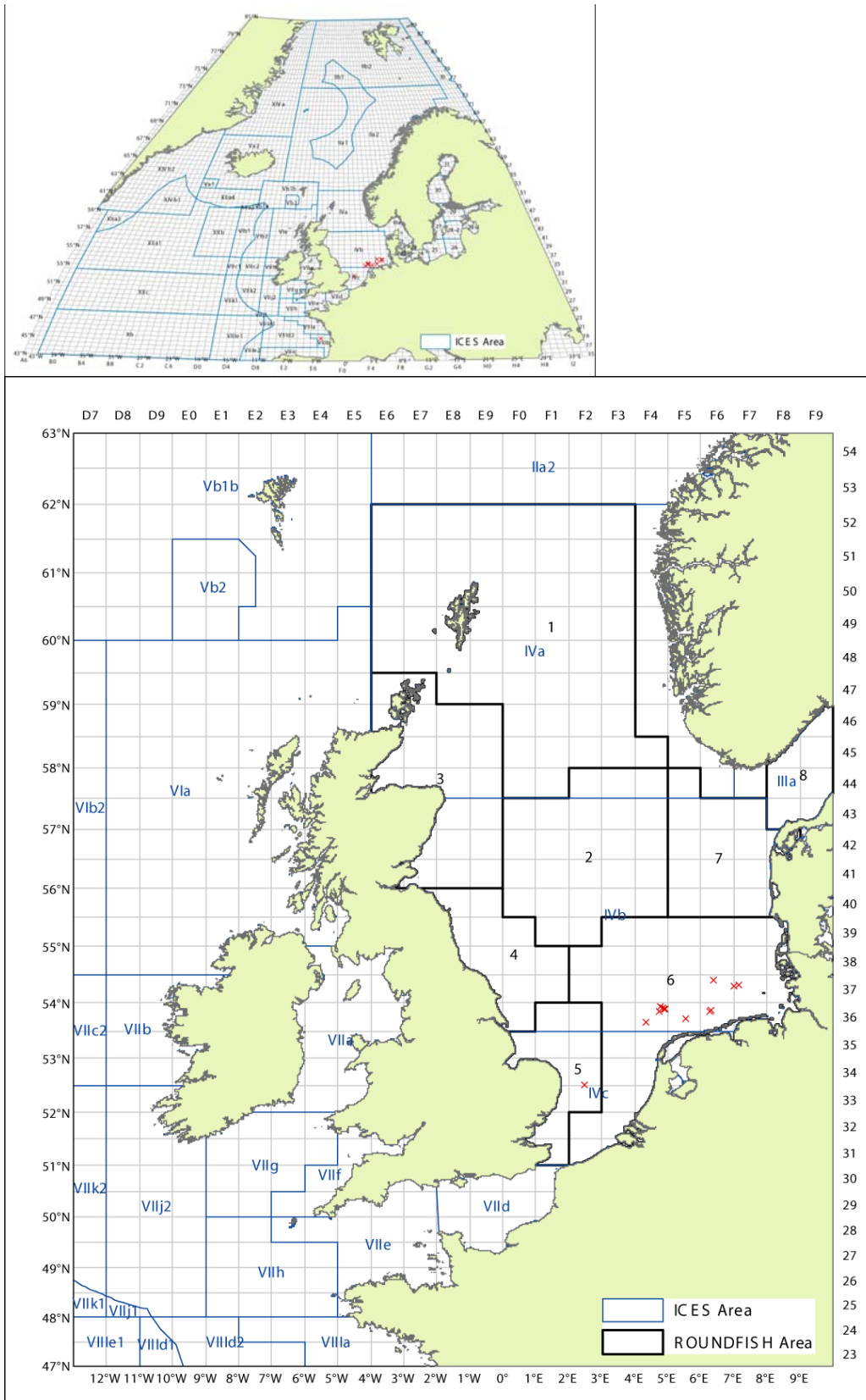


Method of Measurement

- Total length		male	25
- cm below		female	24
min length	23.5 [cm]	undefined	21
max length	156.5 [cm]	total numbers of data	70

Galeorhinus galeus ♀

Geographical distribution of data used for calculating the length-weight relationship



Galeorhinus galeus ♀

Quarter: 2 - 3

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0114

b = 2.7697

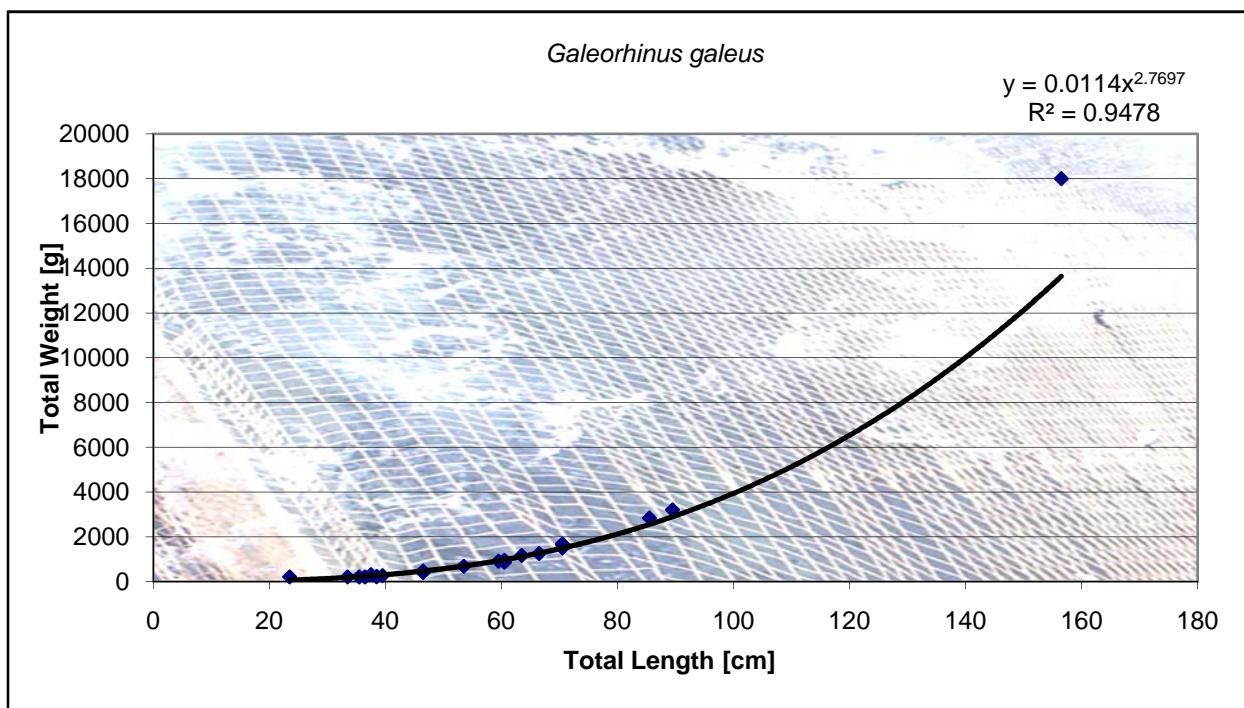
data collected

time period : 1991 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1	23	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	1	-	-	16	6	1	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	23	-	-	-	1	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	22	1	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	1	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
-	-	-	-	1	22	-	-	-											
											1A	1B	1C	1D	1E	1F	2G	2H	2J
											-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	-
- cm below		female	24
min length	23.5 [cm]	undefined	-
max length	156.5 [cm]	total numbers of data	24

Galeorhinus galeus ♂

Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0043

b = 3.0112

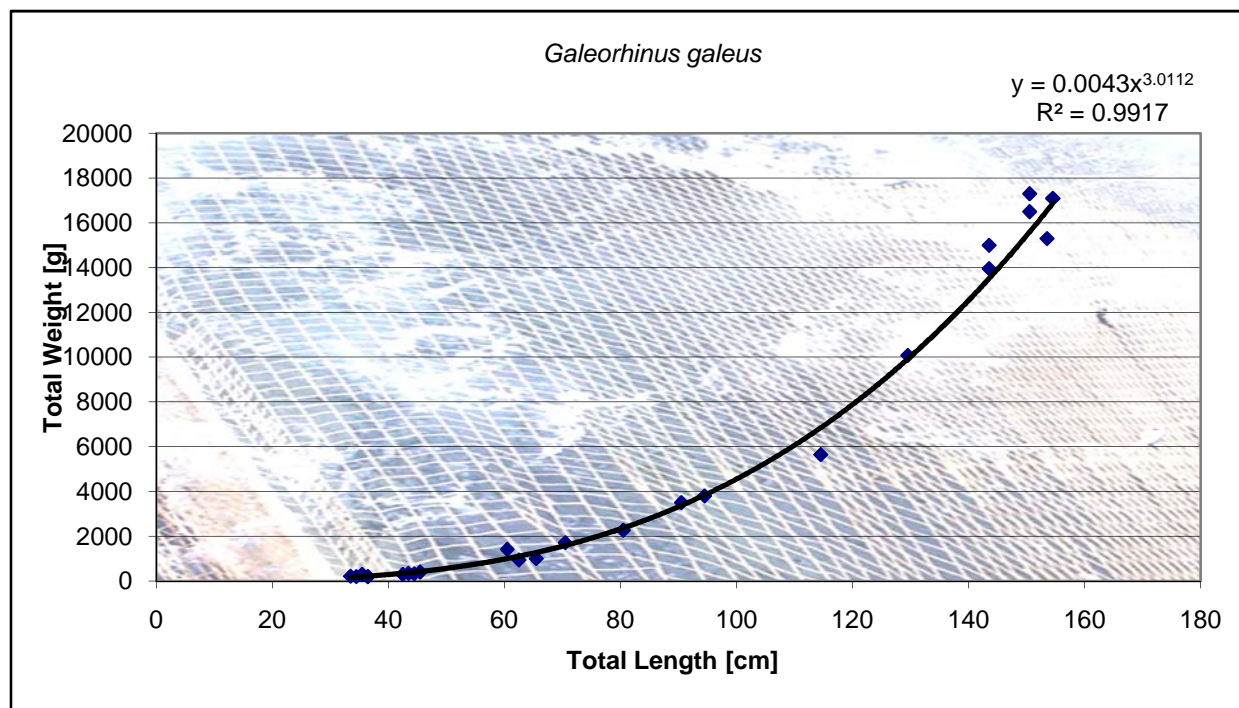
data collected

time period : 1963 - 2006

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
4	1	17	3																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
3	1	-	1	-	-	11	6	-	-	3	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	24	-	-	1	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	2	20	2	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	1	-	-	-	-	-	-	-	-	-										
Roundfisharea											NAFO									
1	2	3	4	5	6	7	8	9			1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	2	4	1	2	15	-	-	-			-	-	-	-	-	-	-	-	-	

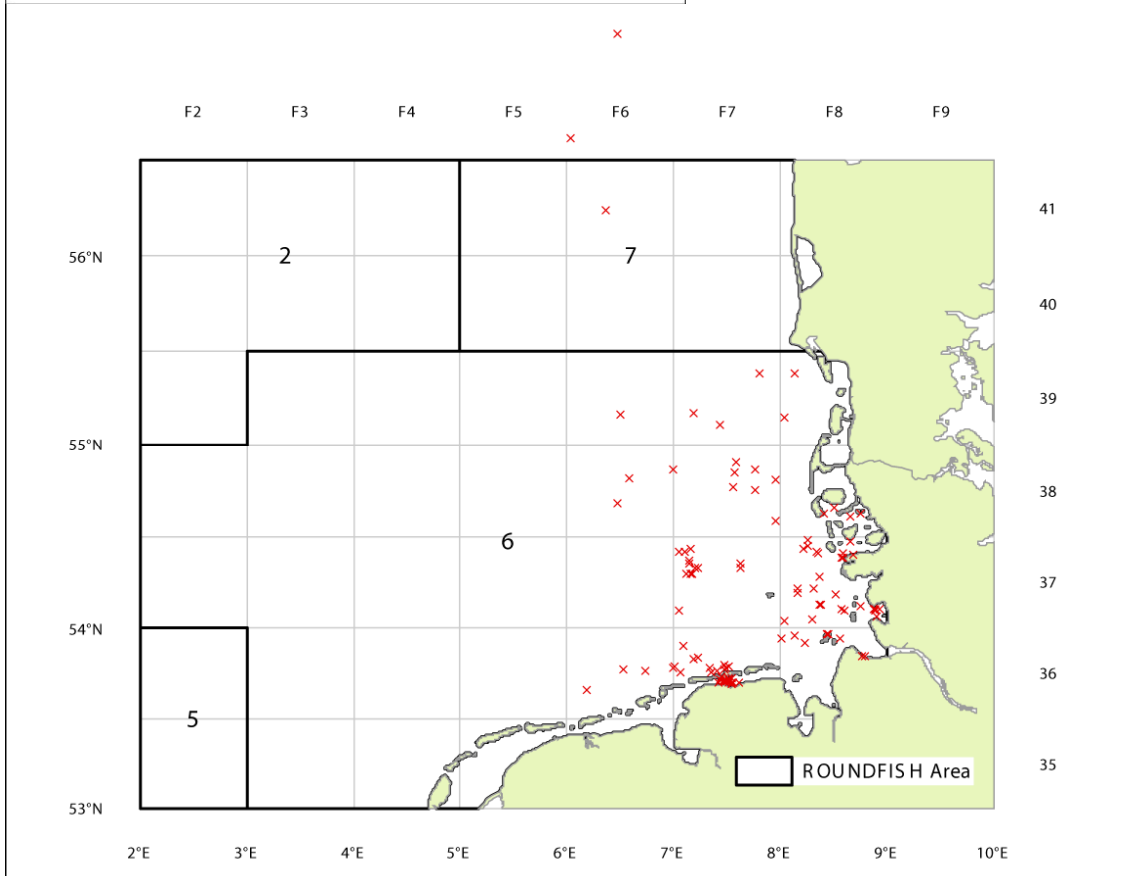
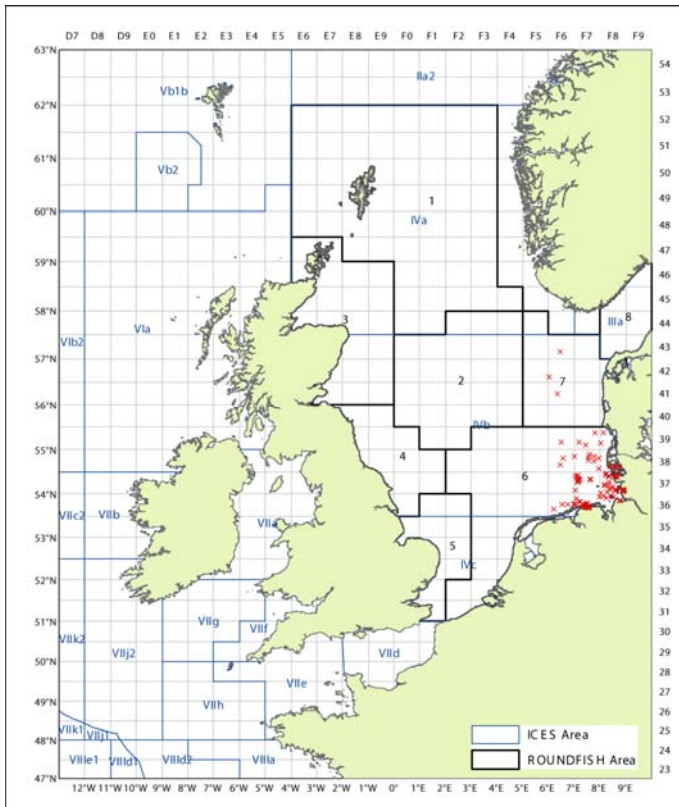


Method of Measurement

- Total length		male	25
- cm below		female	-
min length	33.5 [cm]	undefined	-
max length	154.5 [cm]	total numbers of data	25

Gasterosteus aculeatus

Geographical distribution of data used for calculating the length-weight relationship



Gasterosteus aculeatus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0239

b = 2.6111

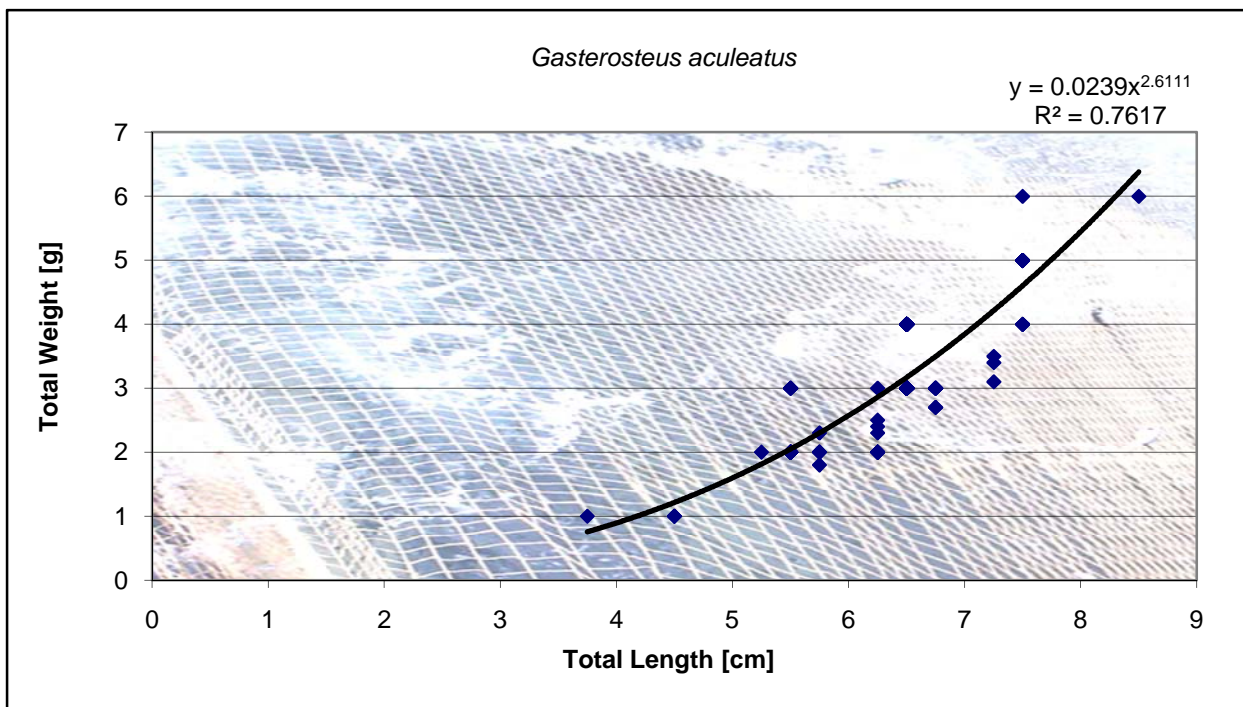
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
90	25	2	5																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
81	3	6	11	14	-	-	1	1	-	4	1									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	122	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	-	122	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	-	-	-	-	113	9	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

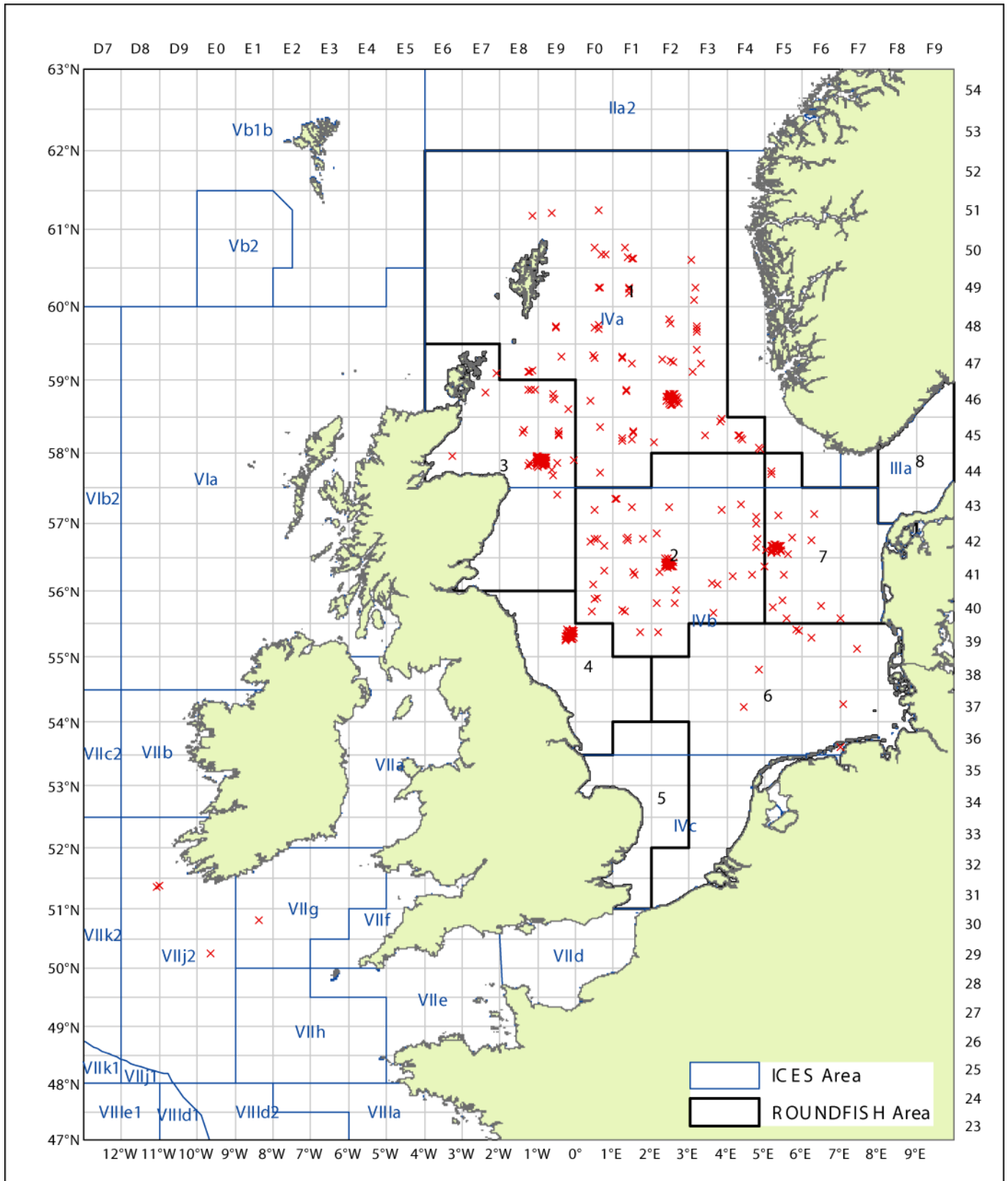


Method of Measurement

- Total length		male	-
- 1/2 cm below, cm below		female	-
min length	3.75 [cm]	undefined	122
max length	8.5 [cm]	total numbers of data	122

Glyptocephalus cynoglossus

Geographical distribution of data used for calculating the length-weight relationship



Glyptocephalus cynoglossus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0032

b = 3.1895

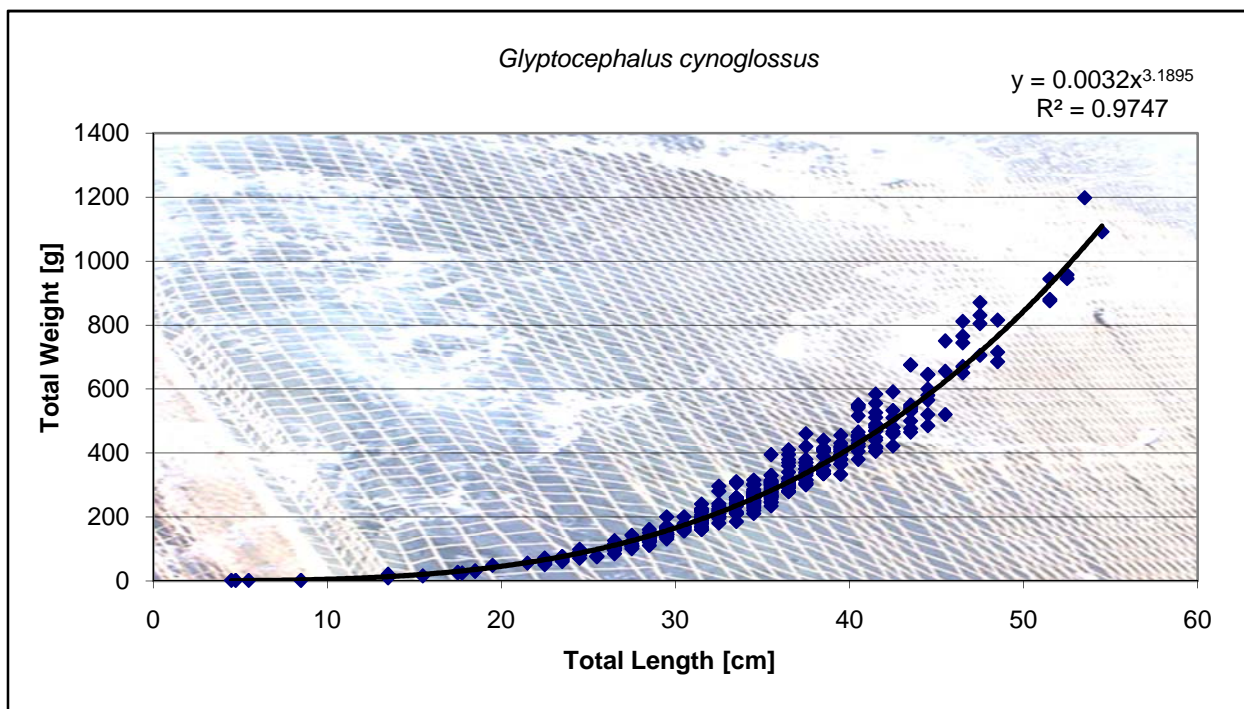
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
149	26	161	7																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
55	82	12	3	15	8	67	85	9	-	7	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	339	-	-	4	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	194	145	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	-	3	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
121	59	76	30	-	9	44	-	-	-	-	-	-	-	-	-	-	-	-	-

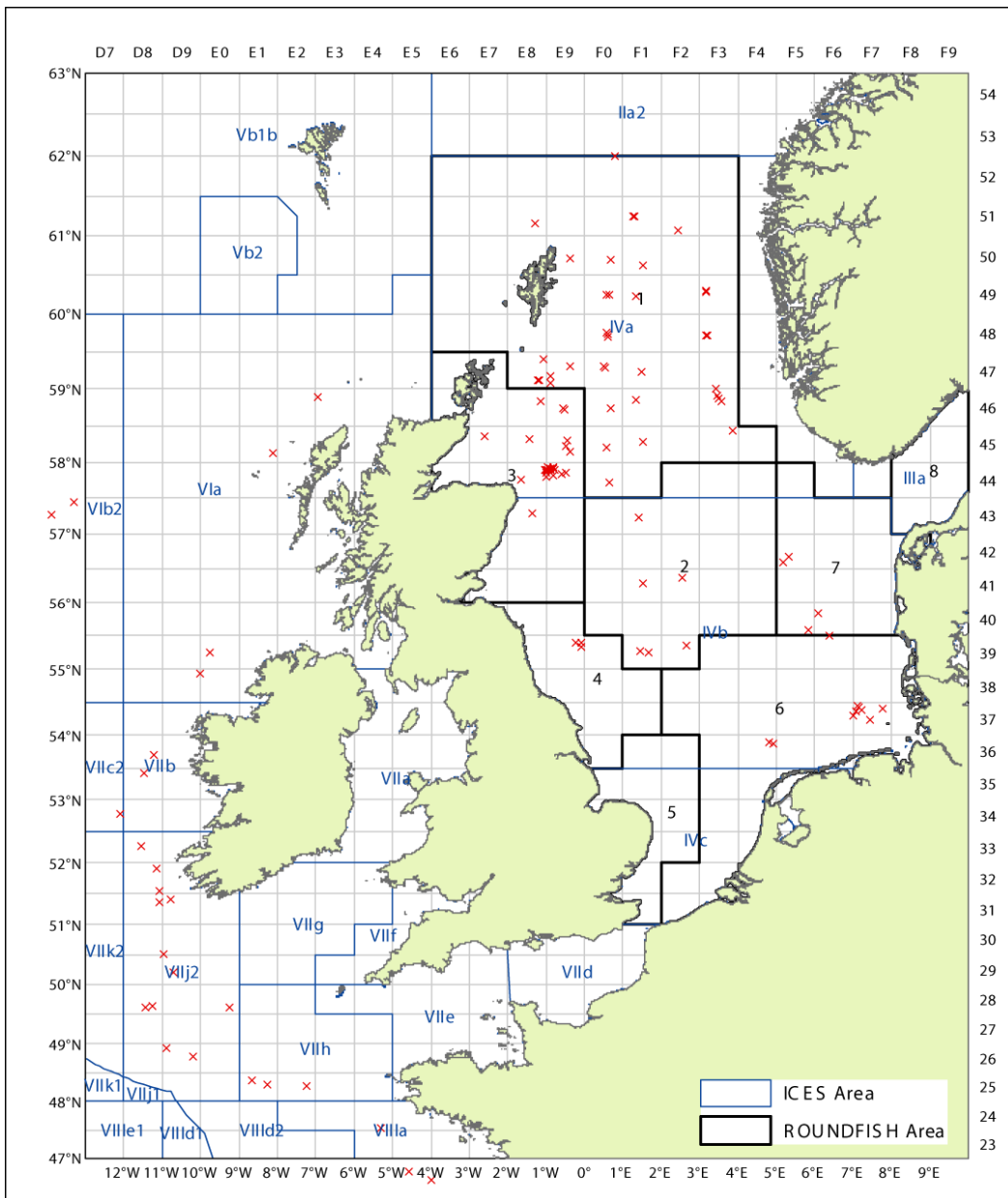
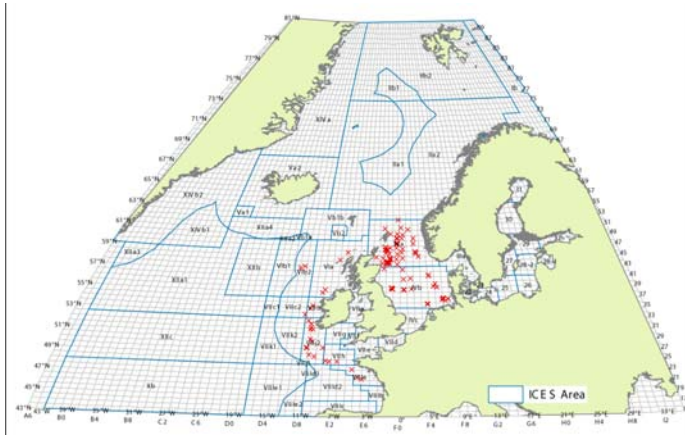


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	4.5 [cm]	undefined	343
max length	54.5 [cm]	total numbers of data	343

Helicolenus dactylopterus

Geographical distribution of data used for calculating the length-weight relationship



Helicolenus dactylopterus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0098

b = 3.1616

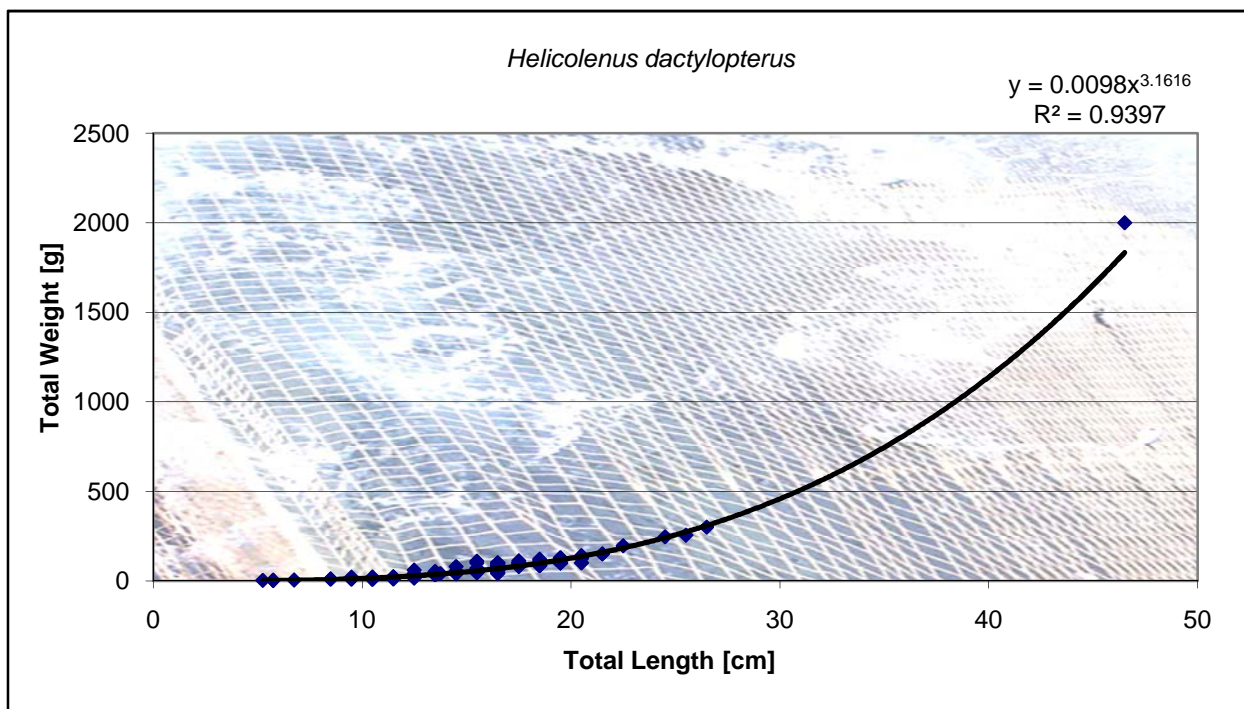
data collected

time period : 1987 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
67	35	16	9																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
19	28	20	13	8	14	10	6	-	-	9	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	94	-	7	23	3	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	67	27	-	-	-	5	2	-	2	2	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	3	16	-	3	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
41	6	27	5	-	9	5	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	

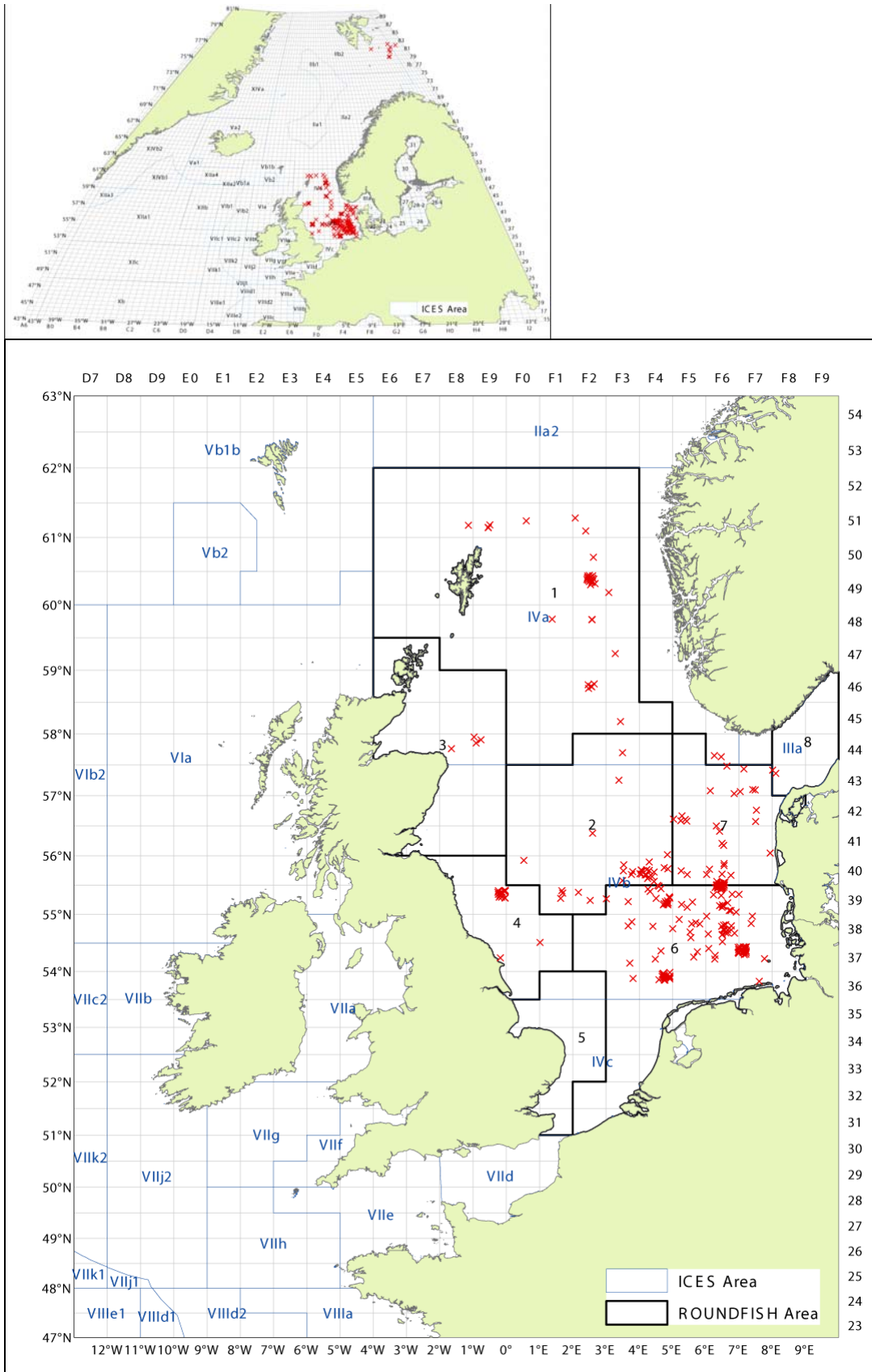


Method of Measurement

- Total length		male	-
- cm below, 1/2 cm below		female	-
min length	5.25 [cm]	undefined	127
max length	46.5 [cm]	total numbers of data	127

Hippoglossoides platessoides

Geographical distribution of data used for calculating the length-weight relationship



Hippoglossoides platessoides

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0034

b = 3.2851

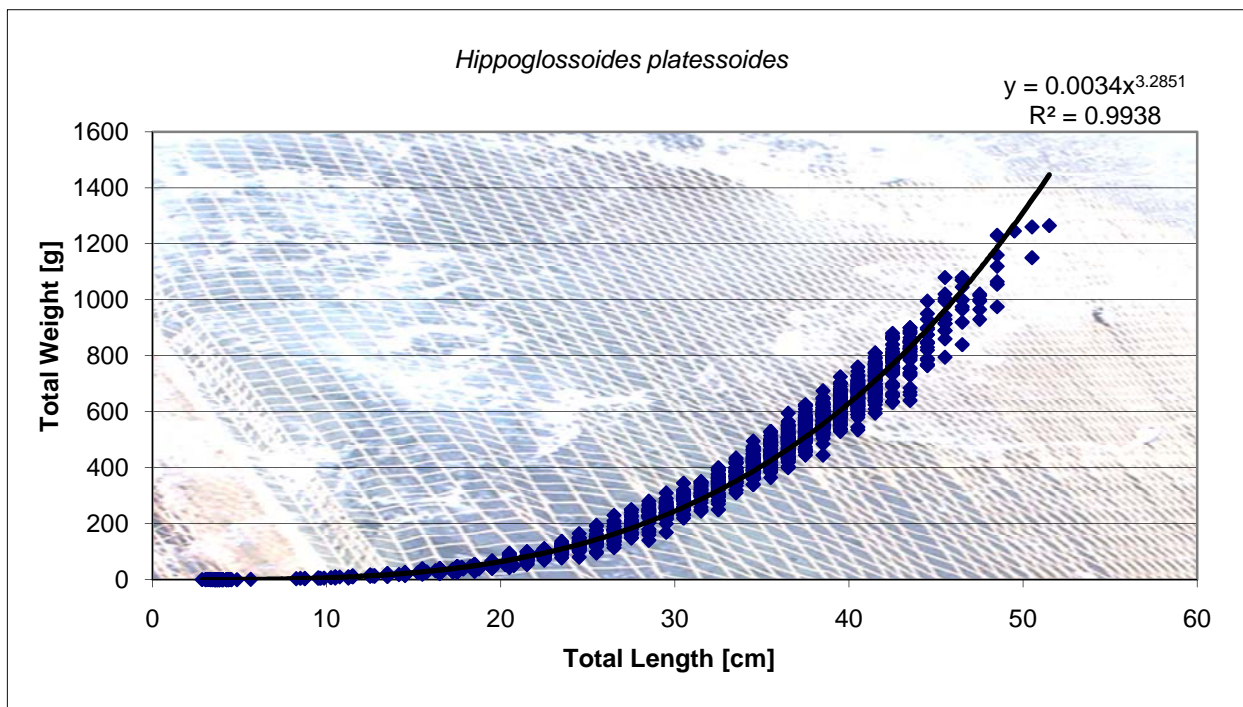
data collected

time period : 2000 - 2011

data source : research vessel, commercial trawler

numbers of data:

Quarter																													
1	2	3	4																										
81	35	1007	329																										
Month																													
1	2	3	4	5	6	7	8	9	10	11	12																		
48	33	-	5	24	6	94	913	-	309	12	8																		
Subarea																													
1	2	3	4	5	6	7	8	9	10	12	14																		
84	865	2	501	-	-	-	-	-	-	-	-																		
Division																													
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F										
84	-	865	2	-	-	-	185	316	-	-	-	-	-	-	-	-	-	-	-	-									
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B															
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
Roundfisharea											NAFO																		
1	2	3	4	5	6	7	8	9												1A	1B	1C	1D	1E	1F	2G	2H	2J	
178	45	4	67	-	143	62	2	-												-	-	-	-	-	-	-	-	-	-

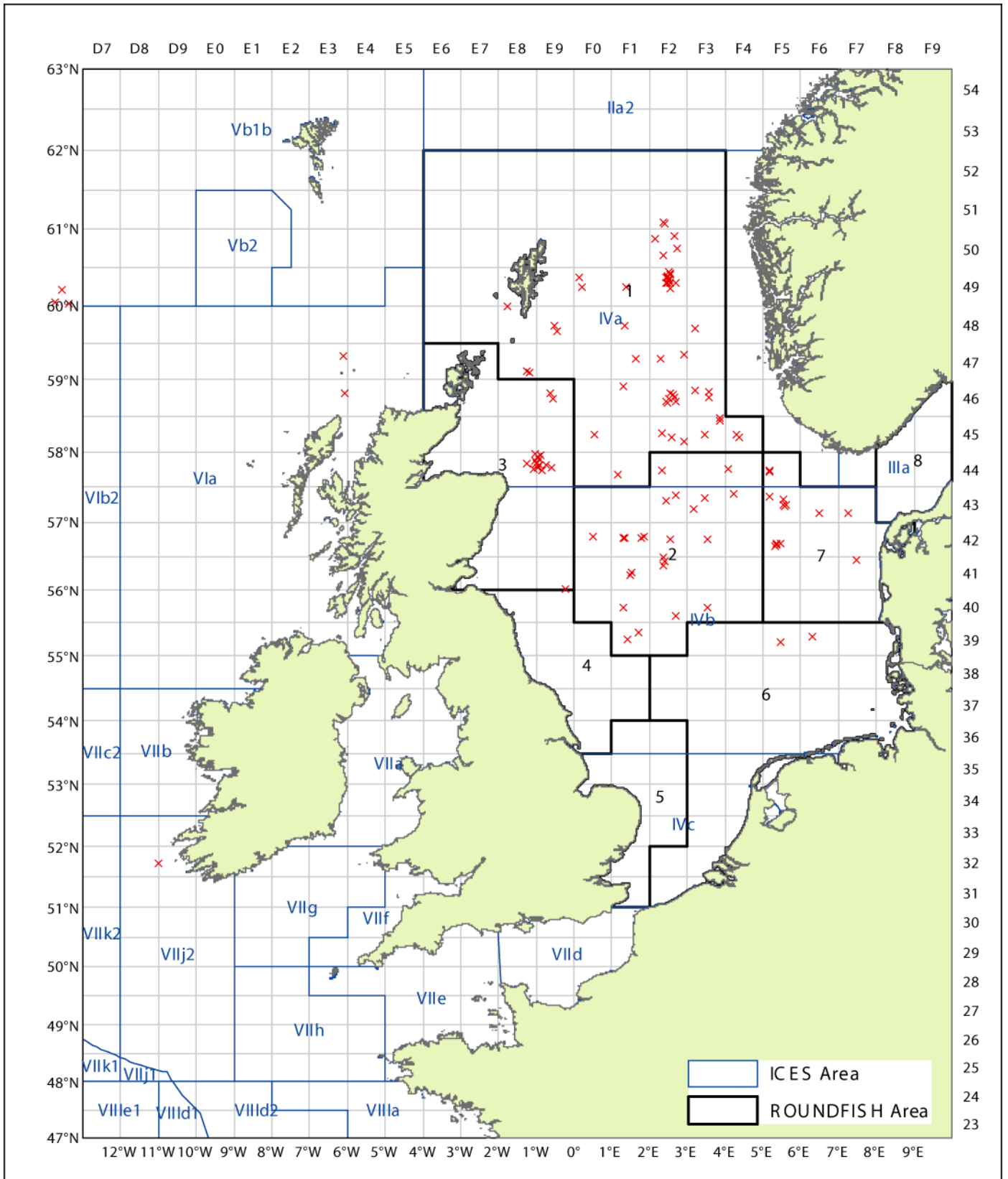


Method of Measurement

- Total length		male	-
- cm below, mm below		female	-
min length	2.85 [cm]	undefined	1452
max length	51.5 [cm]	total numbers of data	1452

Hippoglossus hippoglossus

Geographical distribution of data used for calculating the length-weight relationship



Hippoglossus hippoglossus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0026

b = 3.3322

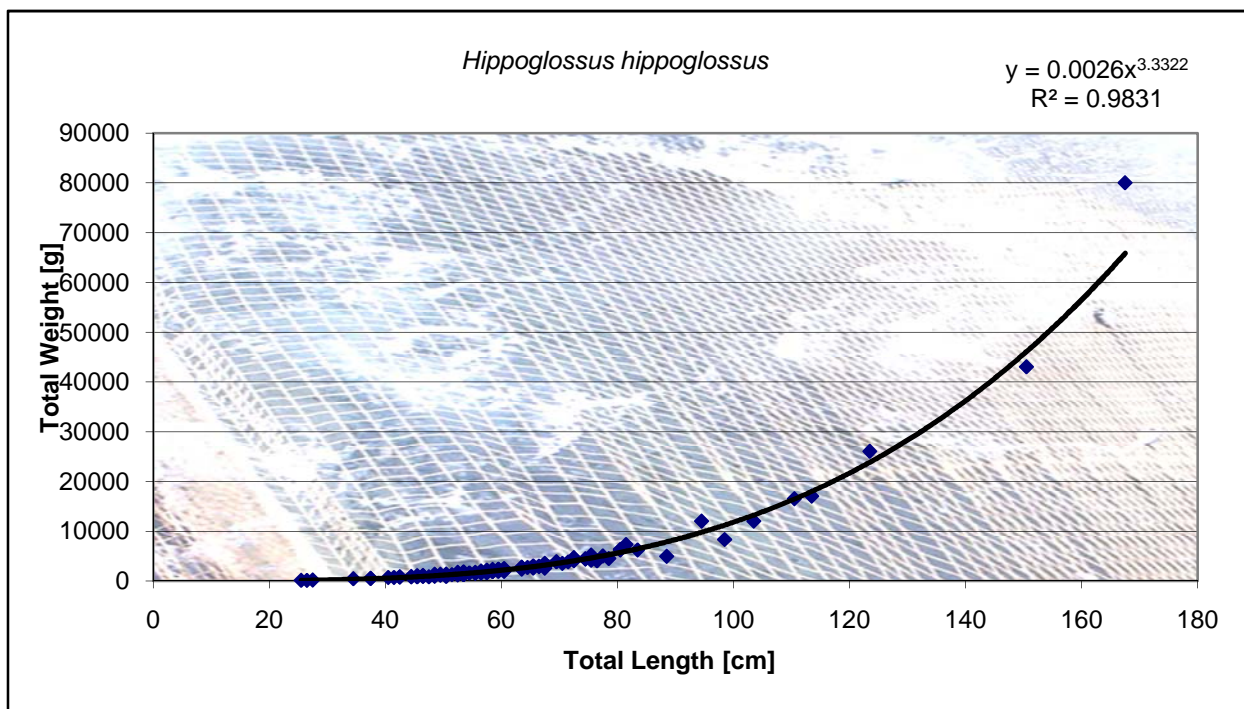
data collected

time period : 1981 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
51	20	47	2																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
18	25	8	-	8	12	34	12	1	-	2	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	114	3	2	1	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	78	36	-	-	3	2	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	1	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
57	24	16	-	-	2	15	-	-	-	-	-	-	-	-	-	-	-		

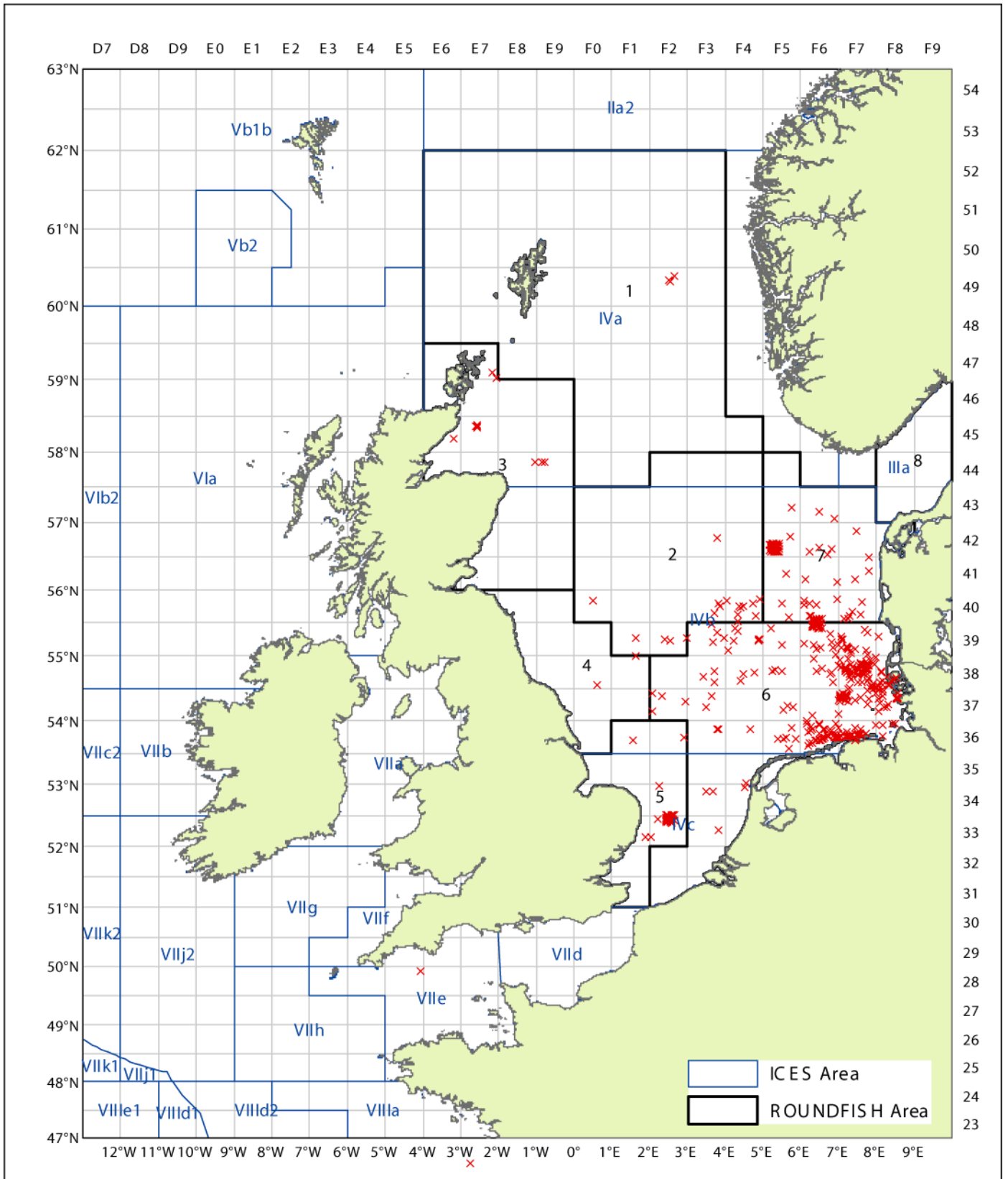


Method of Measurement

- Total length	male	4
- cm below	female	-
min length	undefined	116
max length	total numbers of data	120
25.5 [cm]		
167.5 [cm]		

Hyperoplus lanceolatus

Geographical distribution of data used for calculating the length-weight relationship



Hyperoplus lanceolatus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0066

b = 2.6967

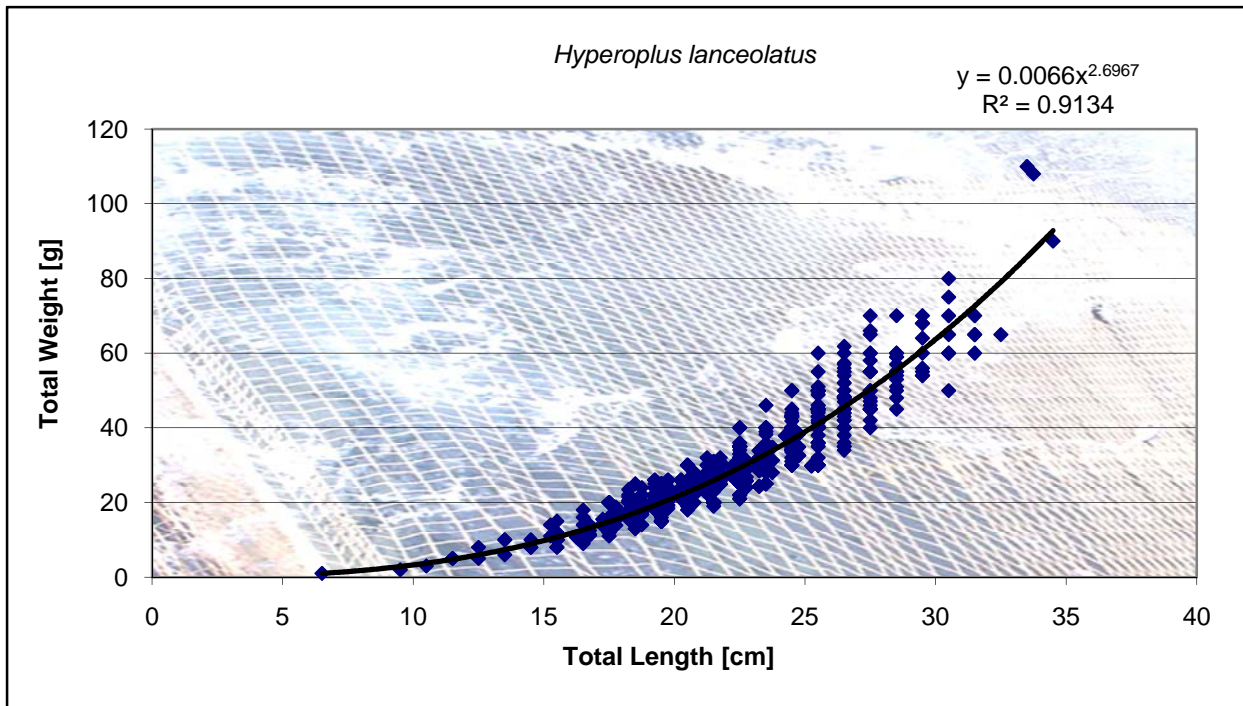
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																											
1	2	3	4																								
109	135	496	42																								
Month																											
1	2	3	4	5	6	7	8	9	10	11	12																
88	19	2	6	111	18	288	194	14	4	17	21																
Subarea																											
1	2	3	4	5	6	7	8	9	10	12	14																
-	-	-	780	-	-	2	-	-	-	-	-																
Division																											
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F								
-	-	-	-	-	-	-	18	731	31	-	-	-	-	-	-	-	-	1	-								
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B													
-	-	1	-	-	-	-	-	-	-	-	-	-	-	-													
Roundfisharea											NAFO																
1	2	3	4	5	6	7	8	9										1A	1B	1C	1D	1E	1F	2G	2H	2J	
3	54	10	1	43	586	83	-	-										-	-	-	-	-	-	-	-	-	-

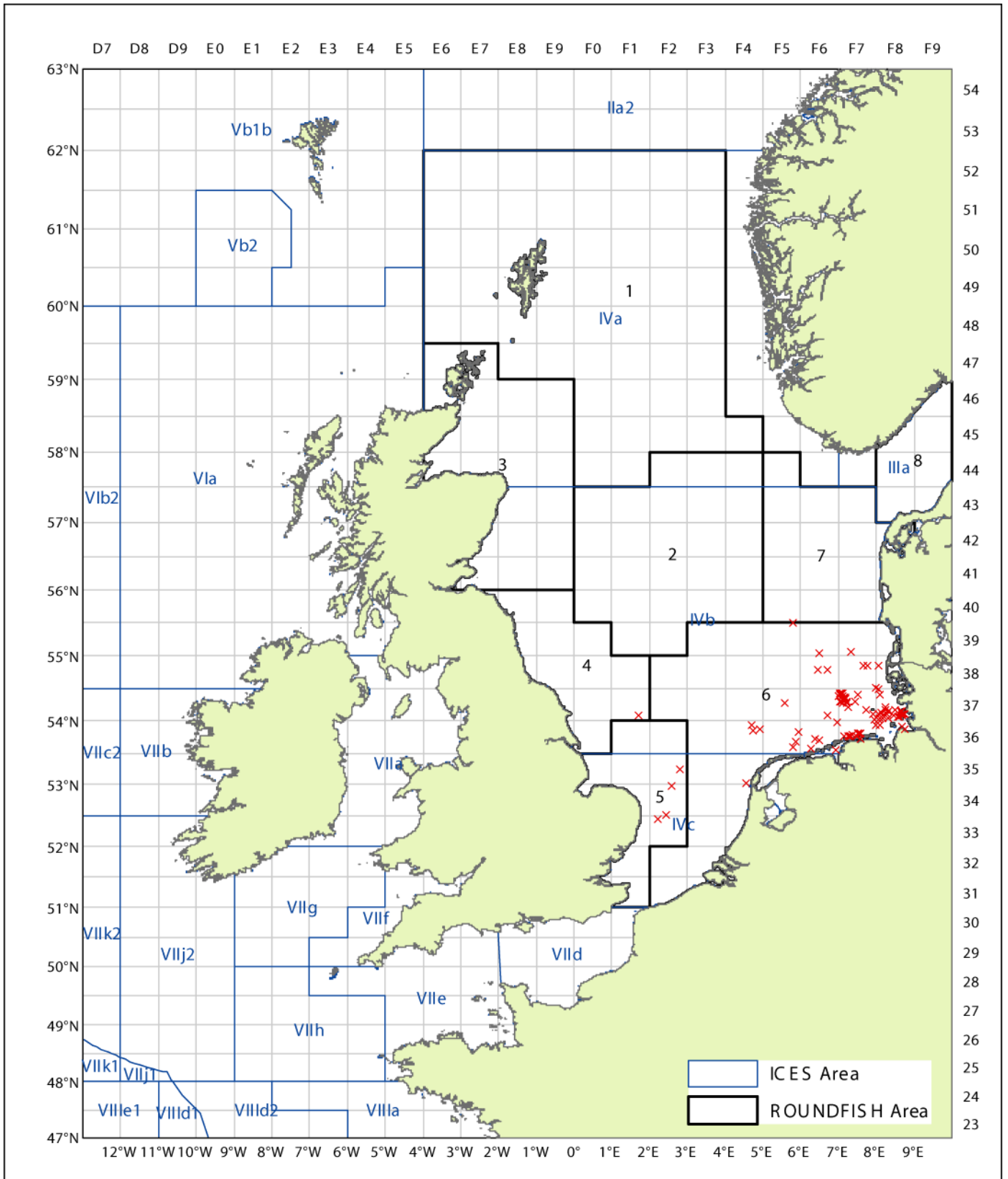


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	6.5 [cm]	undefined	782
max length	34.5 [cm]	total numbers of data	782

Lampetra fluviatilis

Geographical distribution of data used for calculating the length-weight relationship



Lampetra fluviatilis

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0005

b = 3.3567

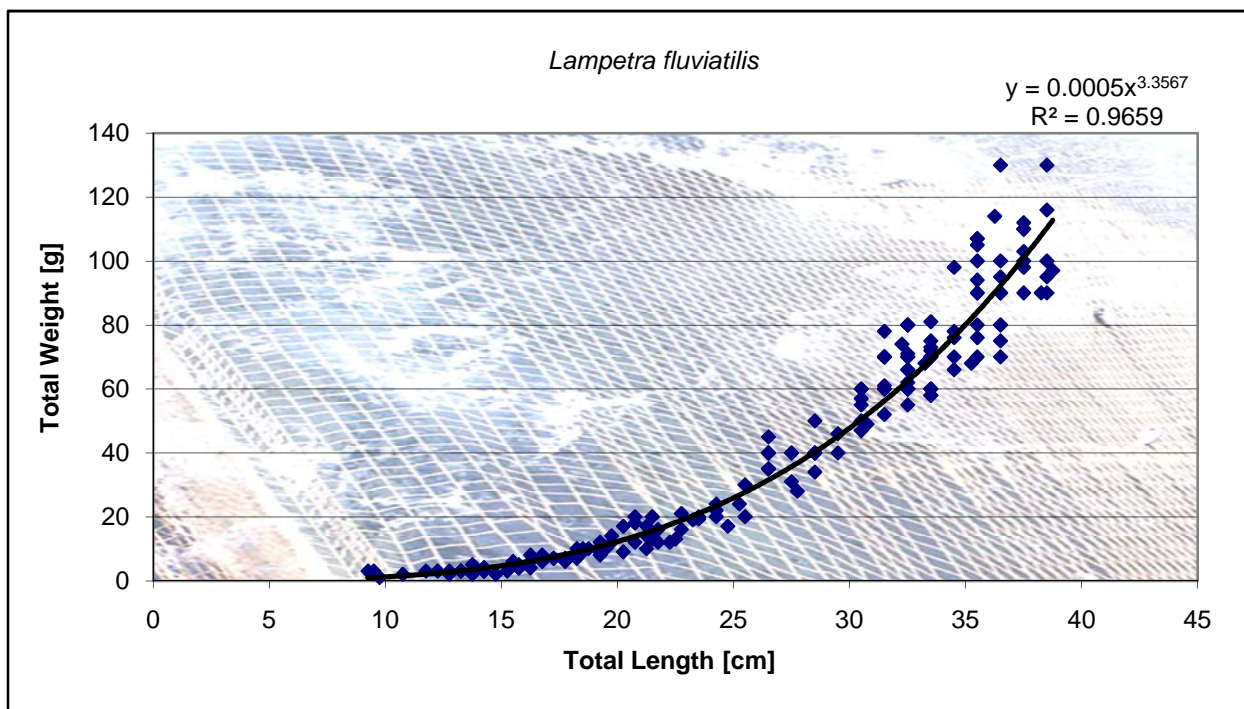
data collected

time period : 1955 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
8	32	88	50																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
7	1	-	5	8	19	28	40	20	7	20	23								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	178	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	-	174	4	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	-	-	1	4	173	-	-	-		-	-	-	-	-	-	-	-	-	

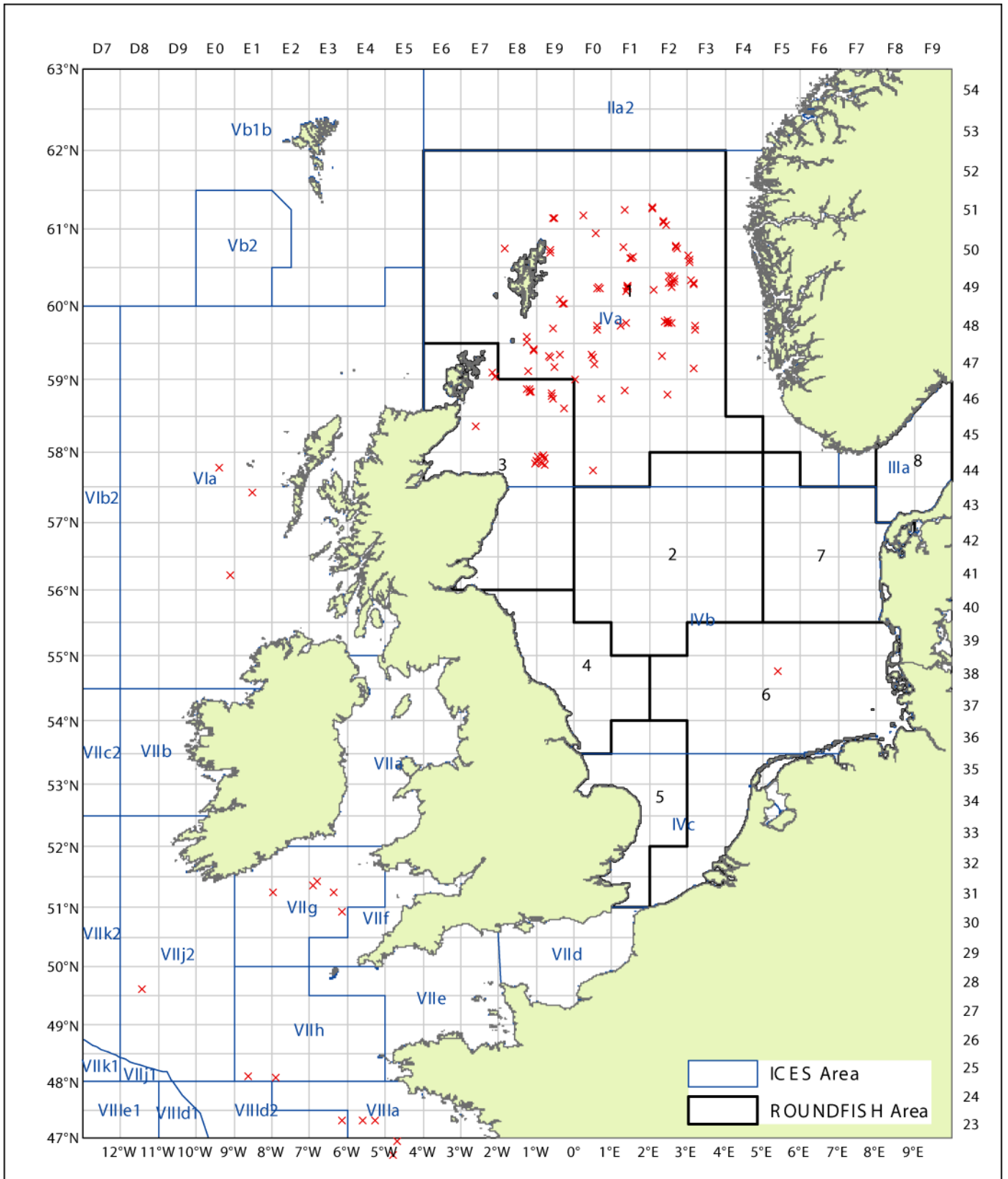


Method of Measurement

- Total length		male	-
- cm below, 1/2 cm below		female	1
min length	9.25 [cm]	undefined	177
max length	38.75 [cm]	total numbers of data	178

Lepidorhombus whiffiagonis

Geographical distribution of data used for calculating the length-weight relationship



Lepidorhombus whiffiagonis

Quarter: 1 - 3

$$TW [g] = a * L [cm]^b$$

a = 0.0026

b = 3.2967

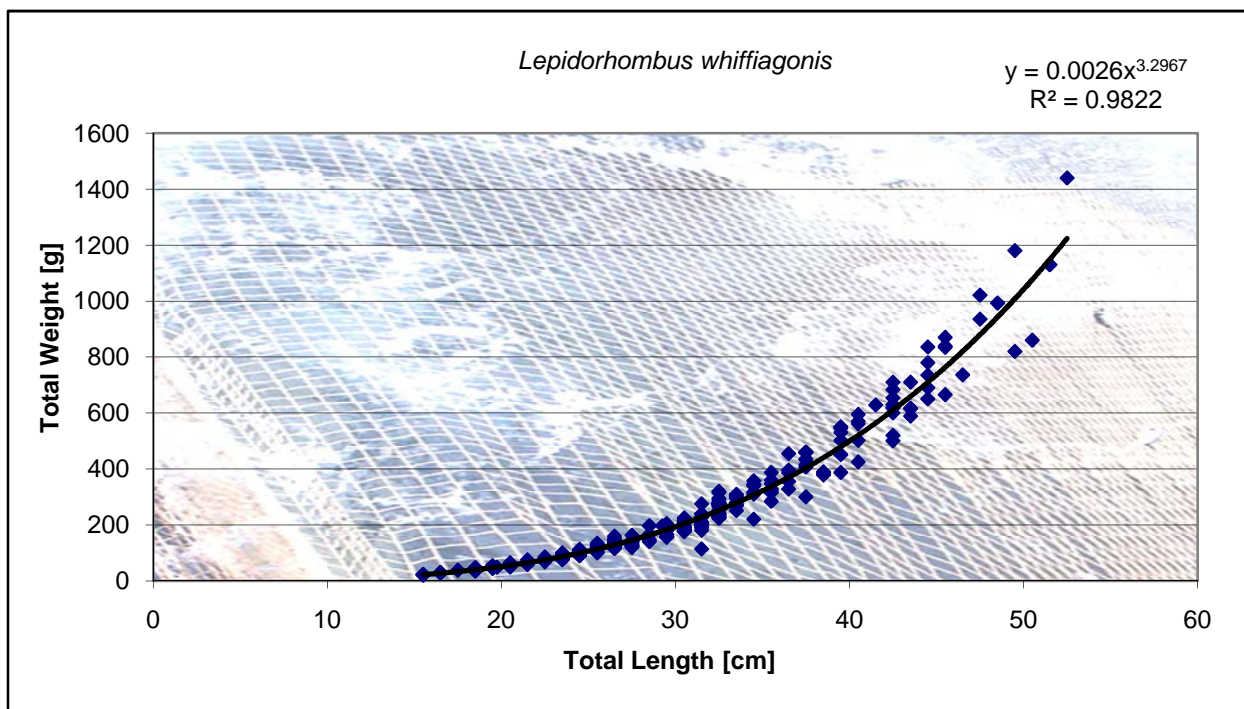
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
209	23	15	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
34	156	19	5	18	-	9	6	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	230	-	3	8	6	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	229	1	-	-	-	3	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
5	2	1	-	5	-	-	1	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
208	-	21	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-		

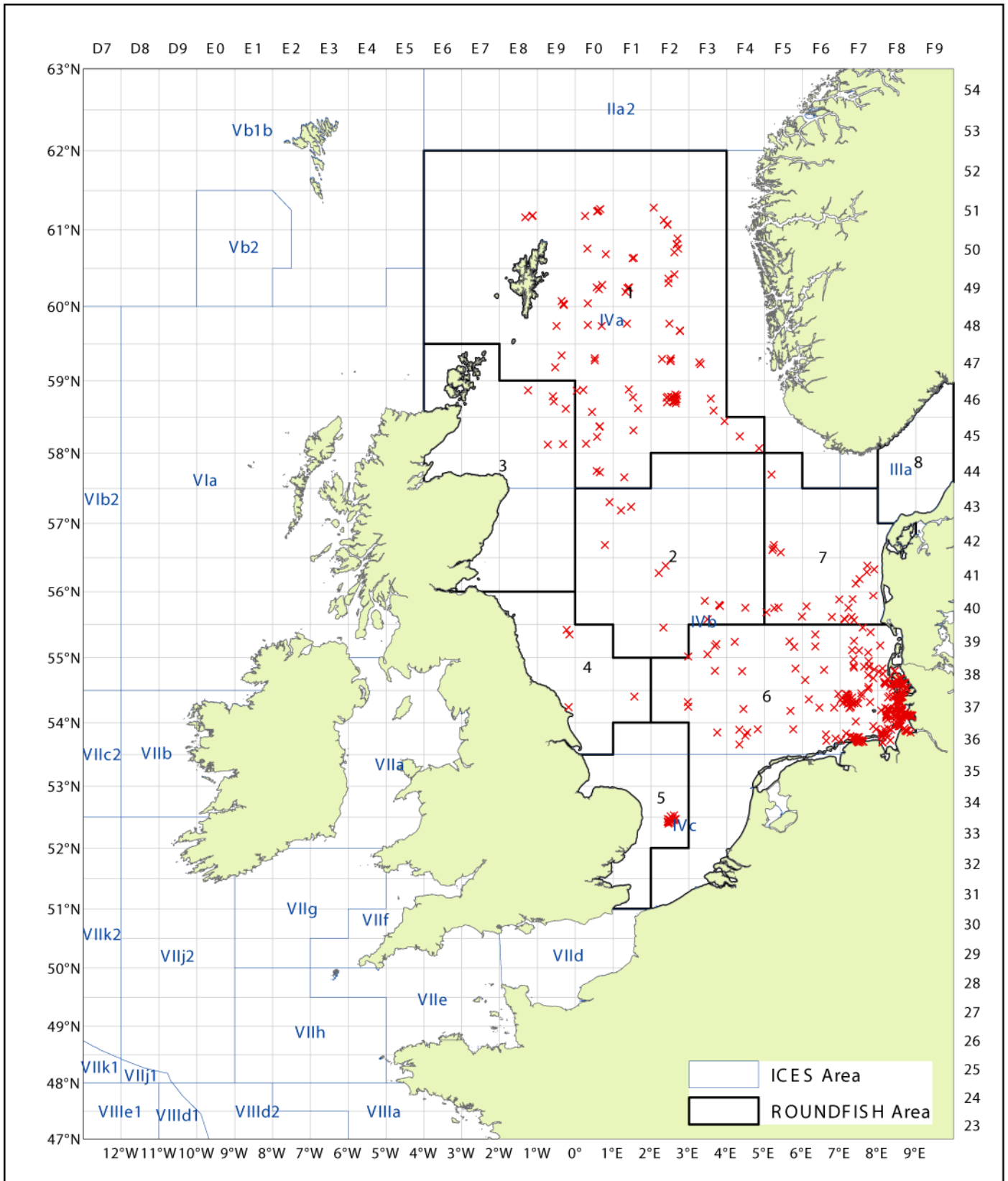


Method of Measurement

- Total length		male	27
- cm below		female	63
min length	15.5 [cm]	undefined	157
max length	52.5 [cm]	total numbers of data	247

Limanda limanda

Geographical distribution of data used for calculating the length-weight relationship



Limanda limanda

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0087

b = 3.0226

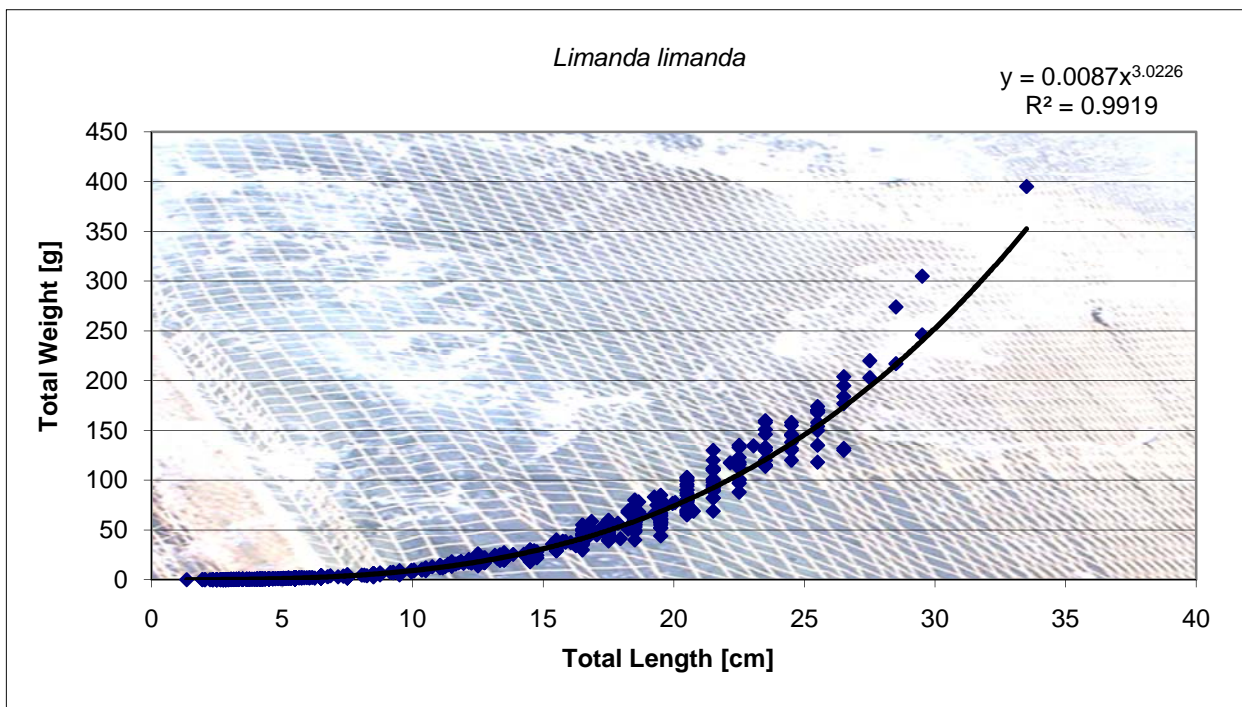
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
206	65	447	25																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
141	65	-	13	48	4	206	136	105	25	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	743	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	105	624	14	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
98	46	6	4	14	507	68	-	-						-	-	-	-	-	-	-	-	-

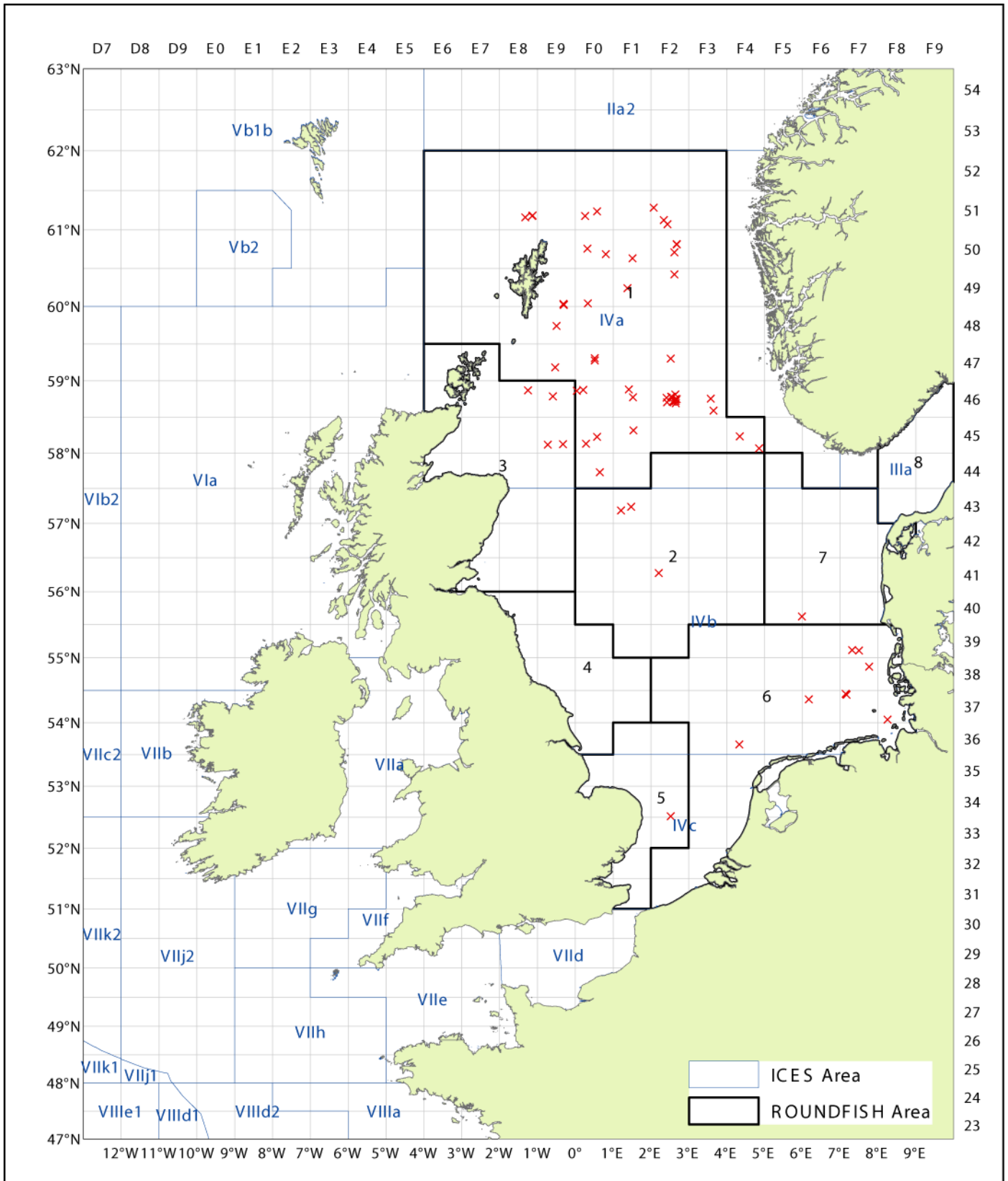


Method of Measurement

- Total length		male	92
- cm below, mm below		female	90
min length	1.35 [cm]	undefined	561
max length	33.5 [cm]	total numbers of data	743

Limanda limanda ♀

Geographical distribution of data used for calculating the length-weight relationship



Limanda limanda



Quarter: 1 - 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0076

b = 3.0584

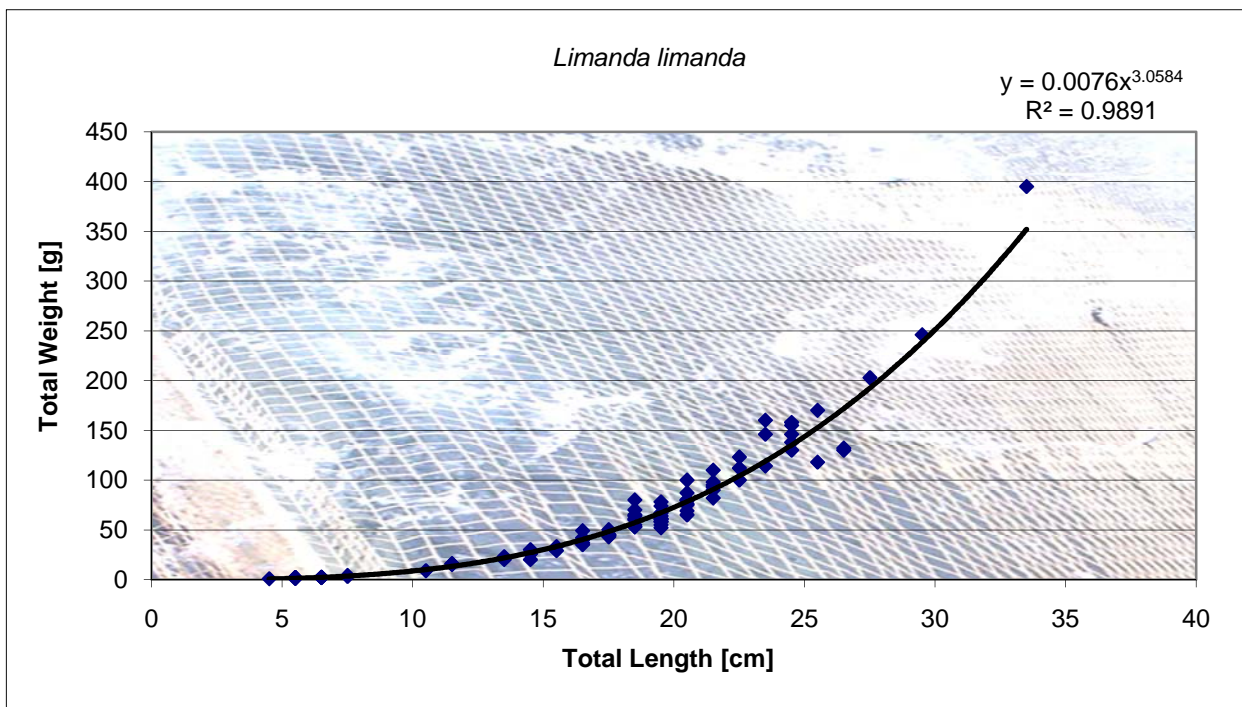
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
70	1	19	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
38	32	-	-	1	-	13	6	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	90	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	53	36	1	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
49	3	4	-	1	32	1	-	-		-	-	-	-	-	-	-	-	-	

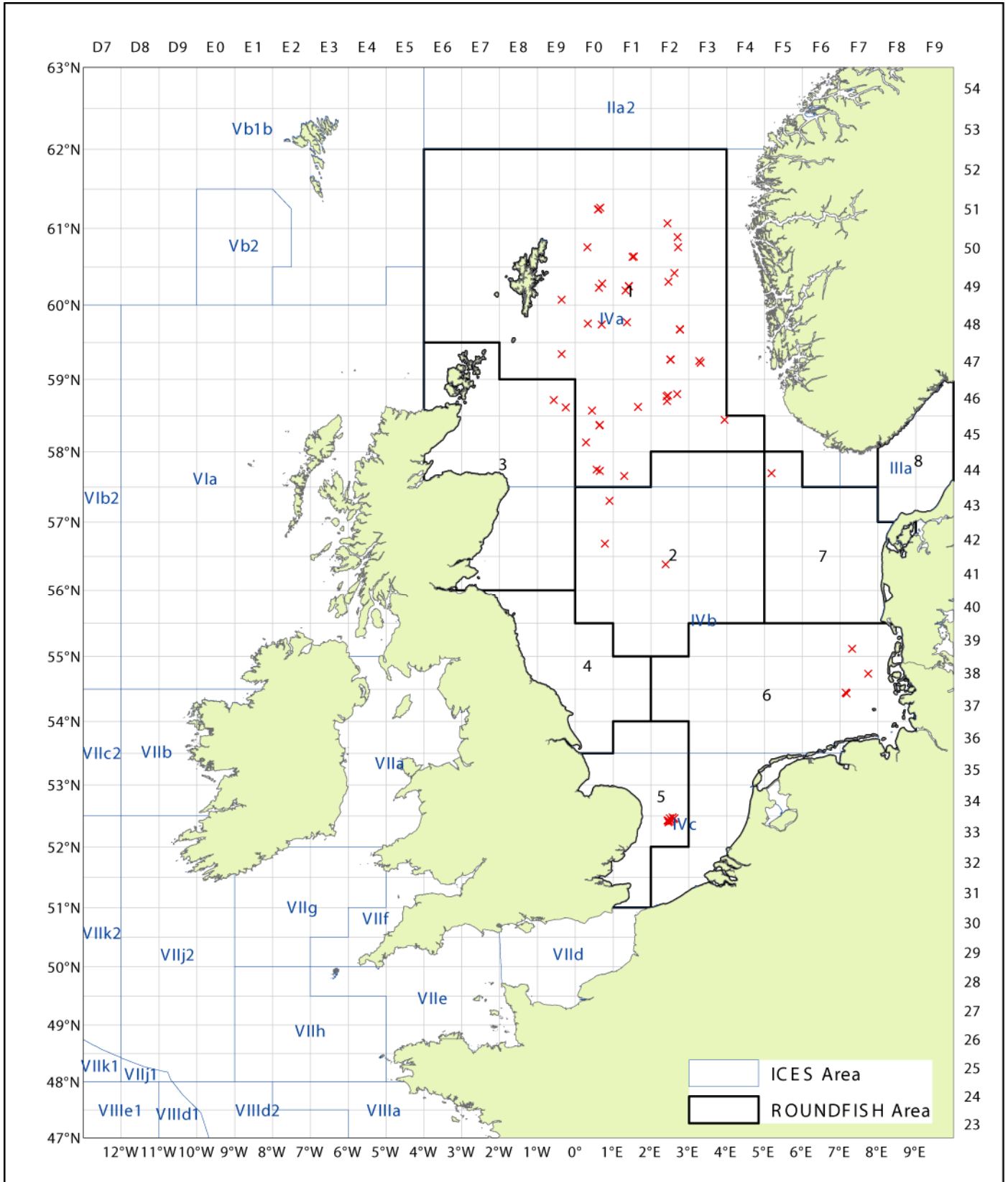


Method of Measurement

- Total length		male	-
- cm below		female	90
min length	4.5 [cm]	undefined	-
max length	33.5 [cm]	total numbers of data	90

Limanda limanda ♂

Geographical distribution of data used for calculating the length-weight relationship



Limanda limanda



Quarter: 1 ; 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0076

b = 3.0587

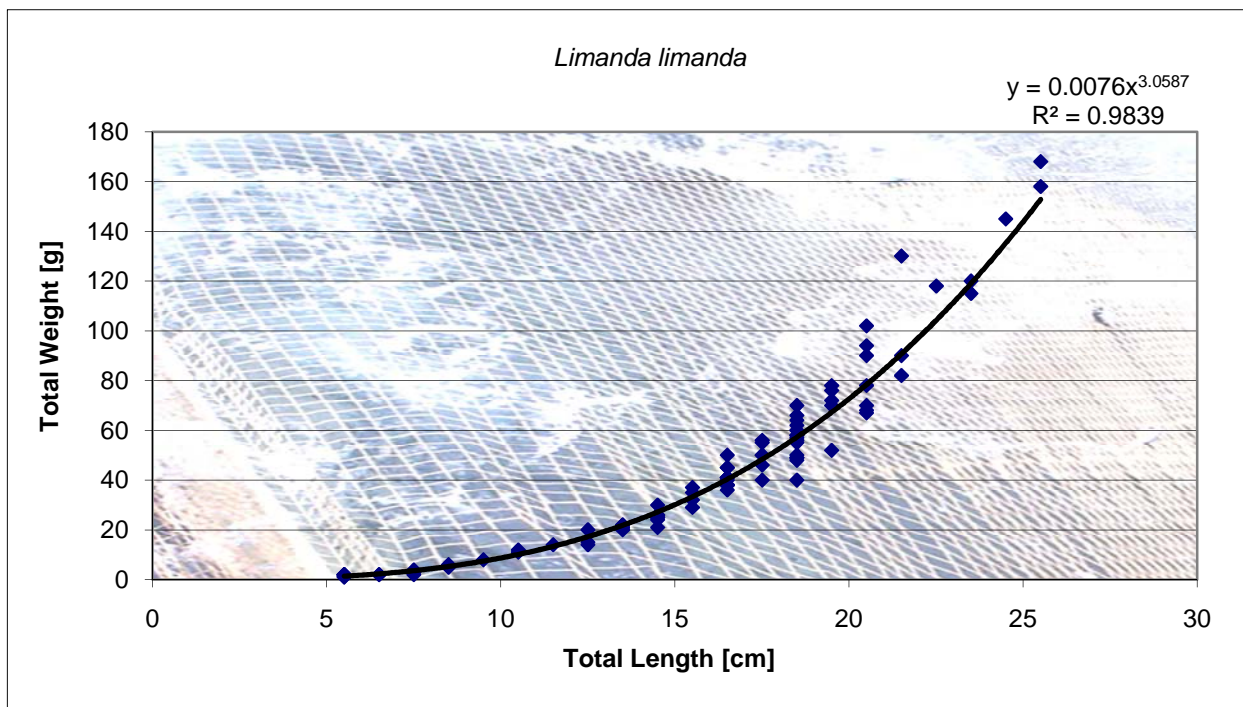
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
74	-	18	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
46	28	-	-	-	-	14	4	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	92	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	44	39	9	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
41	3	2	-	9	36	1	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

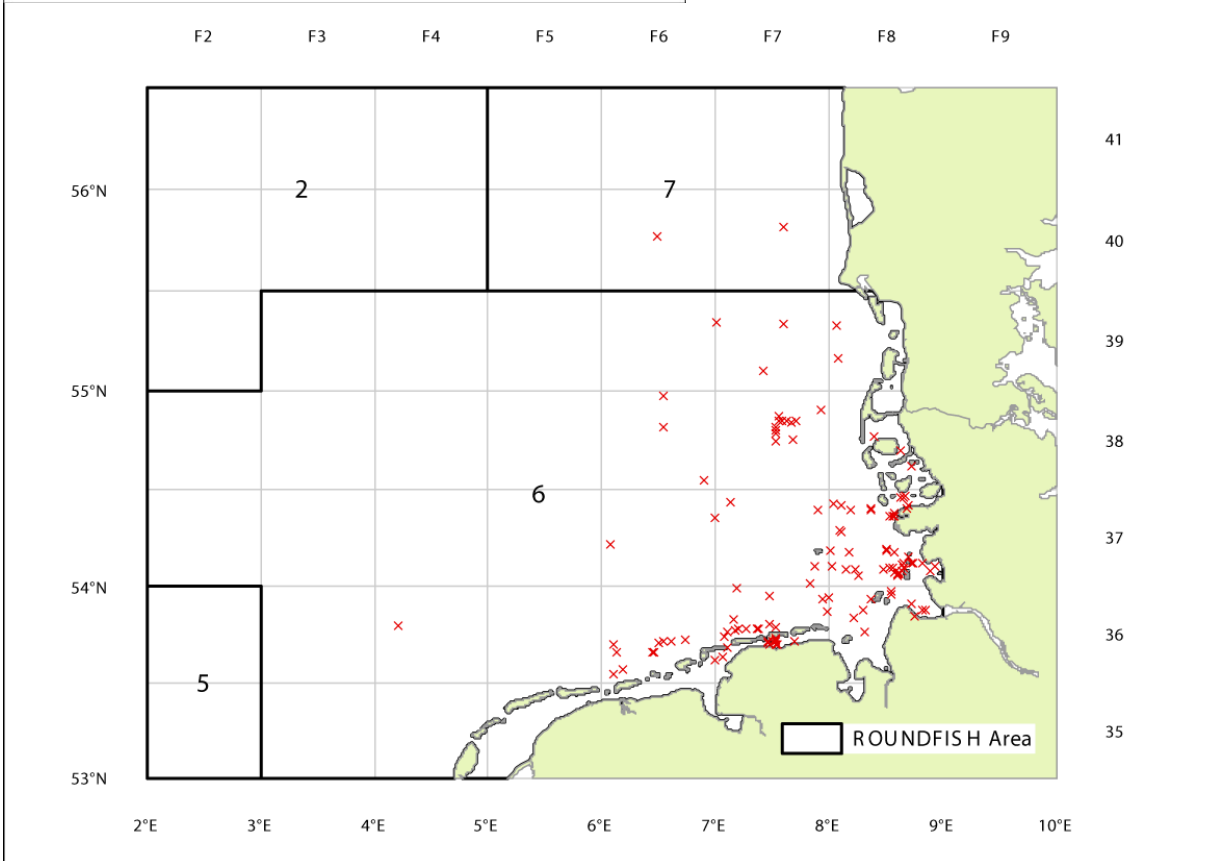
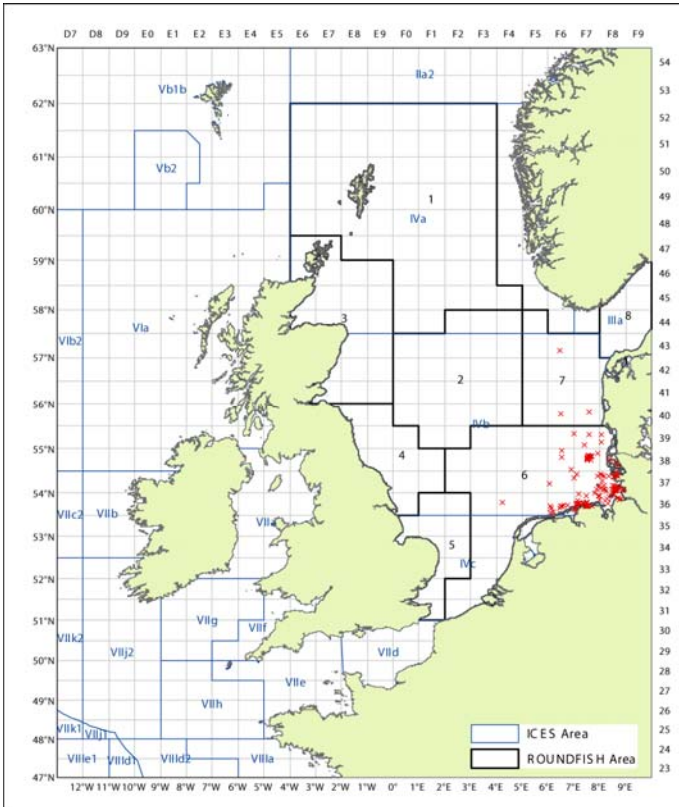


Method of Measurement

- Total length		male	92
- cm below		female	-
min length	5.5 [cm]	undefined	-
max length	25.5 [cm]	total numbers of data	92

Liparis liparis

Geographical distribution of data used for calculating the length-weight relationship



Liparis liparis

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0172

b = 3.0359

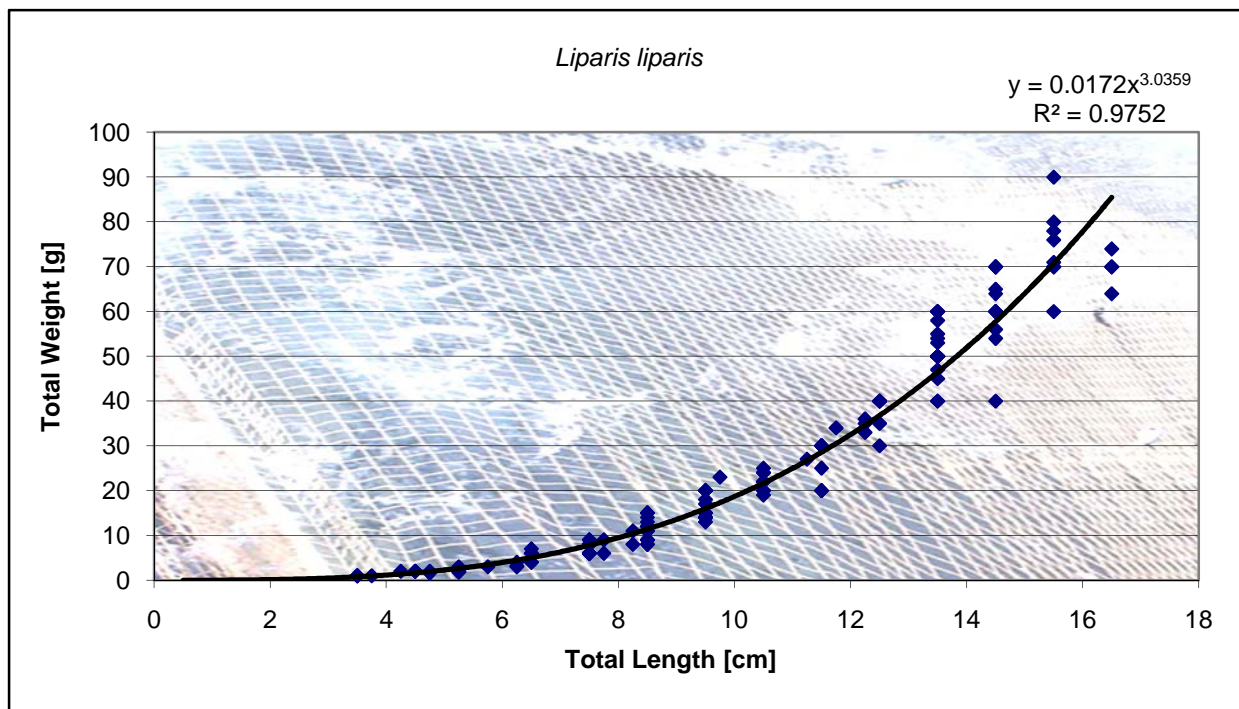
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
57	11	40	26																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
49	8	-	3	4	4	1	4	35	6	10	10								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	134	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	134	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	130	4	-	-	-	-	-	-	-	-	-	-	-	-	-

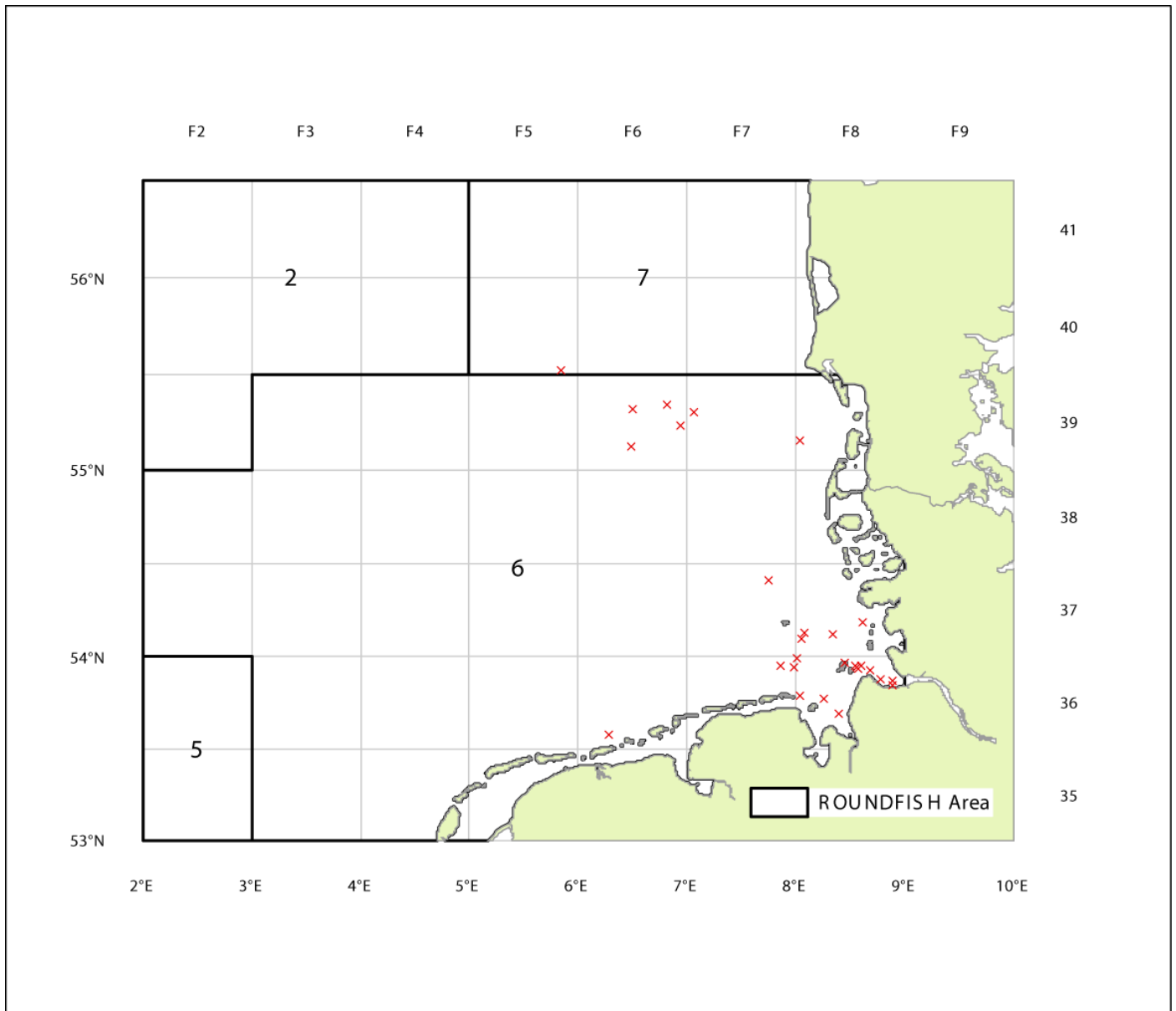


Method of Measurement

- Total length		male	-
- 1/2 cm below; cm below		female	-
min length	3.5 [cm]	undefined	134
max length	16.5 [cm]	total numbers of data	134

Liparis montagui

Geographical distribution of data used for calculating the length-weight relationship



Liparis montagui

Quarter: 1; 3; 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0131

b = 3.1228

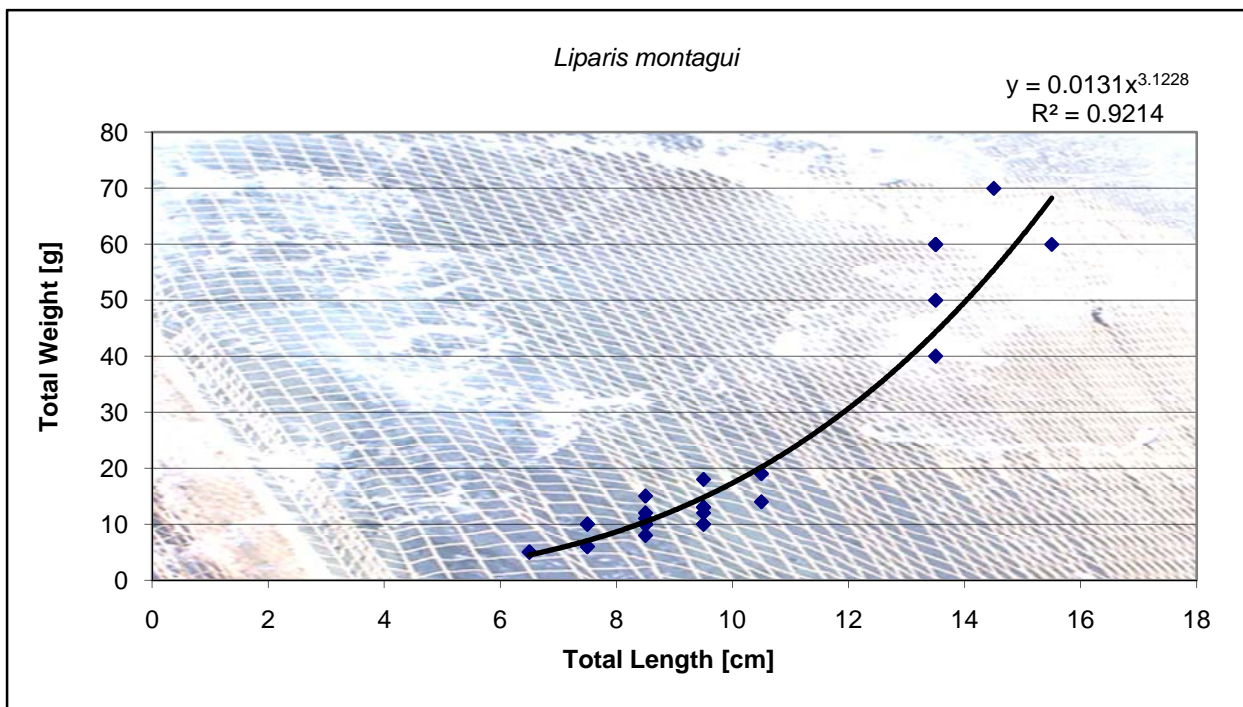
data collected

time period : 1995 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
11	-	4	14																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
10	1	-	-	-	-	-	-	4	10	1	3								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	29	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	29	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
-	1	-	-	-	28	-	-	-											
										1A	1B	1C	1D	1E	1F	2G	2H	2J	
										-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length		male	-
- cm below		female	-
min length	6.5 [cm]	undefined	29
max length	15.5 [cm]	total numbers of data	29

Lithodes maja

Quarter: 1 ; 3

$$TW [g] = a * L [mm]^b$$

a = 0.00057

b = 2.99662

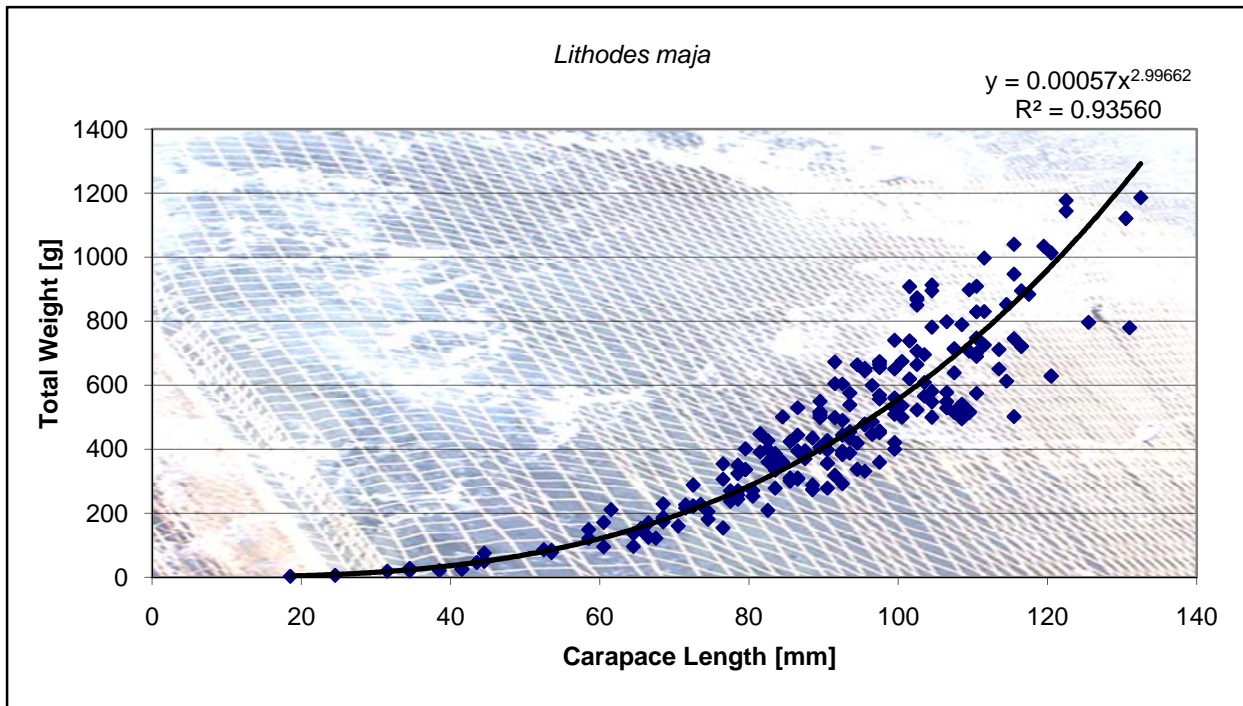
data collected

time period : 2004 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
69	-	151	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
31	38	-	-	-	-	76	75	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	220	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	124	96	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
114	24	11	65	-	-	6	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Carapace length		male	65
- mm below		female	123
min length	18.5 [mm]	undefined	32
max length	132.5 [mm]	total numbers of data	220

Lithodes maja



Quarter: 1 ; 3

(female)

$$TW [g] = a * L [mm]^b$$

a = 0.00093

b = 2.88717

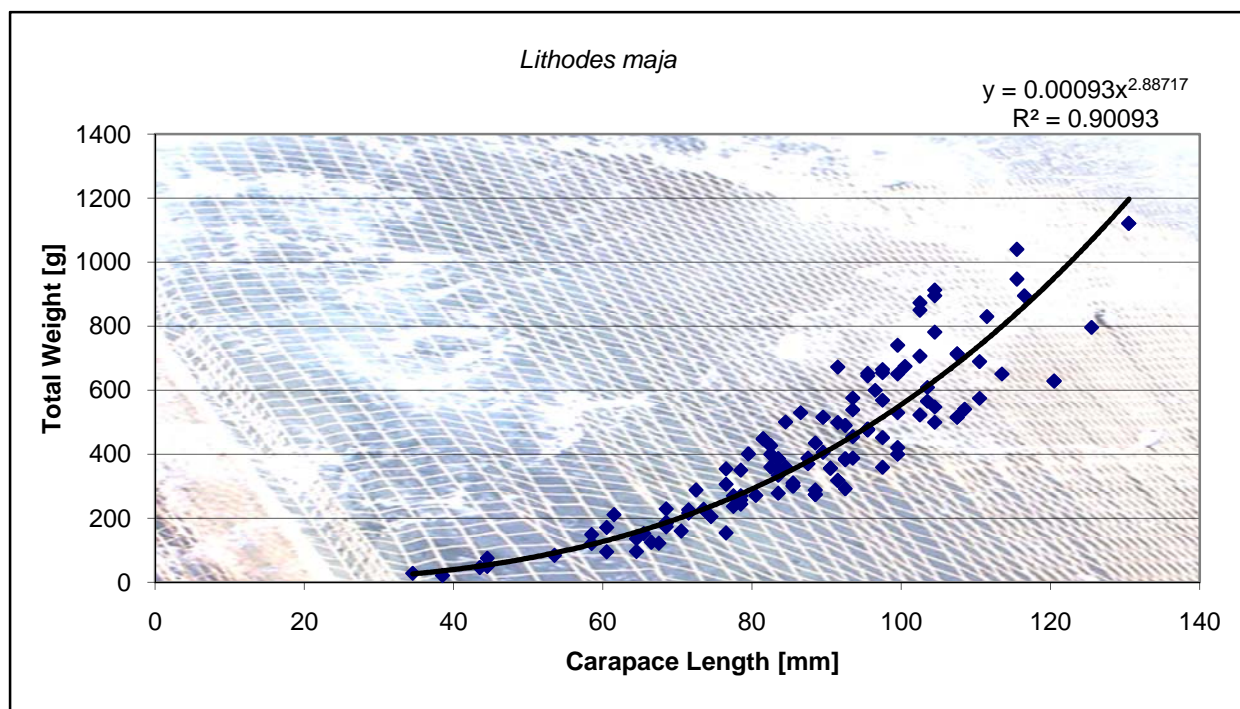
data collected

time period : 2005 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
27	-	96	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
15	12	-	-	-	-	58	38	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	123	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	69	54	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
64	12	5	36	-	-	6	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Carapace length
- mm below
- min length
- max length

34.5 [mm]
130.5 [mm]

male -
female 123
undefined -
total numbers of data 123

Lithodes maja



Quarter: 1 ; 3

(male)

$$Tw [g] = a * L [mm]^b$$

a = 0.00035

b = 3.10704

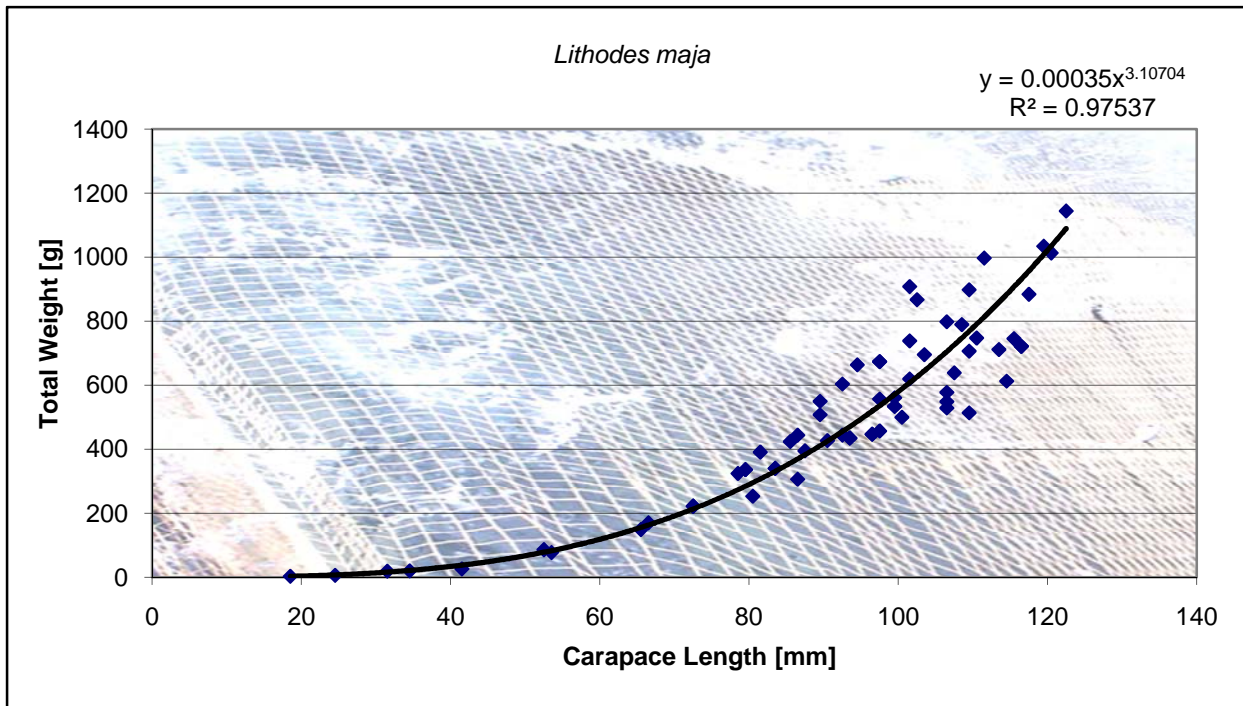
data collected

time period : 2005 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
36	-	29	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
13	23	-	-	-	-	16	13	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	65	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	41	24	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
39	10	3	13	-	-	-	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

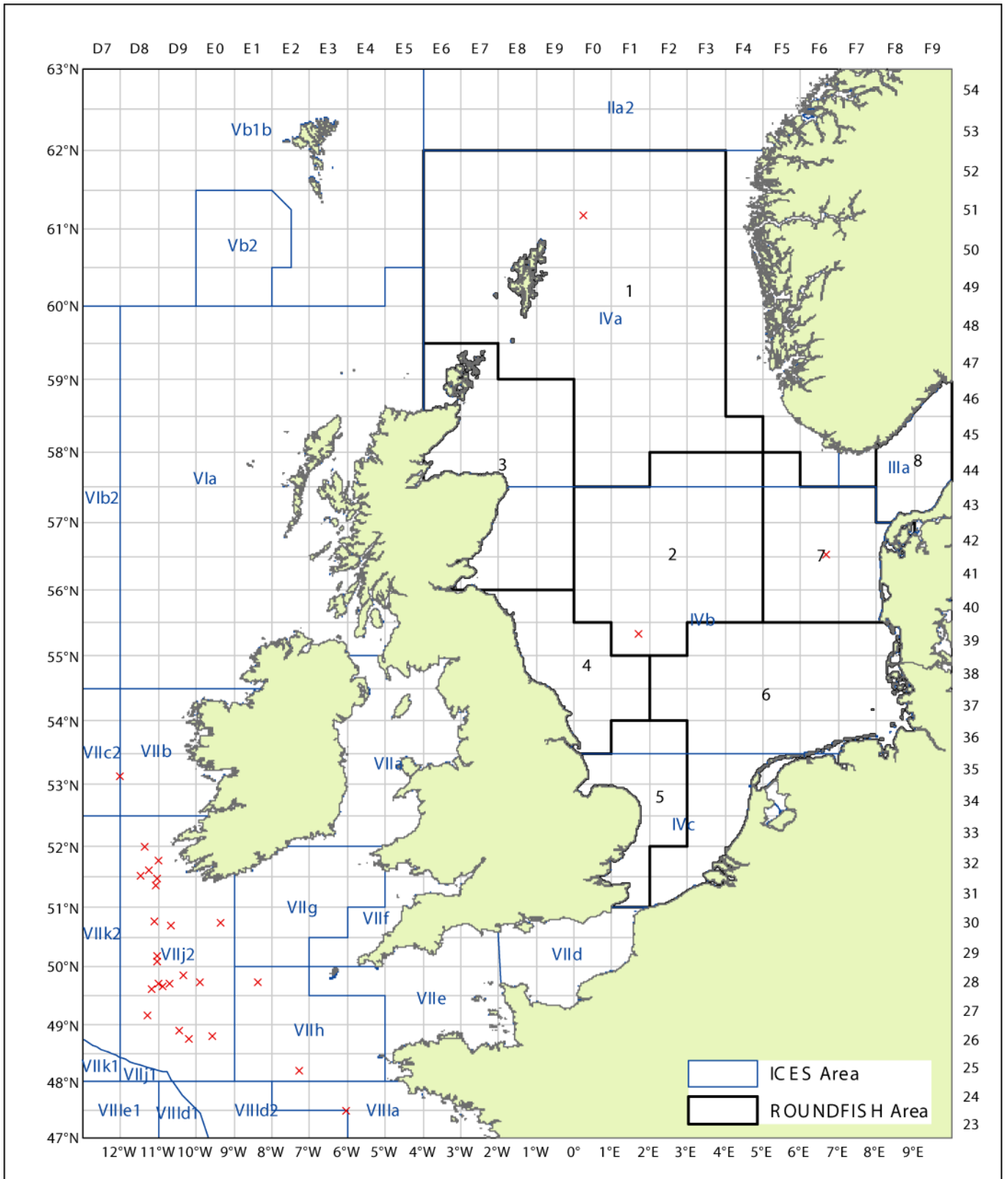


Method of Measurement

- Carapace length		male	65
- mm below		female	-
min length	18.5 [mm]	undefined	-
max length	122.5 [mm]	total numbers of data	65

Lophius budegassa

Geographical distribution of data used for calculating the length-weight relationship



Lophius budegassa

Quarter: 1 - 2

$$TW [g] = a * L [cm]^b$$

a = 0.0203

b = 2.9304

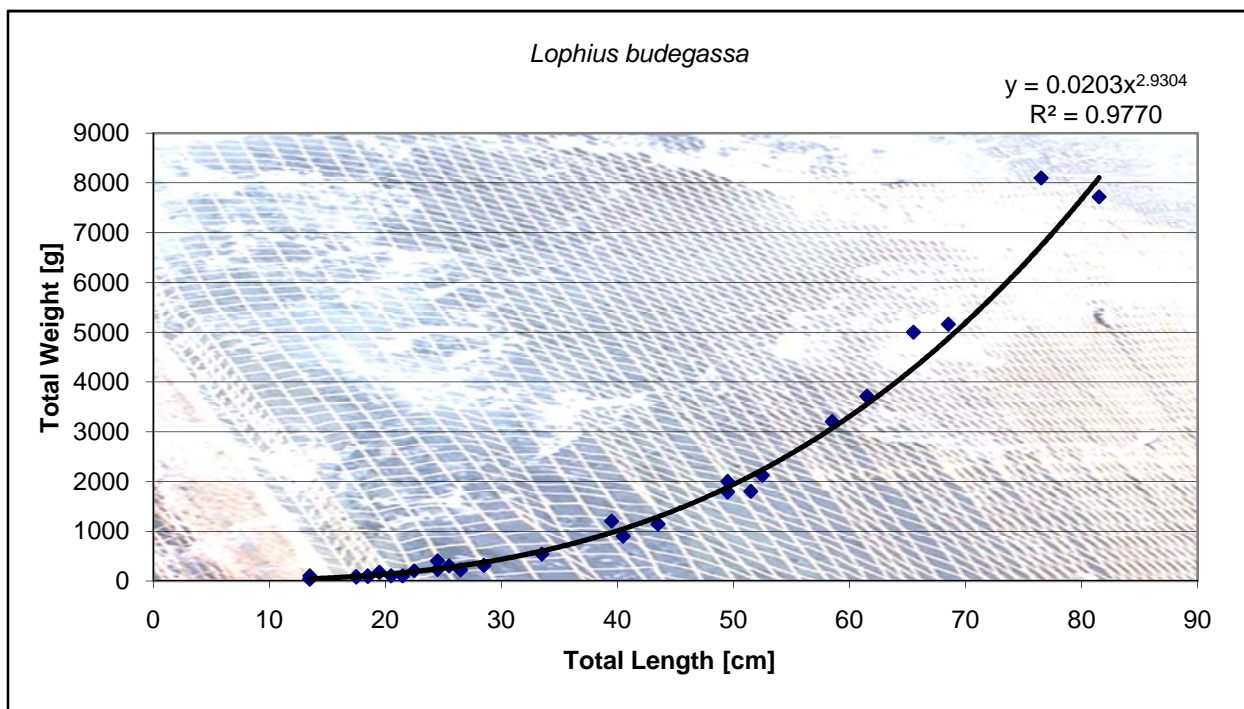
data collected

time period : 1992 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
19	12	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
1	5	13	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	4	-	-	24	3	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	1	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	2	21	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length	male	-
- cm below	female	1
min length	undefined	30
max length	total numbers of data	31

Lophius piscatorius

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0266

b = 2.8568

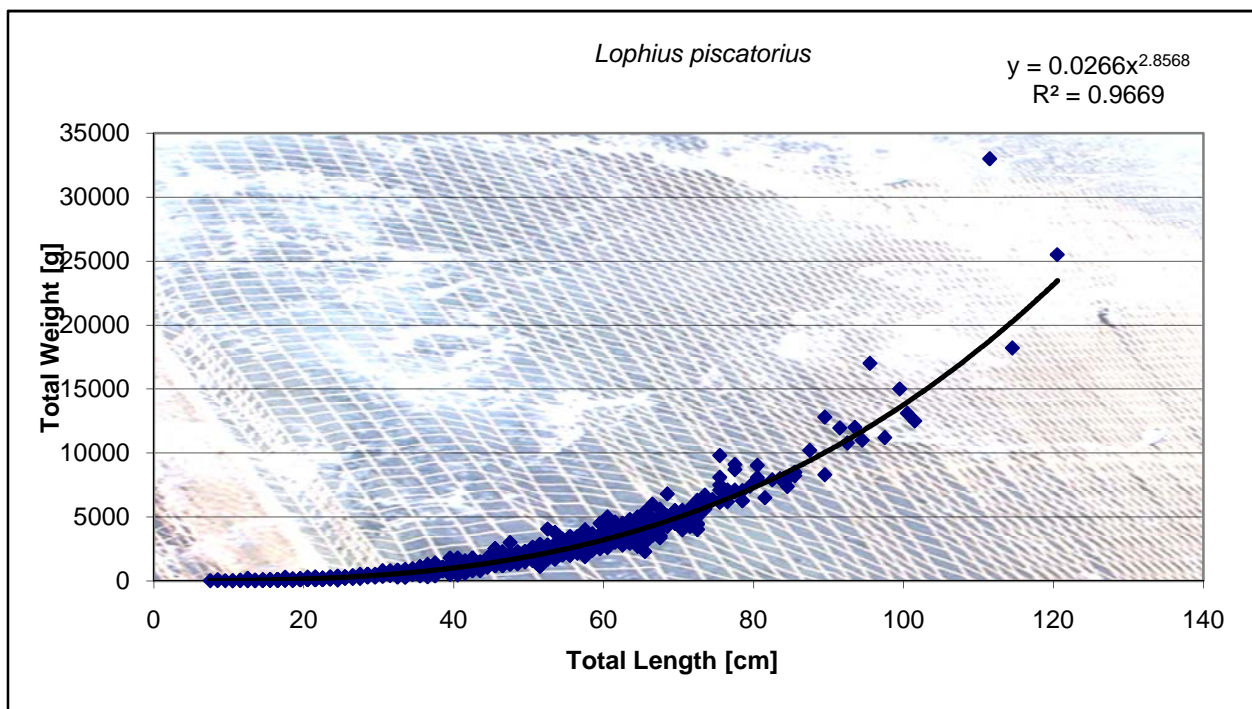
data collected

time period : 1960 - 2007

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
458	164	439	49																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
99	311	48	24	37	103	241	190	8	-	49	-										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	1036	-	14	50	10	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	808	227	1	-	-	13	1	-	1	1	-	2	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B											
4	8	34	-	7	3	-	-	-	-	-											
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9													
531	115	287	38	1	8	55	-	-													
											1A	1B	1C	1D	1E	1F	2G	2H	2J		
											-	-	-	-	-	-	-	-	-		

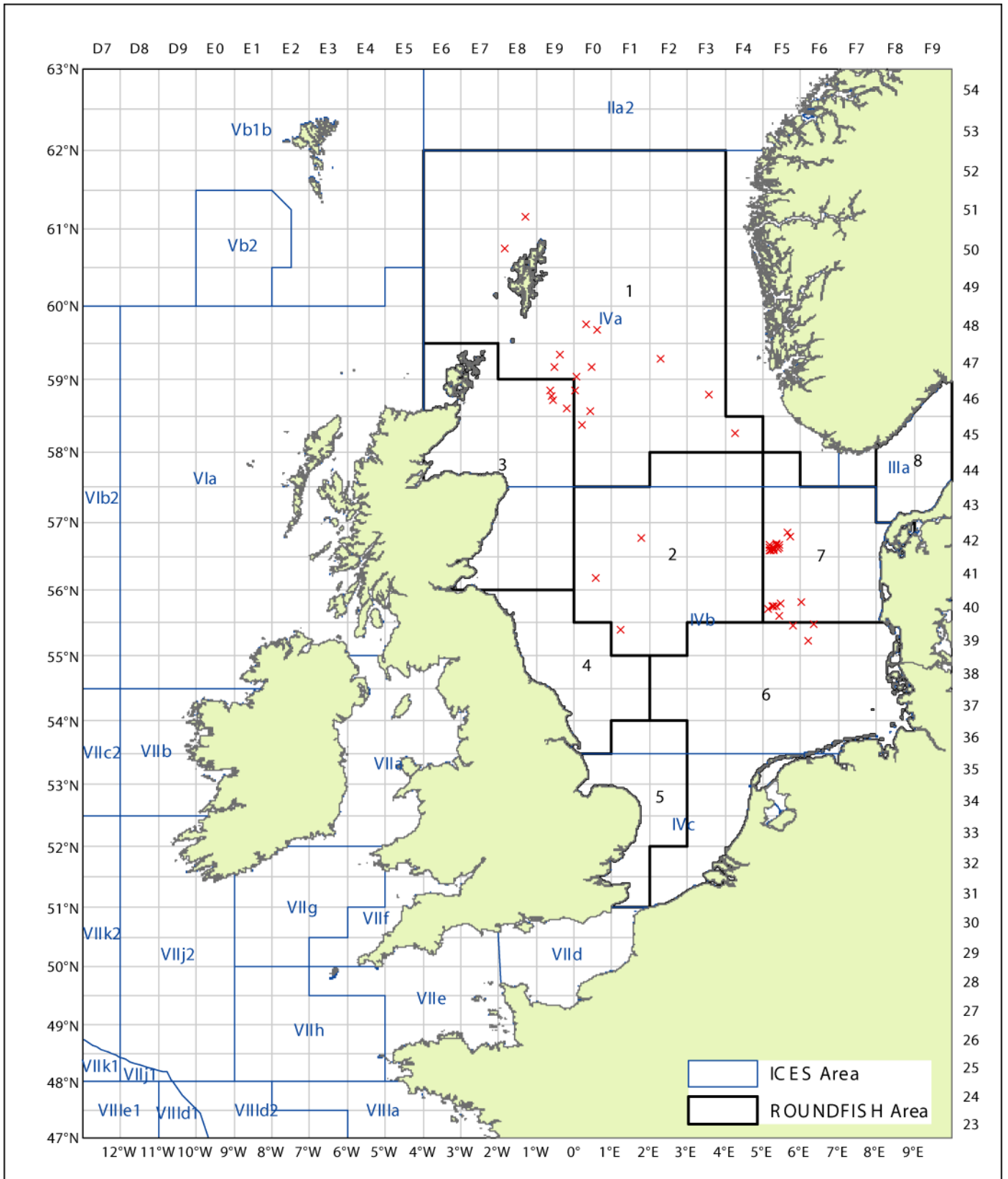


Method of Measurement

- Total length		male	117
- cm below		female	44
min length	7.5 [cm]	undefined	949
max length	120.5 [cm]	total numbers of data	1110

Lumpenus lampretaeformis

Geographical distribution of data used for calculating the length-weight relationship



Lumpenus lampretaeformis

Quarter: 1 - 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0063

b = 2.4477

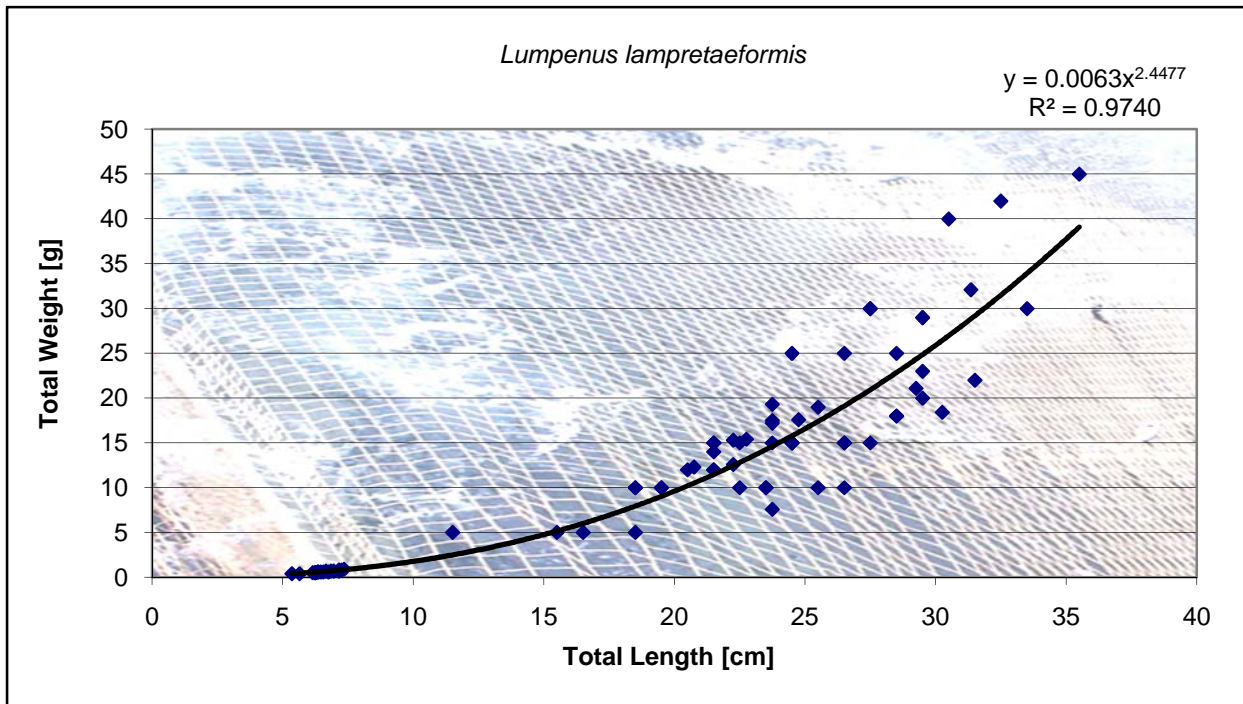
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
24	5	47	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
11	13	-	-	2	3	31	15	1	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	76	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	20	56	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
16	3	4	-	-	2	51	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

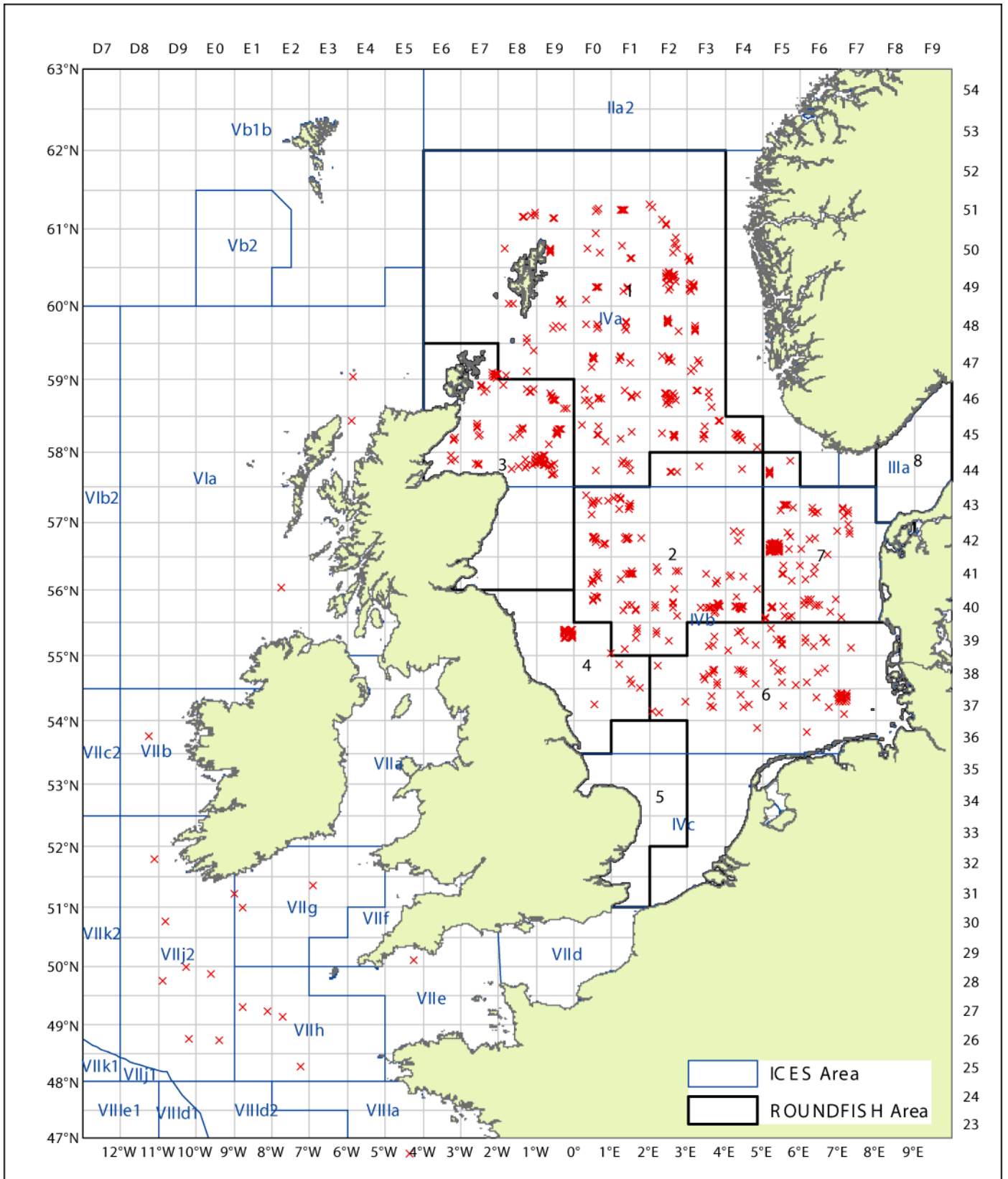


Method of Measurement

- Total length		male	-
- mm below, cm below		female	-
min length	5.35 [cm]	undefined	76
max length	35.5 [cm]	total numbers of data	76

Melanogrammus aeglefinus

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

Quarter: 1 - 3

$$TW [g] = a * L [cm]^b$$

a = 0.005

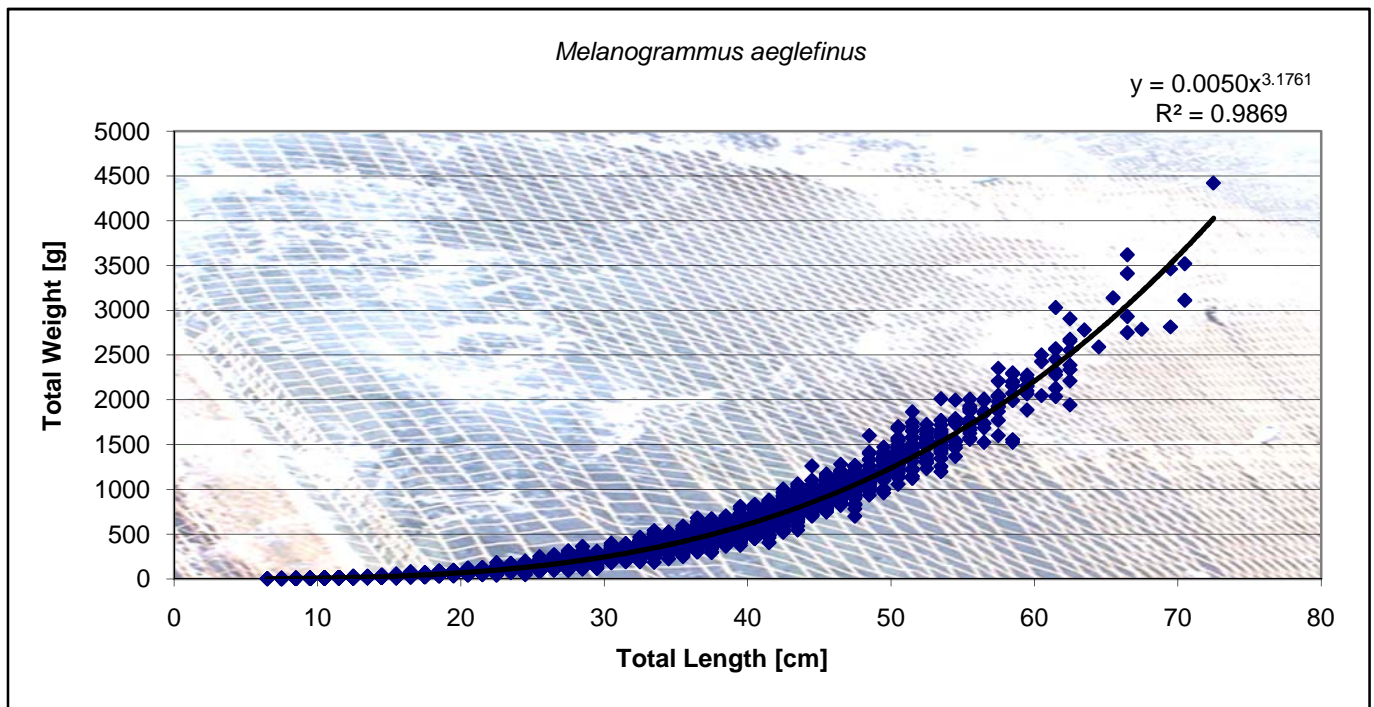
b = 3.1761

data collected

time period : 1995 - 2007
 data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
11461	161	5148	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
4907	6417	137	55	61	45	2439	2314	395	-	-	-								
Subarea																			
	1	2	3	4	5	6	7	8	9	10	12	14							
-	1	-	16596	-	31	141	1	-	-	-	-	-							
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	1	-	-	-	-	-	12033	4563	-	-	-	31	-	-	1	-	-	1	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
110	19	10	-	1	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
6614	3070	4178	1145	-	207	1382	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- cm below

min length
 max length

6.5 [cm]
 72.5 [cm]

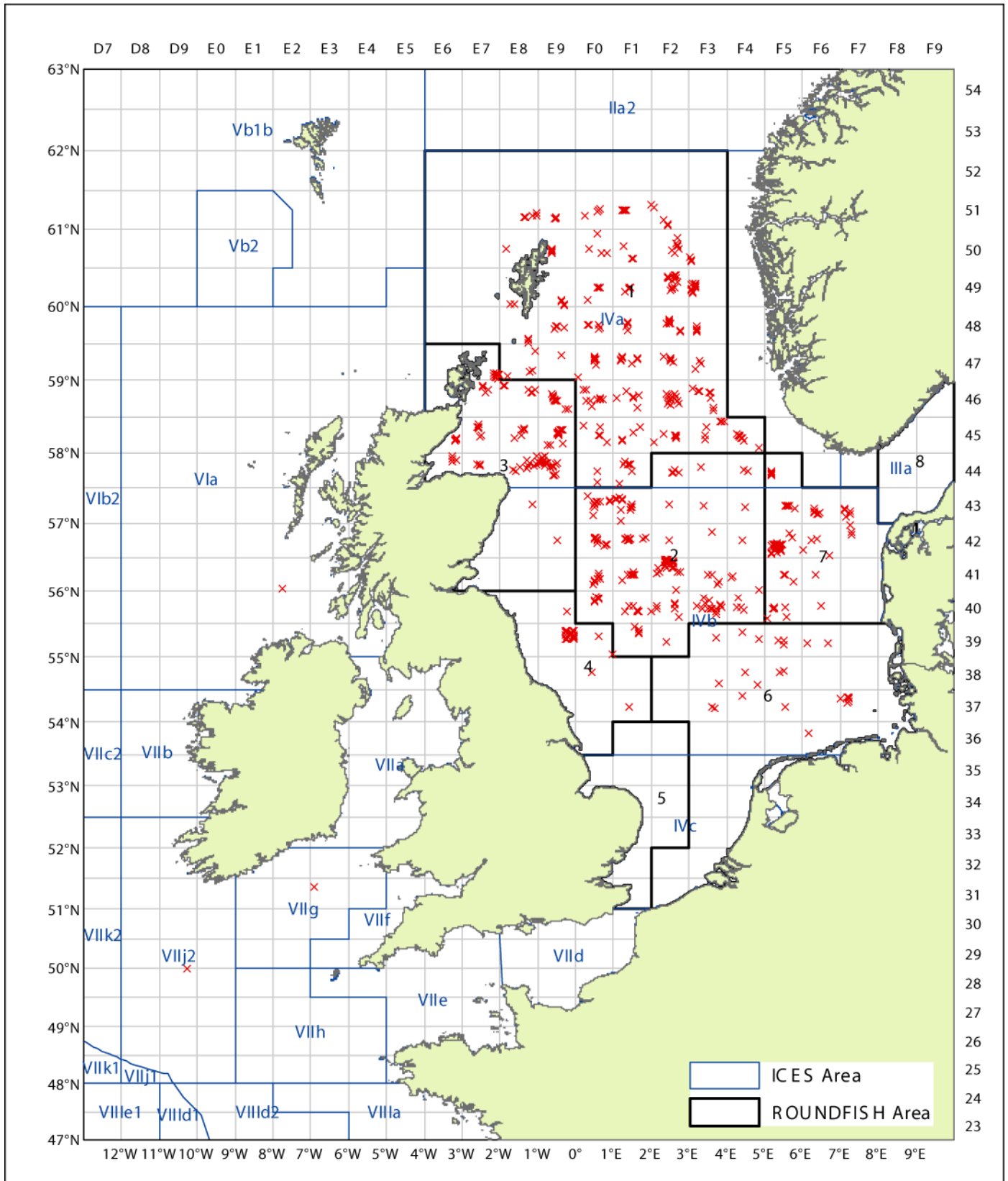
male 6850
 female 6944
 undefined 2976

total numbers of data 16770

Melanogrammus aeglefinus



Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0047

b = 3.1937

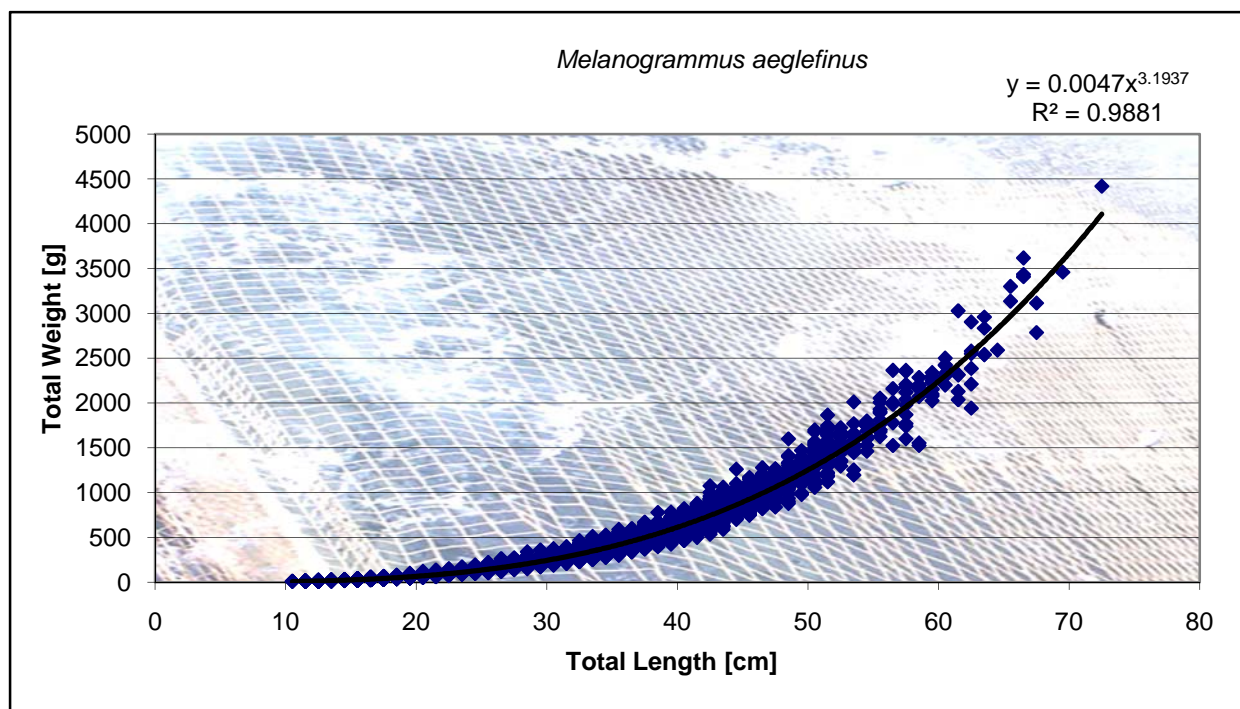
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
6949	358	1398	30																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
2813	3752	384	9	300	49	560	658	180	-	30	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	8640	-	16	79	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	5782	2858	-	-	-	16	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
78	-	1	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
3335	2069	2076	374	-	73	713	-	-						-	-	-	-	-	-	-	-	-



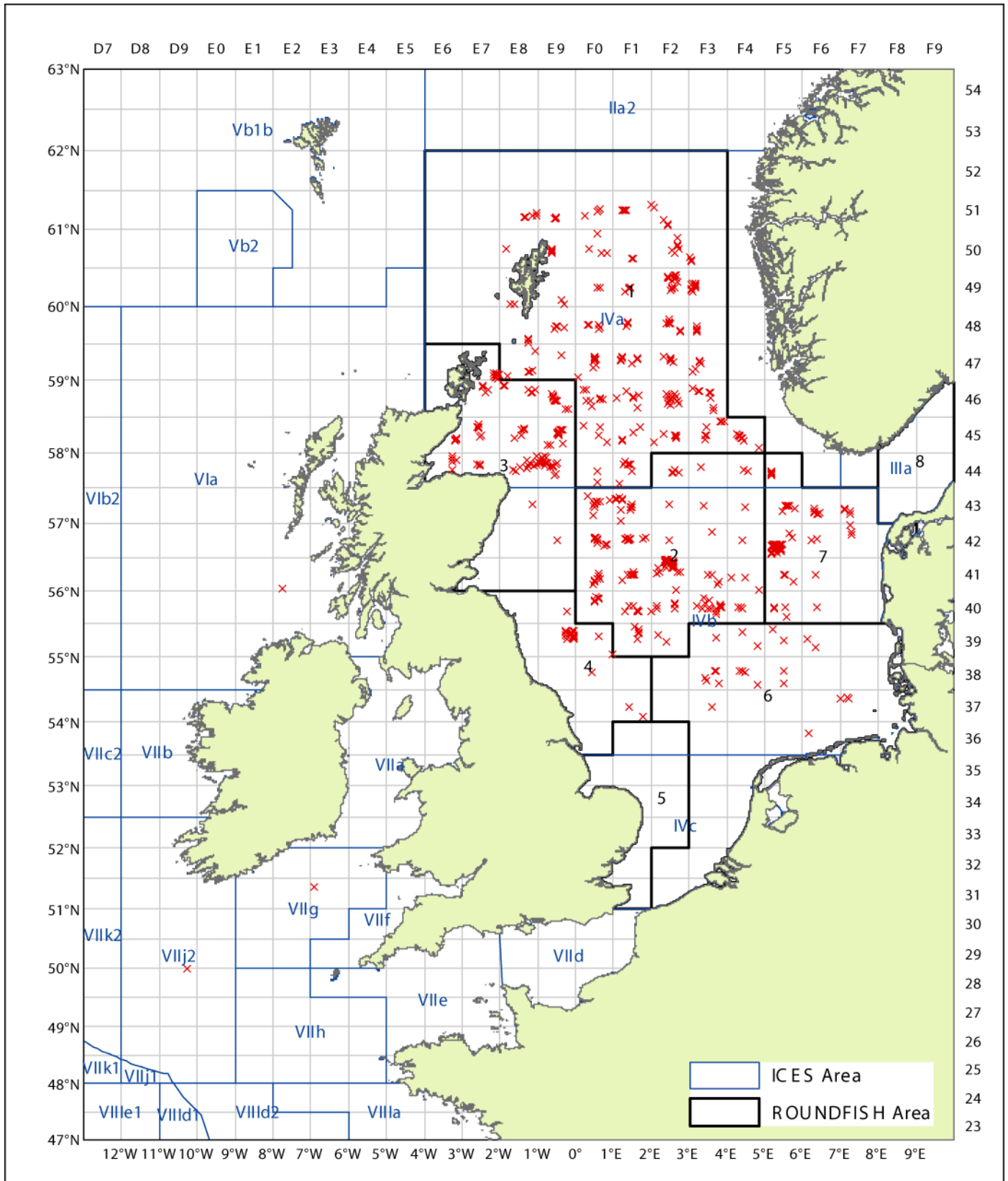
Method of Measurement

- Total length		male	-
- cm below		female	8735
min length	10.5 [cm]	undefined	-
max length	72.5 [cm]	total numbers of data	8735

Melanogrammus aeglefinus



Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0053

b = 3.1517

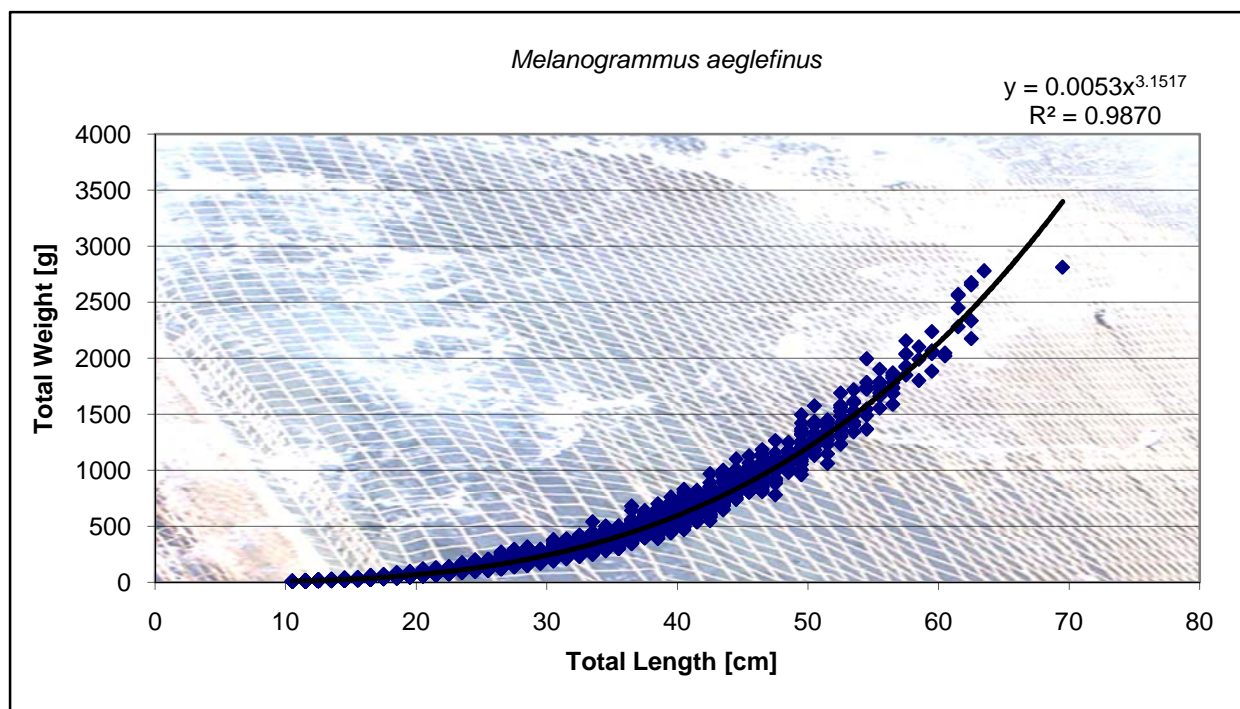
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
6599	362	1505	33																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
2859	3481	259	11	293	58	662	639	204	-	31	2											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	8462	-	13	24	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	5538	2924	-	-	-	13	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
21	-	3	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
3093	2187	2069	362	-	53	698	-	-						-	-	-	-	-	-	-	-	-

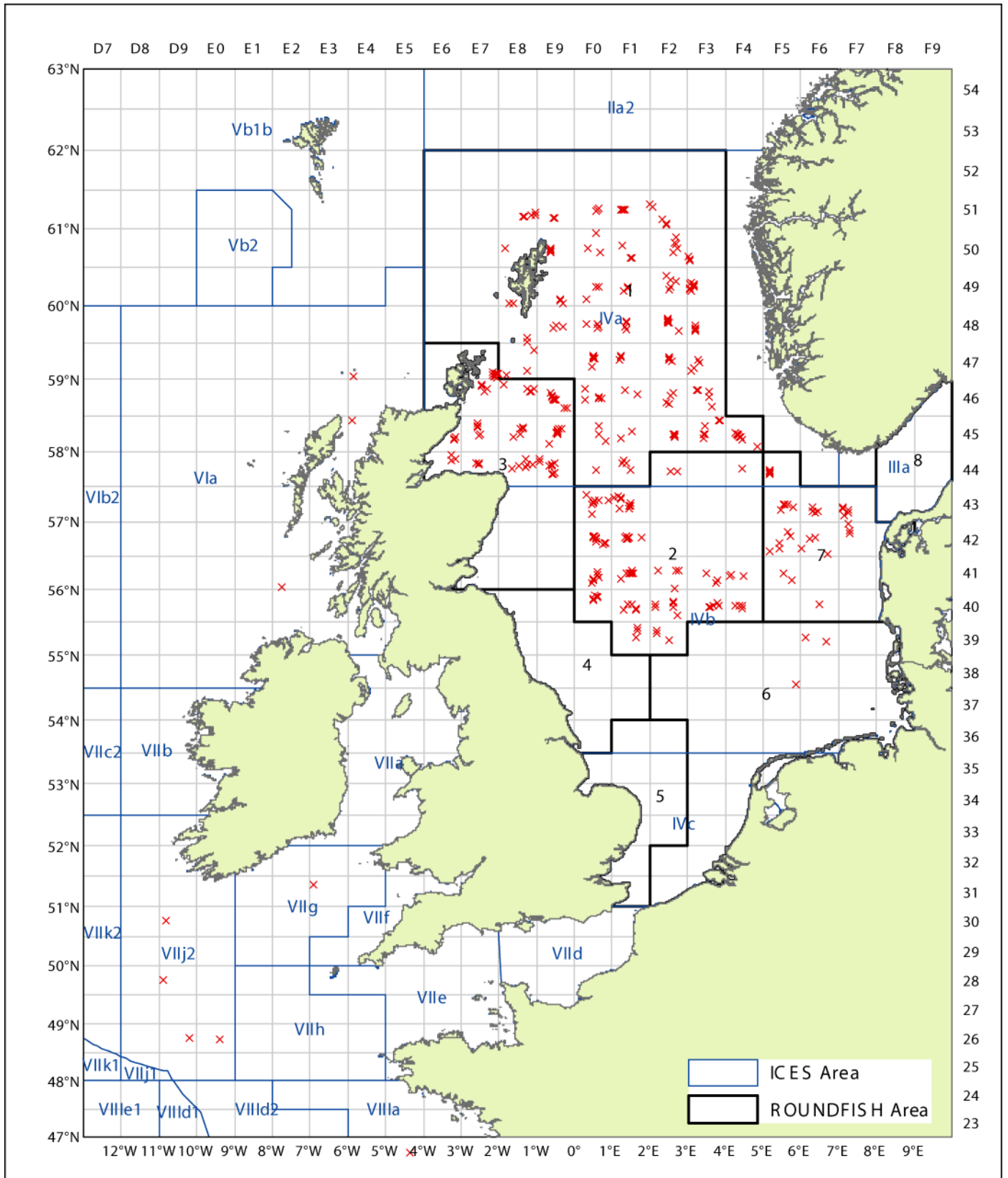


Method of Measurement

- Total length		male	8499
- cm below		female	-
min length	10.5 [cm]	undefined	-
max length	69.5 [cm]	total numbers of data	8499

Melanogrammus aeglefinus Quarter 1

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

Quarter: 1

$$Tw [g] = a * L [cm]^b$$

a = 0.0046

b = 3.1932

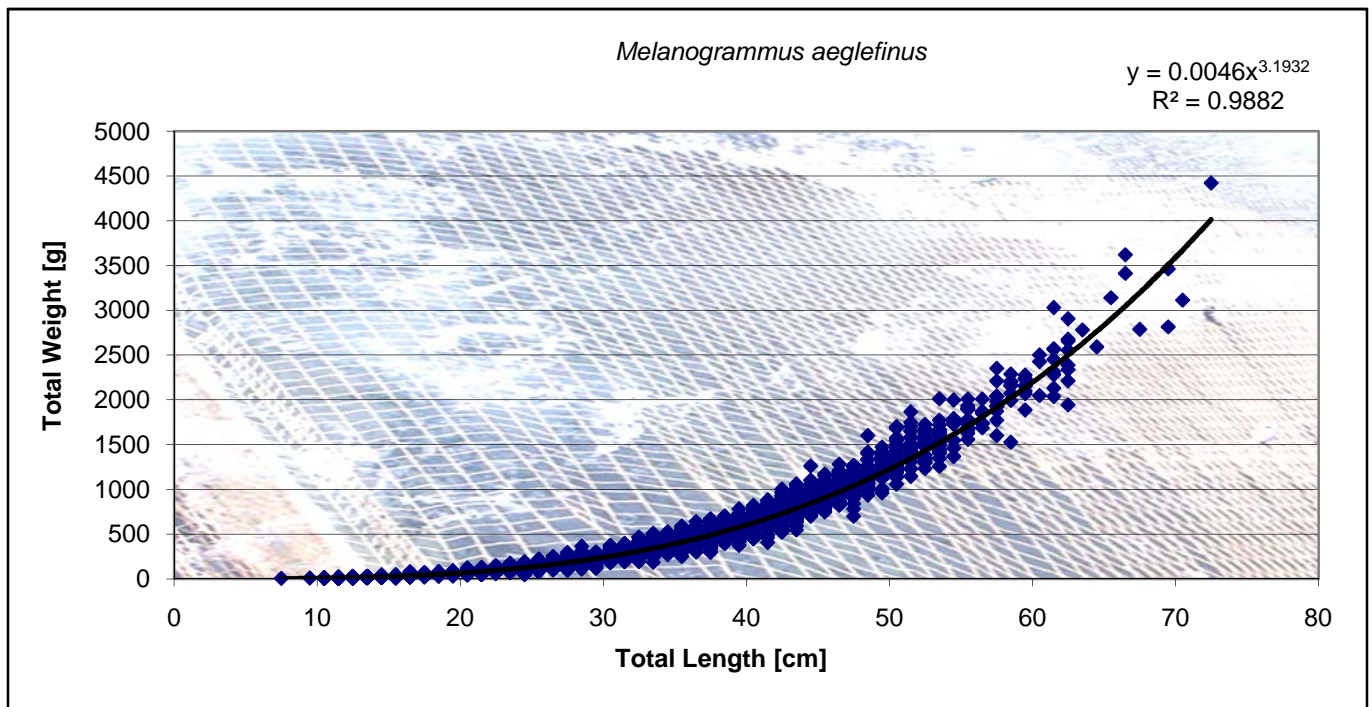
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
11461	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
4907	6417	137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	1	-	11324	-	31	104	1	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	1	-	-	-	-	-	8028	3296	-	-	-	31	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
100	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
4366	2839	3049	-	-	5	1065	-	-		-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

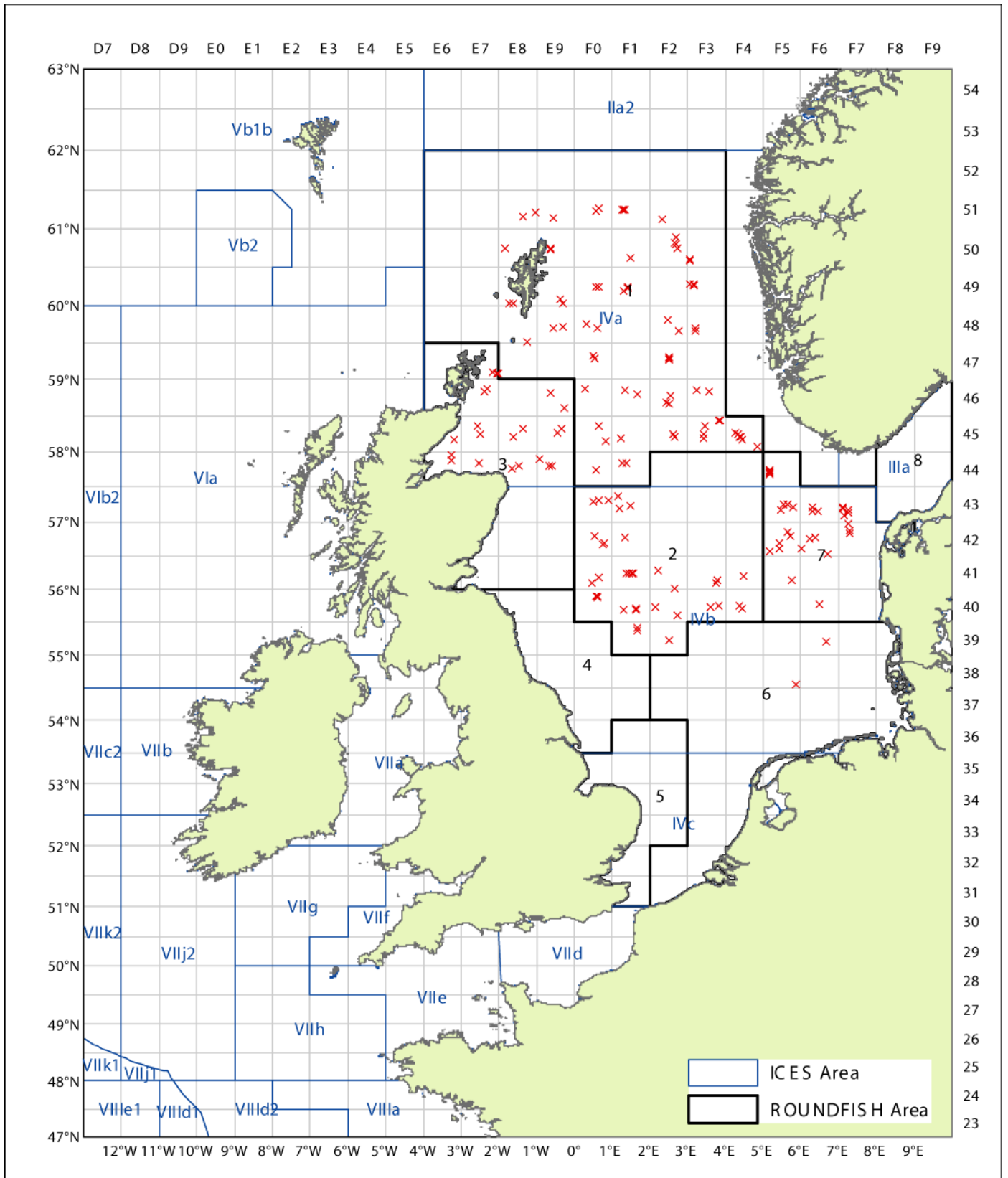
min length 7.5 [cm]
max length 72.5 [cm]

male 5501
female 5729
undefined 231

total numbers of data 11461

Melanogrammus aeglefinus January

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

January

$$Tw [g] = a * L [cm]^b$$

a = 0.0047

b = 3.1862

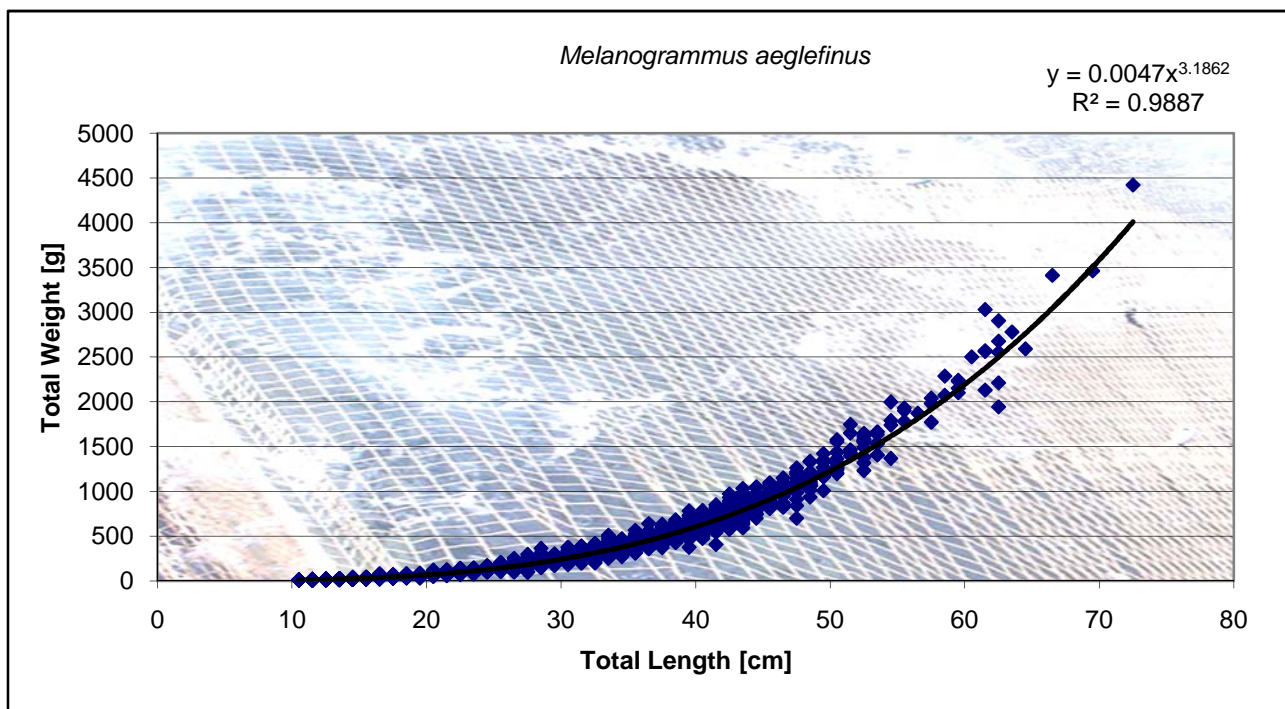
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
4907	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
4907	-	-	-	-	-	-	-	-	-	-	-	-							
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	4907	-	-	-	-	-	-	-	-	-							
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	3358	1549	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2293	881	822	-	-	3	908	-	-	-	-	-	-	-	-	-	-	-		

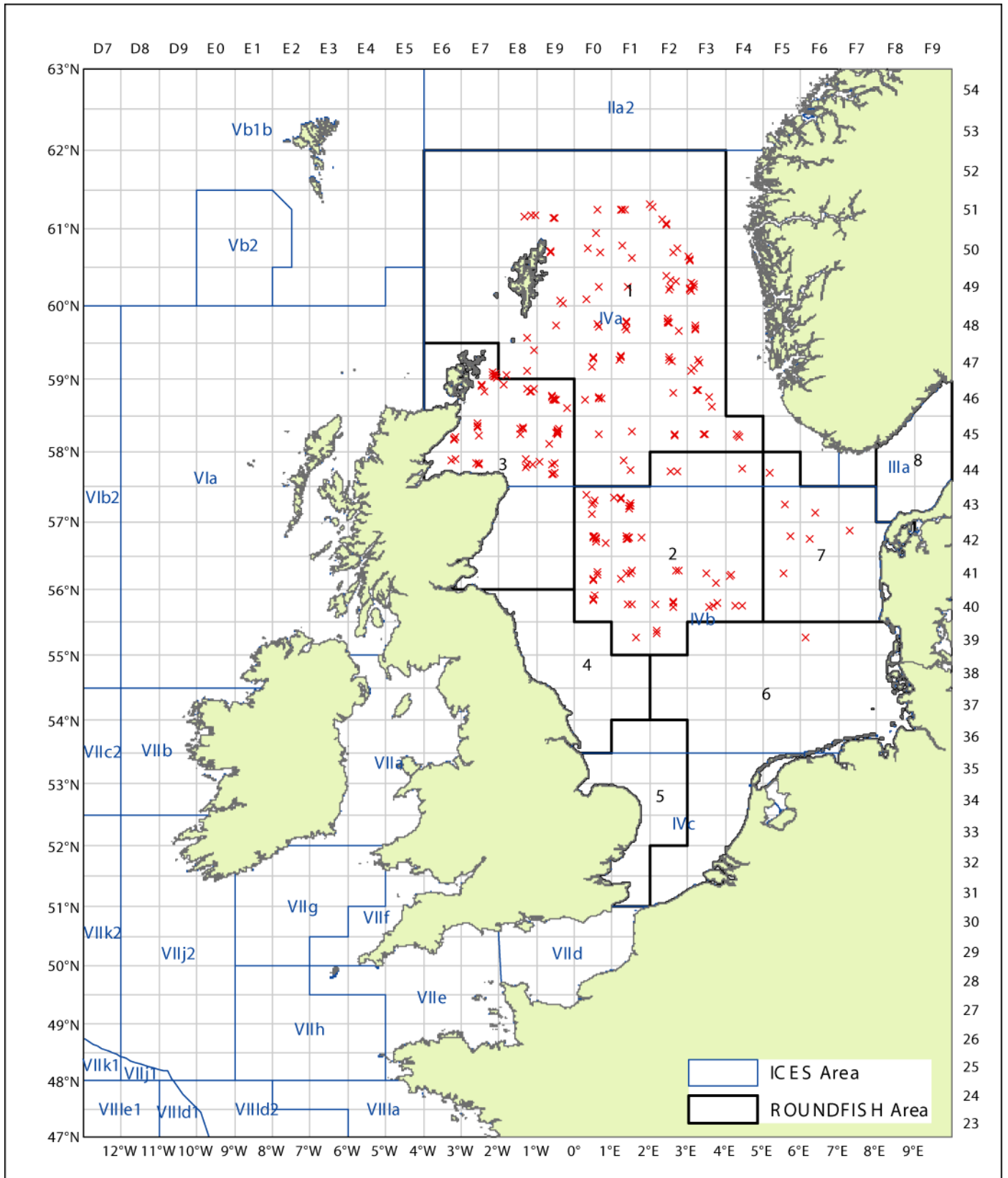


Method of Measurement

- Total length		male	2400
- cm below		female	2432
min length	10.5 [cm]	undefined	75
max length	72.5 [cm]	total numbers of data	4907

Melanogrammus aeglefinus February

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

February

$$Tw [g] = a * L [cm]^b$$

a = 0.0045

b = 3.1955

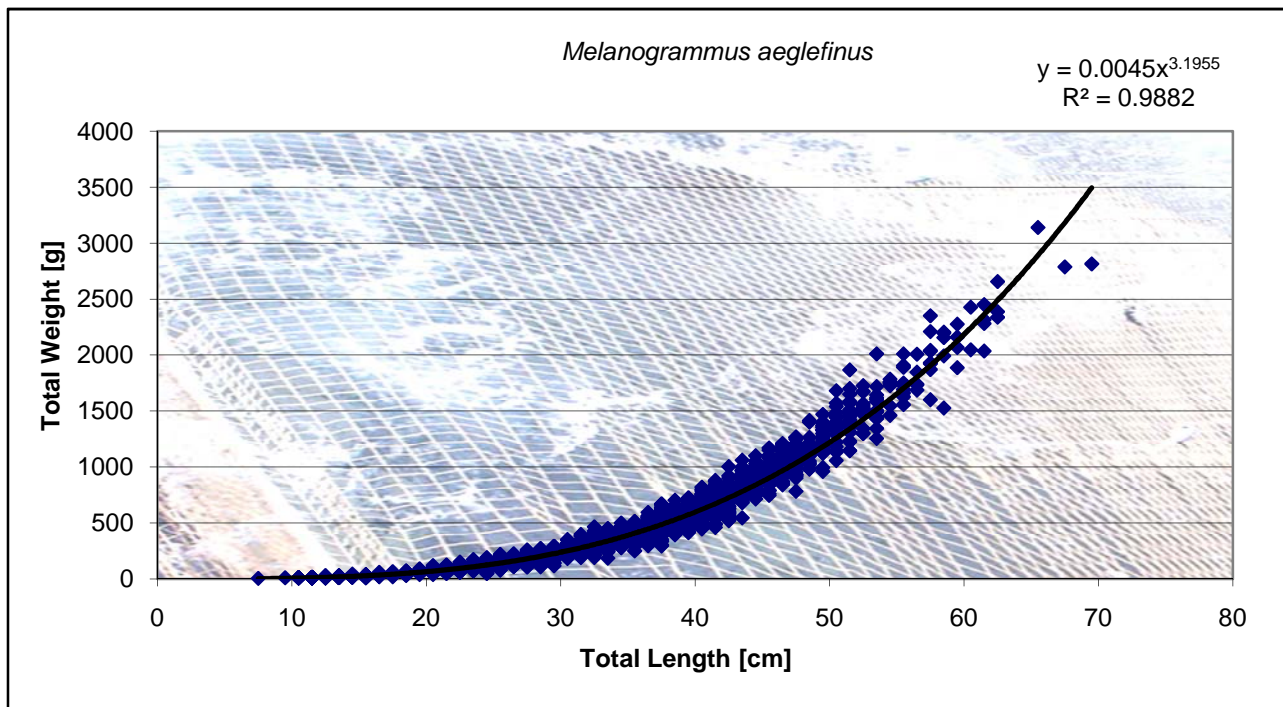
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
6417	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	6417	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	6417	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	4670	1747	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
2073	1958	2227	-	-	2	157	-	-		-	-	-	-	-	-	-	-	-	

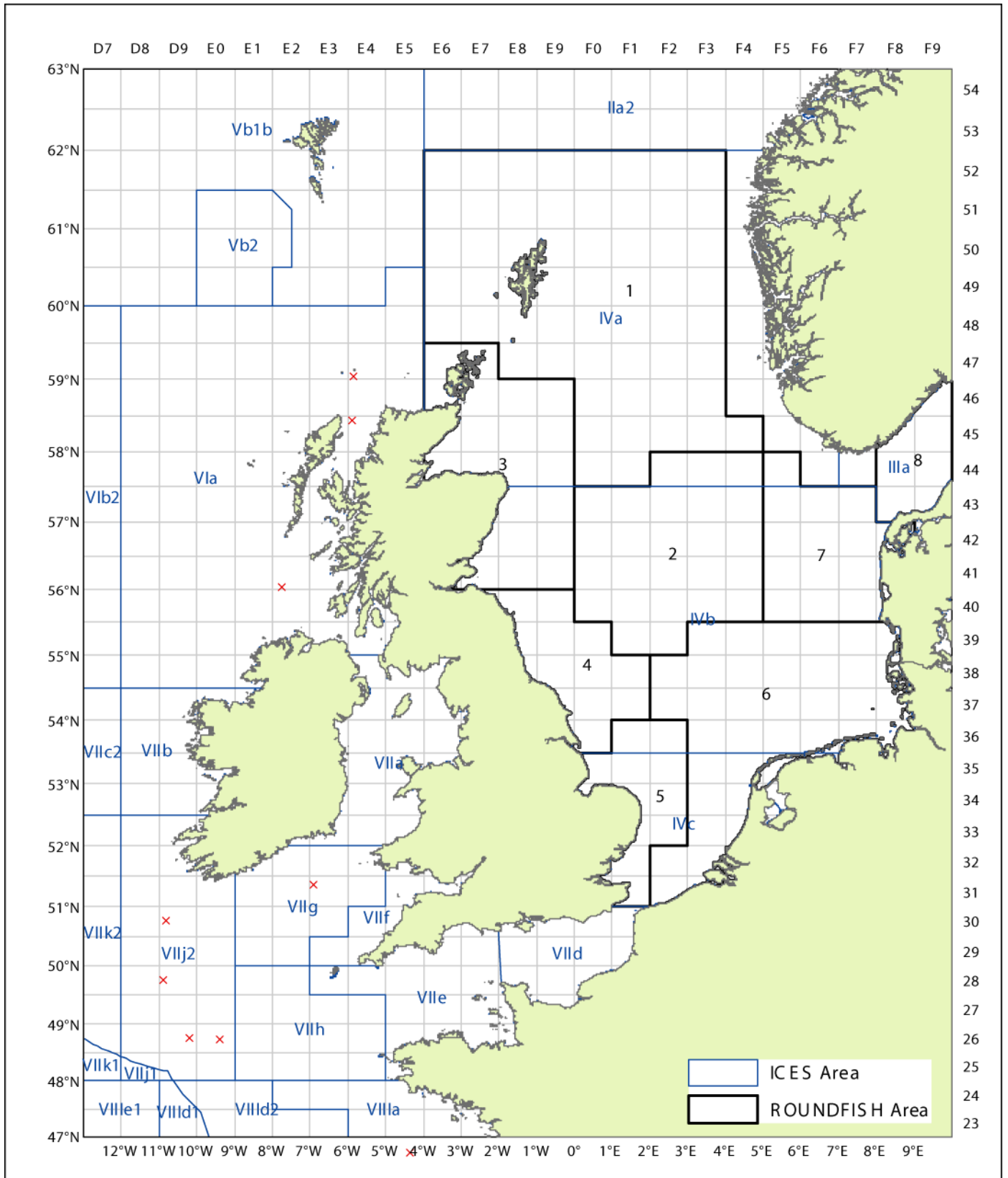


Method of Measurement

- Total length		male	3067
- cm below		female	3203
min length	7.5 [cm]	undefined	147
max length	69.5 [cm]	total numbers of data	6417

Melanogrammus aeglefinus March

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

March

$$TW [g] = a * L [cm]^b$$

a = 0.0034

b = 3.3003

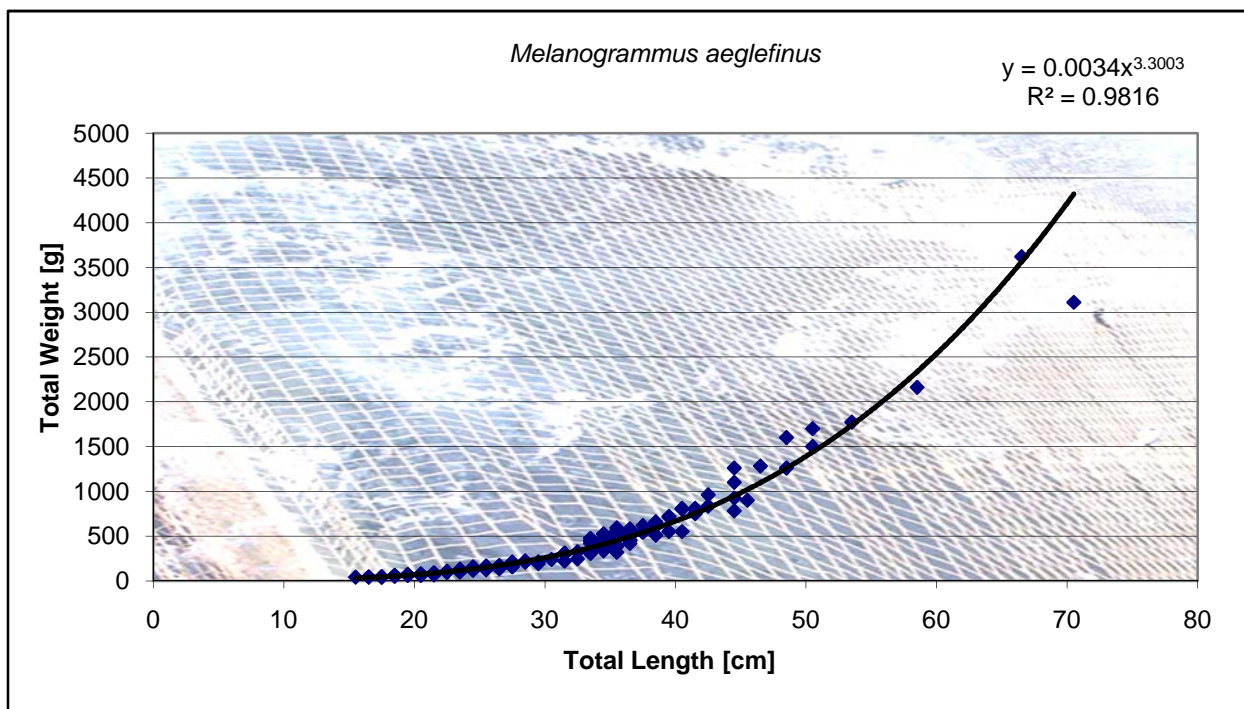
data collected

time period : 1995 - 2004

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
137	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	1	-	-	-	31	104	1	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	1	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
100	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

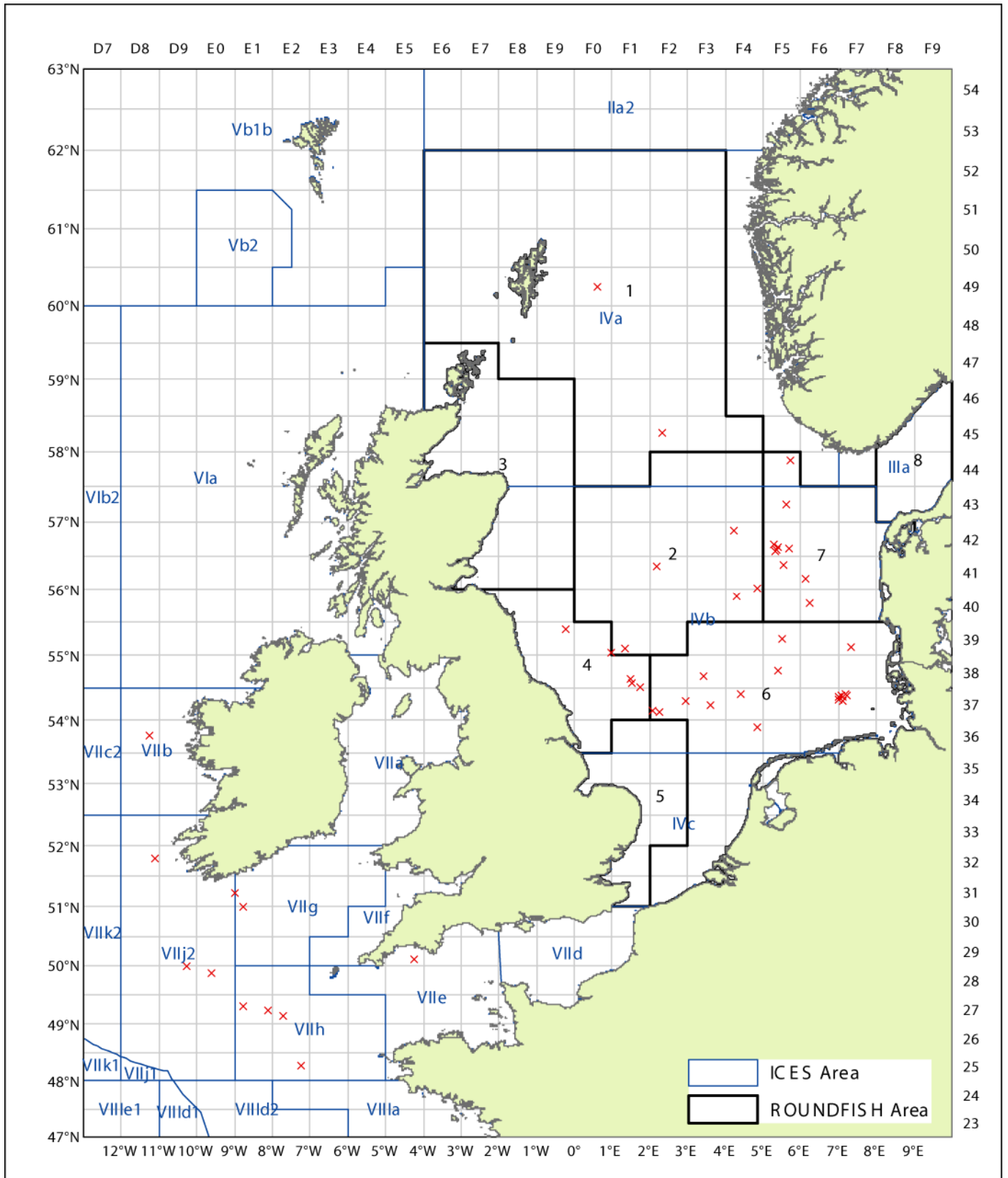


Method of Measurement

- Total length	male	34
- cm below	female	94
min length	undefined	9
max length	total numbers of data	137
15.5 [cm]		
70.5 [cm]		

Melanogrammus aeglefinus Quarter 2

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

Quarter: 2

$$TW [g] = a * L [cm]^b$$

a = 0.0083

b = 3.0284

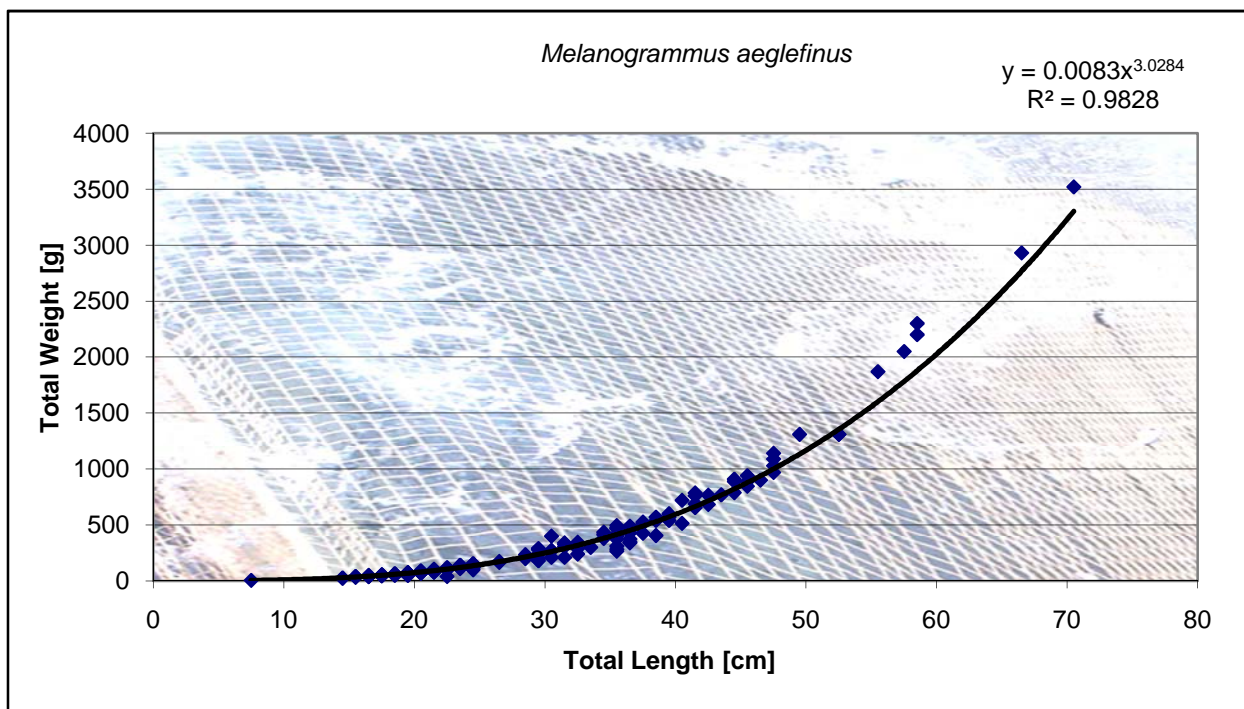
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
-	161	-	-																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
-	-	-	55	61	45	-	-	-	-	-	-	-									
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	124	-	-	37	-	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	14	110	-	-	-	-	-	-	1	-	-	1	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B											
10	19	6	-	-	-	-	-	-	-	-											
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9													
13	29	-	13	-	33	36	-	-													
											1A	1B	1C	1D	1E	1F	2G	2H	2J		
											-	-	-	-	-	-	-	-	-		

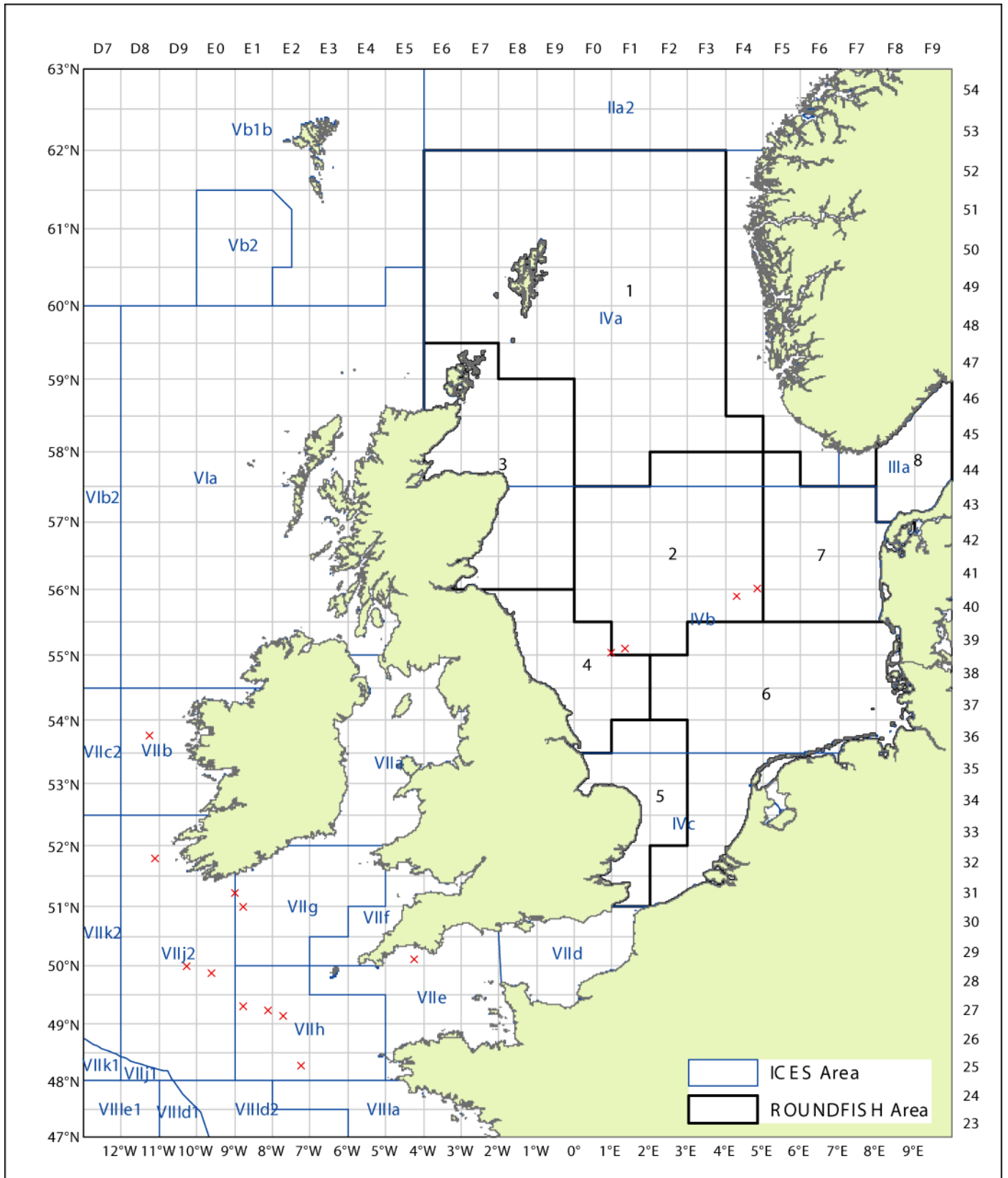


Method of Measurement

- Total length		male	51
- cm below		female	50
		undefined	60
min length	7.5 [cm]		
max length	70.5 [cm]		
		total numbers of data	161

Melanogrammus aeglefinus April

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

April

$$TW [g] = a * L [cm]^b$$

a = 0.0048

b = 3.1779

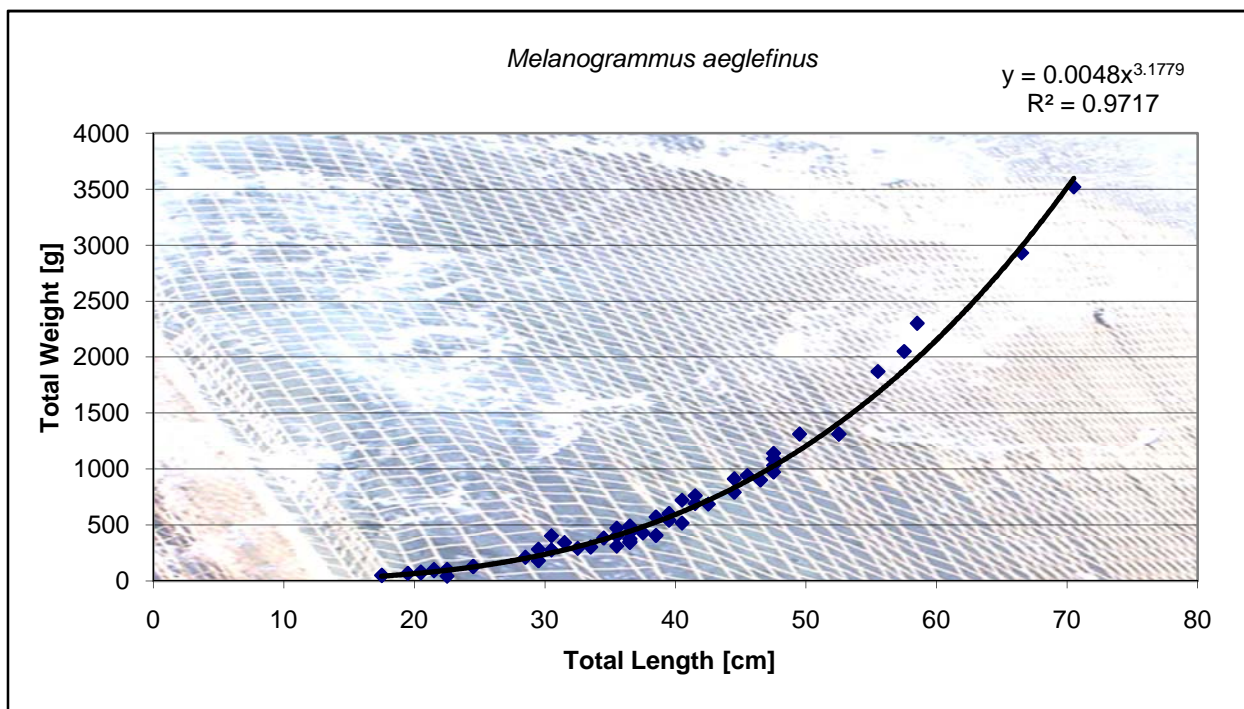
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	55	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	18	-	-	37	-	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	1	-	-	1	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
10	19	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	7	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

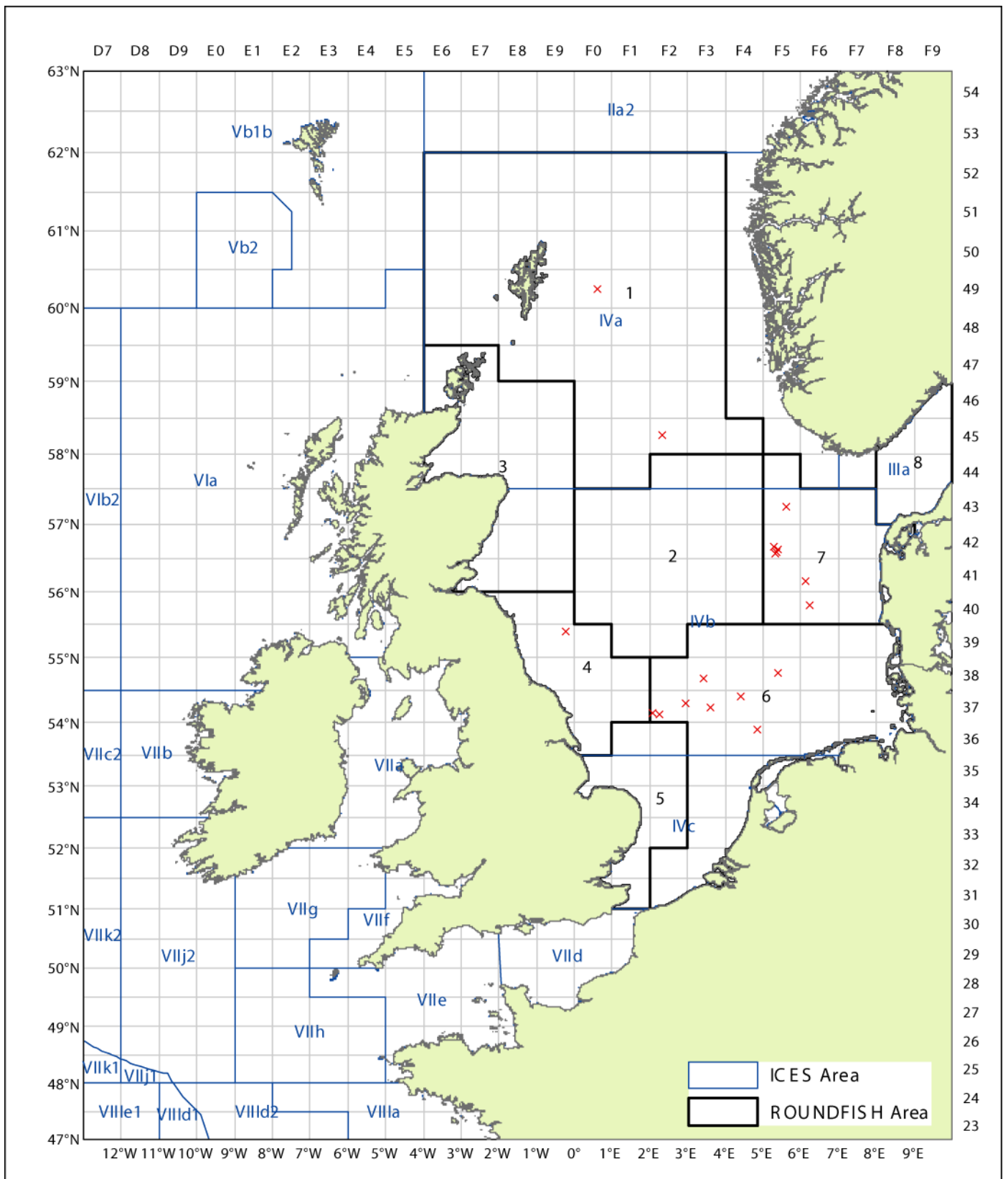


Method of Measurement

- Total length		male	11
- cm below		female	10
min length	17.5 [cm]	undefined	34
max length	70.5 [cm]	total numbers of data	55

Melanogrammus aeglefinus May

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

May

$$TW [g] = a * L [cm]^b$$

a = 0.0143

b = 2.8509

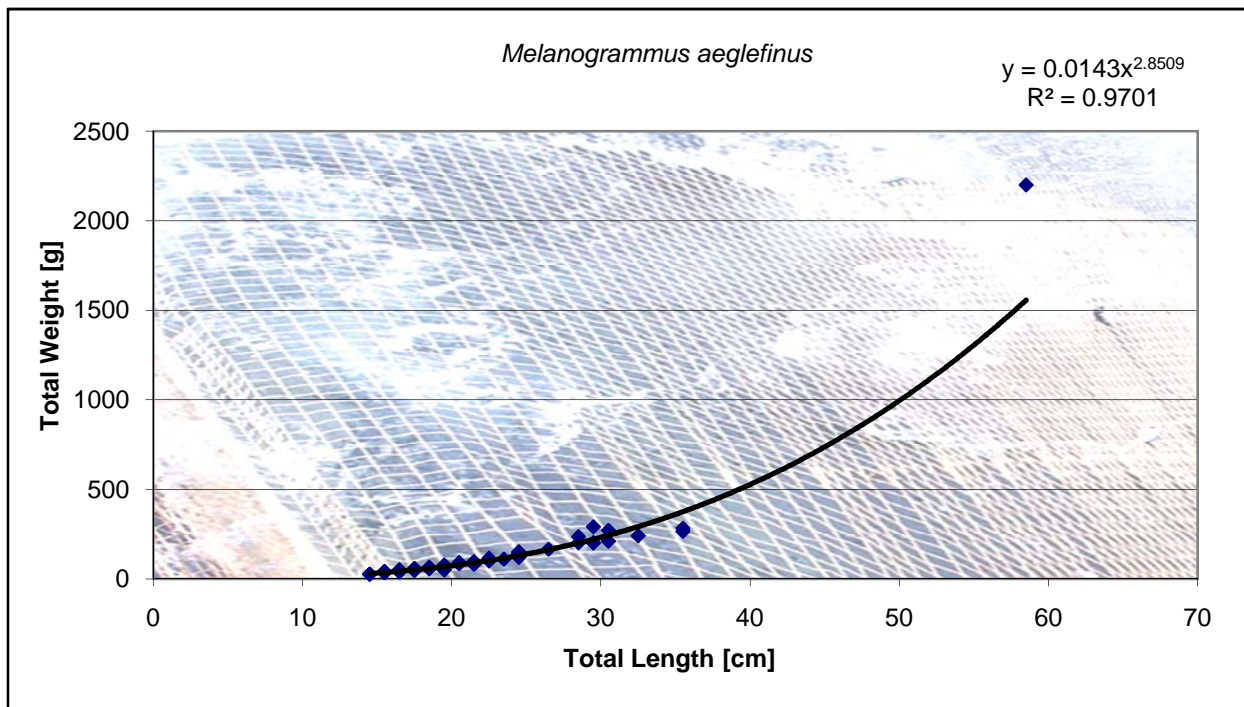
data collected

time period : 1995 - 2006

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	61	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	61	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	61	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	13	48	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J			
13	-	-	2	-	13	33	-	-	-	-	-	-	-	-	-	-	-	-	-	

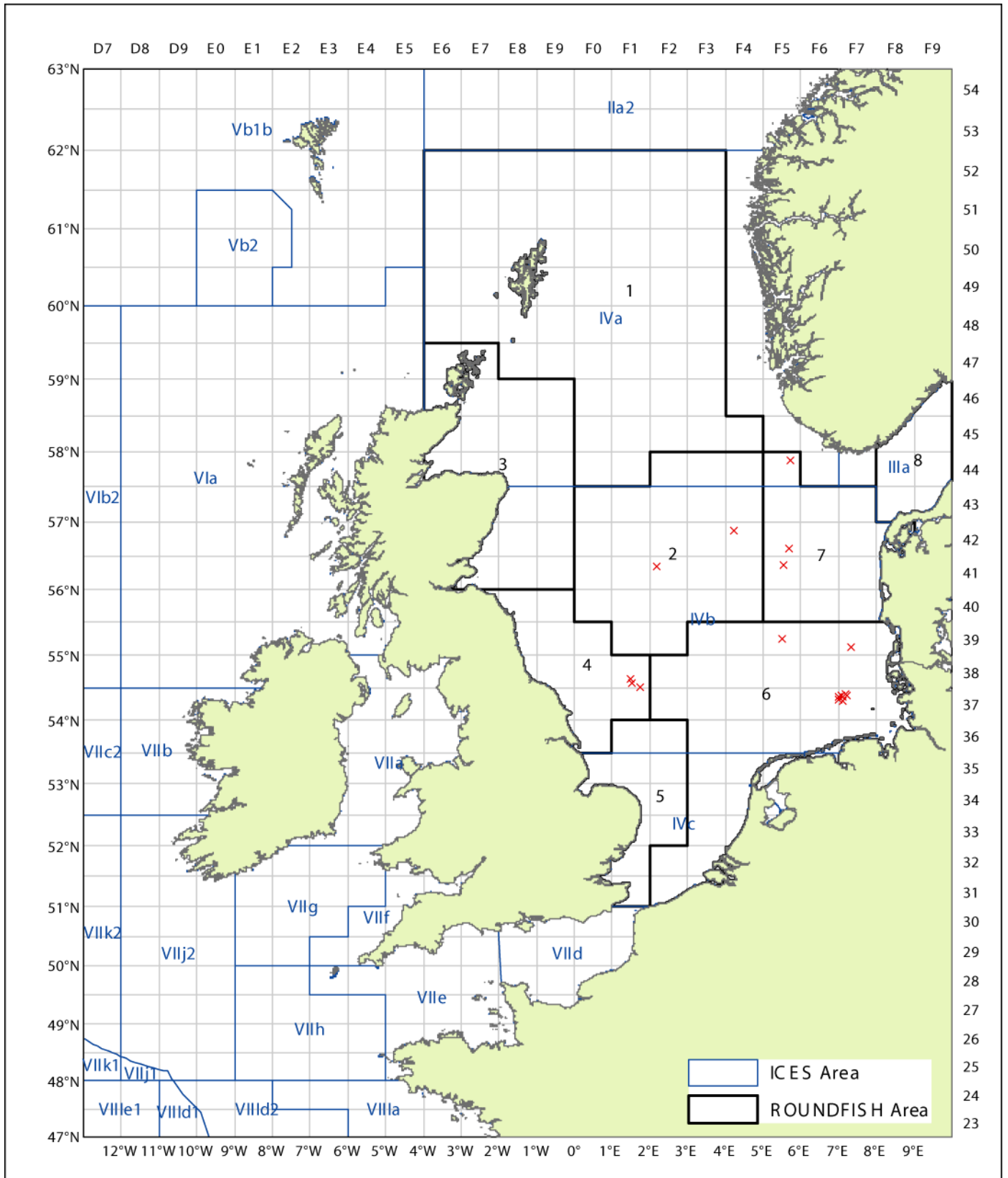


Method of Measurement

- Total length		male	22
- cm below		female	27
		undefined	12
min length	14.5 [cm]		
max length	58.5 [cm]		
		total numbers of data	61

Melanogrammus aeglefinus June

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

June

$$TW [g] = a * L [cm]^b$$

a = 0.0092

b = 3.008

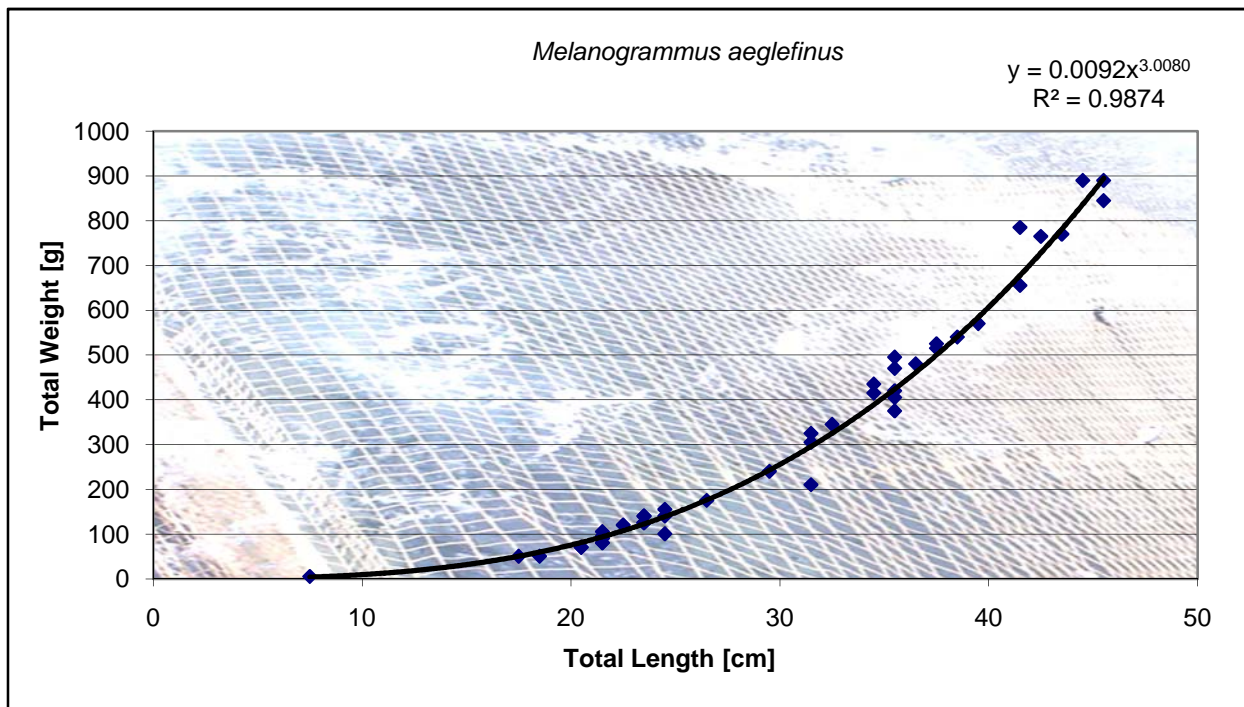
data collected

time period : 1995 - 2000

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	45	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	45	-	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	45	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	1	44	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	22	-	-	-	20	3	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	18
- cm below		female	13
min length	7.5 [cm]	undefined	14
max length	45.5 [cm]	total numbers of data	45

Melanogrammus aeglefinus

Quarter: 3

$$TW [g] = a * L [cm]^b$$

a = 0.0065

b = 3.1083

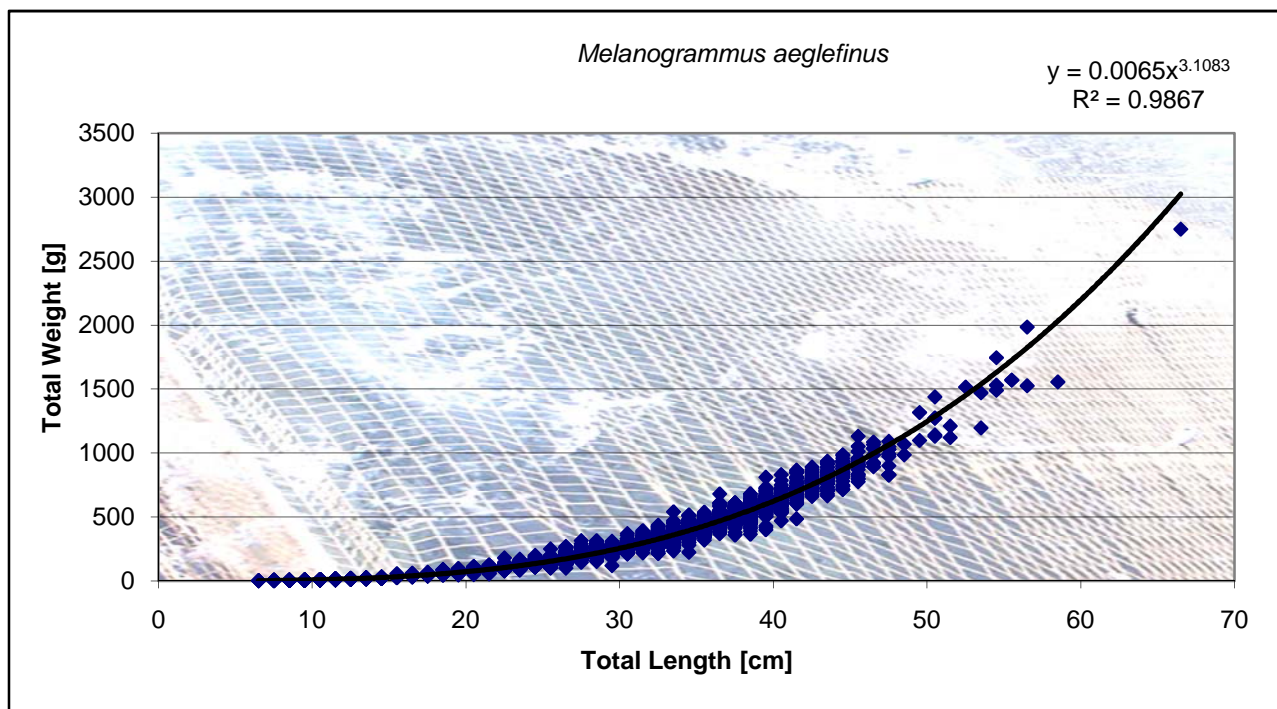
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	5148	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	2439	2314	395	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	5148	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	3991	1157	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2235	202	1129	1132	-	169	281	-	-	-	-	-	-	-	-	-	-	-		

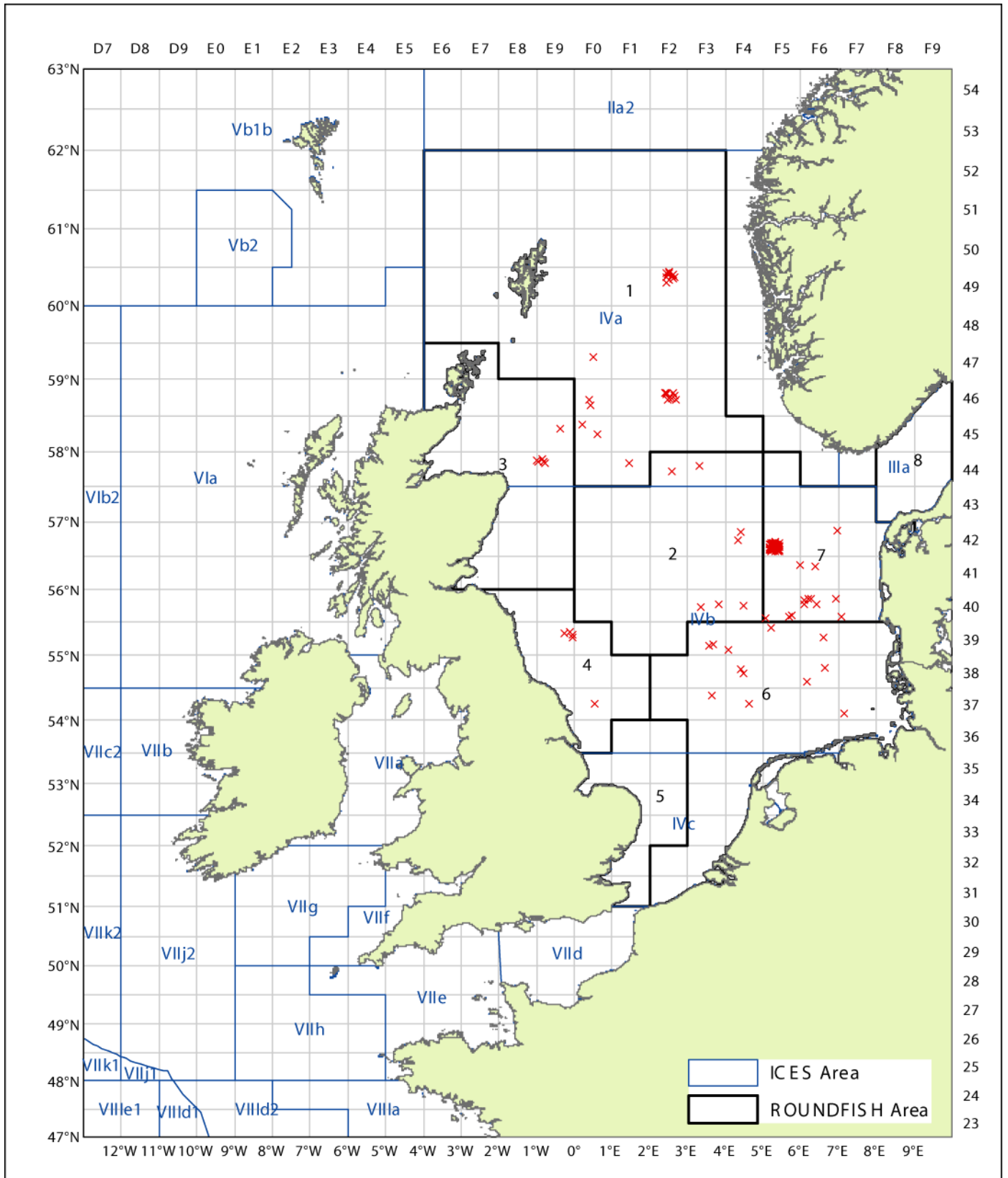


Method of Measurement

- Total length		male	1298
- cm below		female	1165
min length	6.5 [cm]	undefined	2685
max length	66.5 [cm]	total numbers of data	5148

Melanogrammus aeglefinus July

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

July

$$Tw [g] = a * L [cm]^b$$

a = 0.0063

b = 3.1205

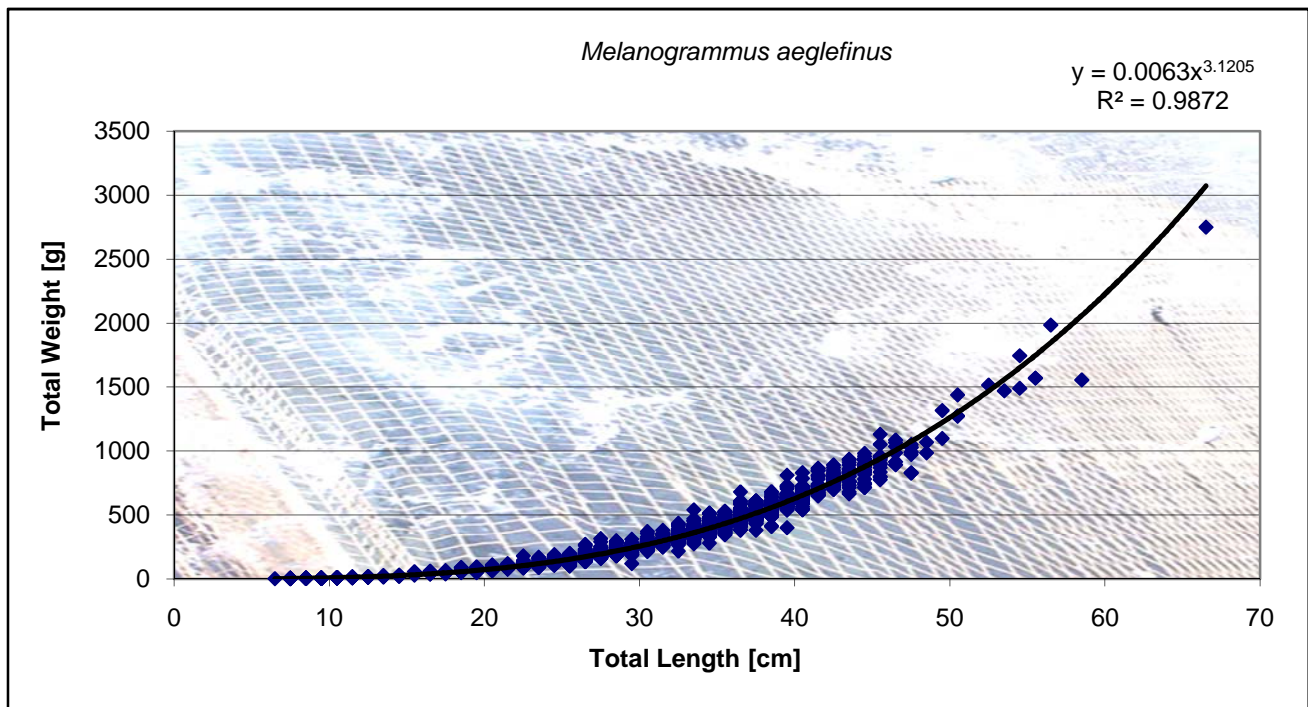
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	2439	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	2439	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2439	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2151	288	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
1909	74	189	139	-	17	111	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

min length
max length

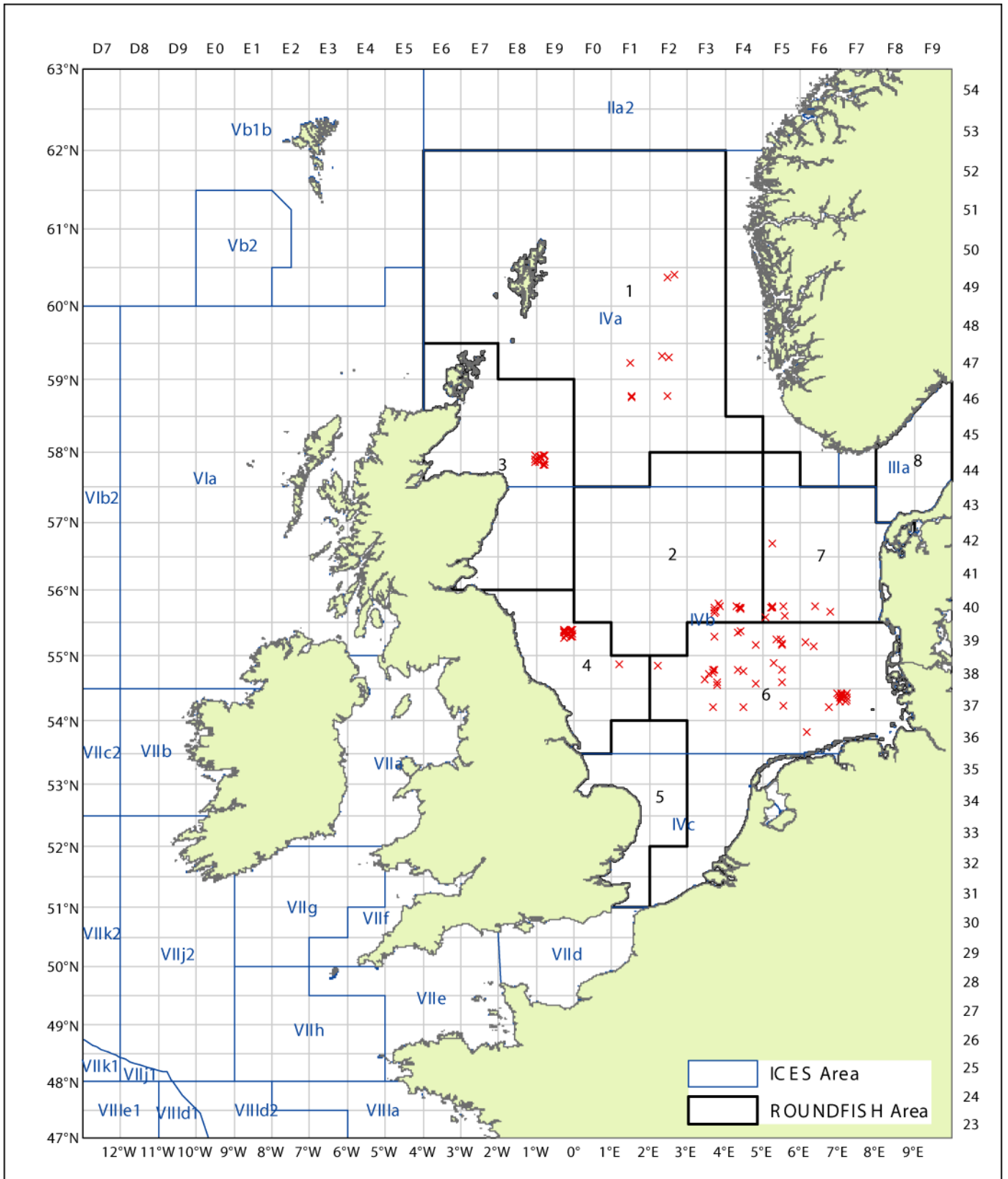
6.5 [cm]
66.5 [cm]

male 605
female 501
undefined 1333

total numbers of data 2439

Melanogrammus aeglefinus August

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

August

$$Tw [g] = a * L [cm]^b$$

a = 0.0068

b = 3.0956

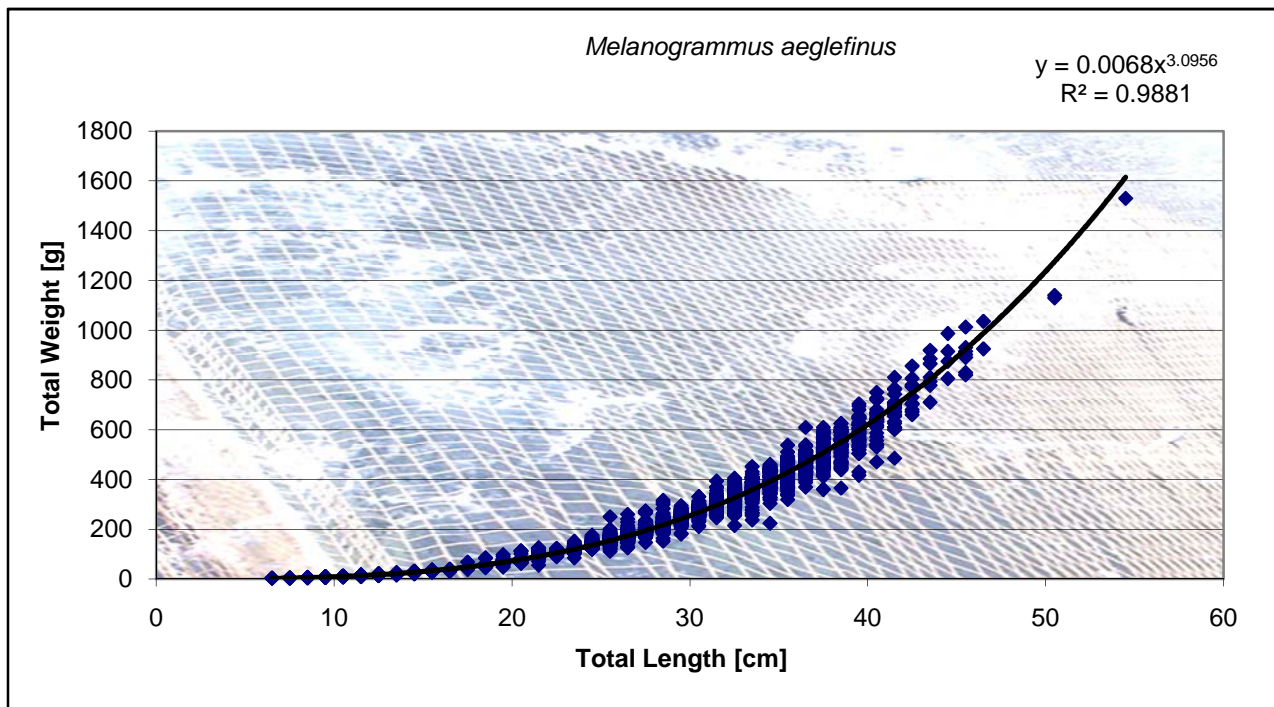
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	2314	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	2314	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2314	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	1723	591	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
326	88	823	872	-	148	57	-	-	-	-	-	-	-	-	-	-	-	-	-

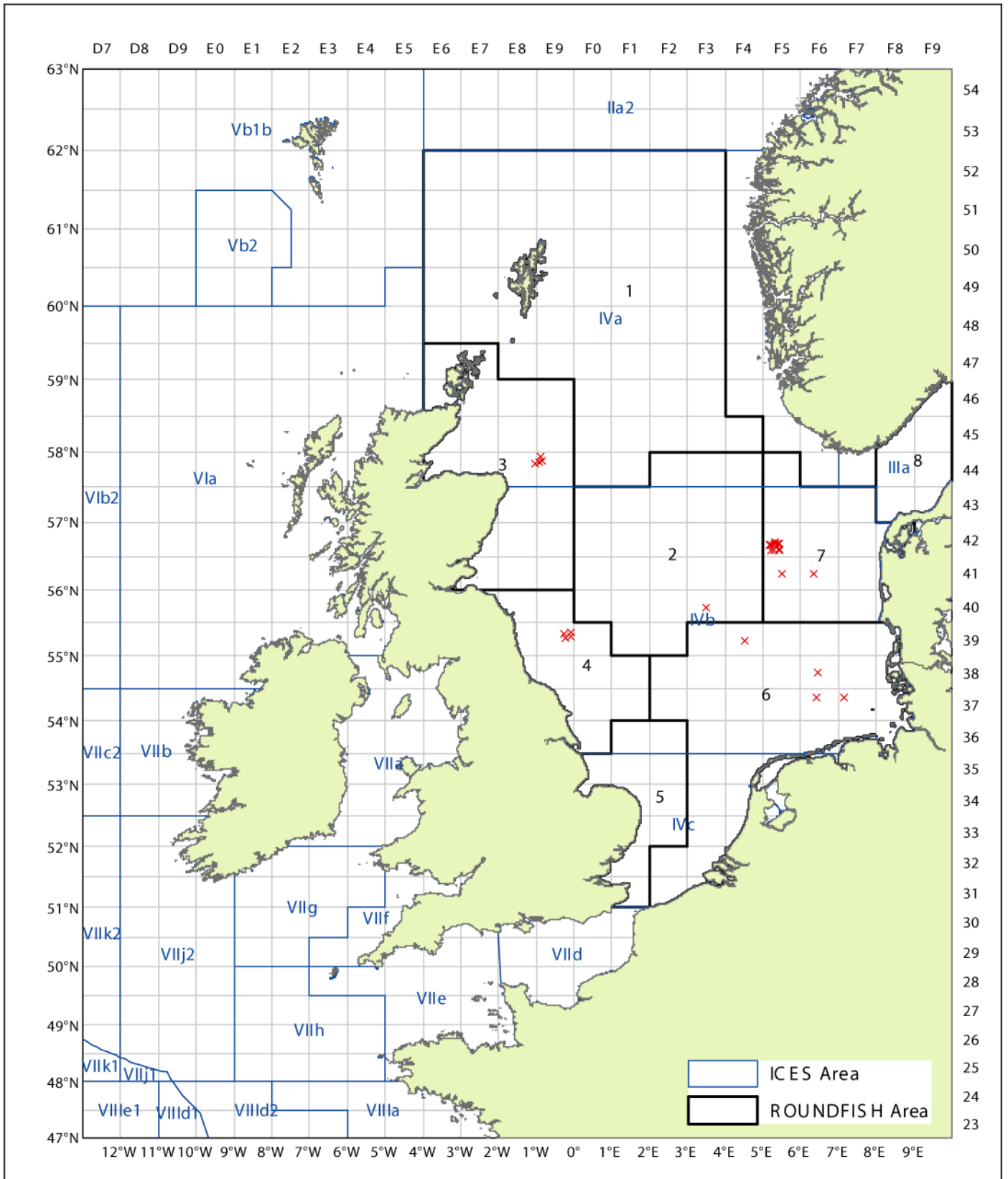


Method of Measurement

- Total length		male	485
- cm below		female	484
min length	6.5 [cm]	undefined	1345
max length	54.5 [cm]	total numbers of data	2314

Melanogrammus aeglefinus September

Geographical distribution of data used for calculating the length-weight relationship



Melanogrammus aeglefinus

September

$$TW [g] = a * L [cm]^b$$

a = 0.0065

b = 3.0997

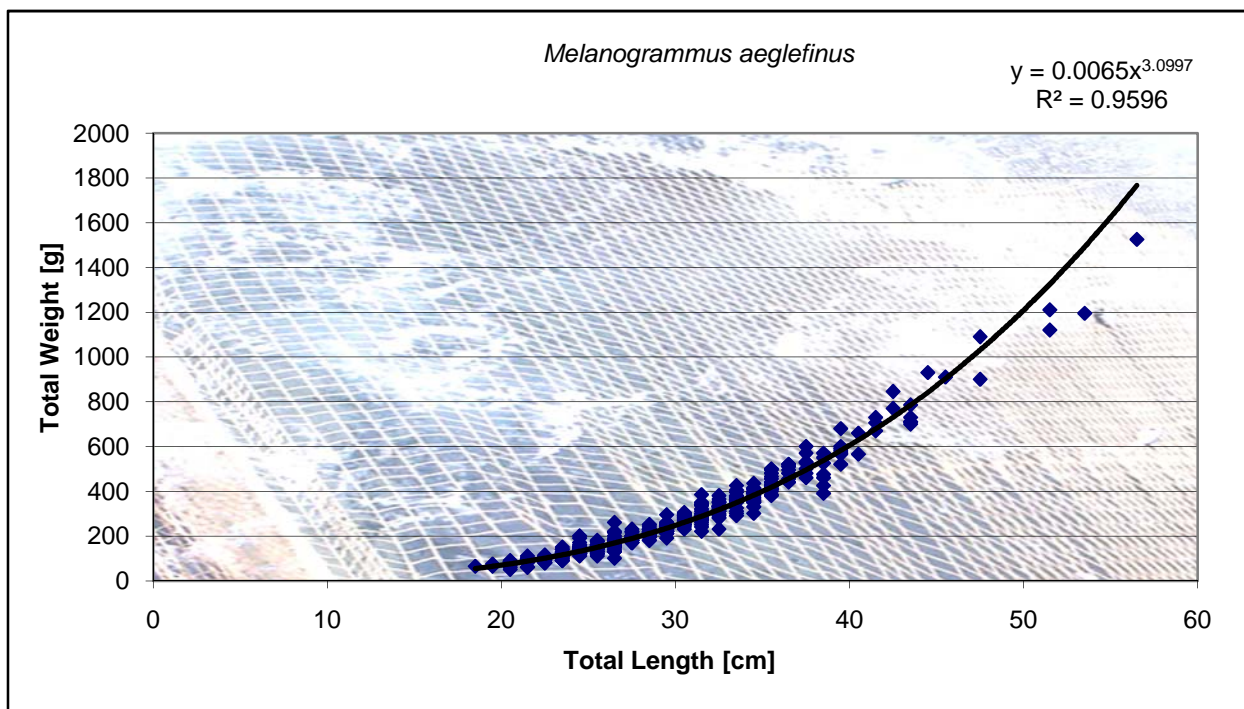
data collected

time period : 1997 - 1997

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	395	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	395	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	395	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	117	278	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	40	117	121	-	4	113	-	-	-	-	-	-	-	-	-	-	-	-	-

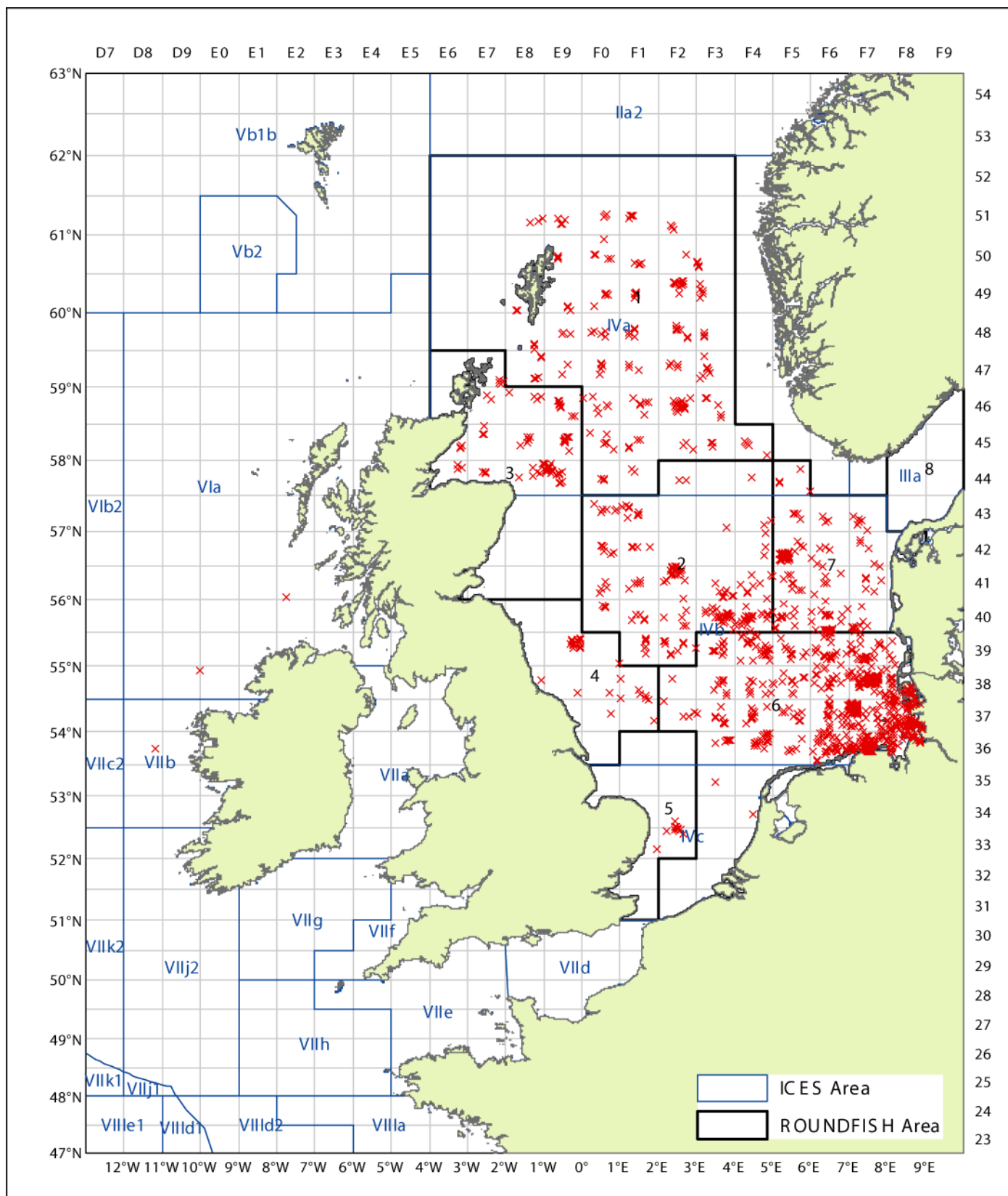


Method of Measurement

- Total length		male	208
- cm below		female	180
		undefined	7
min length	18.5 [cm]	total numbers of data	395
max length	56.5 [cm]		

Merlangius merlangus

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0061

b = 3.0671

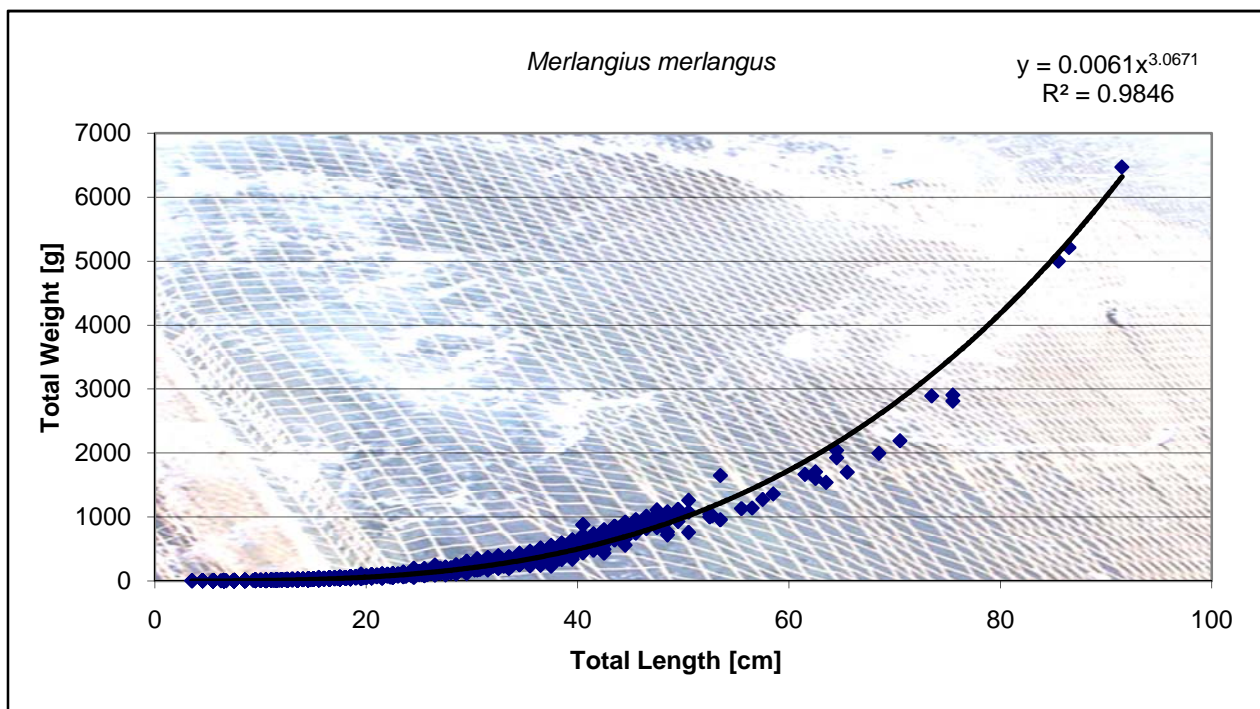
data collected

time period : 1997 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
8862	412	5473	133																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
4373	4446	43	184	216	12	1909	3006	558	13	103	17								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	14859	-	20	1	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	6335	8517	7	-	-	20	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
3525	2731	2655	676	138	3733	1401	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- cm below

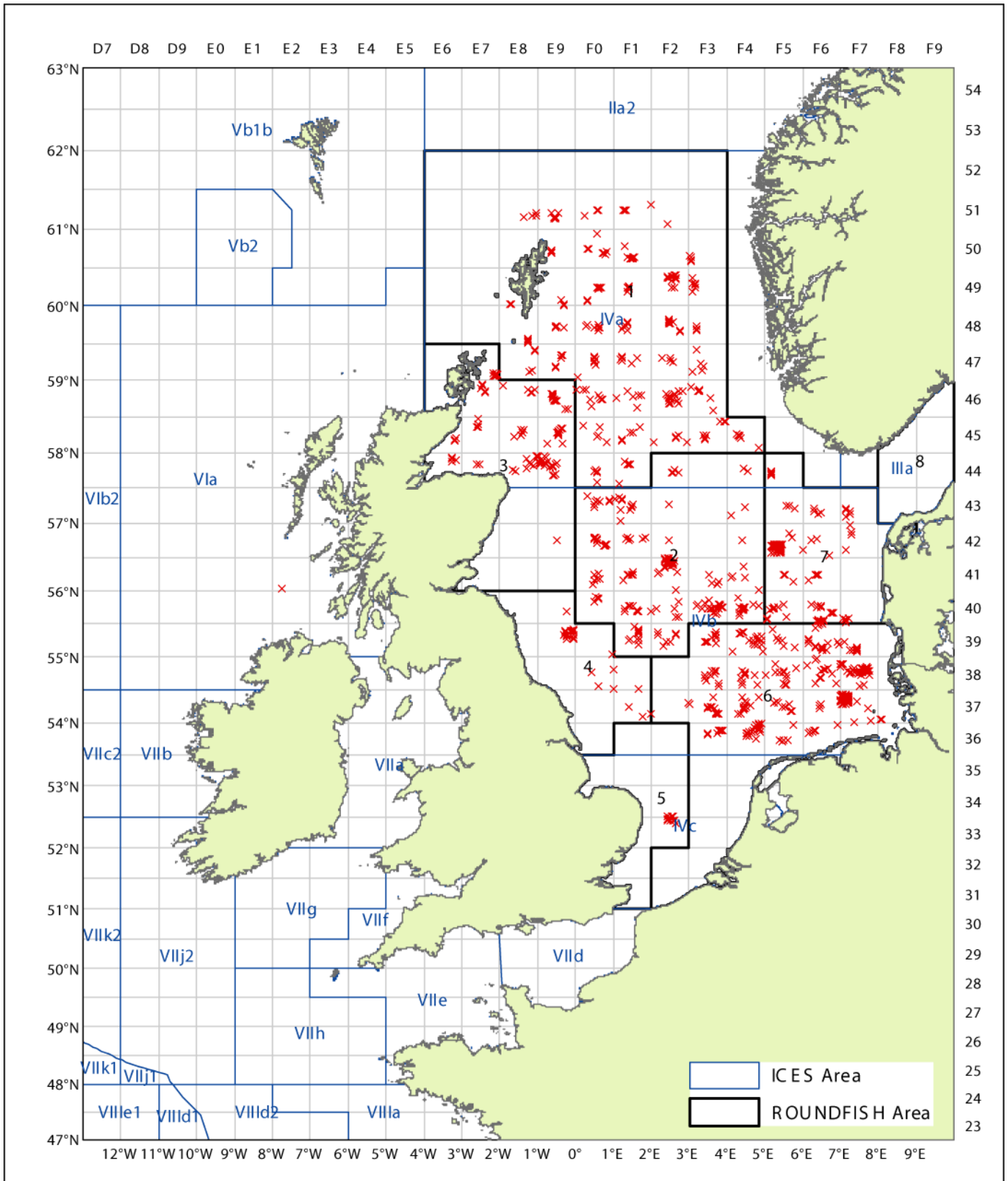
min length 3.5 [cm]
max length 91.5 [cm]

male 6574
female 6692
undefined 1614

total numbers of data 14880

Merlangius merlangus ♀

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0045

b = 3.162

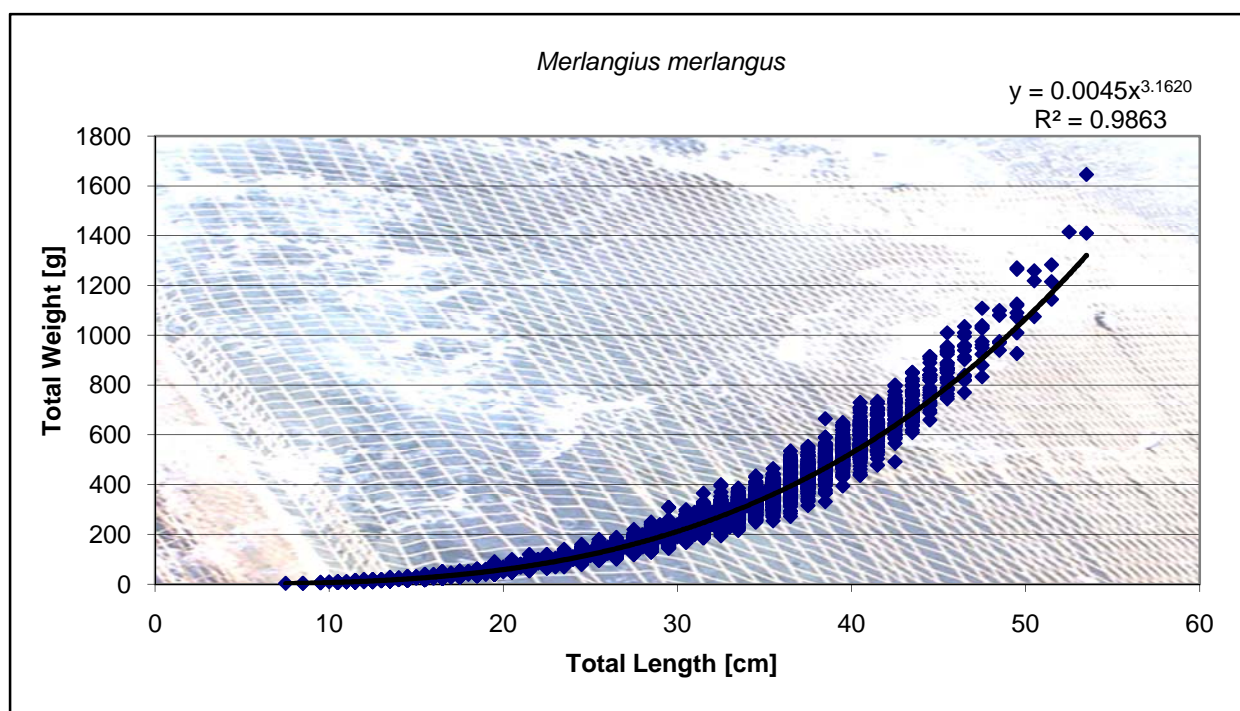
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
6148	522	2654	111																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
2791	3103	254	94	346	82	975	1461	218	-	85	26											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	9428	-	6	-	1	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	4631	4797	-	-	-	6	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	1	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
2638	1929	1865	409	183	1666	738	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

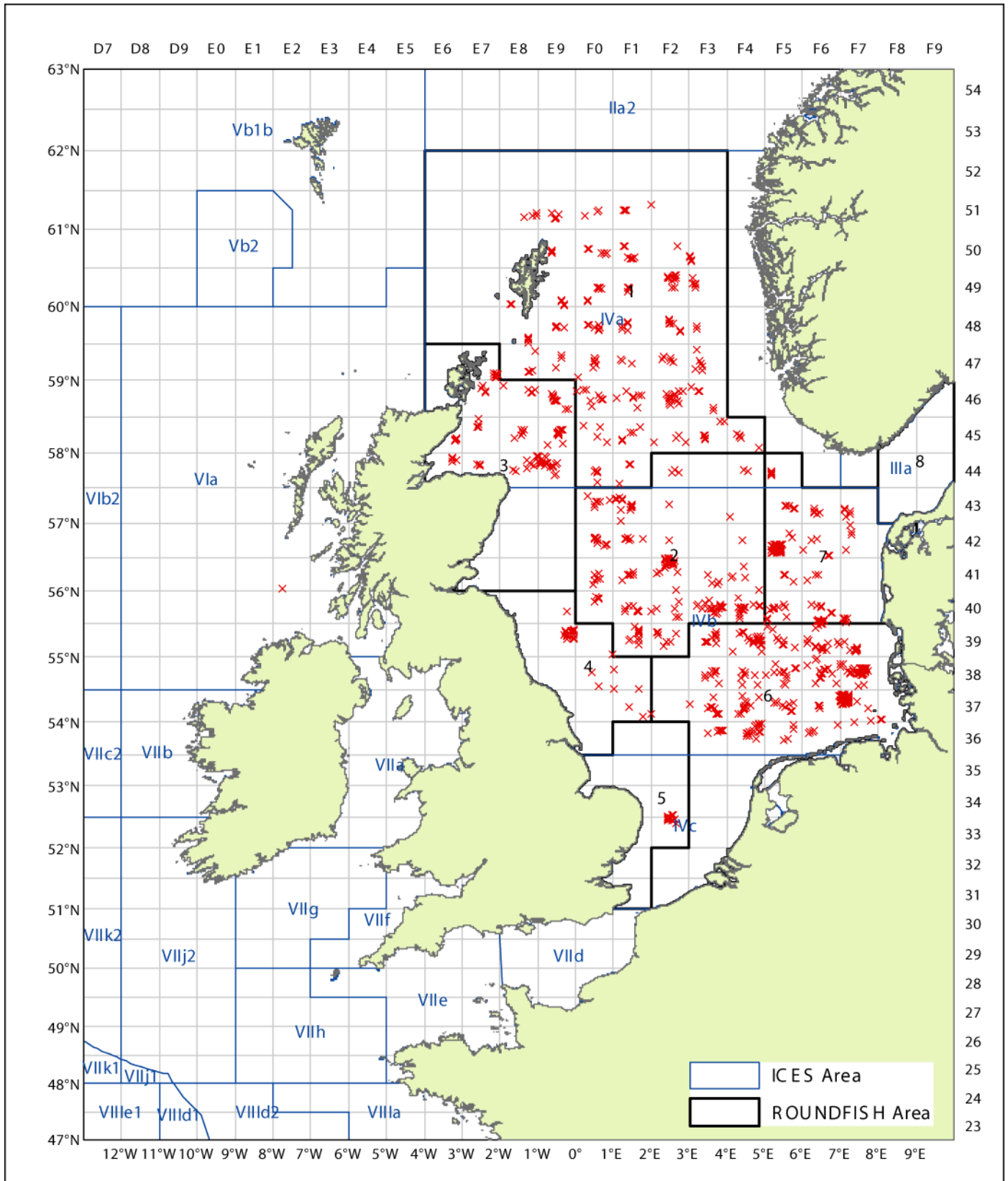
min length 7.5 [cm]
max length 53.5 [cm]

male -
female 9435
undefined -

total numbers of data 9435

Merlangius merlangus ♂

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0057

b = 3.0863

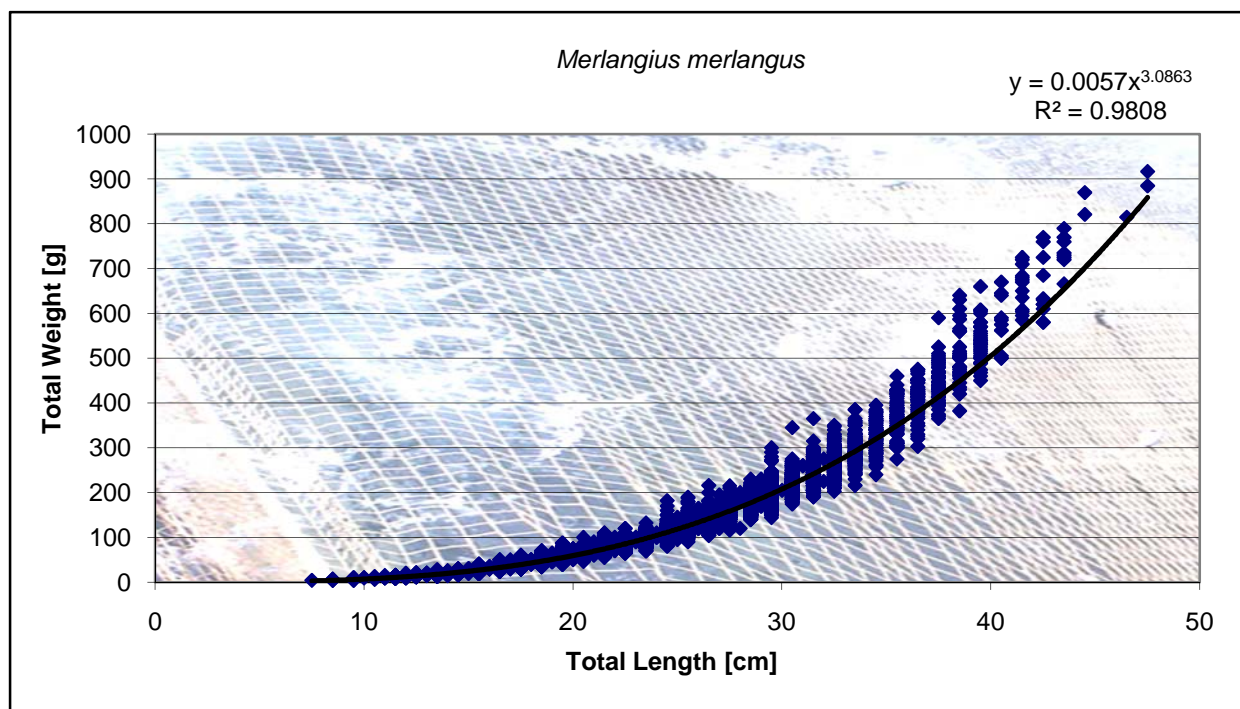
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
5710	590	2869	146																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
2887	2668	155	90	388	112	1119	1487	263	-	113	33									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	9303	-	12	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	3957	5346	-	-	-	12	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea											NAFO									
1	2	3	4	5	6	7	8	9				1A	1B	1C	1D	1E	1F	2G	2H	2J
2197	1871	1629	423	113	2210	860	-	-				-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

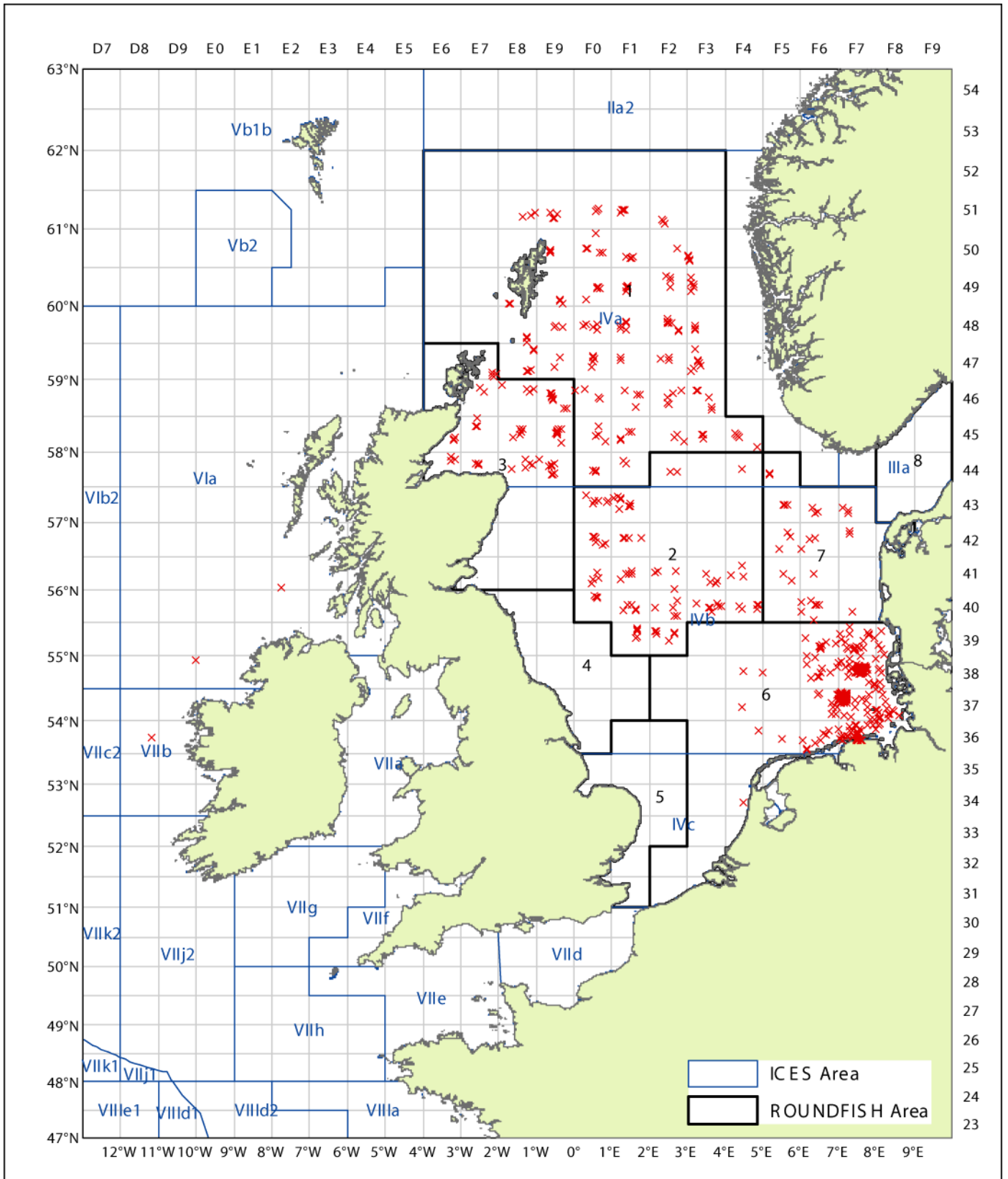
min length 7.5 [cm]
max length 47.5 [cm]

male 9315
female -
undefined -

total numbers of data 9315

Merlangius merlangus Quarter 1

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

Quarter: 1

$$TW [g] = a * L [cm]^b$$

a = 0.0042

b = 3.1775

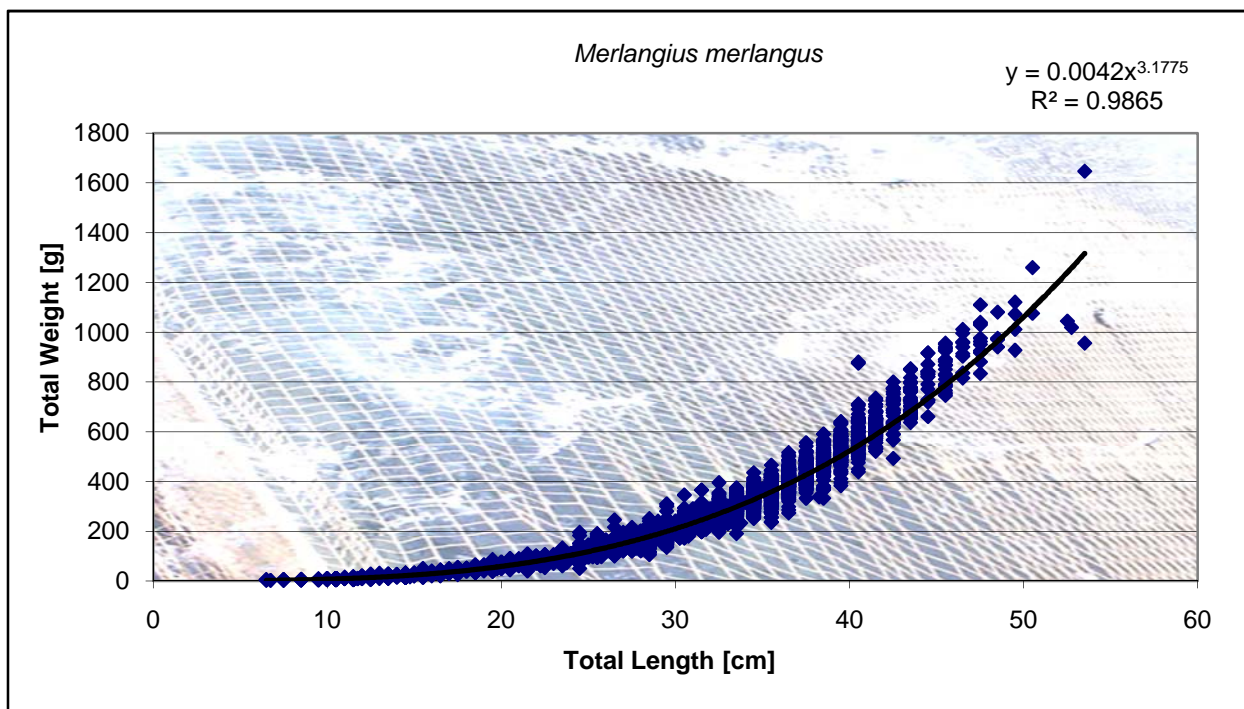
data collected

time period : 1997 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
8862	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
4373	4446	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	8841	-	20	1	-	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	5298	3543	-	-	-	20	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
2956	2063	2226	-	-	1121	475	-	-											
									1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-		

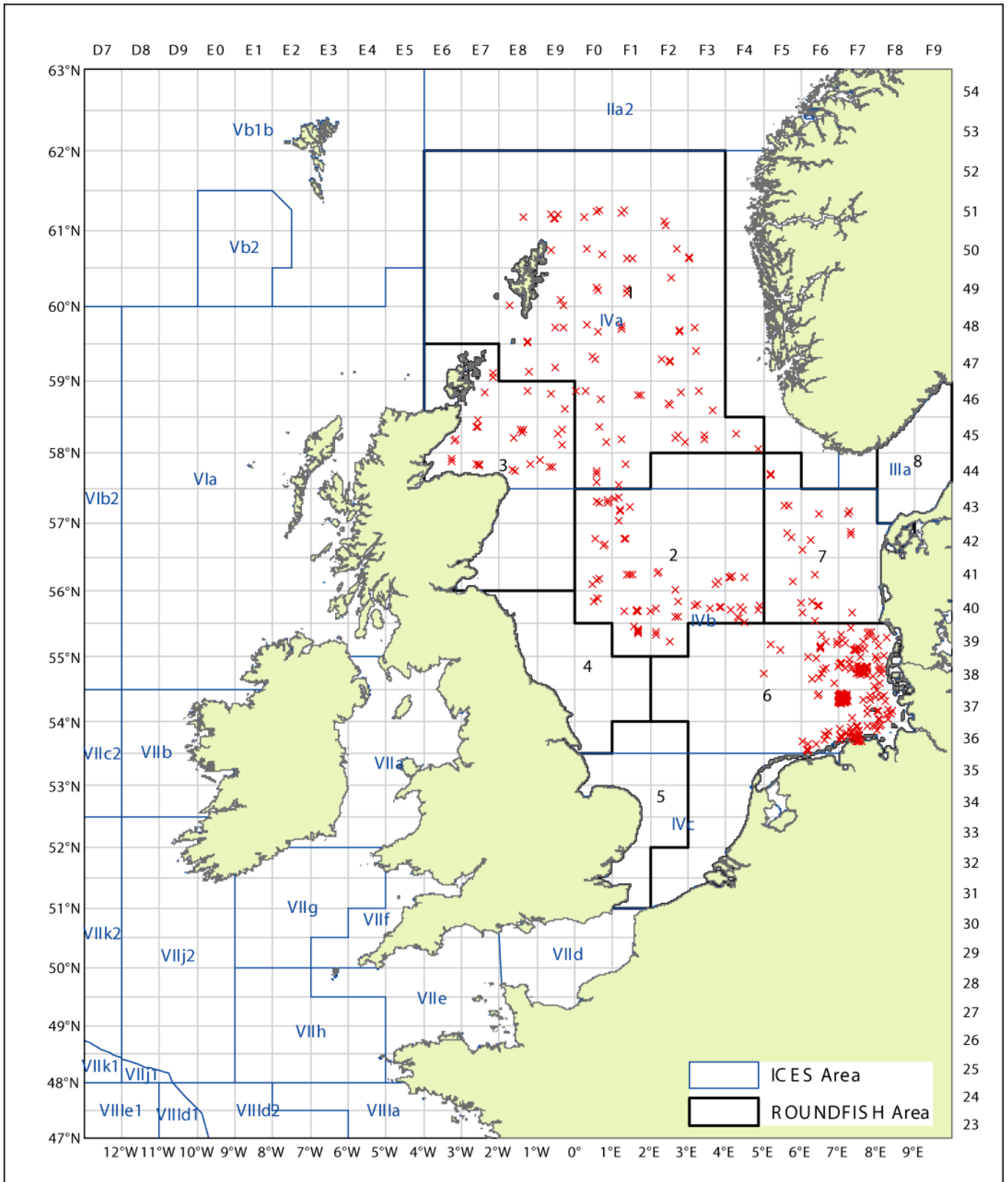


Method of Measurement

- Total length		male	4018
- cm below		female	4288
min length	6.5 [cm]	undefined	556
max length	53.5 [cm]	total numbers of data	8862

Merlangius merlangus January

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

January

$$Tw [g] = a * L [cm]^b$$

a = 0.0049

b = 3.1319

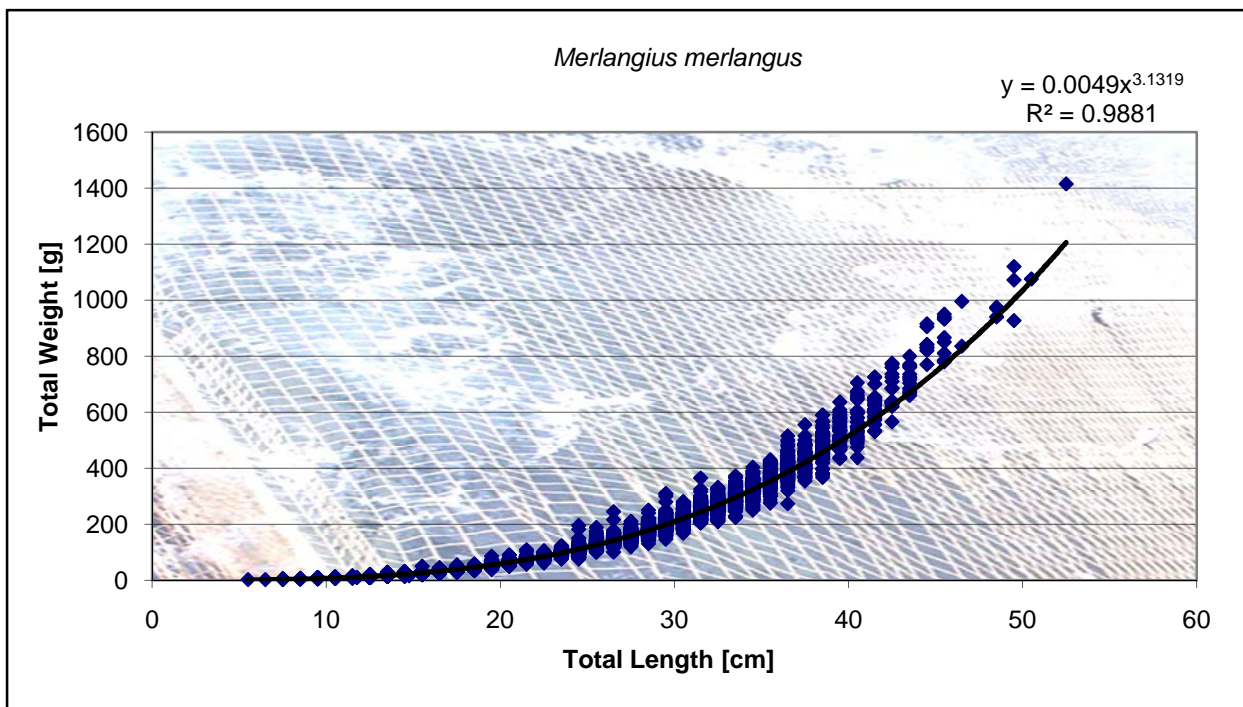
data collected

time period : 1998 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
5199	-	-	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
5199	-	-	-	-	-	-	-	-	-	-	-	-										
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	5199	-	-	-	-	-	-	-	-	-										
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	2572	2627	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
1549	1213	923	-	-	1182	332	-	-						-	-	-	-	-	-	-	-	-

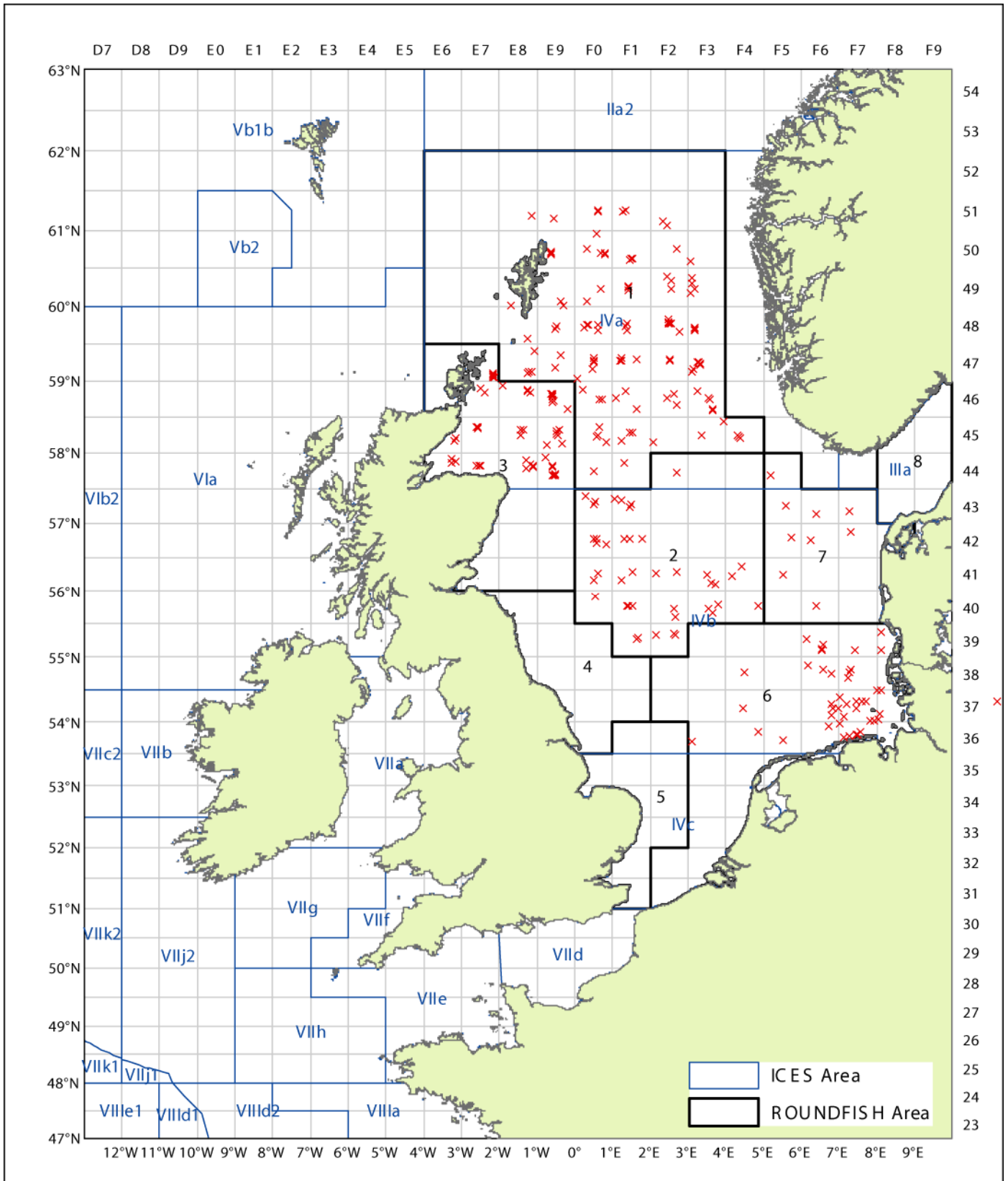


Method of Measurement

- Total length		male	2566
- cm below		female	2371
min length	5.5 [cm]	undefined	262
max length	52.5 [cm]	total numbers of data	5199

Merlangius merlangus February

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

February

$$Tw [g] = a * L [cm]^b$$

a = 0.0041

b = 3.1868

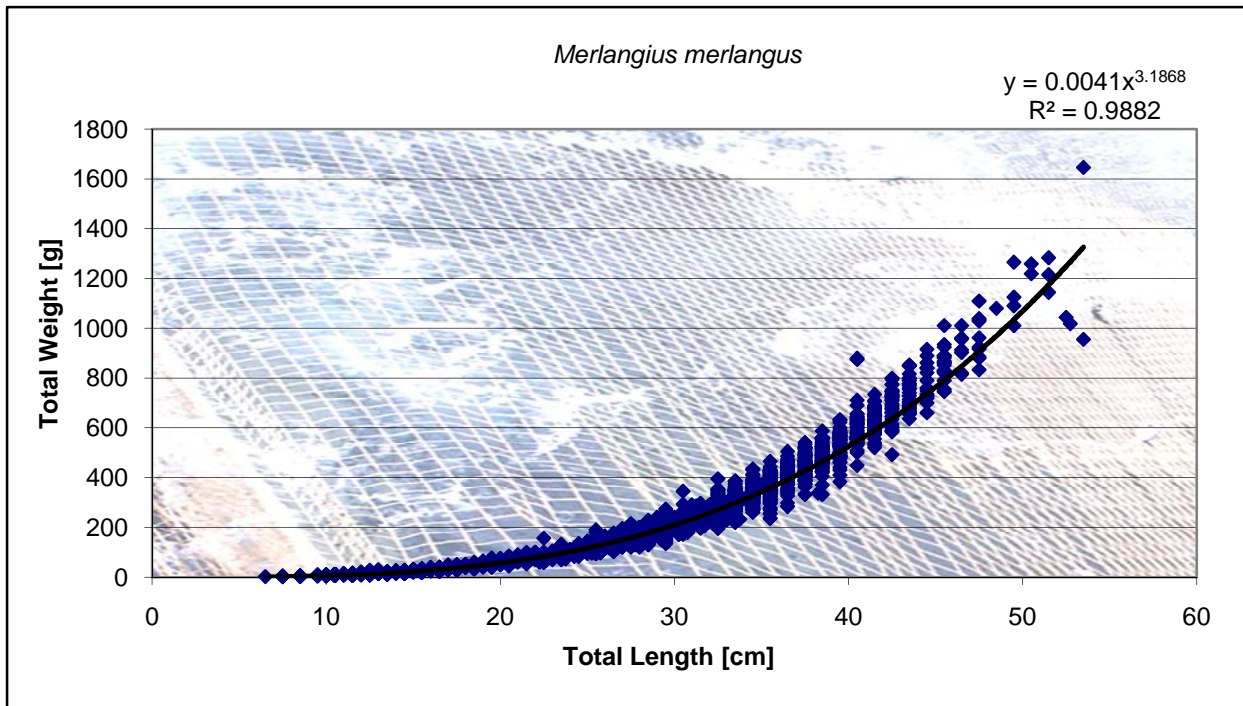
data collected

time period : 1998 - 2009

data source : research vessel

numbers of data:

Quarter																							
1	2	3	4																				
4895	-	-	-																				
Month																							
1	2	3	4	5	6	7	8	9	10	11	12												
-	4895	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Subarea																							
1	2	3	4	5	6	7	8	9	10	12	14												
-	-	2	4893	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Division																							
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F				
-	-	-	-	-	2	-	3378	1515	-	-	-	-	-	-	-	-	-	-	-				
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Roundfisharea										NAFO													
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J	
1764	1166	1575	-	-	266	122	-	-						-	-	-	-	-	-	-	-	-	-

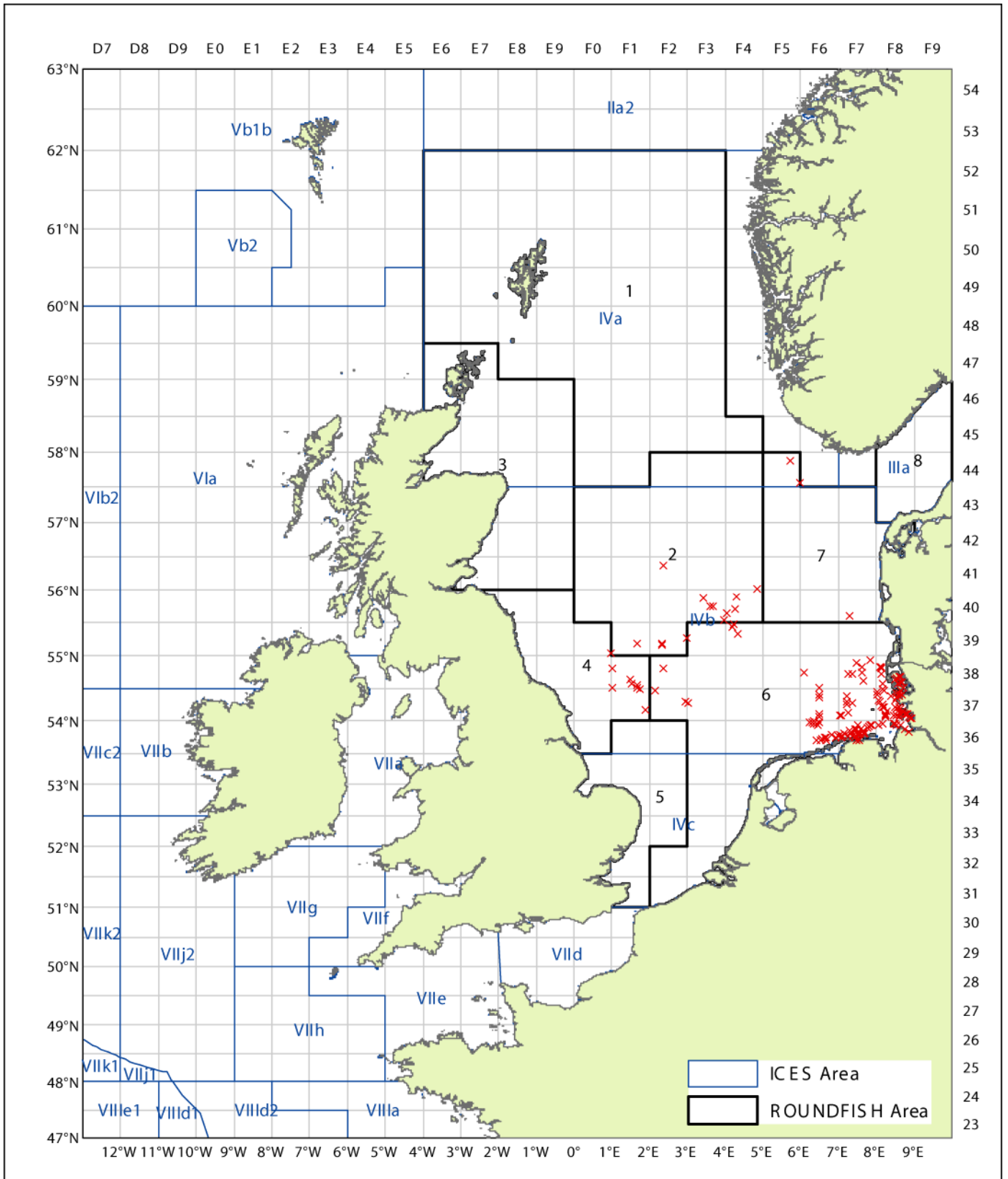


Method of Measurement

- Total length		male	2127
- cm below		female	2428
min length	6.5 [cm]	undefined	339
max length	53.5 [cm]	total numbers of data	4895

Merlangius merlangus Quarter 2

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

Quarter 2

$$TW [g] = a * L [cm]^b$$

a = 0.0111

b = 2.8596

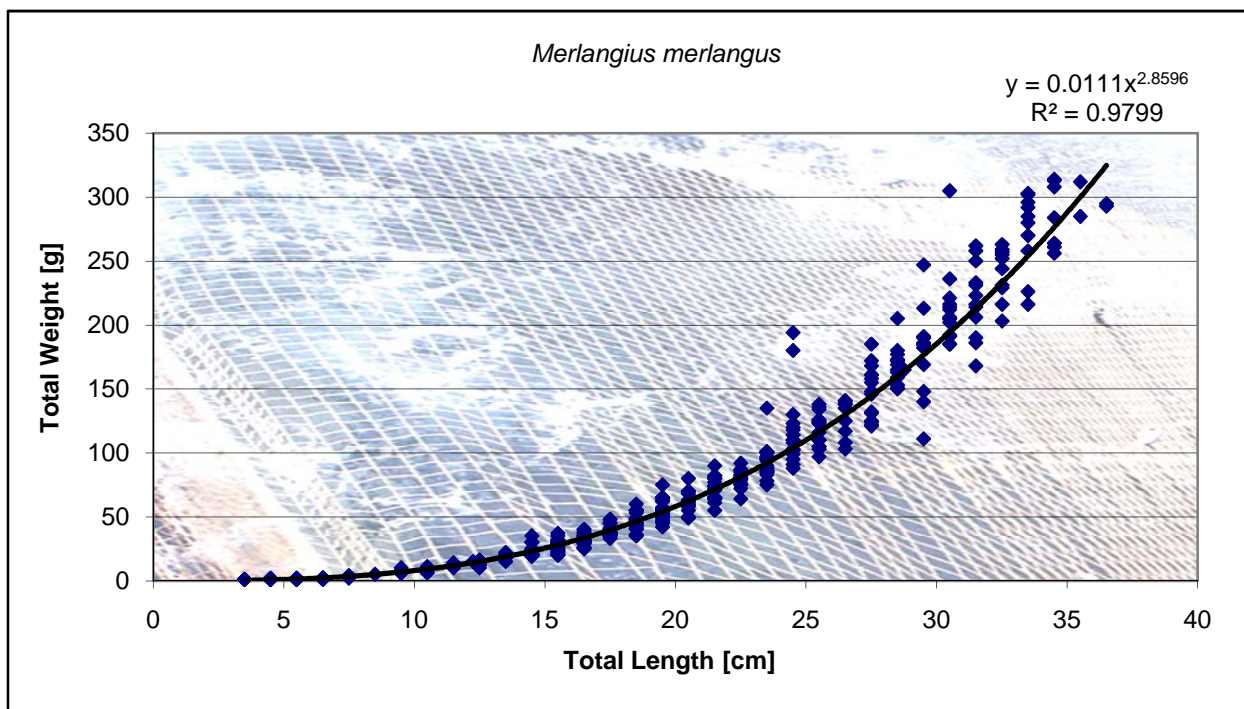
data collected

time period : 1997 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	412	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	184	216	12	-	-	-	-	-	-	-							
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	412	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2	410	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	91	-	151	-	167	3	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	116
- cm below		female	129
min length	3.5 [cm]	undefined	167
max length	36.5 [cm]	total numbers of data	412

Merlangius merlangus

Quarter: 3

$$TW [g] = a * L [cm]^b$$

a = 0.0085

b = 2.9661

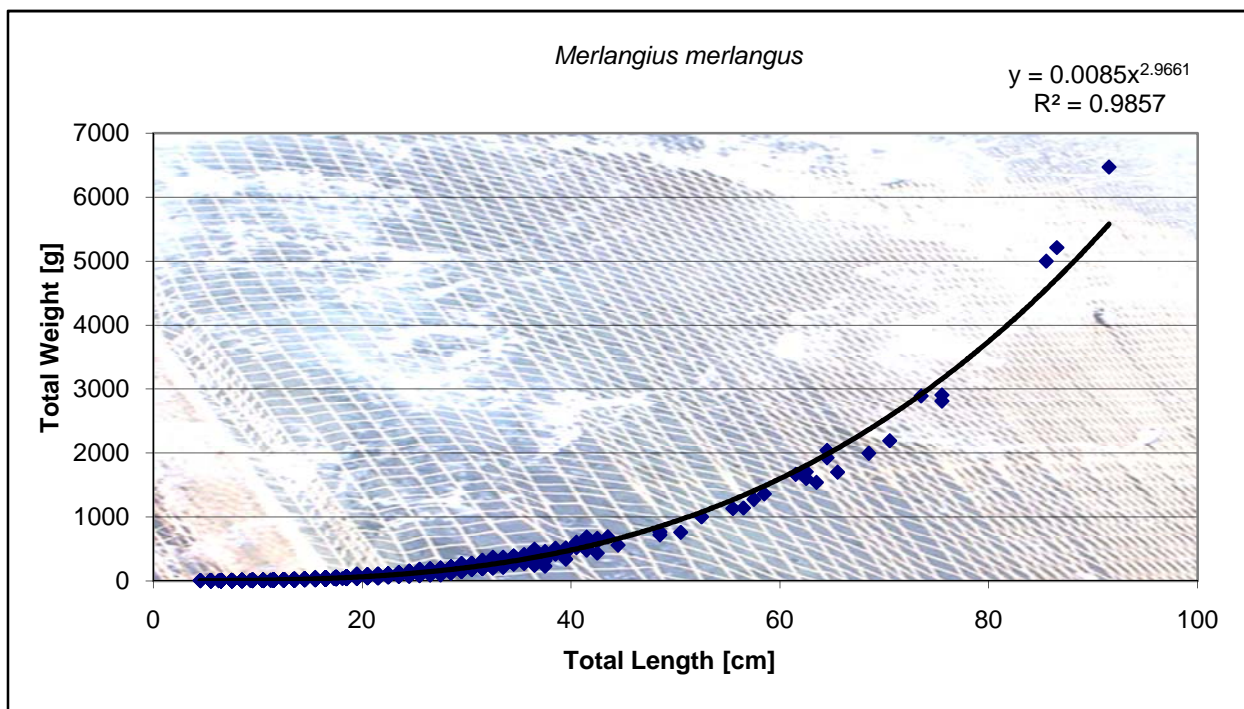
data collected

time period : 1997 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	5473	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	1909	3006	558	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	5473	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	1035	4431	7	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
569	511	429	525	138	2378	923	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

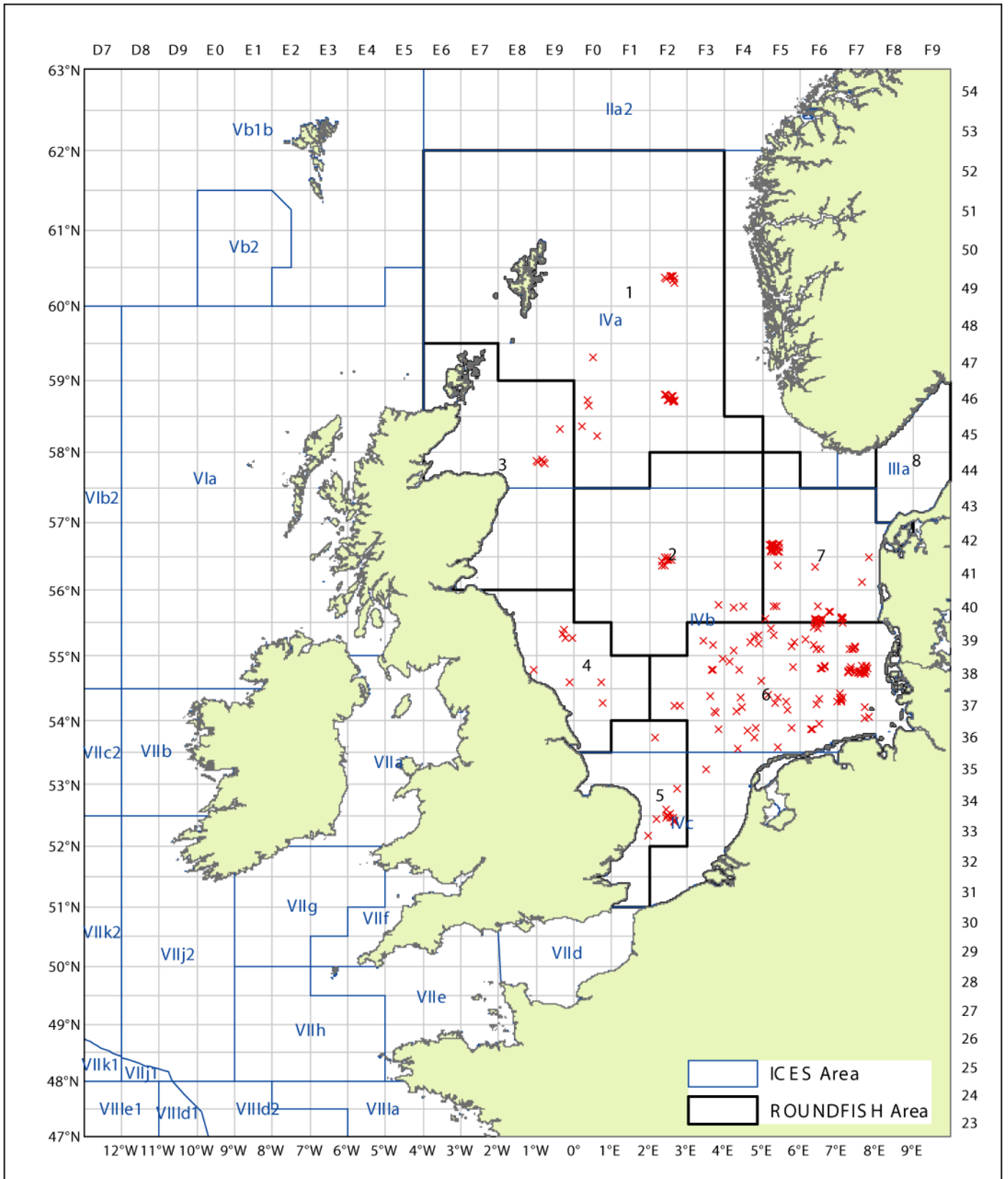


Method of Measurement

- Total length		male	2385
- cm below		female	2232
min length	4.5 [cm]	undefined	856
max length	91.5 [cm]	total numbers of data	5473

Merlangius merlangus July

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

July

$$Tw [g] = a * L [cm]^b$$

a = 0.008

b = 2.9831

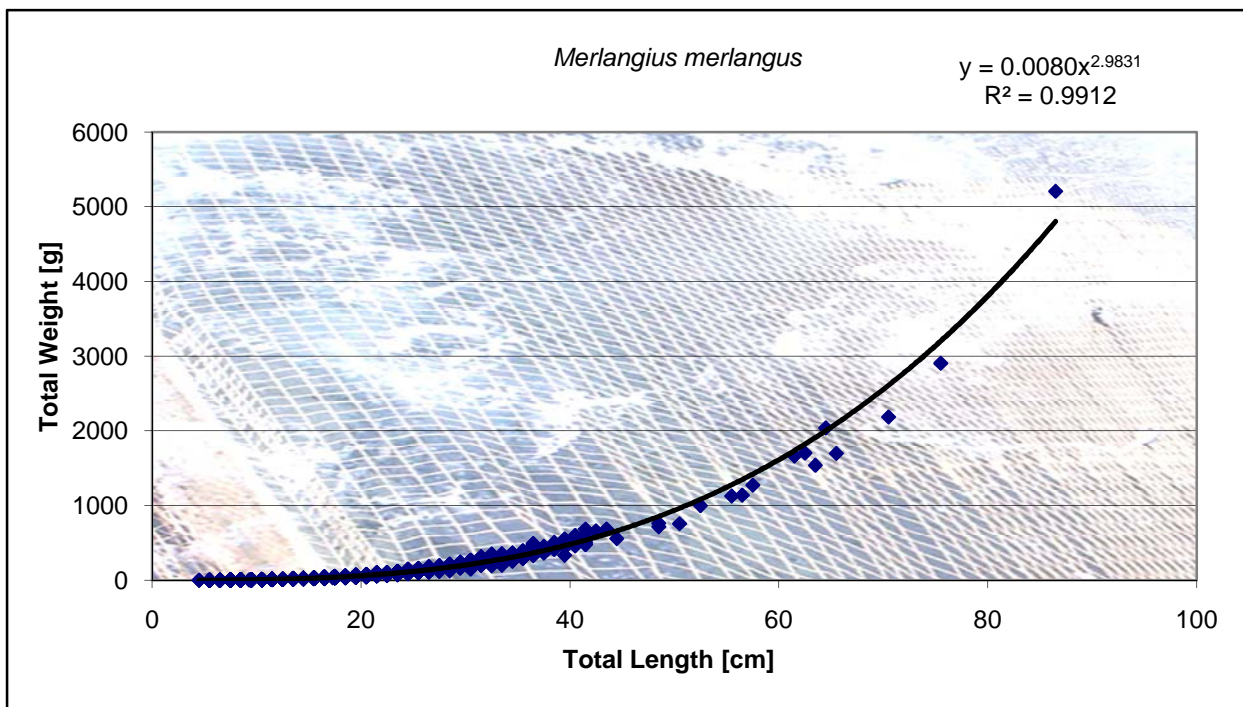
data collected

time period : 1998 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	2480	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	2480	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	2480	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	586	1748	146	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
422	153	164	136	146	898	561	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

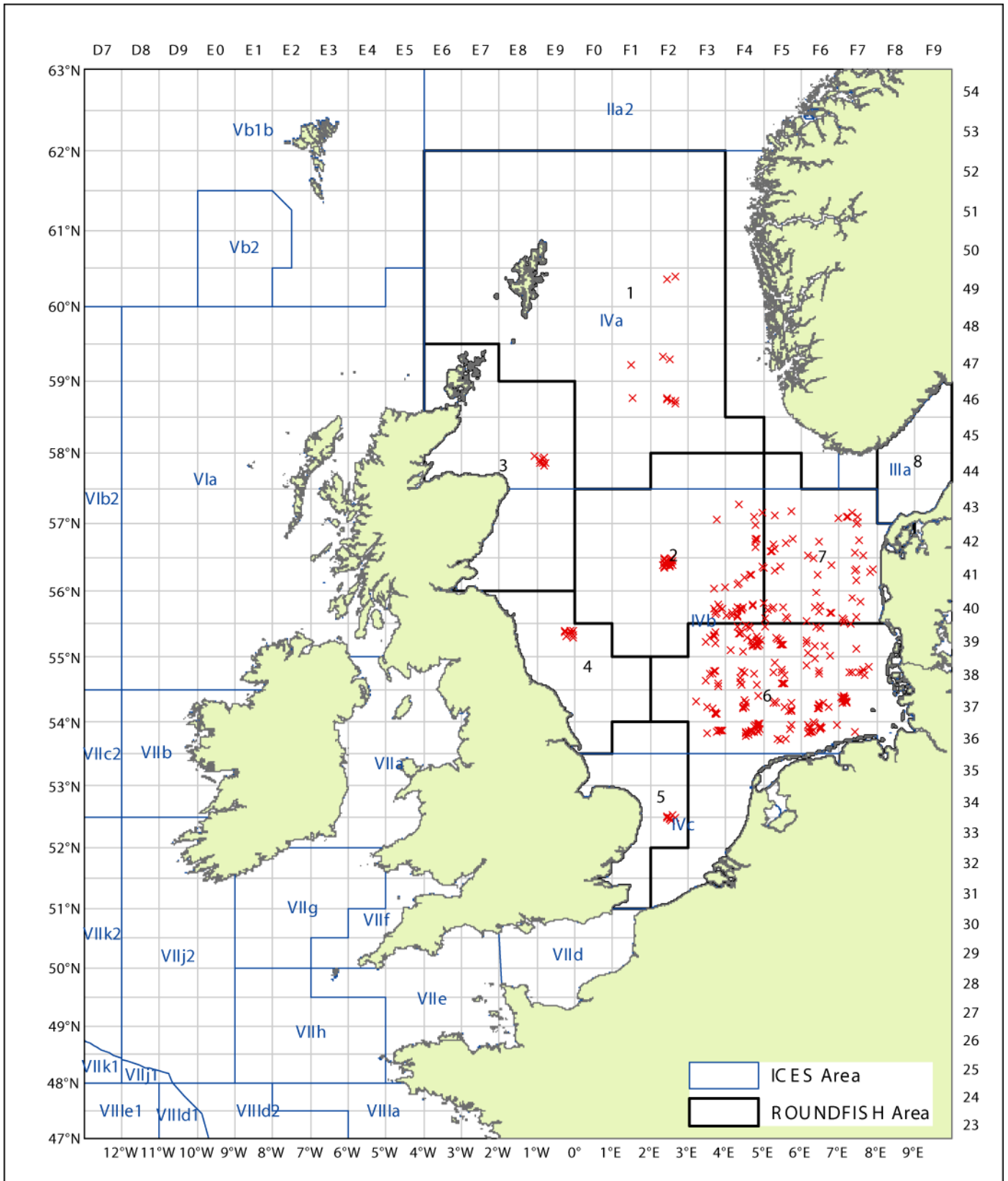


Method of Measurement

- Total length		male	1119
- cm below		female	950
min length	4.5 [cm]	undefined	411
max length	86.5 [cm]	total numbers of data	2480

Merlangius merlangus August

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

August

$$Tw [g] = a * L [cm]^b$$

a = 0.0082

b = 2.978

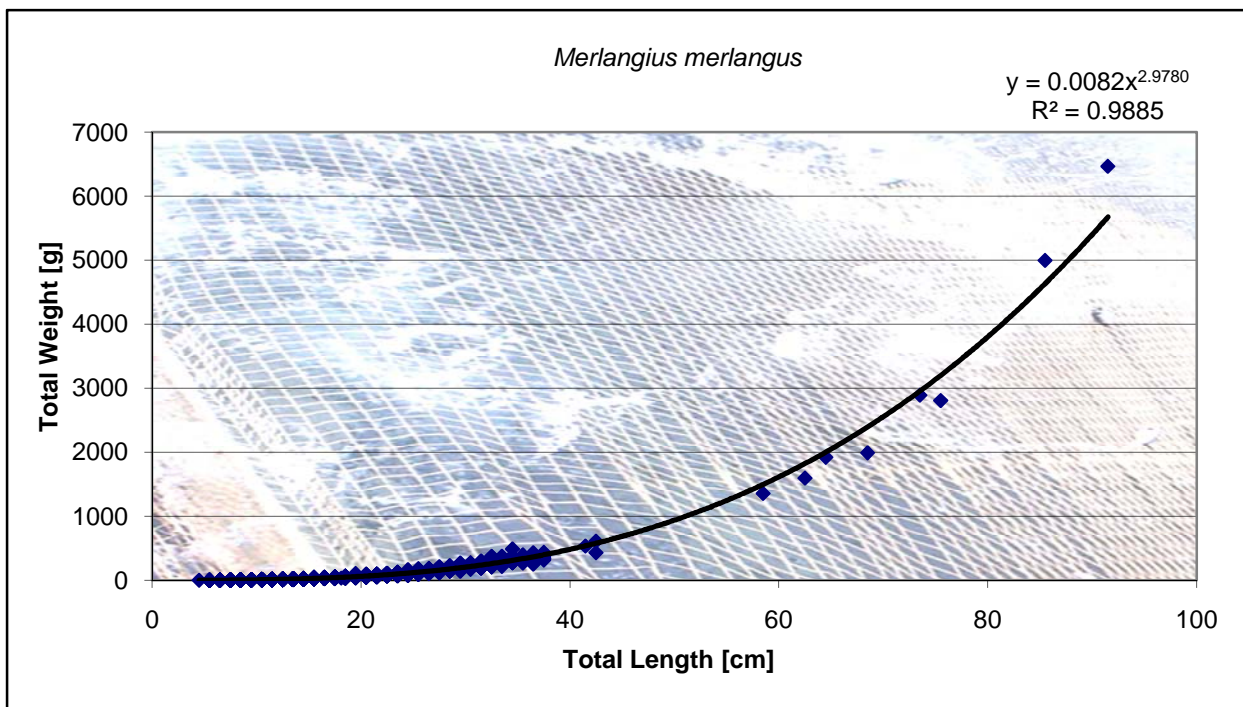
data collected

time period : 1998 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	3669	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	-	3669	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	3669	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	365	3142	162	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
169	489	196	274	162	2029	350	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

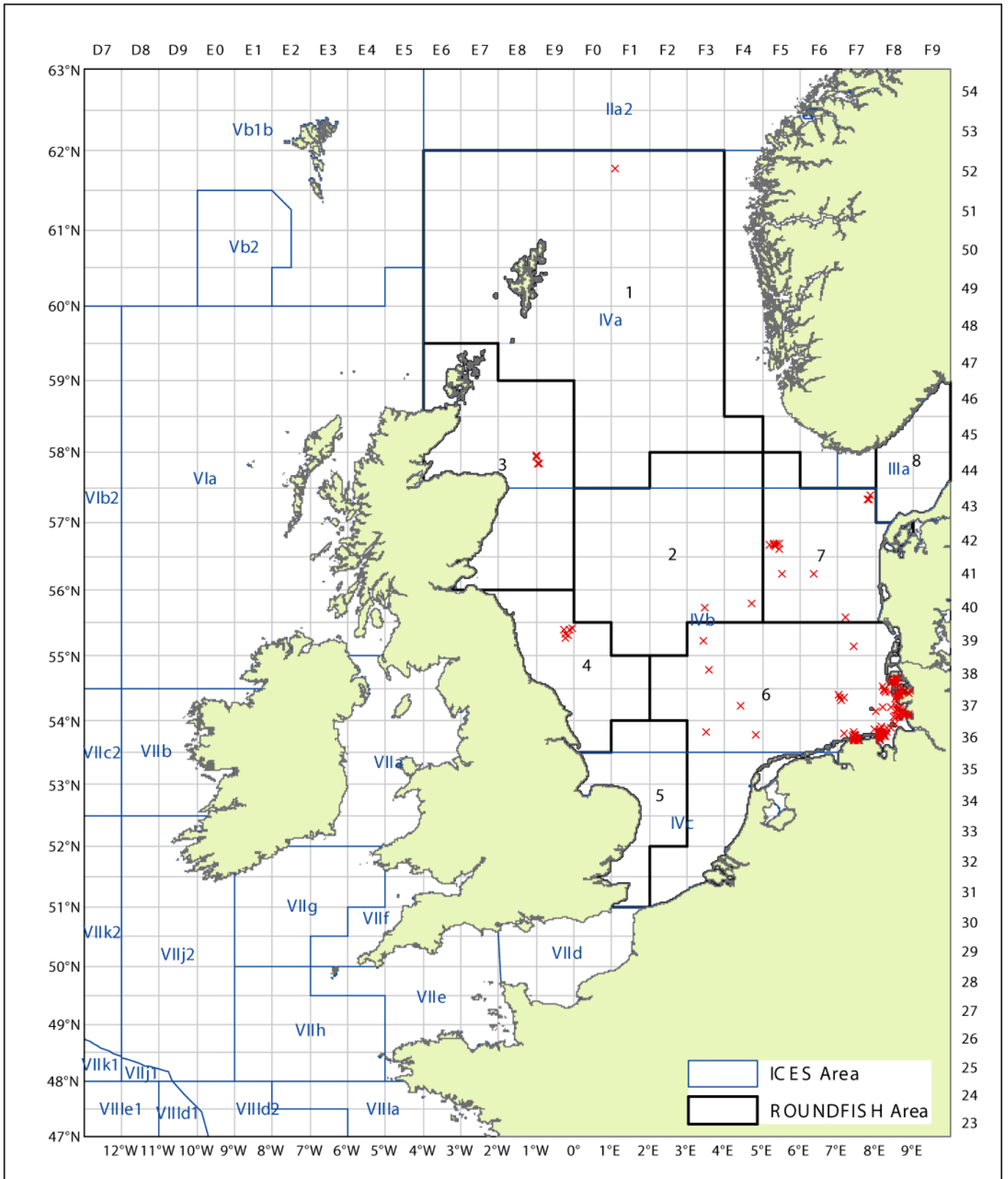


Method of Measurement

- Total length		male	1512
- cm below		female	1469
min length	4.5 [cm]	undefined	688
max length	91.5 [cm]	total numbers of data	3669

Merlangius merlangus September

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

September

$$Tw [g] = a * L [cm]^b$$

a = 0.0072

b = 3.0222

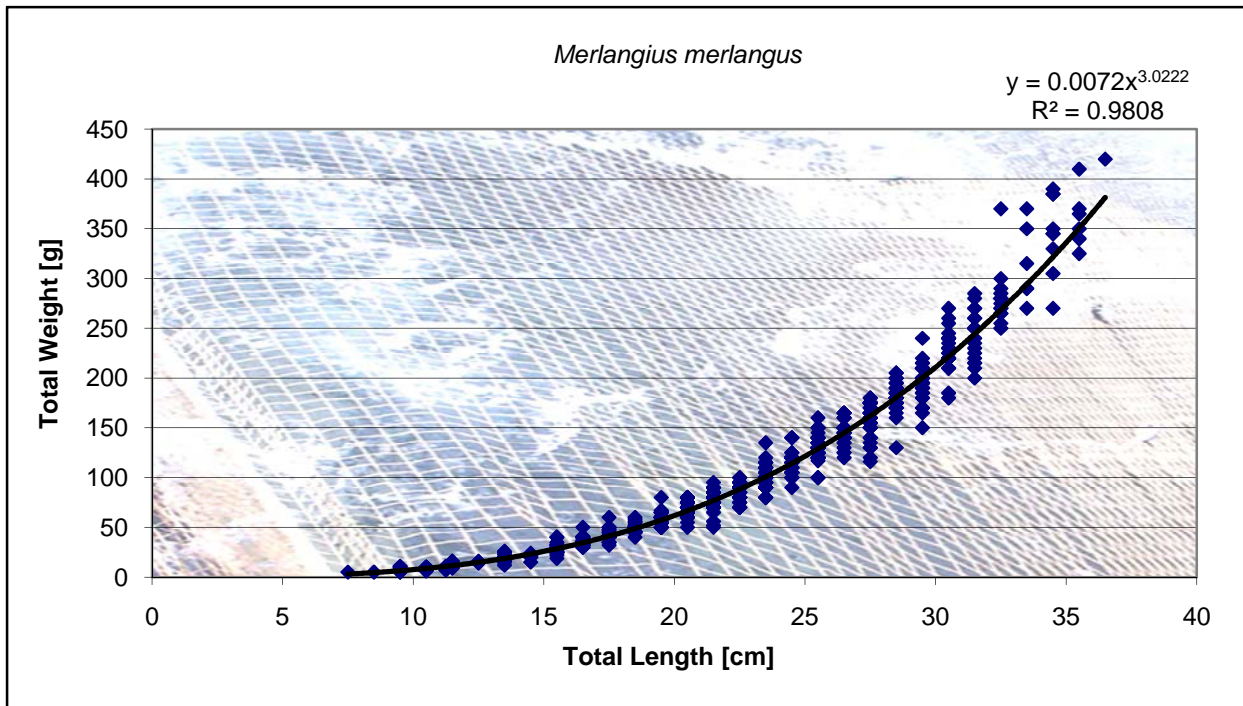
data collected

time period : 1997 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	600	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	600	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	600	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	111	489	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
1	22	110	144	-	218	105	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

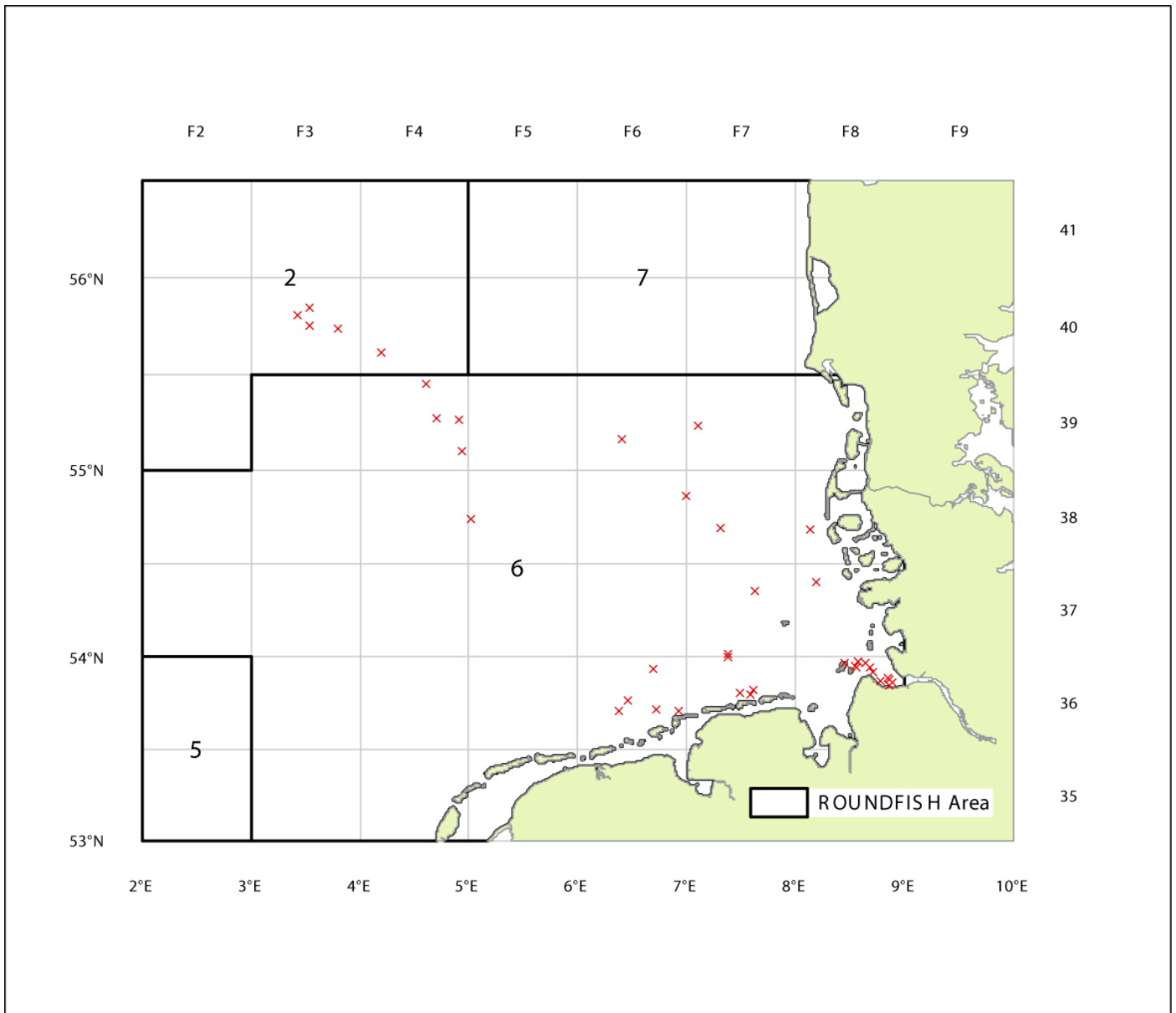


Method of Measurement

- Total length		male	264
- cm below		female	218
min length	7.5 [cm]	undefined	118
max length	36.5 [cm]	total numbers of data	600

Merlangius merlangus Quarter 4

Geographical distribution of data used for calculating the length-weight relationship



Merlangius merlangus

Quarter: 4

$$TW [g] = a * L [cm]^b$$

a = 0.0084

b = 2.9664

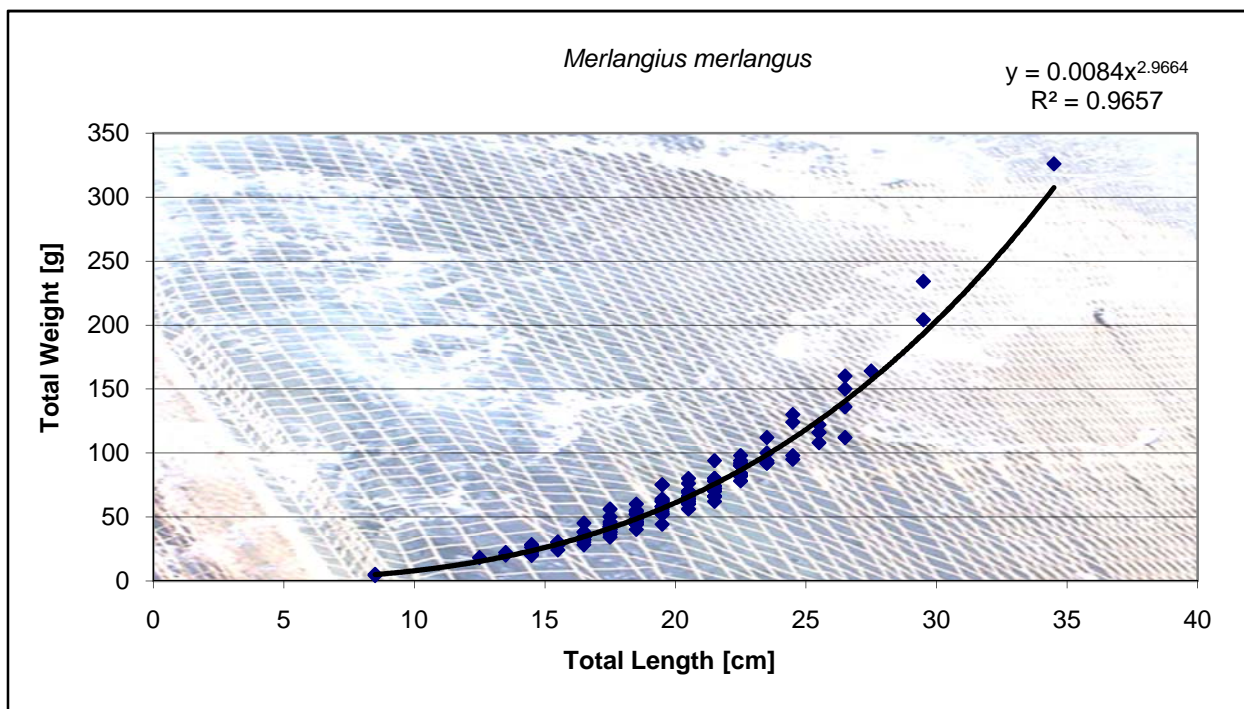
data collected

time period : 1997 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	133																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	13	103	17								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	133	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	133	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	66	-	-	-	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-

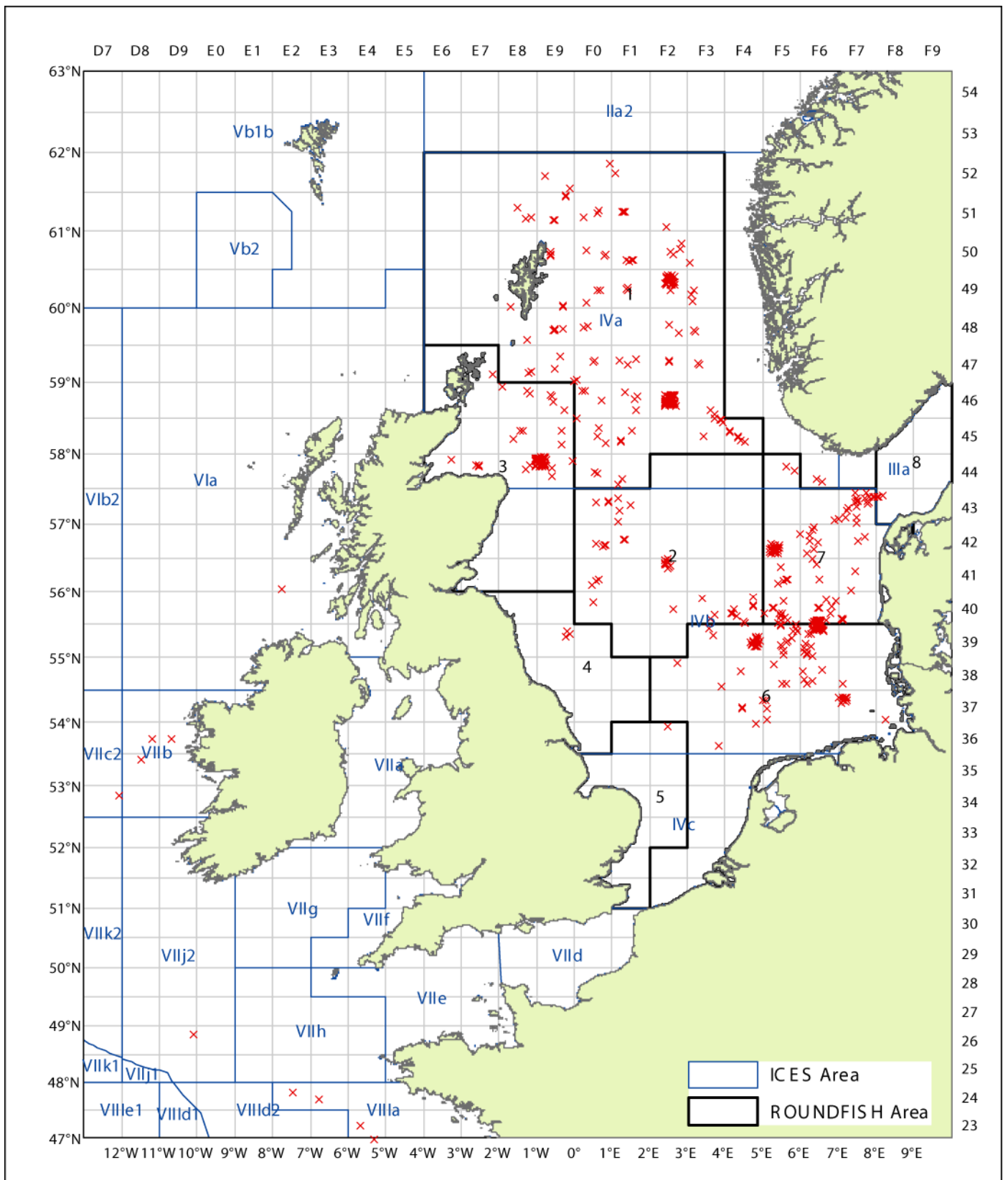


Method of Measurement

- Total length		male	55
- cm below		female	43
min length	8.5 [cm]	undefined	35
max length	34.5 [cm]	total numbers of data	133

Merluccius merluccius

Geographical distribution of data used for calculating the length-weight relationship



Merluccius merluccius

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.004

b = 3.13

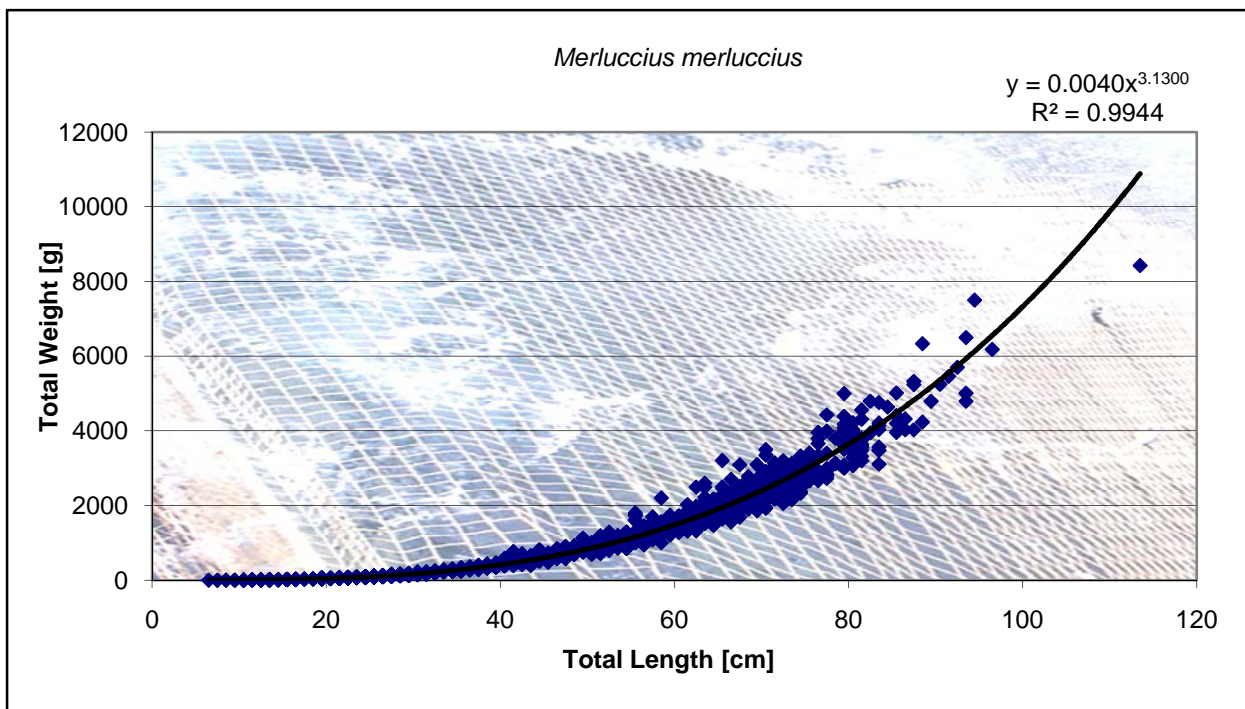
data collected

time period : 1998 - 2009

data source : research vessel, commercial trawler

numbers of data:

Quarter																											
1	2	3	4																								
928	126	614	14																								
Month																											
1	2	3	4	5	6	7	8	9	10	11	12																
324	473	131	7	32	87	324	239	51	3	10	1																
Subarea																											
1	2	3	4	5	6	7	8	9	10	12	14																
-	-	2	1670	-	1	5	4	-	-	-	-																
Division																											
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F								
-	-	-	2	-	-	-	1148	522	-	-	-	1	-	-	3	1	-	-	-								
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B													
-	-	1	-	3	-	-	1	-	-	-	-	-	-	-													
Roundfisharea											NAFO																
1	2	3	4	5	6	7	8	9										1A	1B	1C	1D	1E	1F	2G	2H	2J	
1029	75	104	3	1	114	291	44	-										-	-	-	-	-	-	-	-	-	-

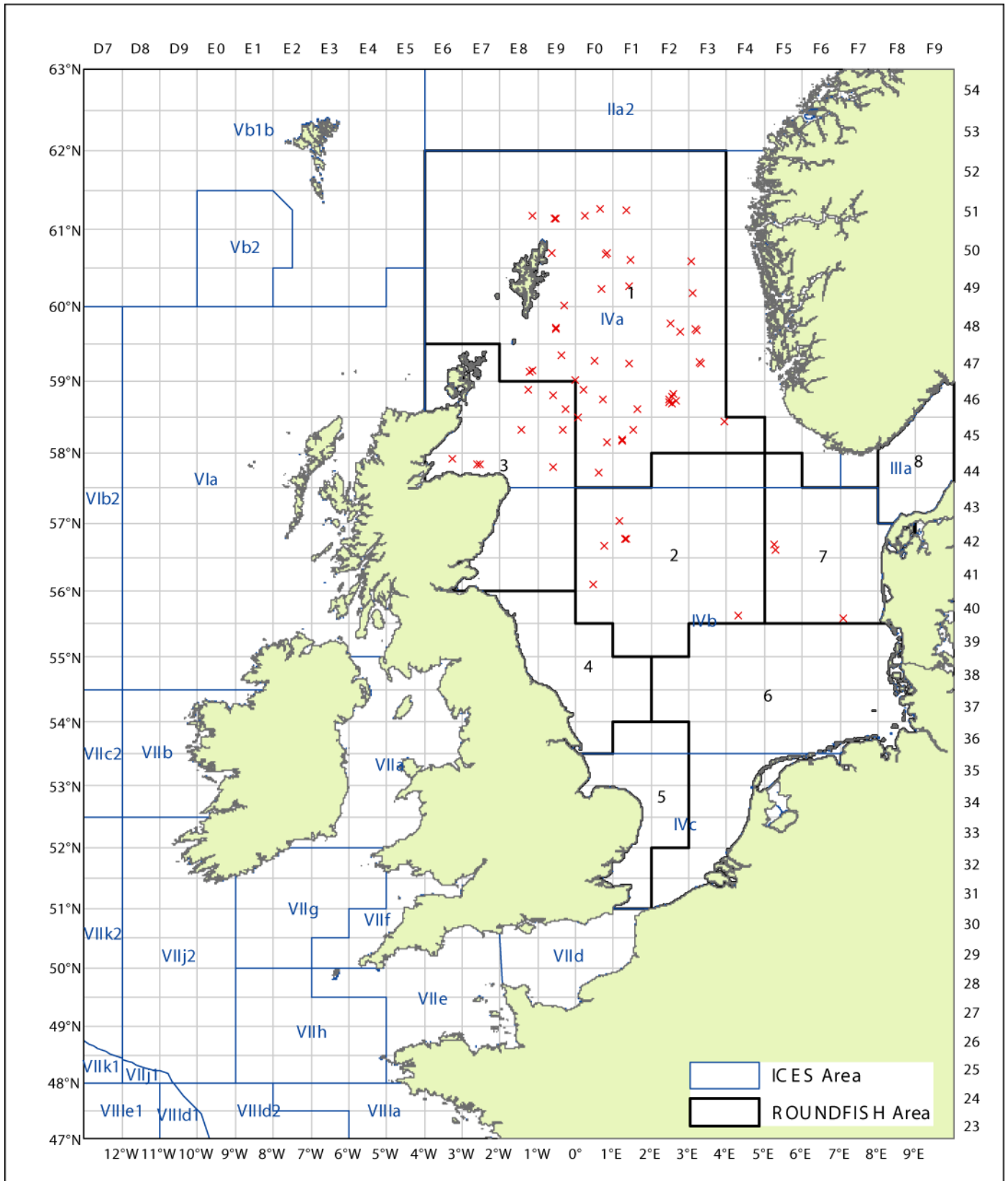


Method of Measurement

- Total length		male	374
- cm below		female	284
min length	6.5 [cm]	undefined	1024
max length	113.5 [cm]	total numbers of data	1682

Merluccius merluccius ♀

Geographical distribution of data used for calculating the length-weight relationship



Merluccius merluccius



Quarter: 1 ; 3

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0045

b = 3.0912

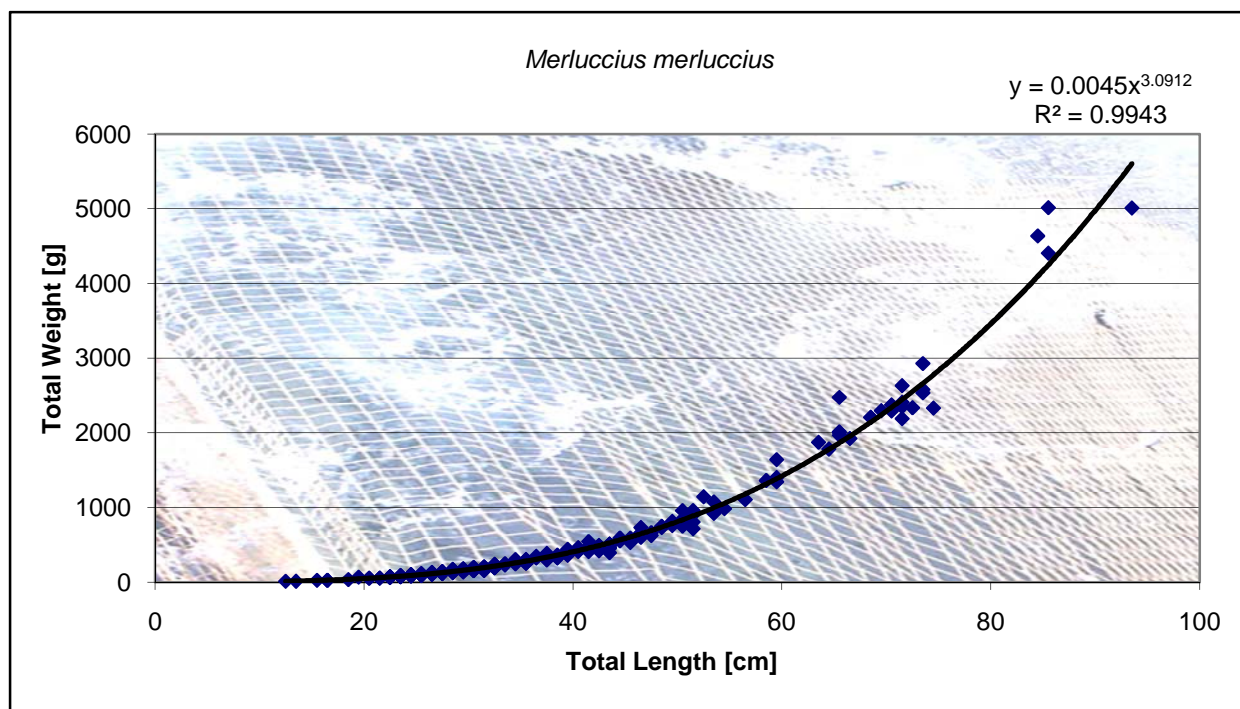
data collected

time period : 2007 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
250	-	34	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
76	174	-	-	-	-	32	2	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	284	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	267	17	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
249	11	19	-	-	-	5	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

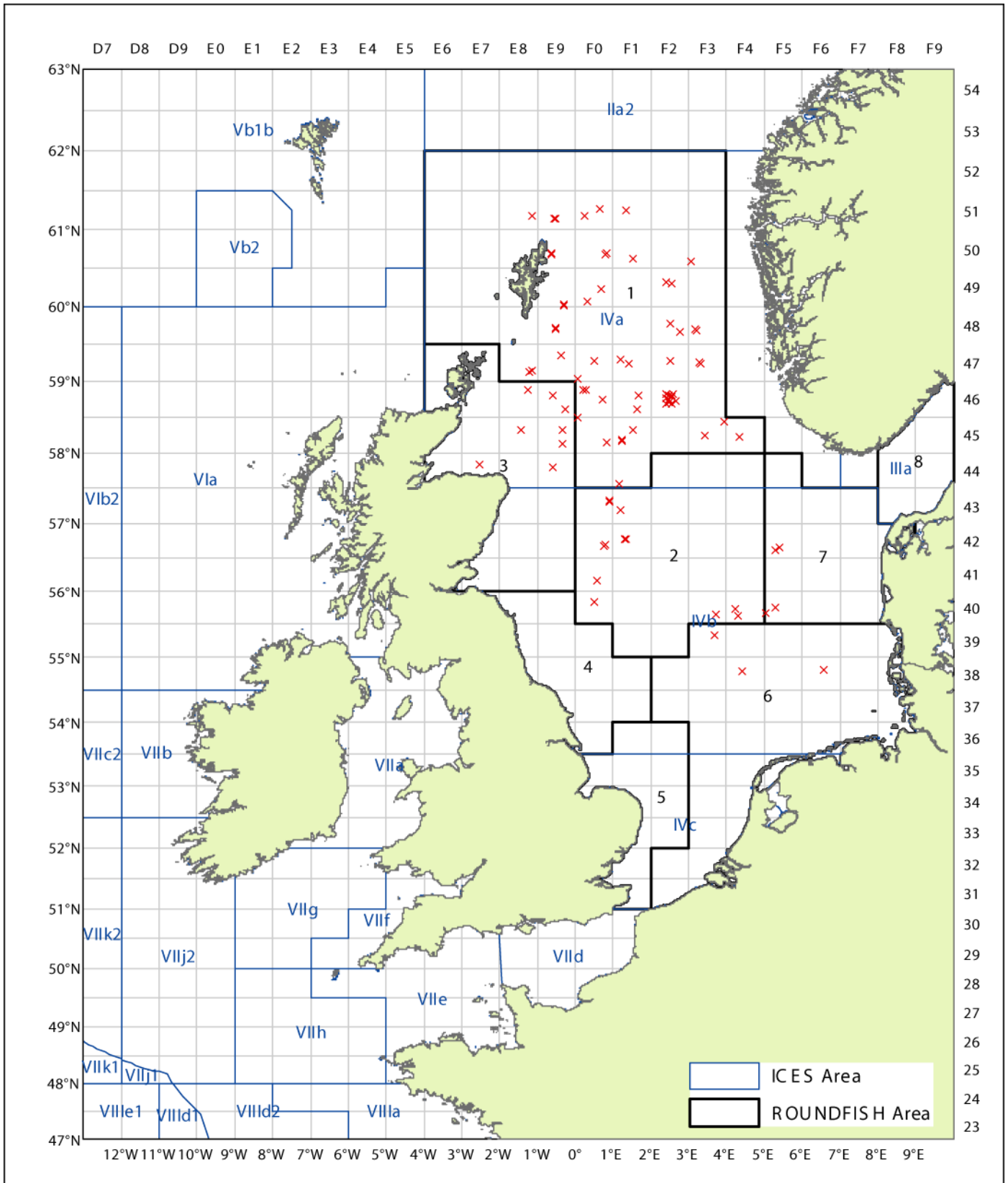


Method of Measurement

- Total length		male	-
- cm below		female	284
min length	12.5 [cm]	undefined	-
max length	93.5 [cm]	total numbers of data	284

Merluccius merluccius ♂

Geographical distribution of data used for calculating the length-weight relationship



Merluccius merluccius ♂

Quarter: 1 ; 3

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0047

b = 3.0774

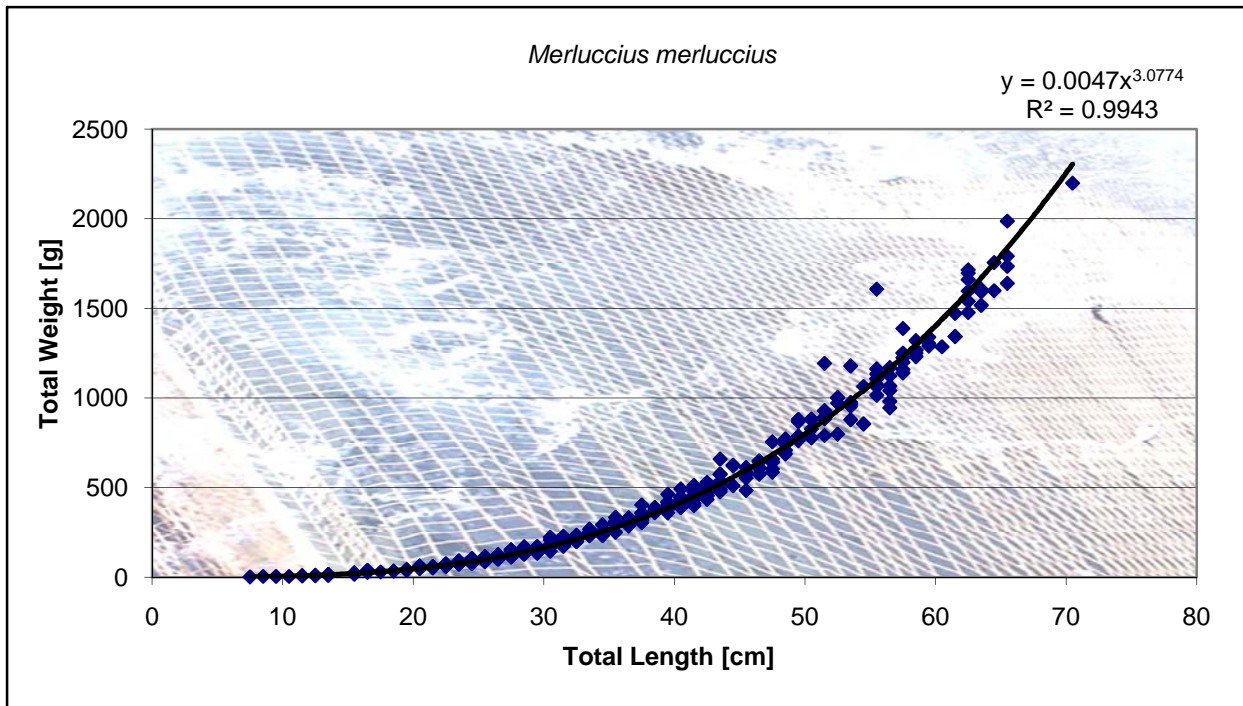
data collected

time period : 2003 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
303	-	71	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
94	209	-	-	-	-	56	15	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	374	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	323	51	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
302	30	25	-	-	8	9	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

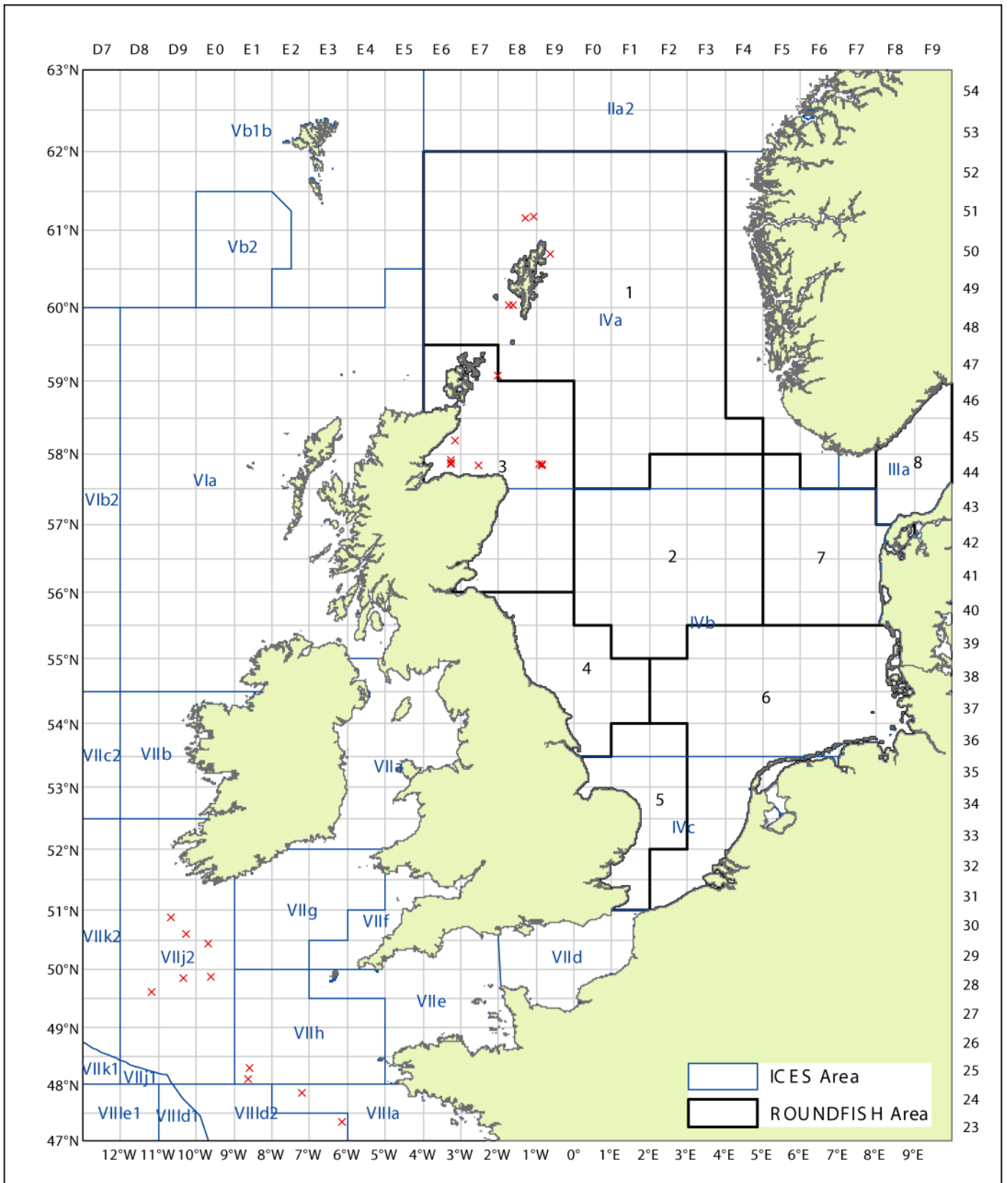


Method of Measurement

- Total length		male	374
- cm below		female	-
min length	7.5 [cm]	undefined	-
max length	70.5 [cm]	total numbers of data	374

Microchirus variegatus

Geographical distribution of data used for calculating the length-weight relationship



Microchirus variegatus

Quarter: 1 - 3

$$Tw [g] = a * L [cm]^b$$

a = 0.011

b = 2.9899

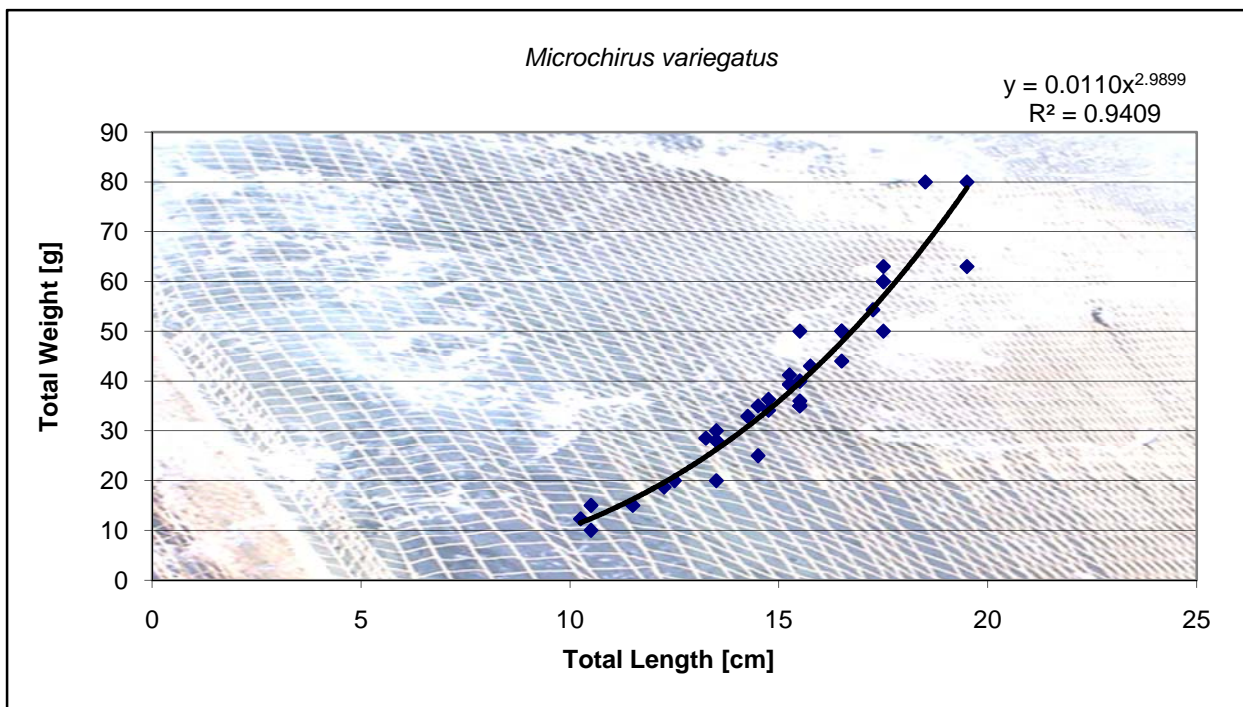
data collected

time period : 1995 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
27	7	2	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
10	11	6	6	-	1	1	1	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	24	-	-	8	4	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	2	6	-	2	-	-	2	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
15	-	9	-	-	-	-	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

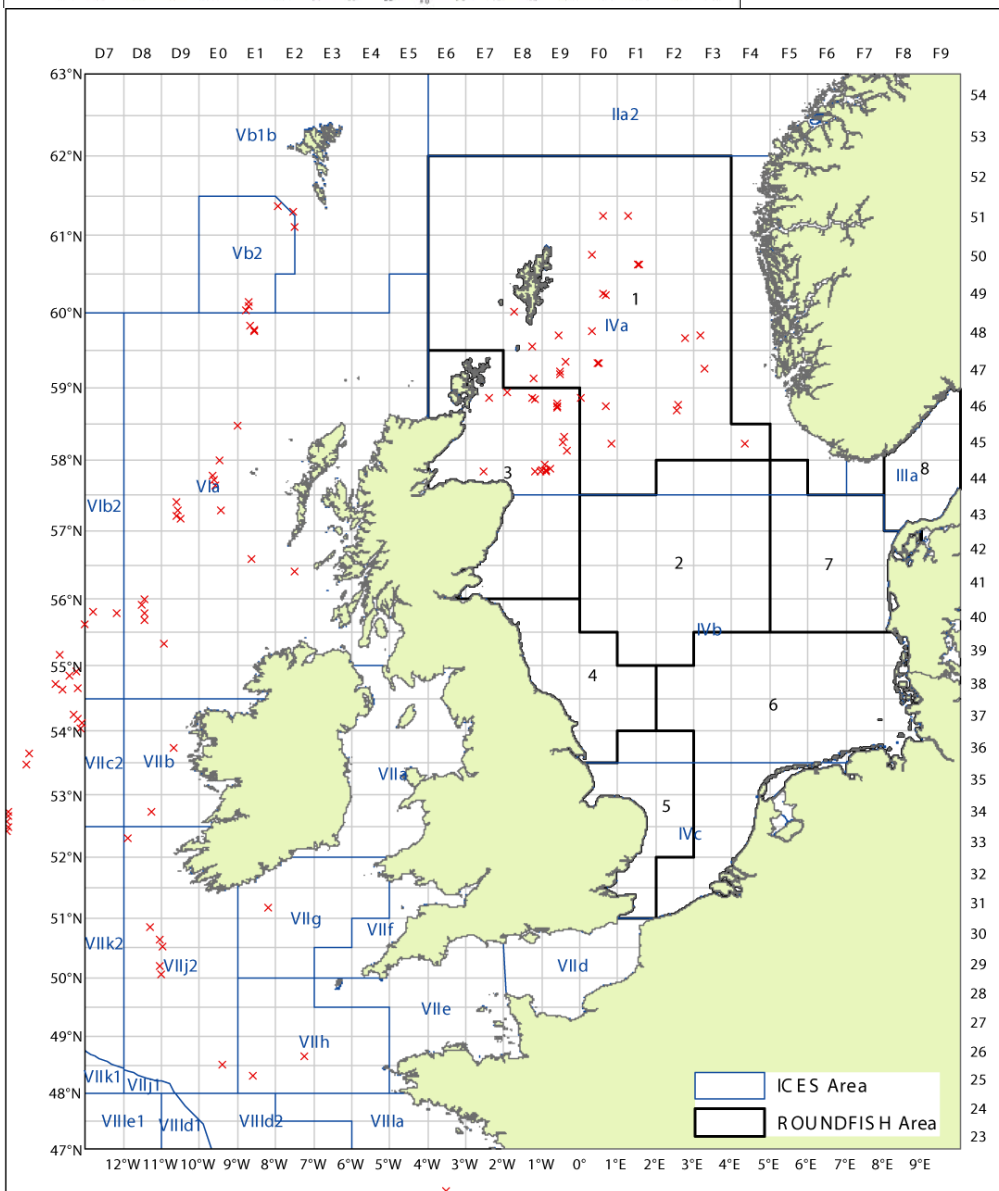
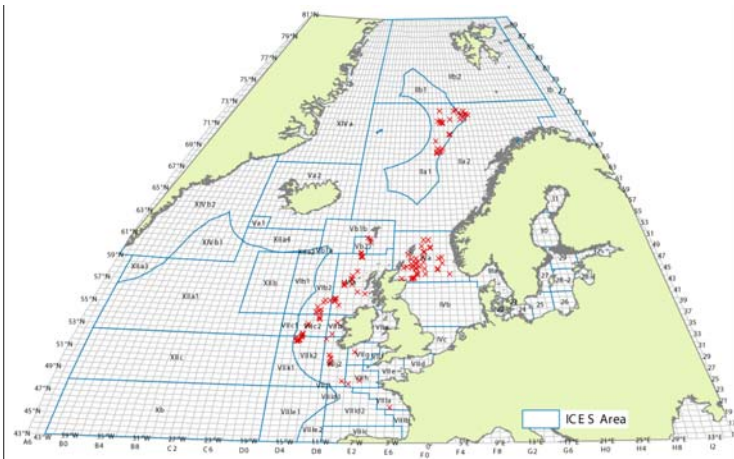


Method of Measurement

- Total length		male	-
- 1/2 cm below, cm below		female	-
min length	10.25 [cm]	undefined	36
max length	19.5 [cm]	total numbers of data	36

Micromesistius poutassou

Geographical distribution of data used for calculating the length-weight relationship



Micromesistius poutassou

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0073

b = 2.8926

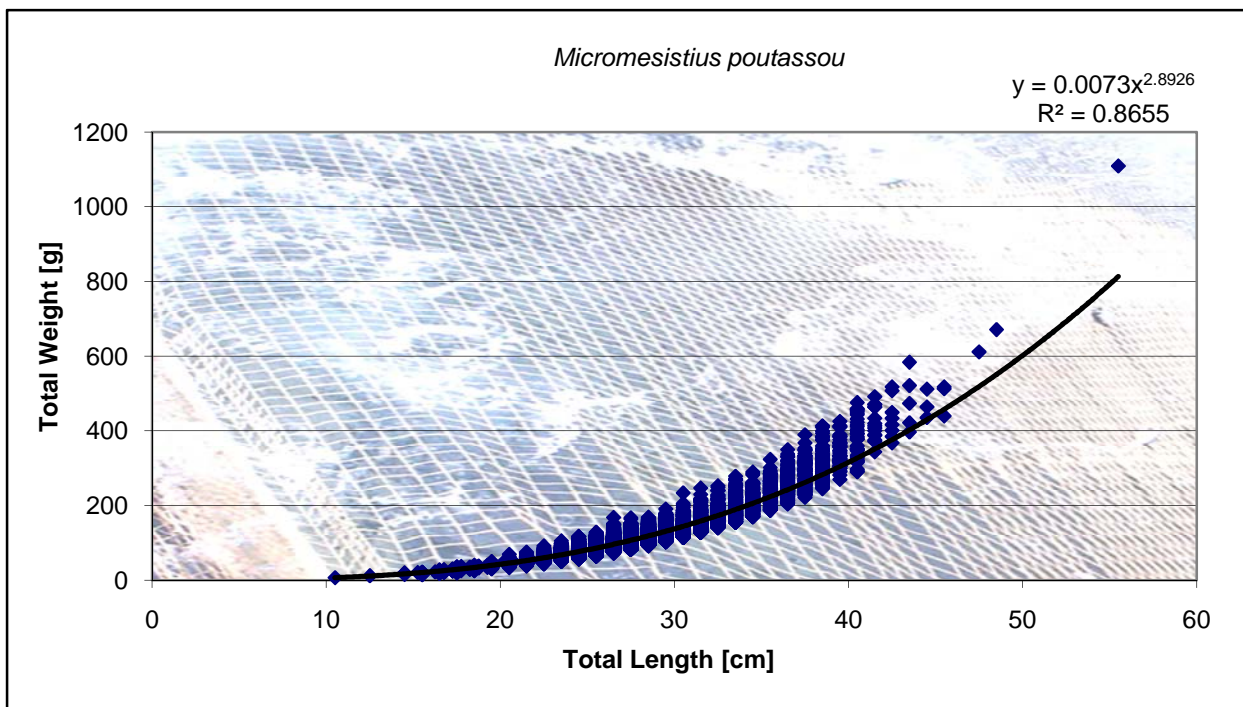
data collected

time period : 1998 - 2009

data source : research vessel, commercial trawler

numbers of data:

Quarter																						
1	2	3	4																			
9873	2196	5547	180																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
117	1270	8486	1770	426	-	4	9	5534	180	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	5534	-	198	773	8016	3275	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	5534	-	-	-	-	-	182	16	-	-	773	5289	2727	-	2	2398	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
1	181	462	231	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea											NAFO											
1	2	3	4	5	6	7	8	9					1A	1B	1C	1D	1E	1F	2G	2H	2J	
155	-	43	-	-	-	-	-	-					-	-	-	-	-	-	-	-	-	-



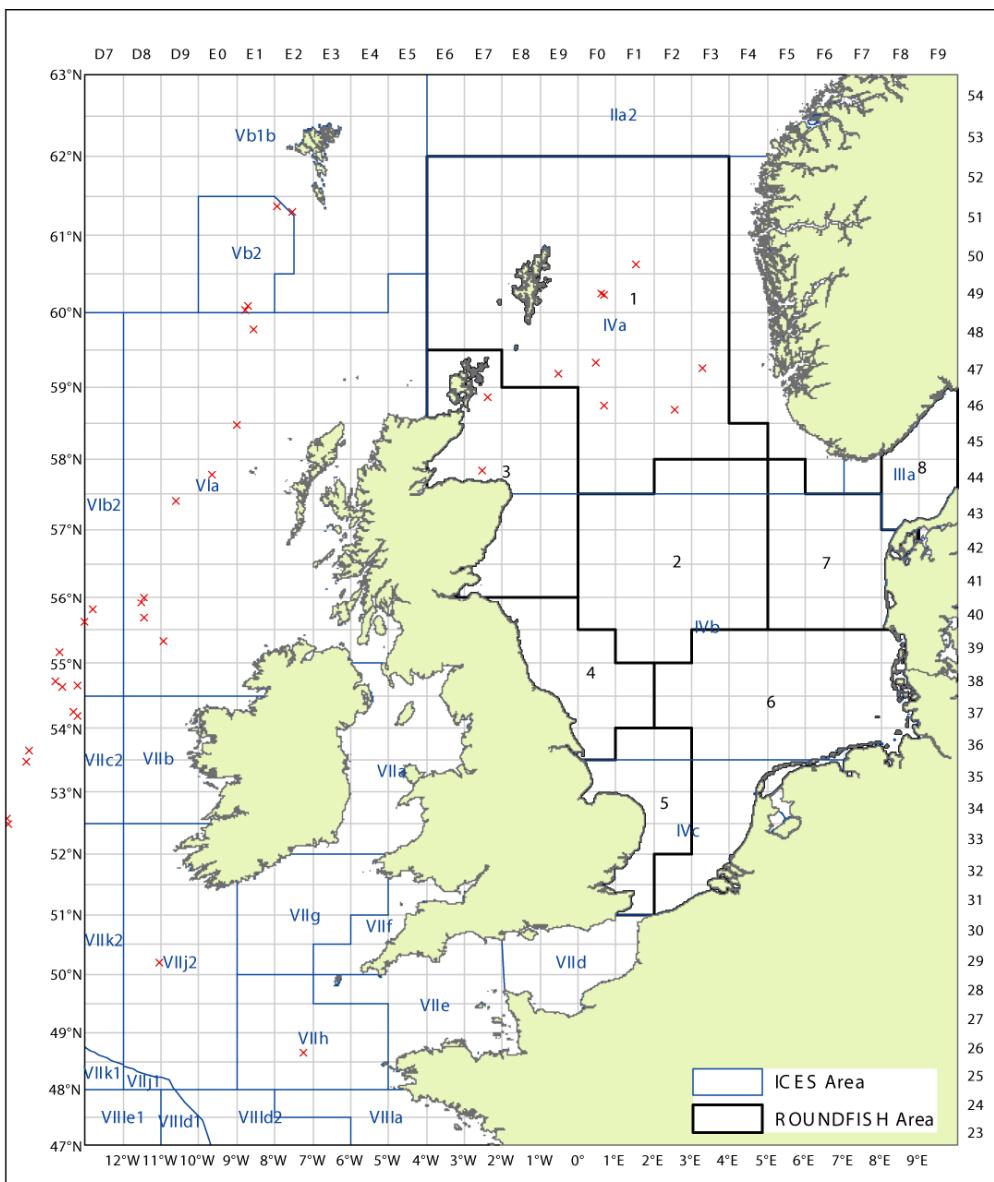
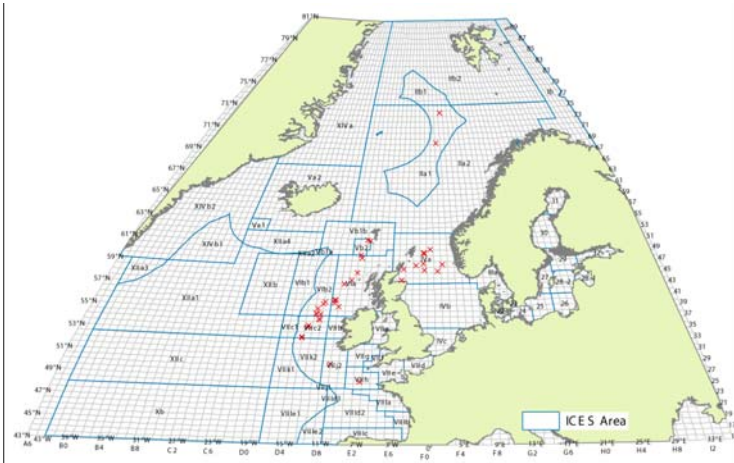
Method of Measurement

- Total length		male	2760
- cm below		female	2854
min length	10.5 [cm]	undefined	12182
max length	55.5 [cm]	total numbers of data	17796

Micromesistius poutassou



Geographical distribution of data used for calculating the length-weight relationship



Micromesistius poutassou



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0024

b = 3.2288

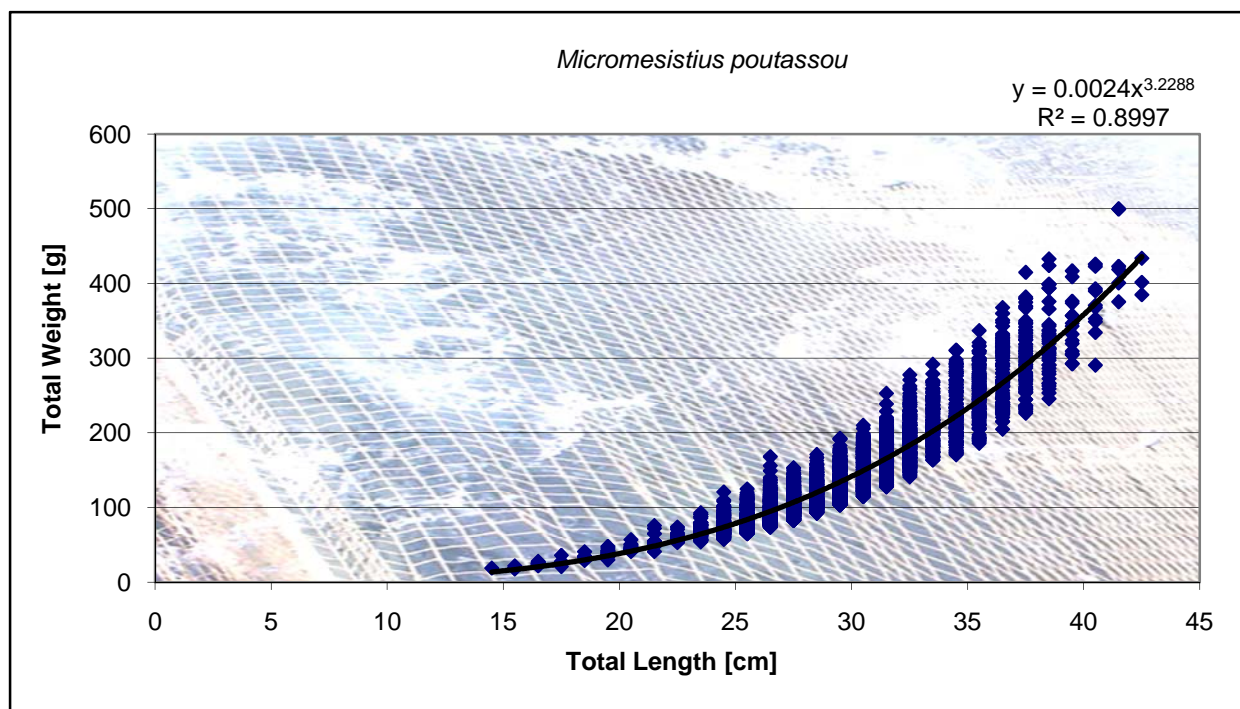
data collected

time period : 2003 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
2498	553	276	22																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
18	636	1844	377	176	-	1	-	275	22	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	275	-	39	267	1606	1162	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	275	-	-	-	-	-	29	10	-	-	267	994	612	-	-	685	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	22	121	334	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
28	-	11	-	-	-	-	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



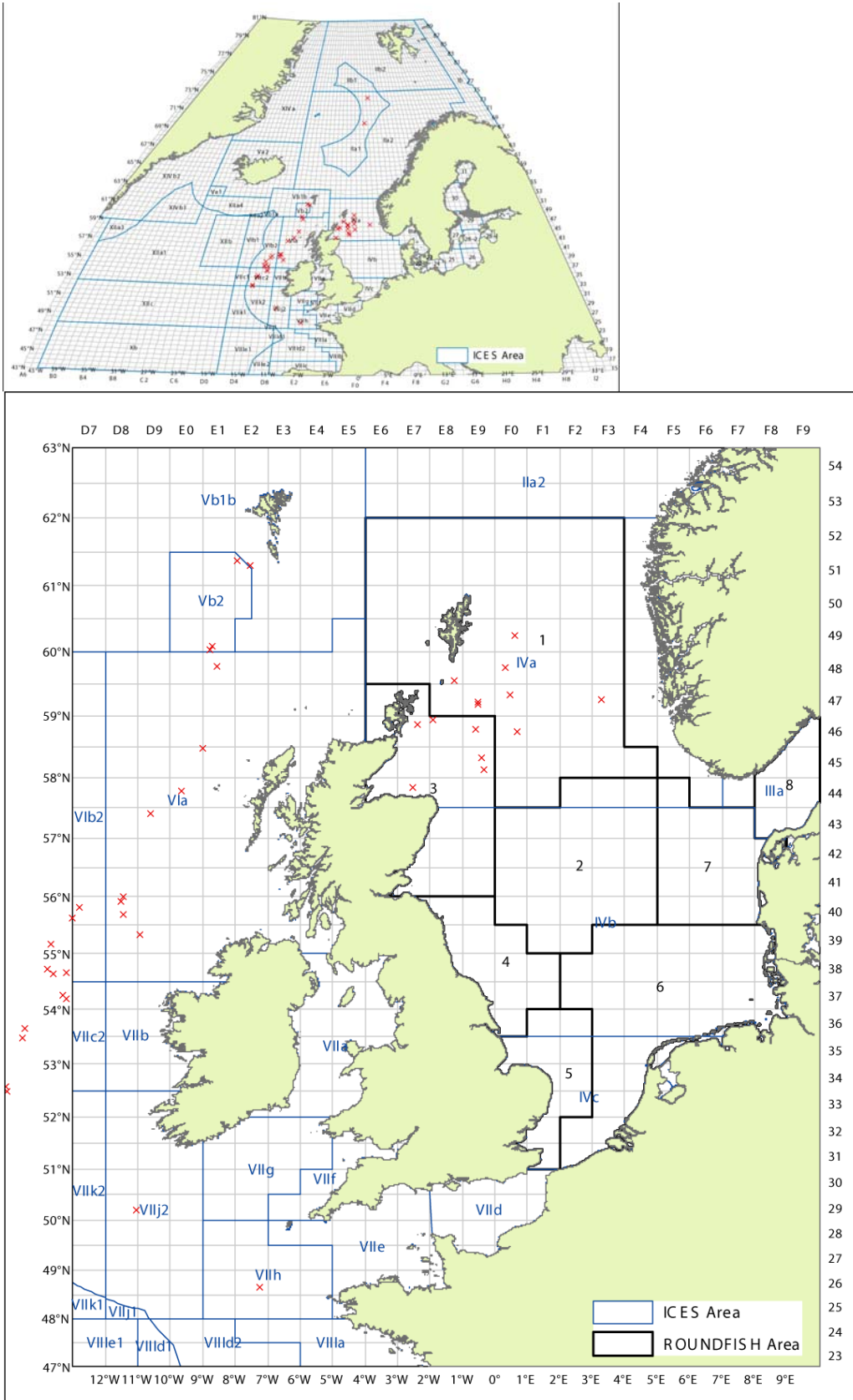
Method of Measurement

- Total length		male	-
- cm below		female	3349
min length	14.5 [cm]	undefined	-
max length	42.5 [cm]	total numbers of data	3349

Micromesistius poutassou



Geographical distribution of data used for calculating the length-weight relationship



Micromesistius poutassou



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0029

b = 3.1651

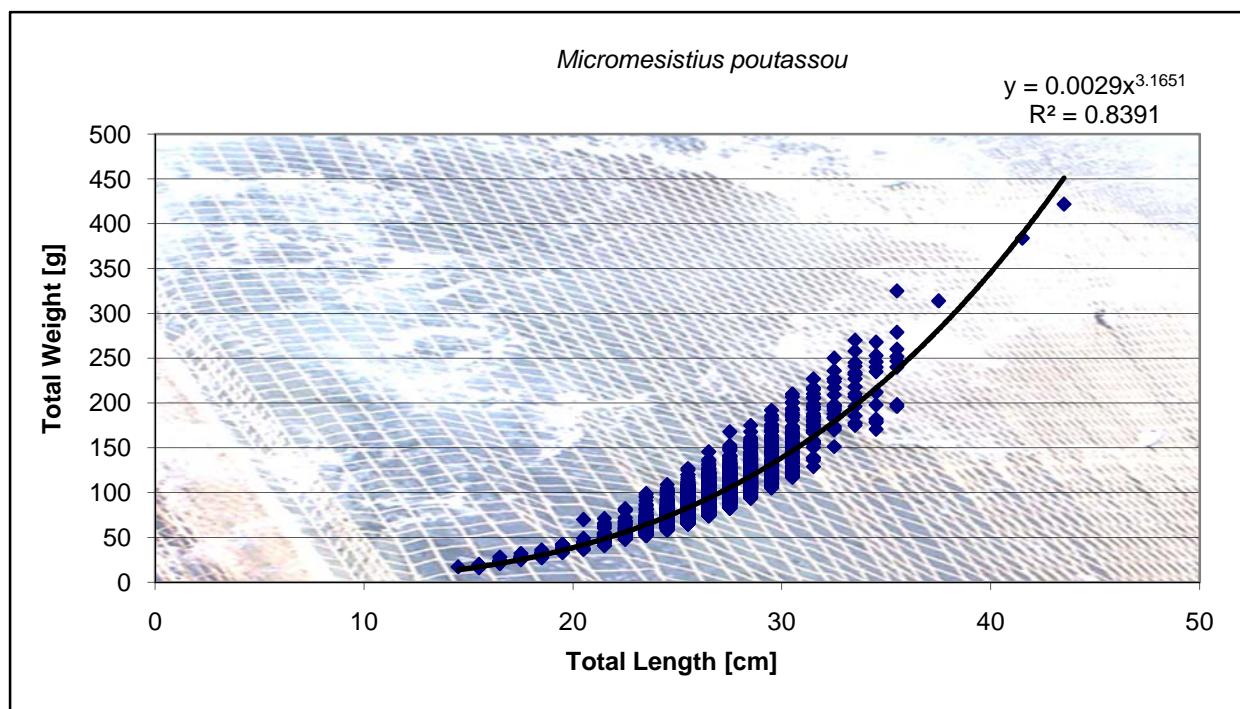
data collected

time period : 2003 - 2009

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
2383	492	161	30																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
26	400	1957	400	92	-	-	-	161	30	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	161	-	50	160	1777	918	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	161	-	-	-	-	-	45	5	-	-	160	1039	738	-	-	588	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	30	70	230	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
40	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- cm below

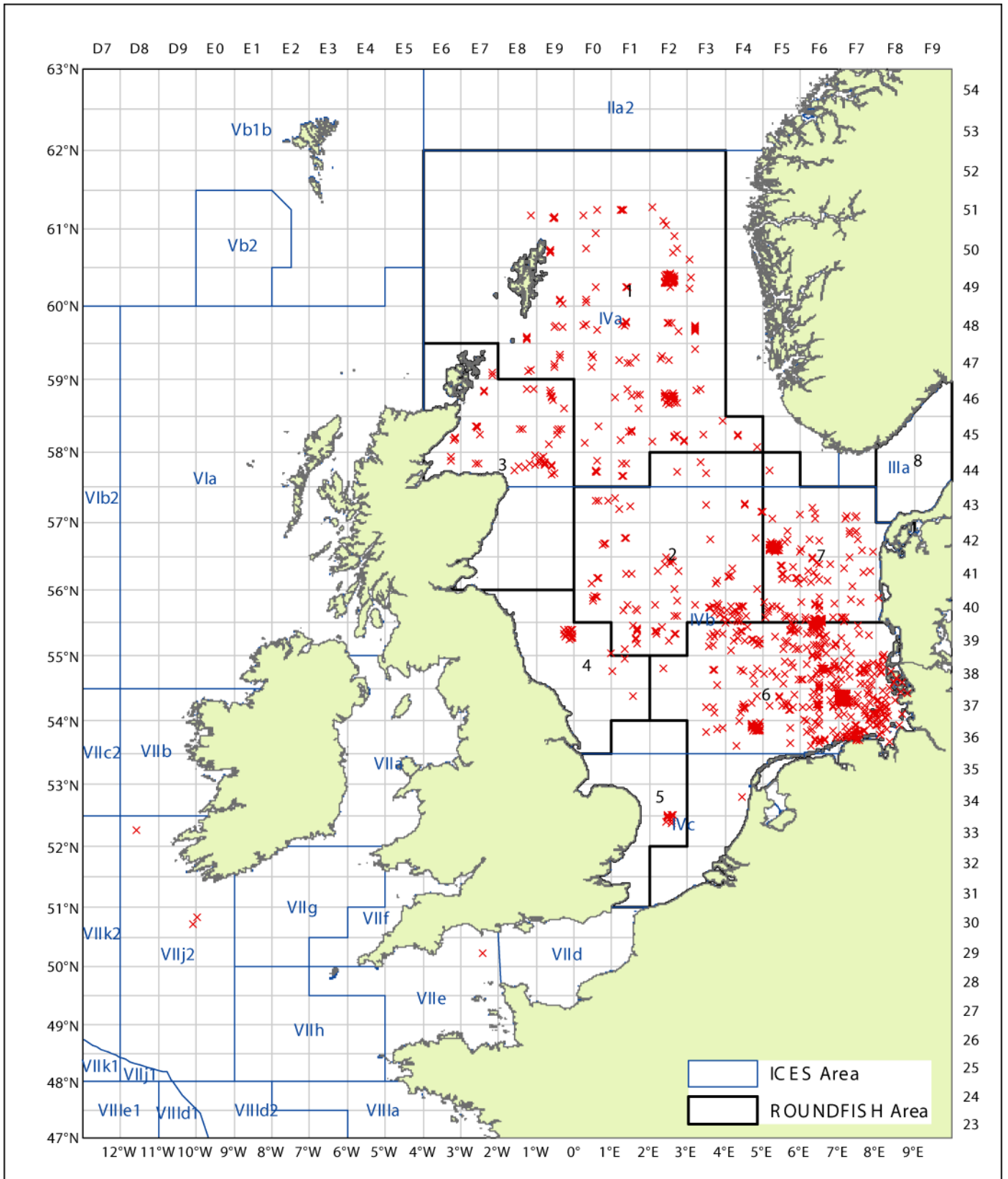
min length 14.5 [cm]
max length 43.5 [cm]

male 3066
female -
undefined -

total numbers of data 3066

Microstomus kitt

Geographical distribution of data used for calculating the length-weight relationship



Microstomus kitt

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0106

b = 2.9904

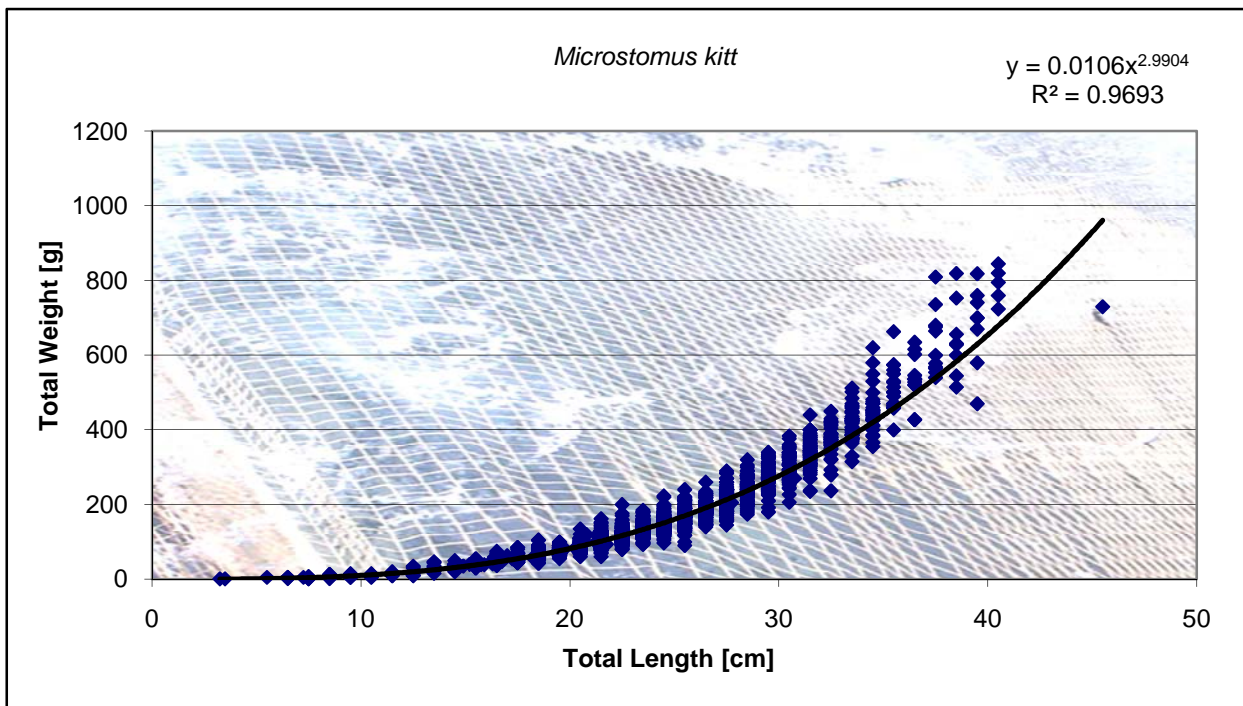
data collected

time period : 1997 - 2008

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
1274	57	1002	65																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
661	608	5	6	34	17	429	546	27	4	32	29									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	2394	-	-	4	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	1083	1299	12	-	-	-	-	-	-	-	-	-	1	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	3	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J			
649	291	483	46	13	663	249	-	-	-	-	-	-	-	-	-	-	-			

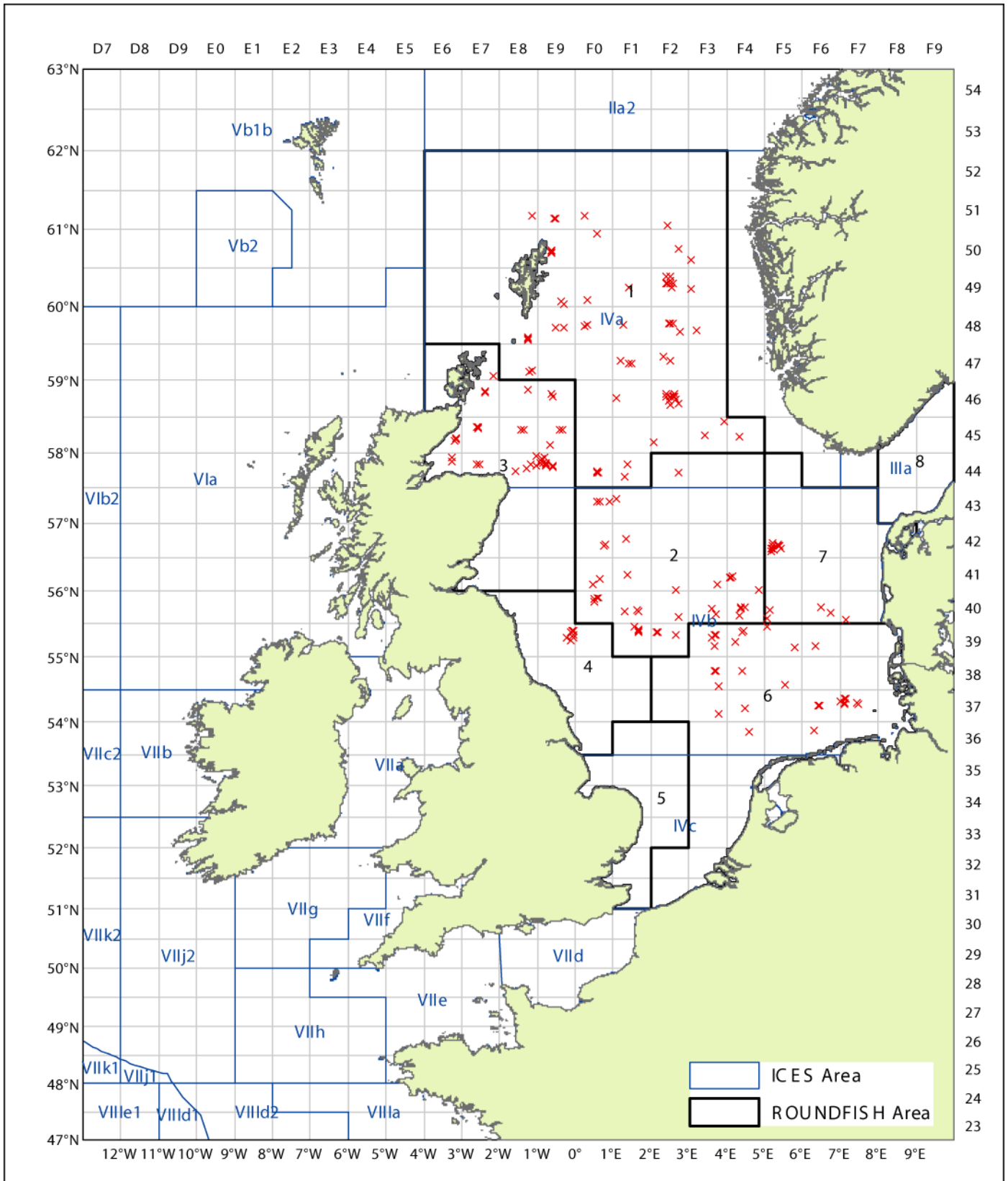


Method of Measurement

- Total length		male	674
- 1/2 cm below, cm below		female	817
min length	3.25 [cm]	undefined	907
max length	45.5 [cm]	total numbers of data	2398

Microstomus kitt ♀

Geographical distribution of data used for calculating the length-weight relationship



Microstomus kitt



Quarter: 1 ; 3

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0085

b = 3.0626

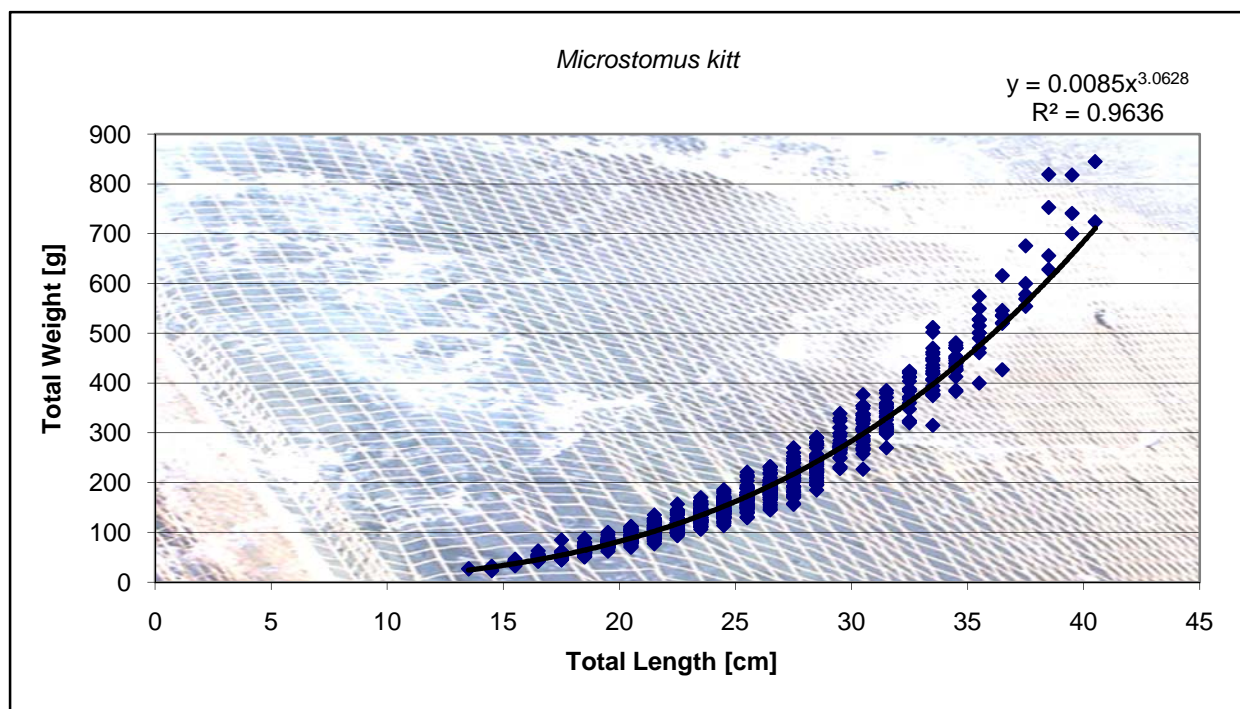
data collected

time period : 2003 - 2008

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
495	-	394	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
226	269	-	-	-	-	134	260	-	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	889	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	509	380	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
300	107	244	15	-	162	61	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

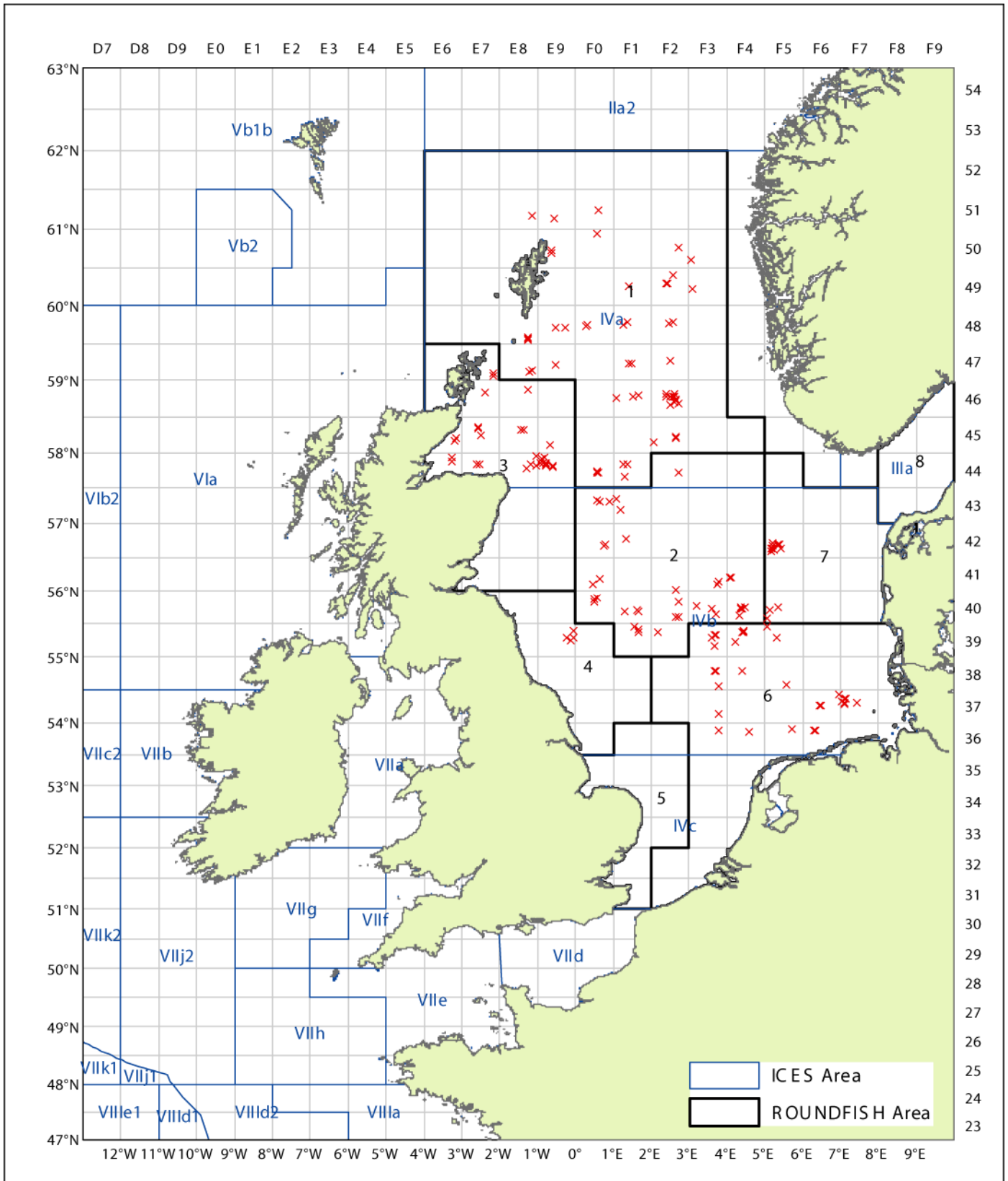
min length 13.5 [cm]
max length 40.5 [cm]

male -
female 889
undefined -

total numbers of data 889

Microstomus kitt ♂

Geographical distribution of data used for calculating the length-weight relationship



Microstomus kitt



Quarter: 1 ; 3

(male)

$$Tw [g] = a * L [cm]^b$$

$$a = 0.0107$$

$$b = 2.9673$$

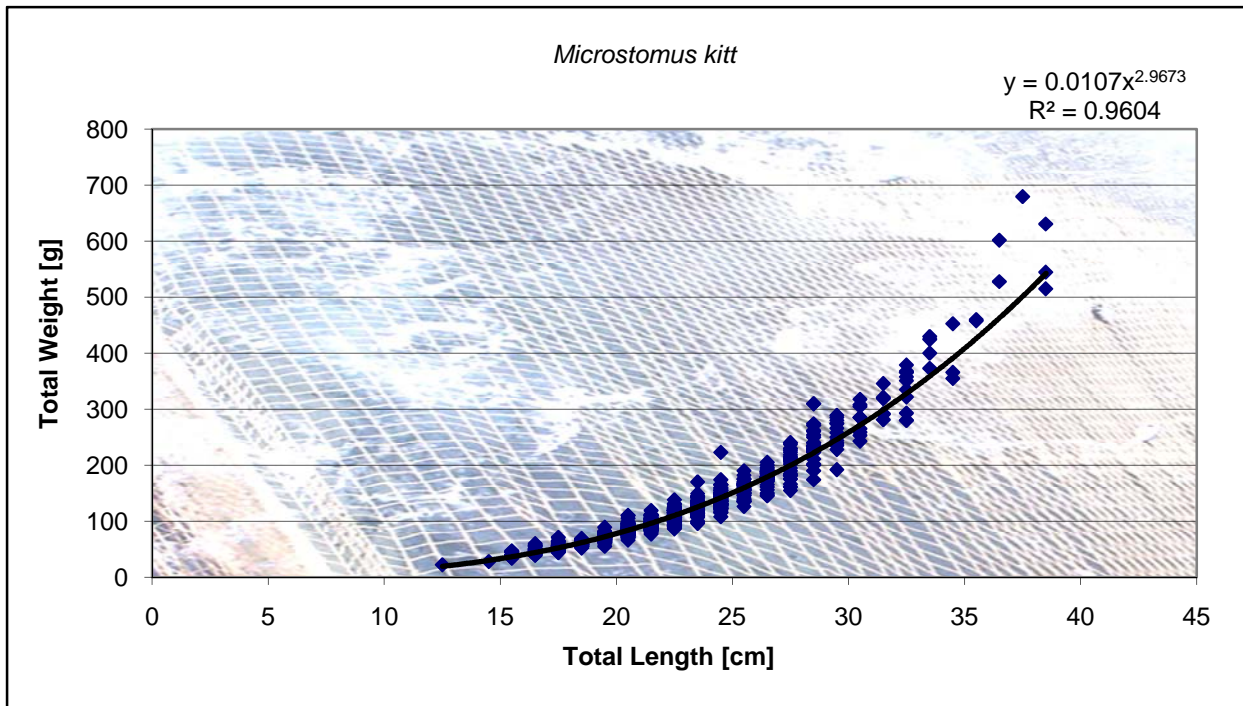
data collected

time period : 2003 - 2008

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
391	-	338	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
218	173	-	-	-	-	115	223	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	729	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	394	335	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
211	140	206	8	-	100	64	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

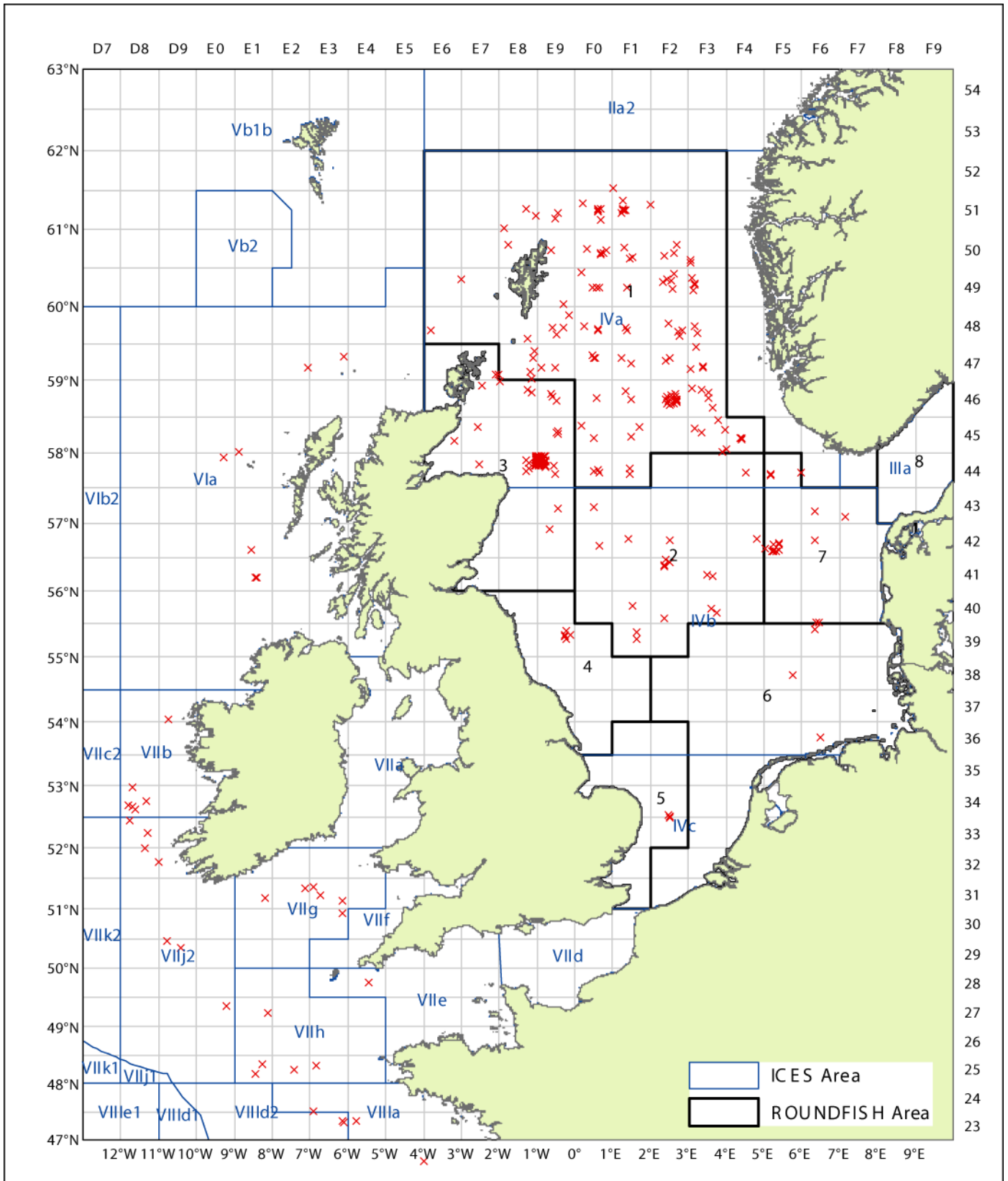


Method of Measurement

- Total length		male	729
- cm below		female	-
		undefined	-
min length	12.5 [cm]		
max length	38.5 [cm]		
		total numbers of data	729

Molva molva

Geographical distribution of data used for calculating the length-weight relationship



Molva molva

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0031

b = 3.1396

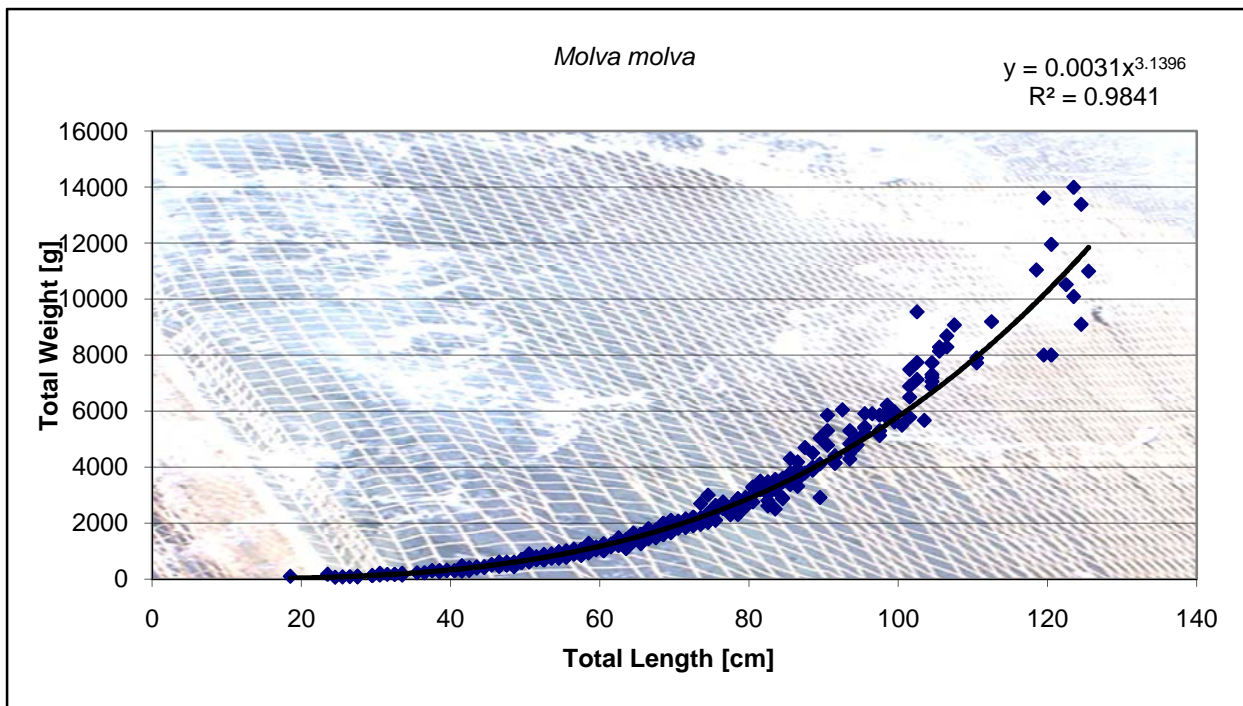
data collected

time period : 1991 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
221	74	74	19																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
38	137	46	12	27	35	45	28	1	-	19	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	351	-	7	25	5	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	296	52	3	-	-	7	-	-	6	-	-	1	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
6	5	7	-	3	-	-	2	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
226	20	74	5	4	4	18	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	34
- cm below		female	15
min length	18.5 [cm]	undefined	339
max length	125.5 [cm]	total numbers of data	388

Mullus surmuletus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0149

b = 2.9185

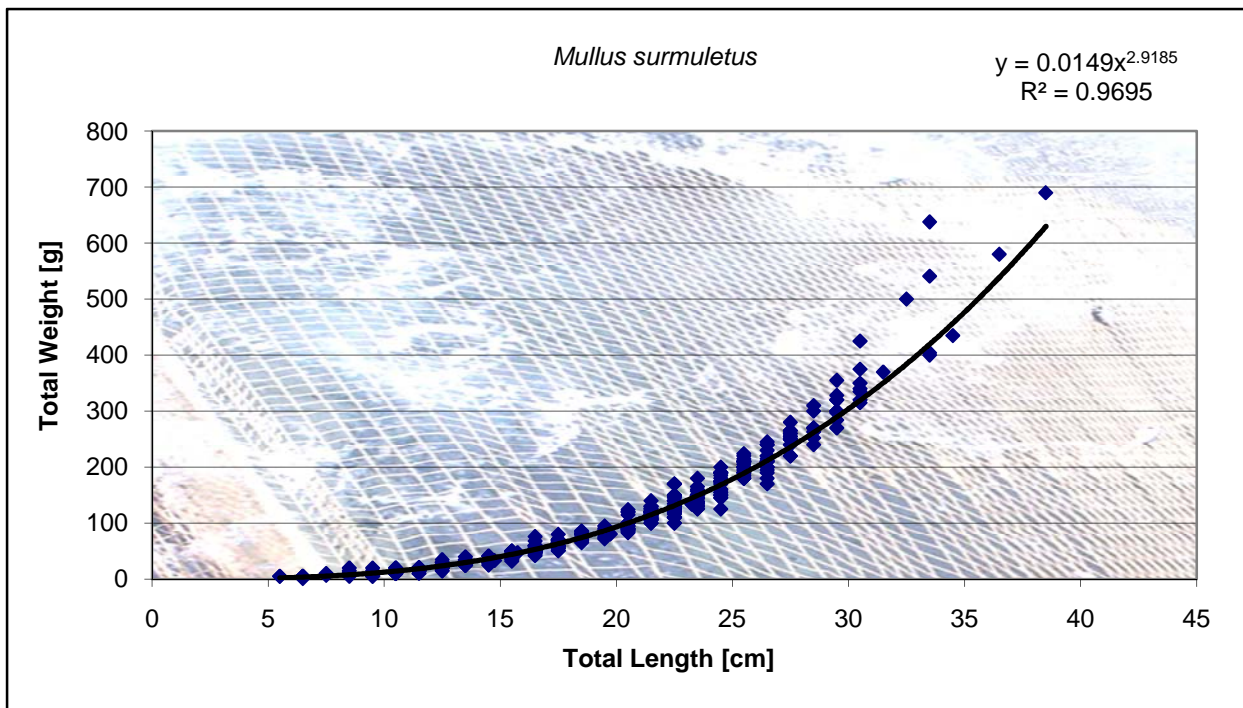
data collected

time period : 1993 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
123	32	183	42																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
68	51	4	7	5	20	105	75	3	7	20	15								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	369	-	-	2	9	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	61	290	18	-	-	-	-	-	-	-	-	1	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	1	-	4	2	-	3	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
23	22	44	4	25	239	12	-	-	-	-	-	-	-	-	-	-	-		

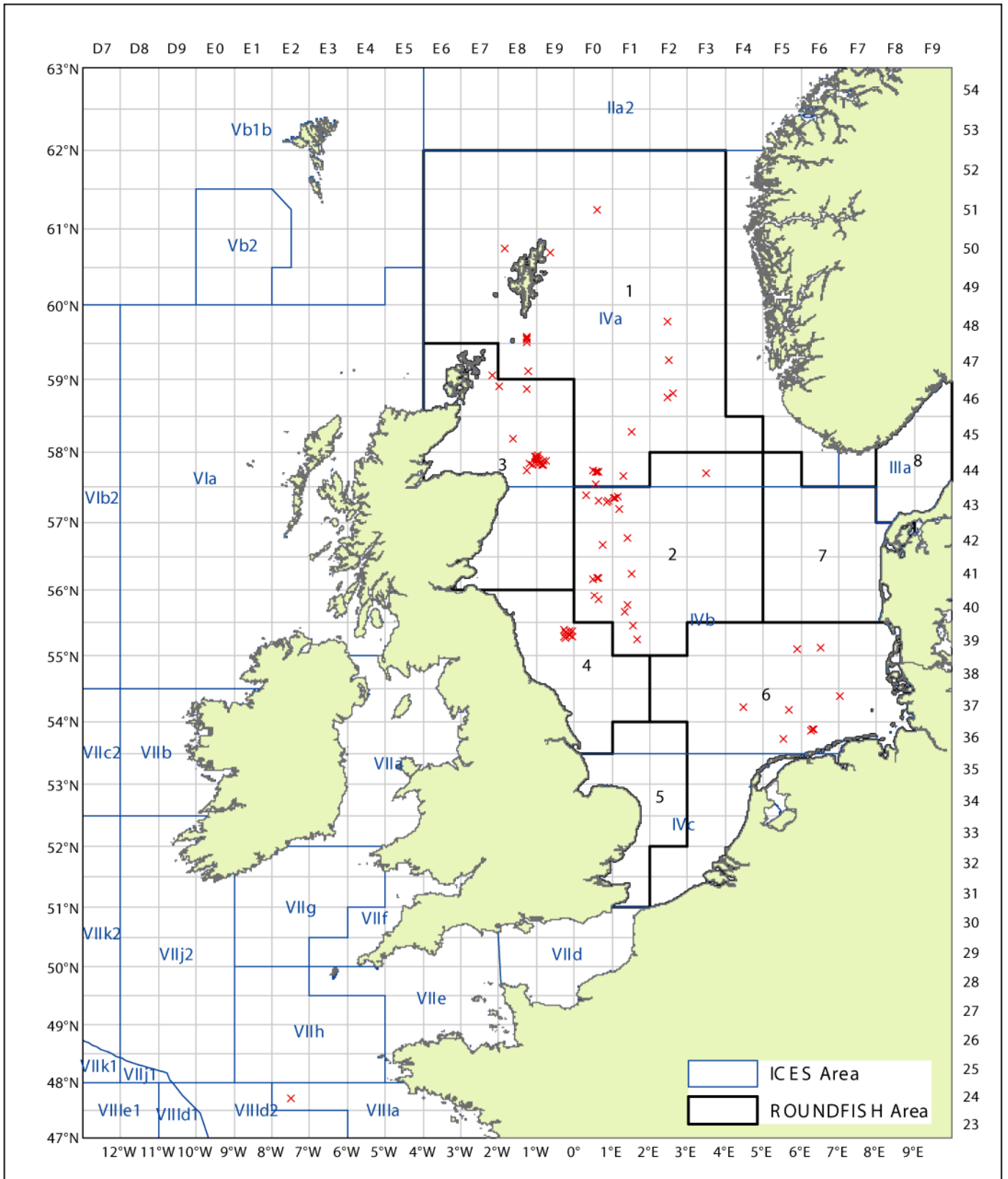


Method of Measurement

- Total length		male	10
- cm below		female	4
min length	5.5 [cm]	undefined	366
max length	38.5 [cm]	total numbers of data	380

Mustelus asterias

Geographical distribution of data used for calculating the length-weight relationship



Mustelus asterias

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0016

b = 3.1753

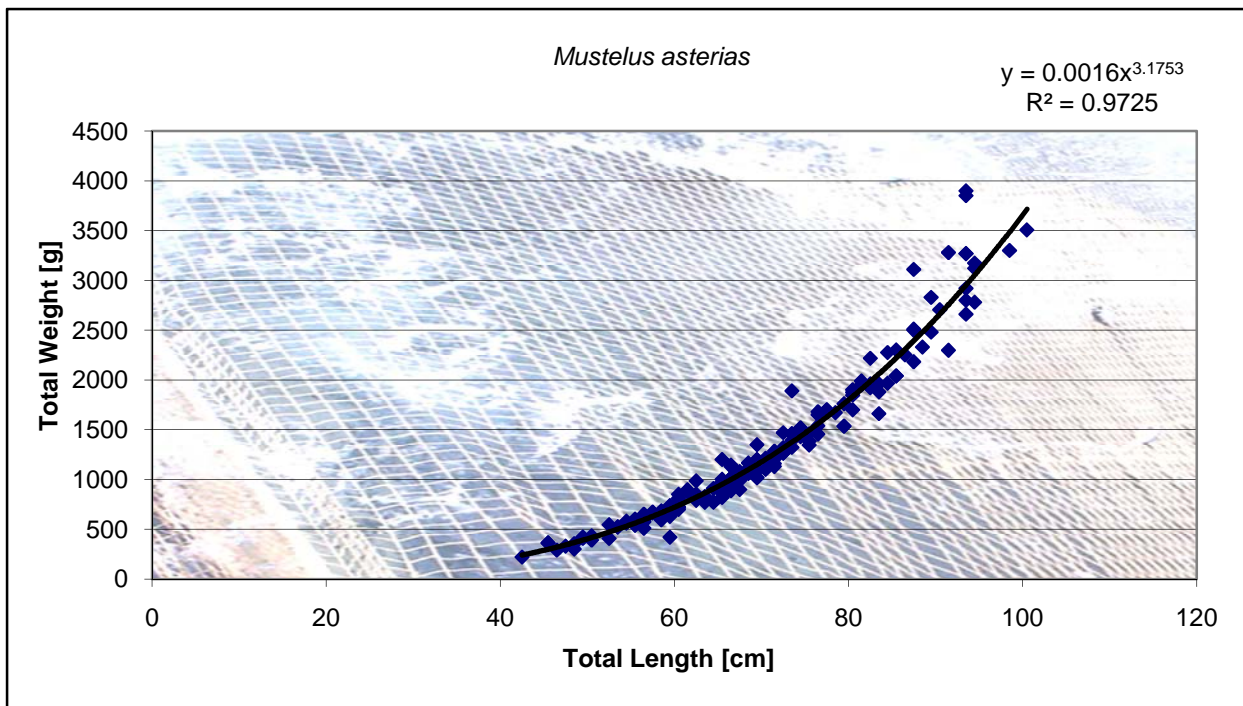
data collected

time period : 1984 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
134	26	11	7																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
79	54	1	-	13	13	7	4	-	-	7	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	177	-	-	-	1	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	103	74	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	1	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
78	44	30	11	-	14	-	-	-	-	-	-	-	-	-	-	-	-		

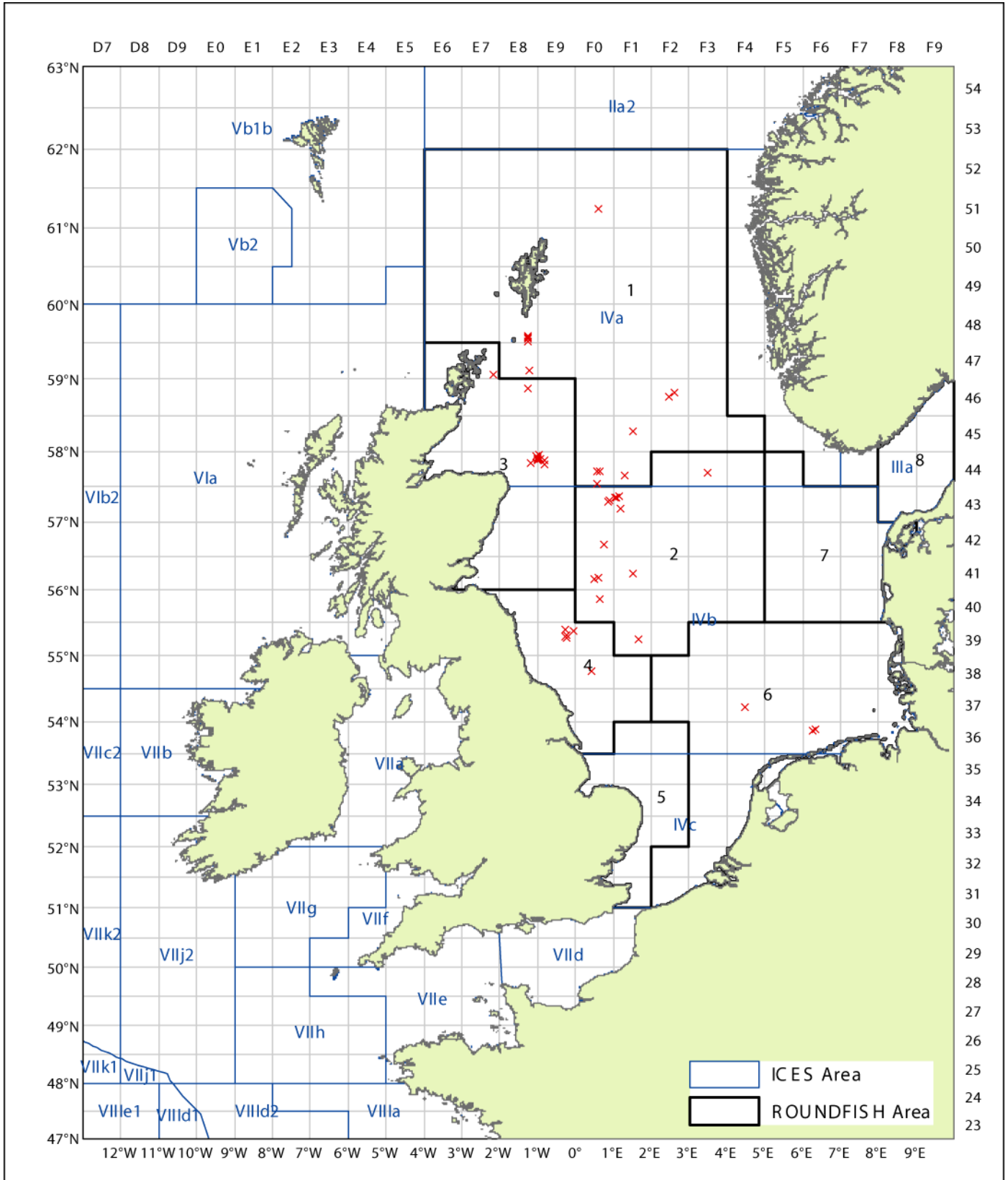


Method of Measurement

- Total length		male	75
- cm below		female	94
min length	42.5 [cm]	undefined	9
max length	100.5 [cm]	total numbers of data	178

Mustelus asterias ♀

Geographical distribution of data used for calculating the length-weight relationship



Mustelus asterias



Quarter: 1 - 4

(female)

$$TW [g] = a * L [cm]^b$$

a = 0.0011

b = 3.2651

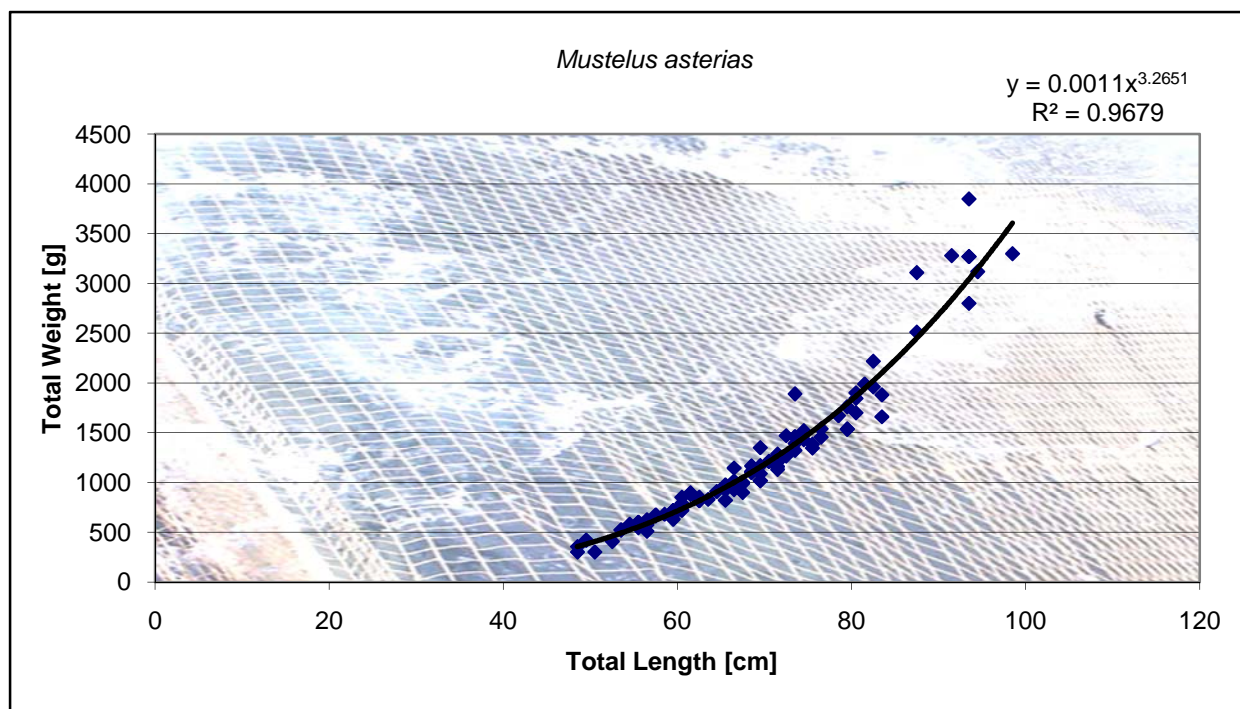
data collected

time period : 1984 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
74	15	5	1																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
44	30	-	-	7	8	2	3	-	-	1	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	95	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	58	37	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
46	23	14	7	-	5	-	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- cm below

min length
max length

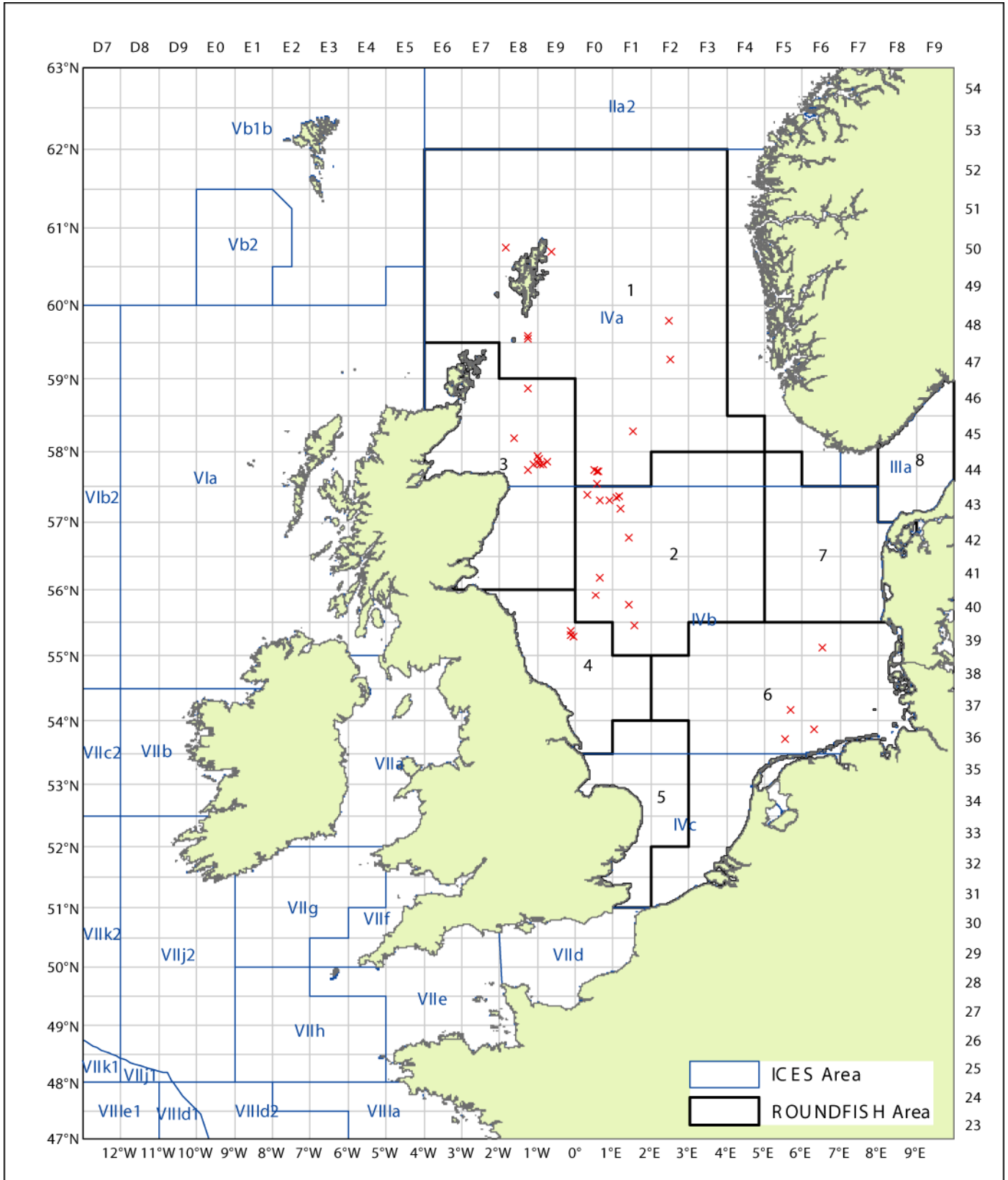
48.5 [cm]
98.5 [cm]

male -
female 95
undefined -

total numbers of data 95

Mustelus asterias ♂

Geographical distribution of data used for calculating the length-weight relationship



Mustelus asterias ♂

Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0023

b = 3.0919

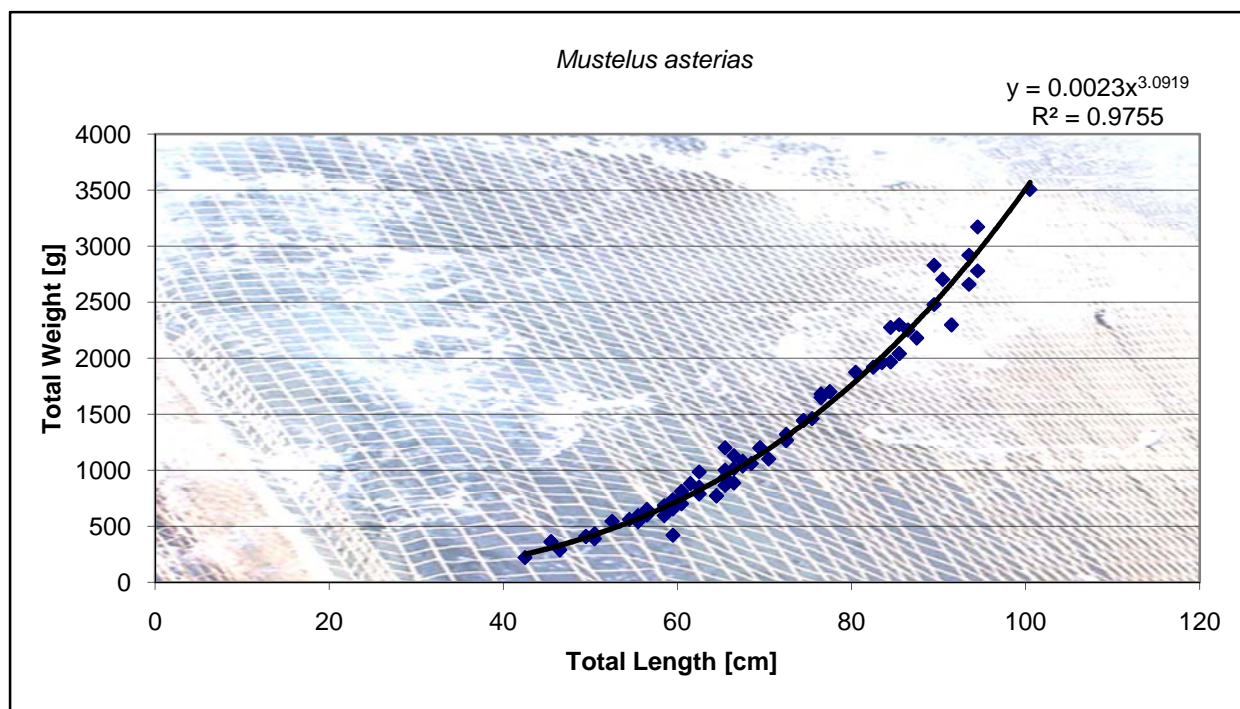
data collected

time period : 1992 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
57	9	6	3																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
33	24	-	-	4	5	5	1	-	-	3	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	75	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	42	33	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
32	20	13	3	-	7	-	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

min length
max length

42.5 [cm]
100.5 [cm]

male 75
female -
undefined -

total numbers of data 75

Mustelus mustelus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0033

b = 3.0231

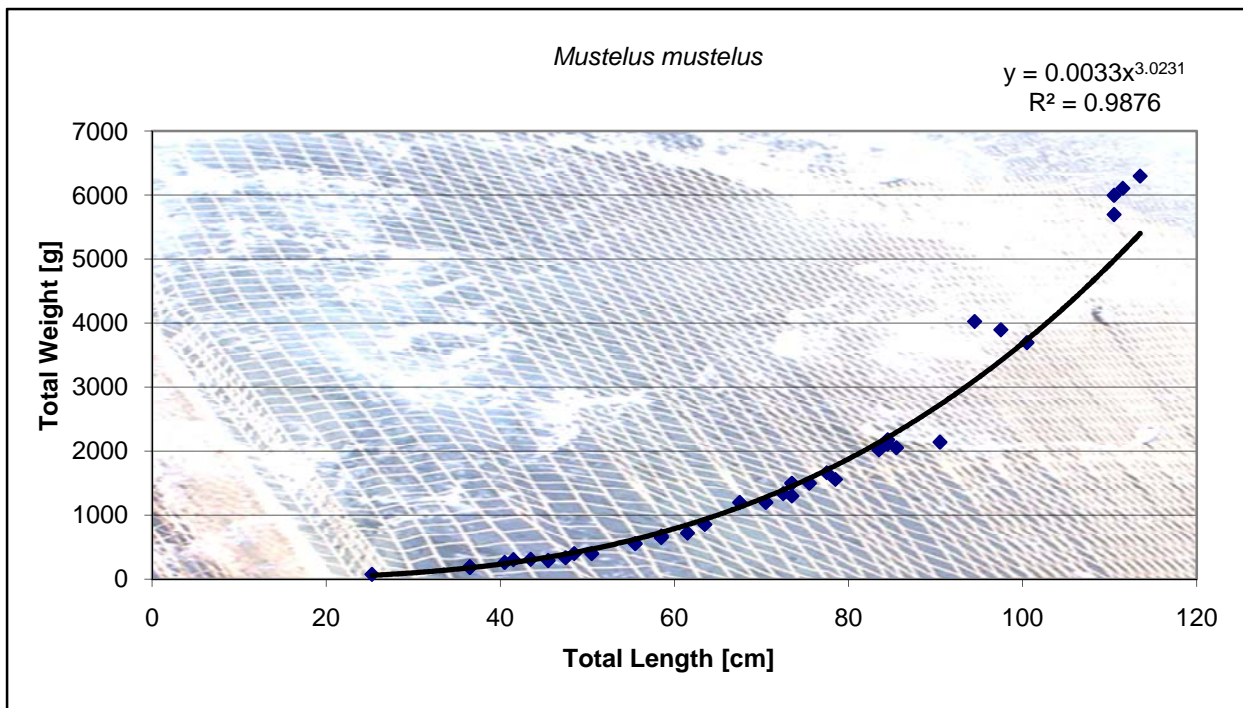
data collected

time period : 1976 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
20	3	11	3																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
8	12	-	2	-	1	7	4	-	-	-	3								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	32	-	-	4	1	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	11	17	4	-	-	-	-	-	-	-	1	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	2	1	-	1	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
11	4	3	-	3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-

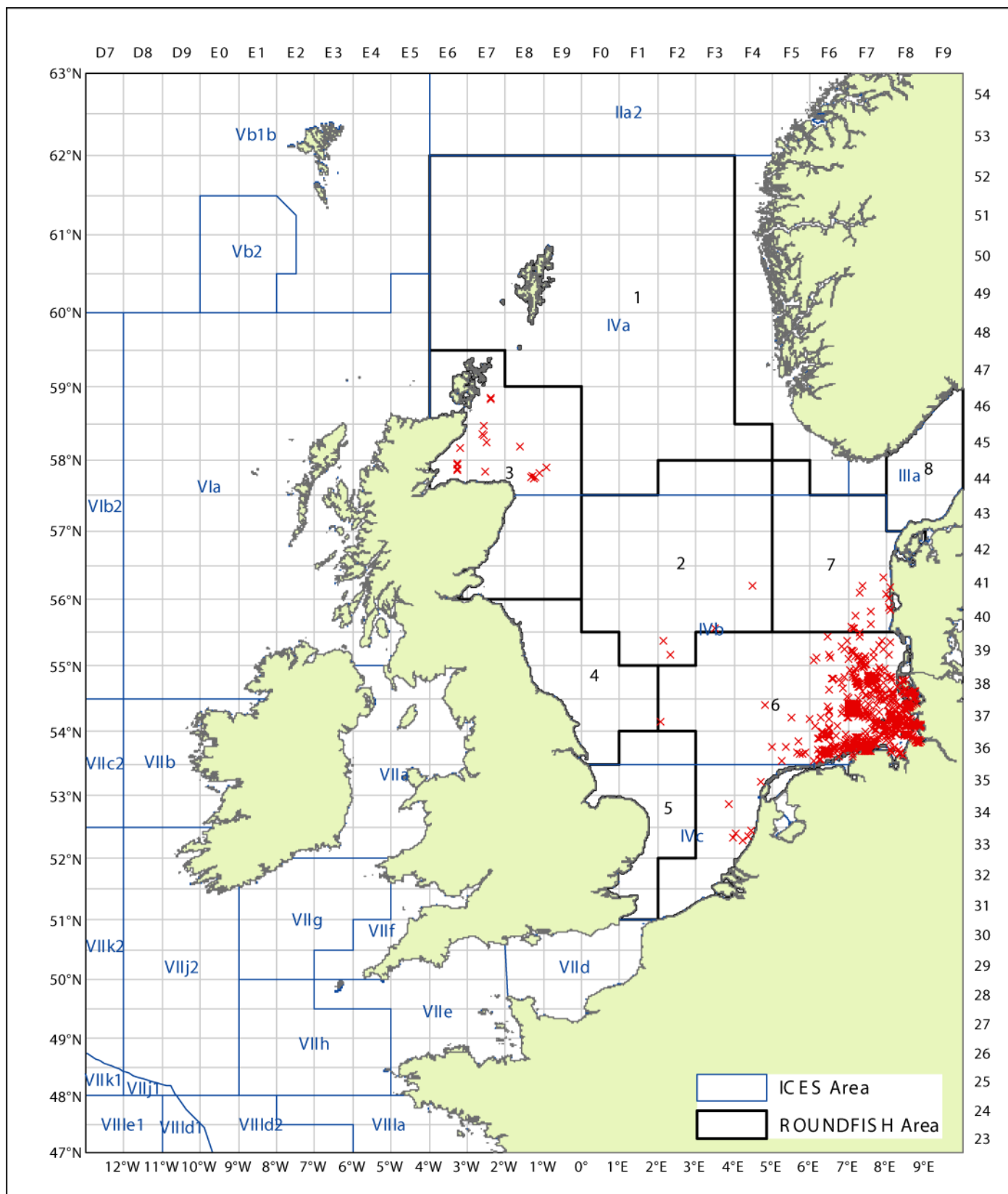


Method of Measurement

- Total length		male	12
- cm below		female	15
min length	25.5 [cm]	undefined	10
max length	113.5 [cm]	total numbers of data	37

Myoxocephalus scorpius

Geographical distribution of data used for calculating the length-weight relationship



Myoxocephalus scorpius

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0114

b = 3.1036

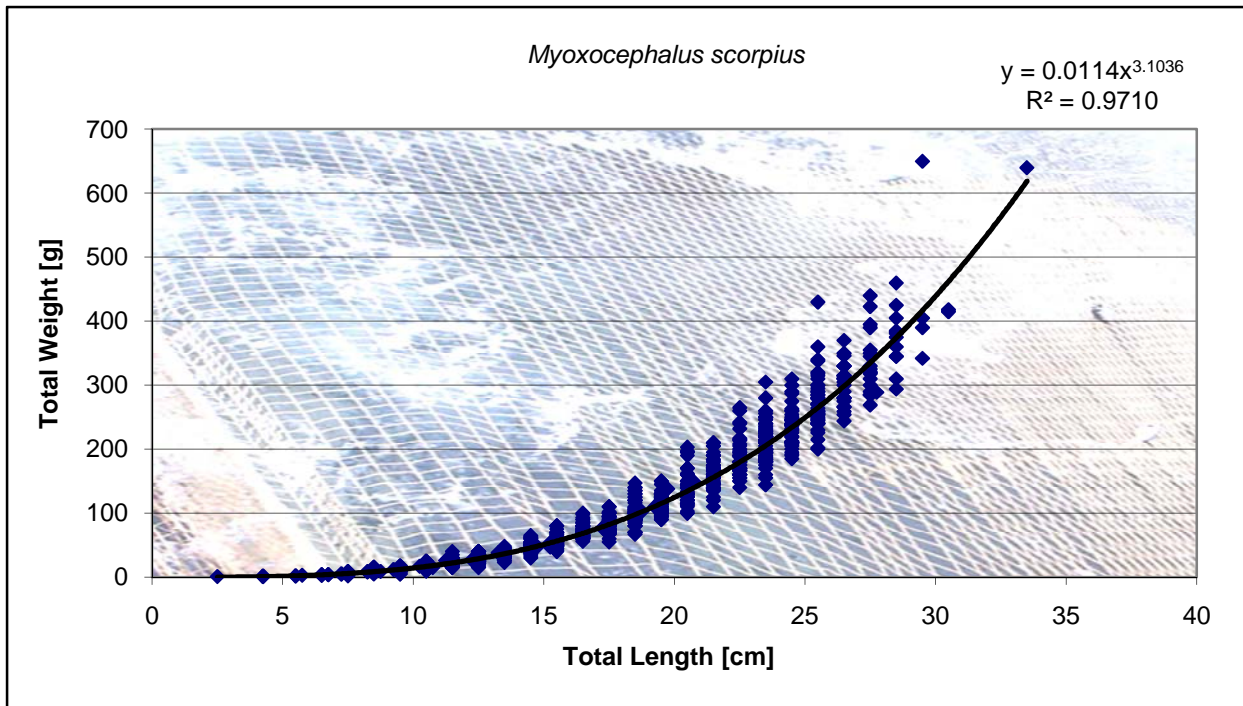
data collected

time period : 1995 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
360	205	248	125																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
299	56	5	29	158	18	25	136	87	36	37	52								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	938	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	29	903	6	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
-	4	30	-	-	894	10	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

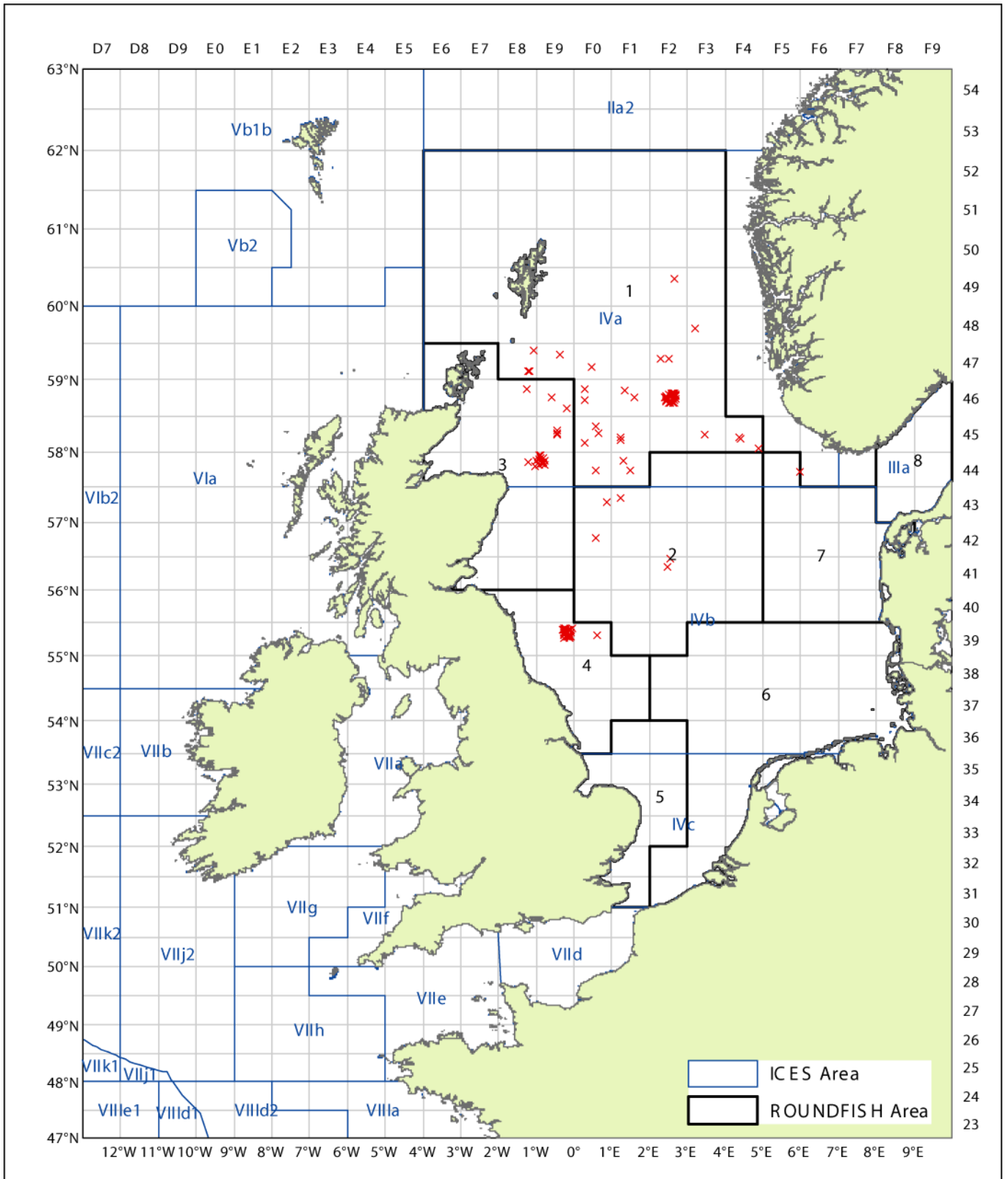


Method of Measurement

- Total length		male	9
- cm below		female	16
min length	2.5 [cm]	undefined	913
max length	33.5 [cm]	total numbers of data	938

Myxine glutinosa

Geographical distribution of data used for calculating the length-weight relationship



Myxine glutinosa

Quarter: 1 - 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0022

b = 2.8357

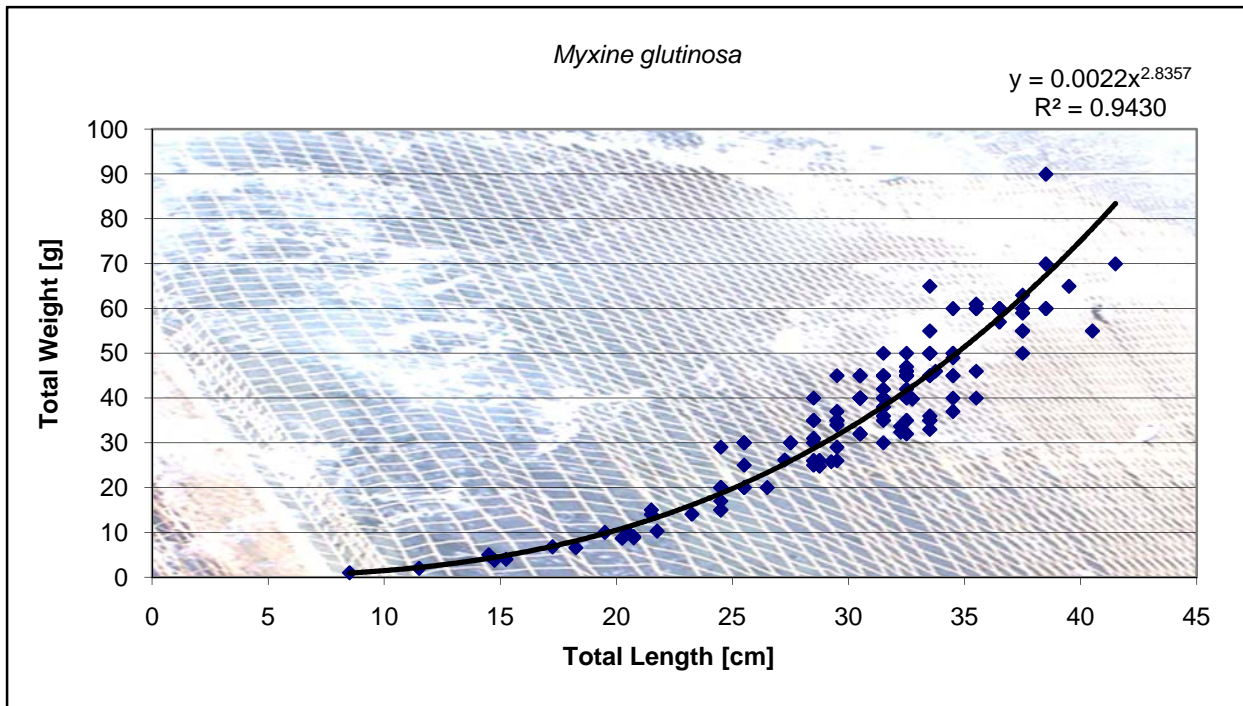
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
35	11	82	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
11	23	1	-	8	3	49	29	4	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	128	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	97	31	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
67	5	23	32	-	-	1	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

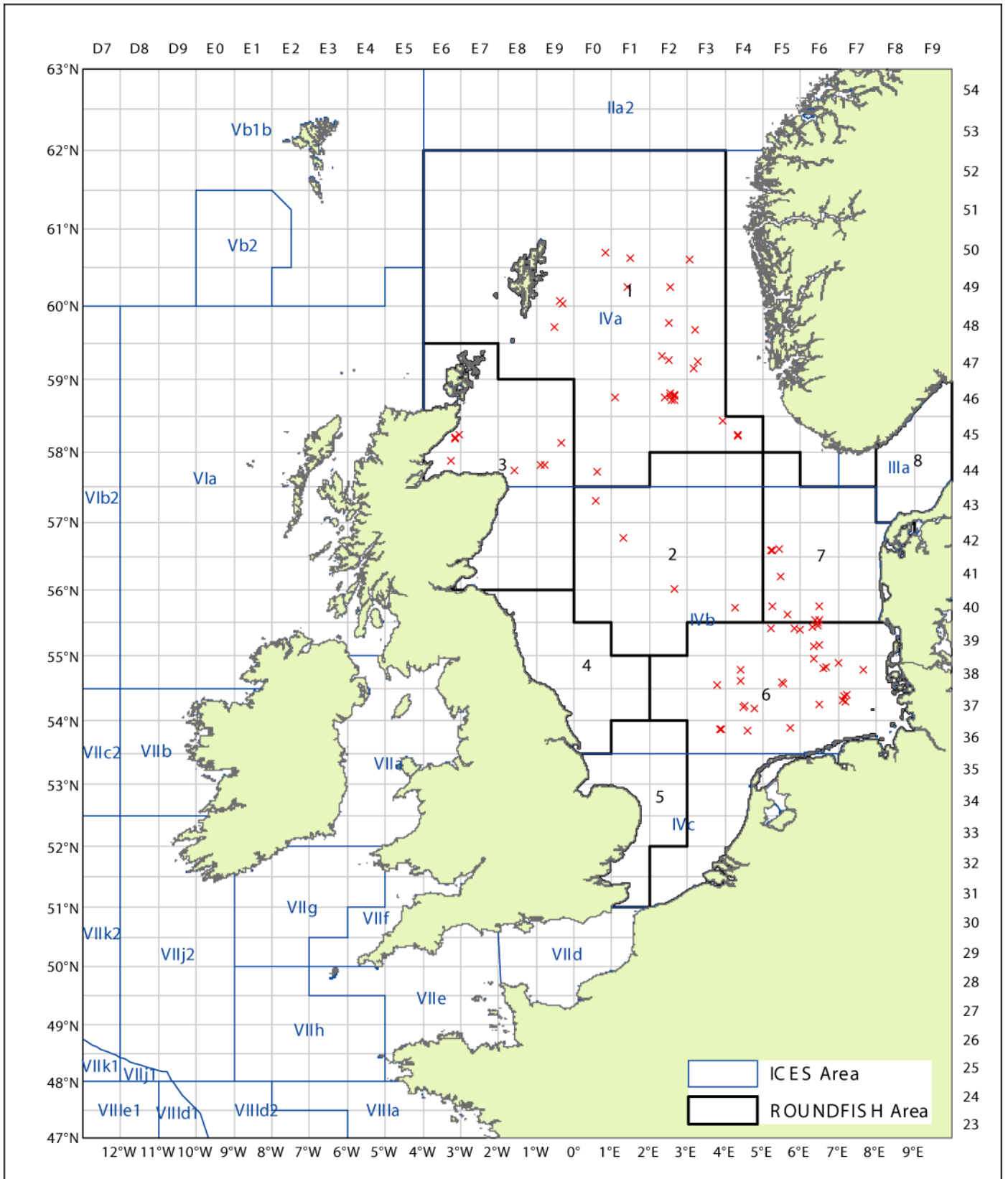


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	8.5 [cm]	undefined	128
max length	41.5 [cm]	total numbers of data	128

Nephrops norvegicus

Geographical distribution of data used for calculating the length-weight relationship



Nephrops norvegicus

Quarter: 1 ; 3

$$Tw [g] = a * L [mm]^b$$

a = 0.00042

b = 3.11965

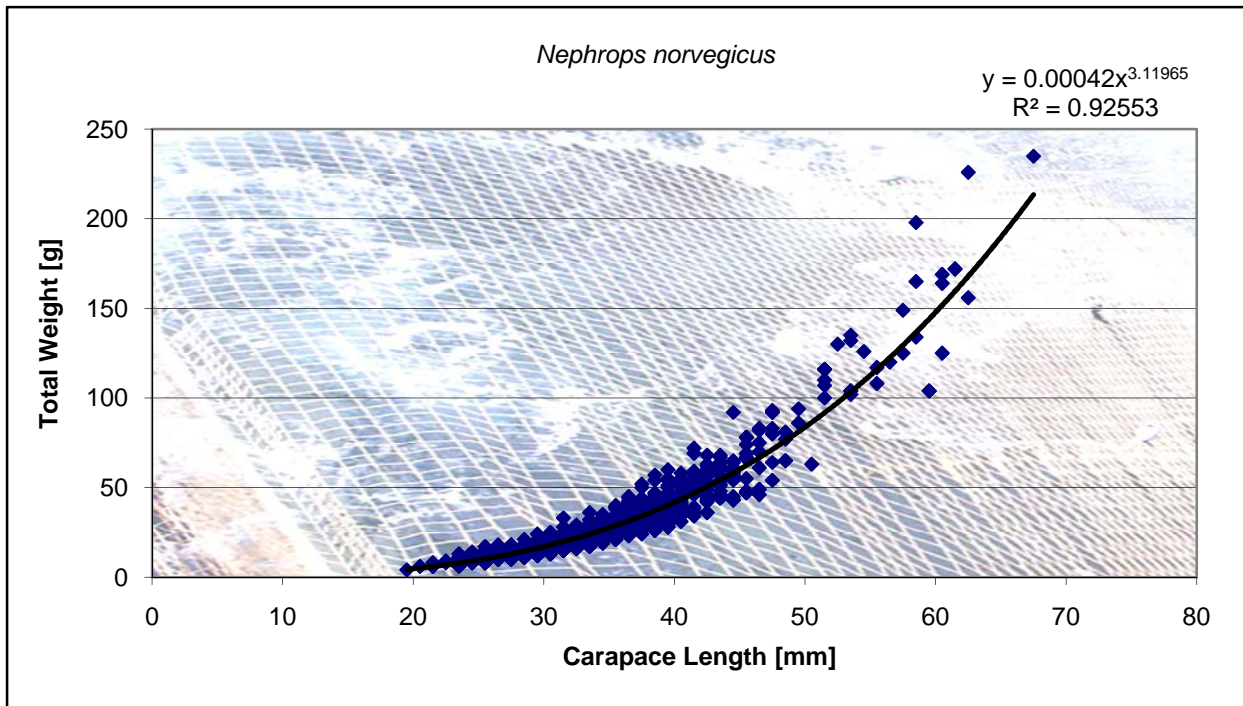
data collected

time period : 2004 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
114	-	1220	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
81	33	-	-	-	-	40	1040	140	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	1334	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	111	1223	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
88	6	23	-	-	1144	73	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		



Method of Measurement

- Carapace length
- mm below

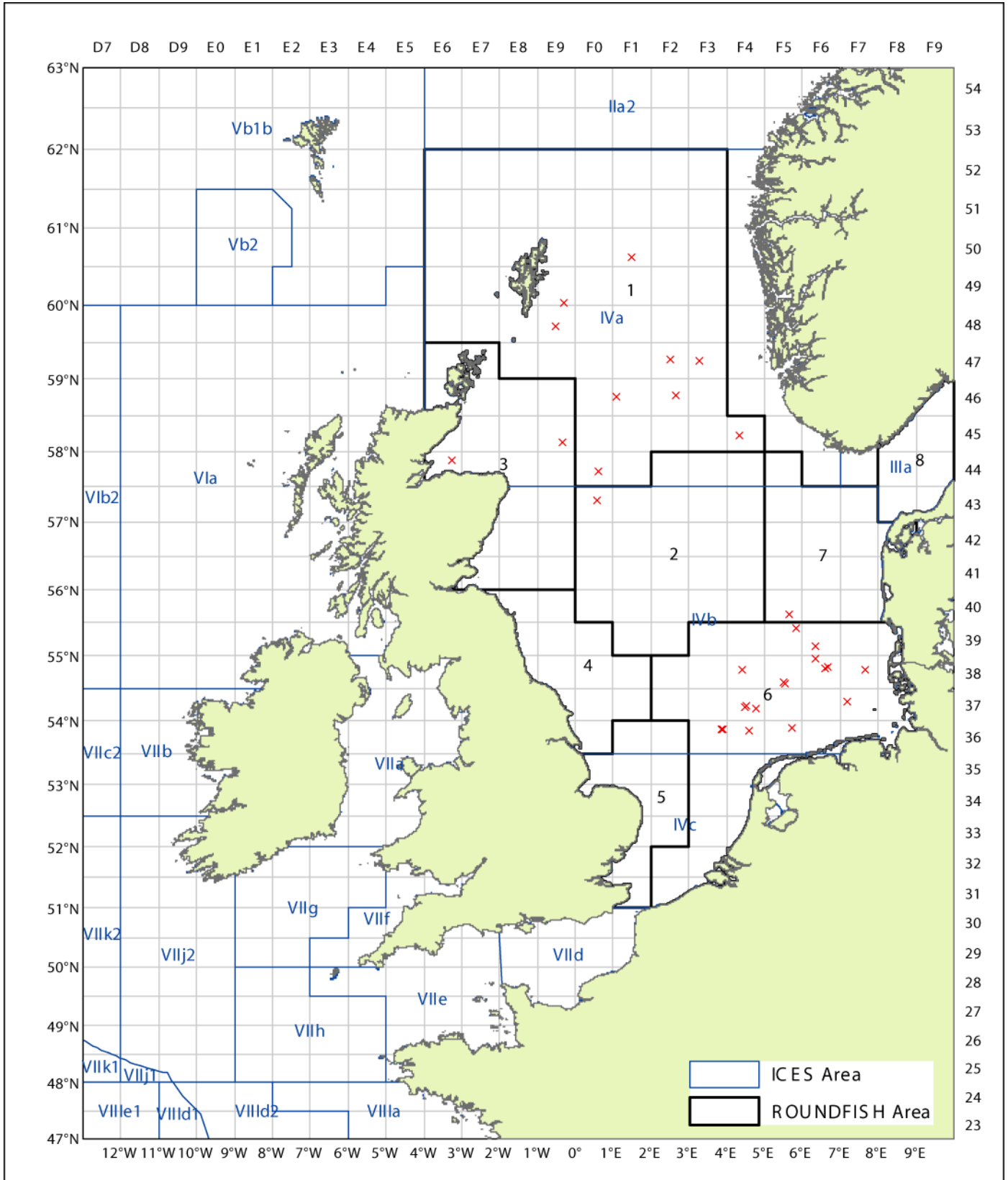
min length 19.5 [mm]
max length 67.5 [mm]

male 239
female 201
undefined 894

total numbers of data 1334

Nephrops norvegicus ♀

Geographical distribution of data used for calculating the length-weight relationship



Nephrops norvegicus



Quarter: 1 ; 3

(female)

$$Tw [g] = a * L [mm]^b$$

a = 0.00083

b = 2.93399

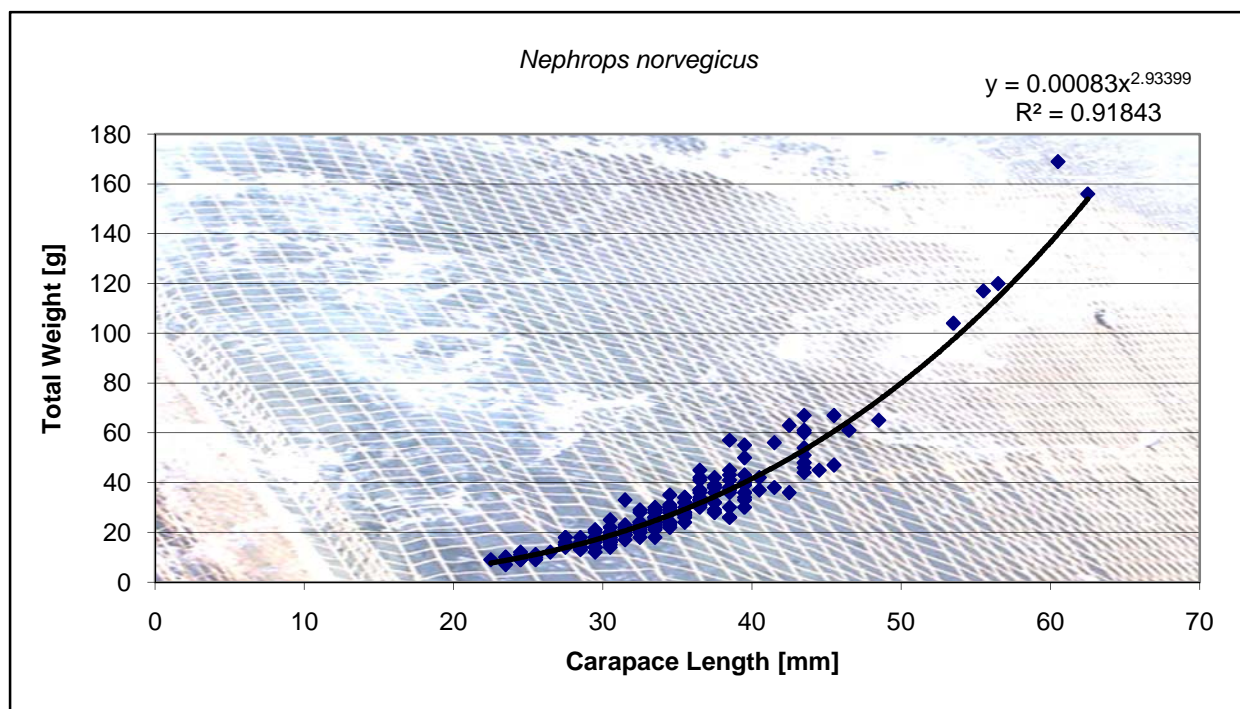
data collected

time period : 2005 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
26	-	175	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
18	8	-	-	-	-	14	137	24	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	201	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	24	177	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
18	2	6	-	-	174	1	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



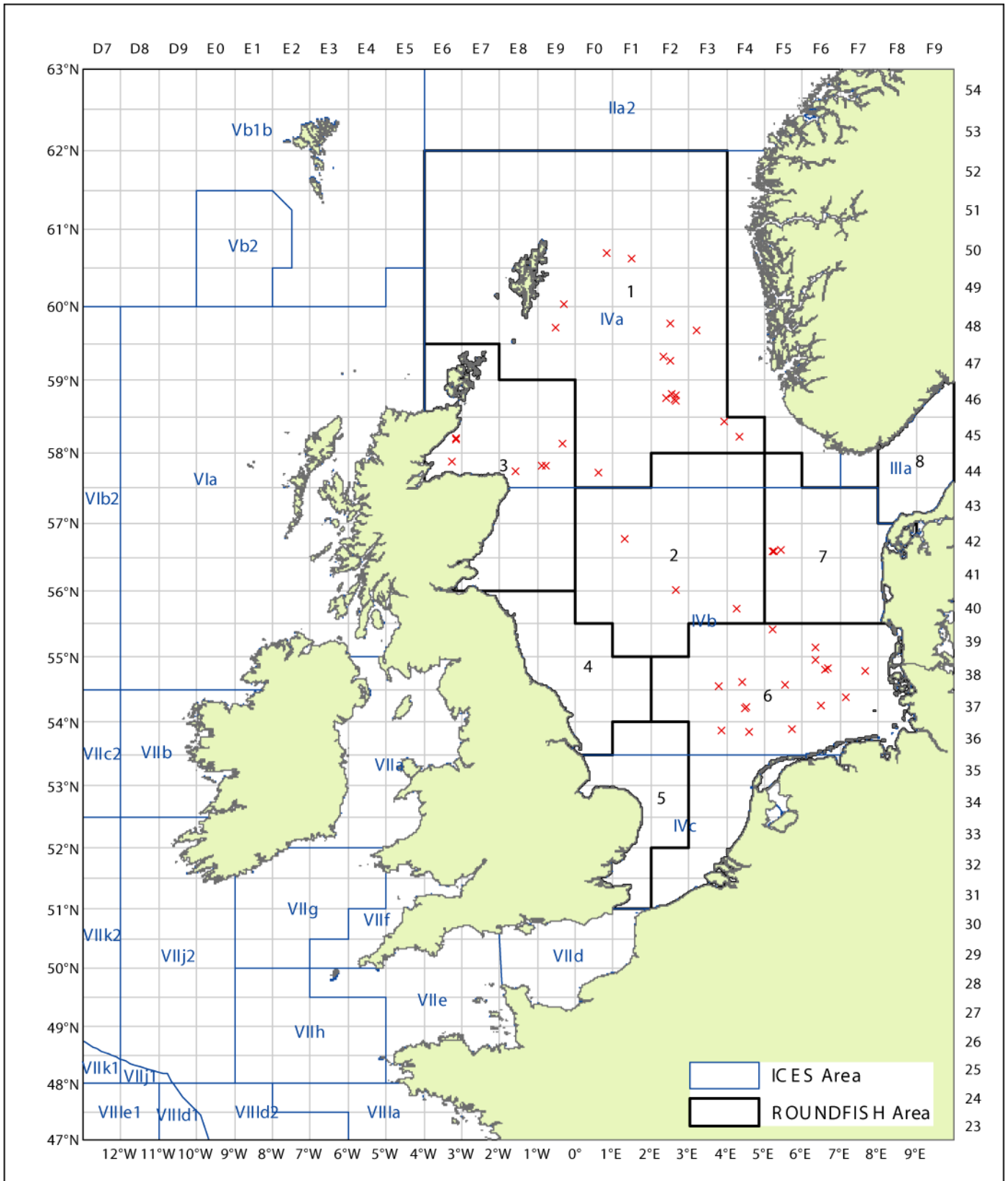
Method of Measurement

- Carapace length
- mm below
 - min length 22.5 [mm]
 - max length 62.5 [mm]

male	-
female	201
undefined	-
total numbers of data	201

Nephrops norvegicus ♂

Geographical distribution of data used for calculating the length-weight relationship



Nephrops norvegicus



Quarter: 1 ; 3

(male)

$$Tw [g] = a * L [mm]^b$$

a = 0.00053

b = 3.0791

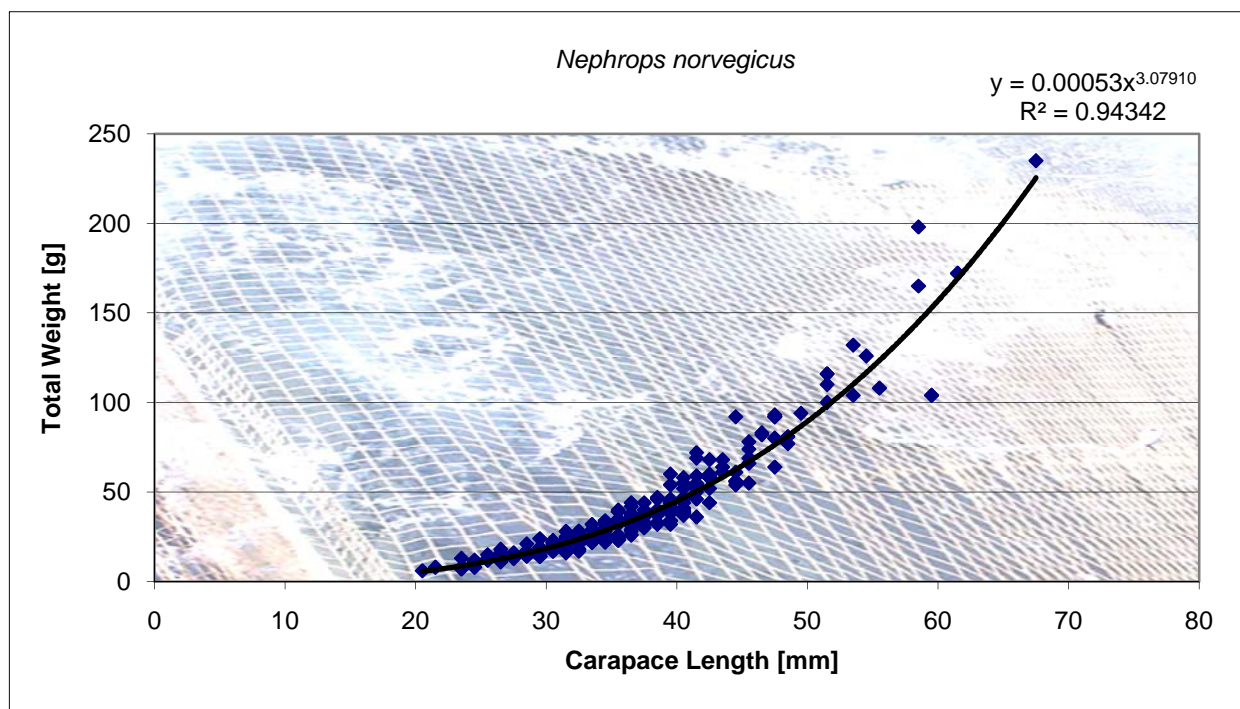
data collected

time period : 2004 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
78	-	161	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
59	19	-	-	-	-	19	142	-	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	239	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	78	161	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
62	4	16	-	-	153	4	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Carapace length
- mm below

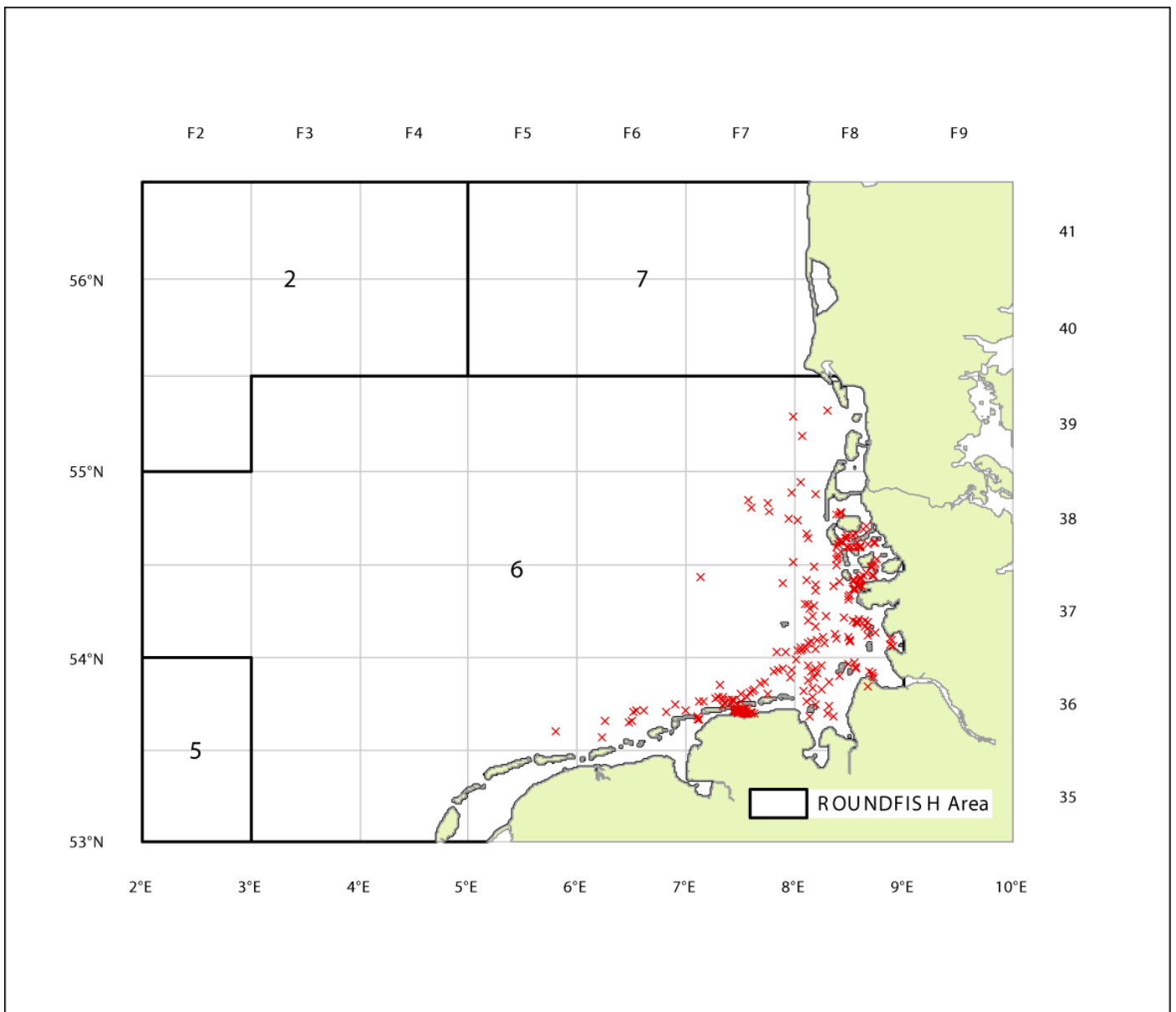
min length 20.5 [mm]
max length 67.5 [mm]

male 239
female -
undefined -

total numbers of data 239

Osmerus eperlanus

Geographical distribution of data used for calculating the length-weight relationship



Osmerus eperlanus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0094

b = 2.8535

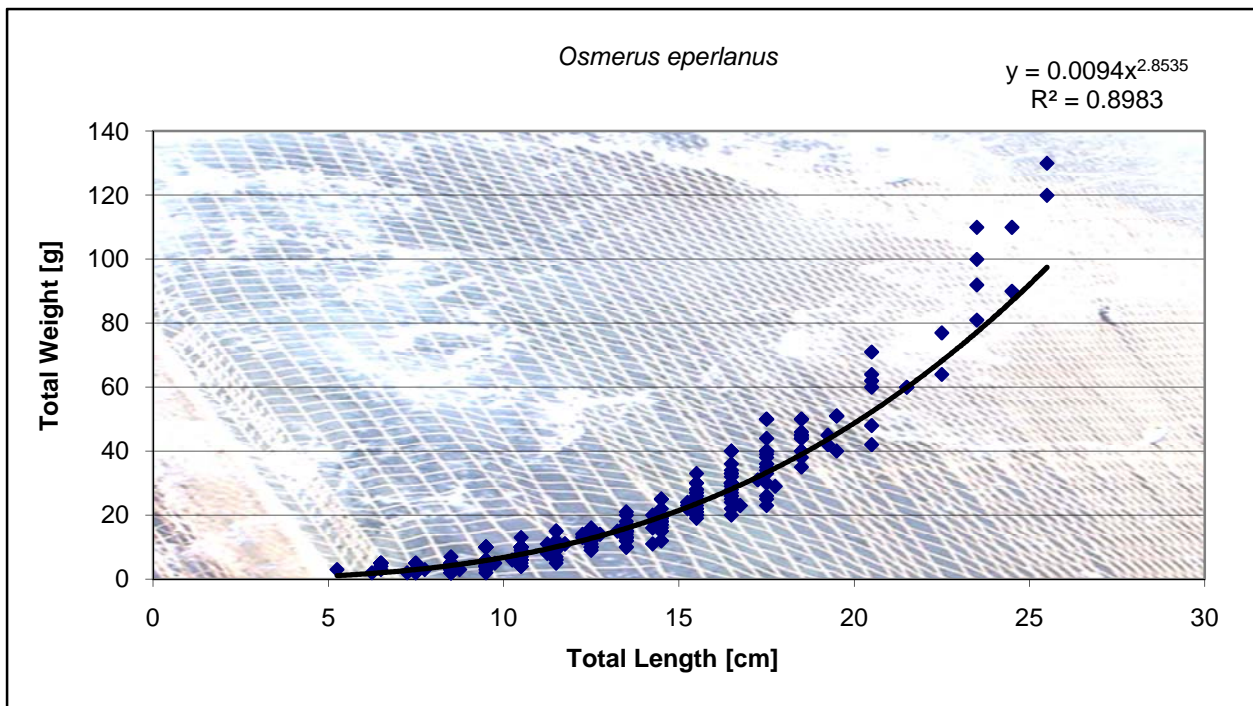
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
81	51	86	46																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
76	1	4	18	32	1	4	2	80	14	18	14								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	264	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	264	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	264	-	-	-	-	-	-	-	-	-	-	-	-		

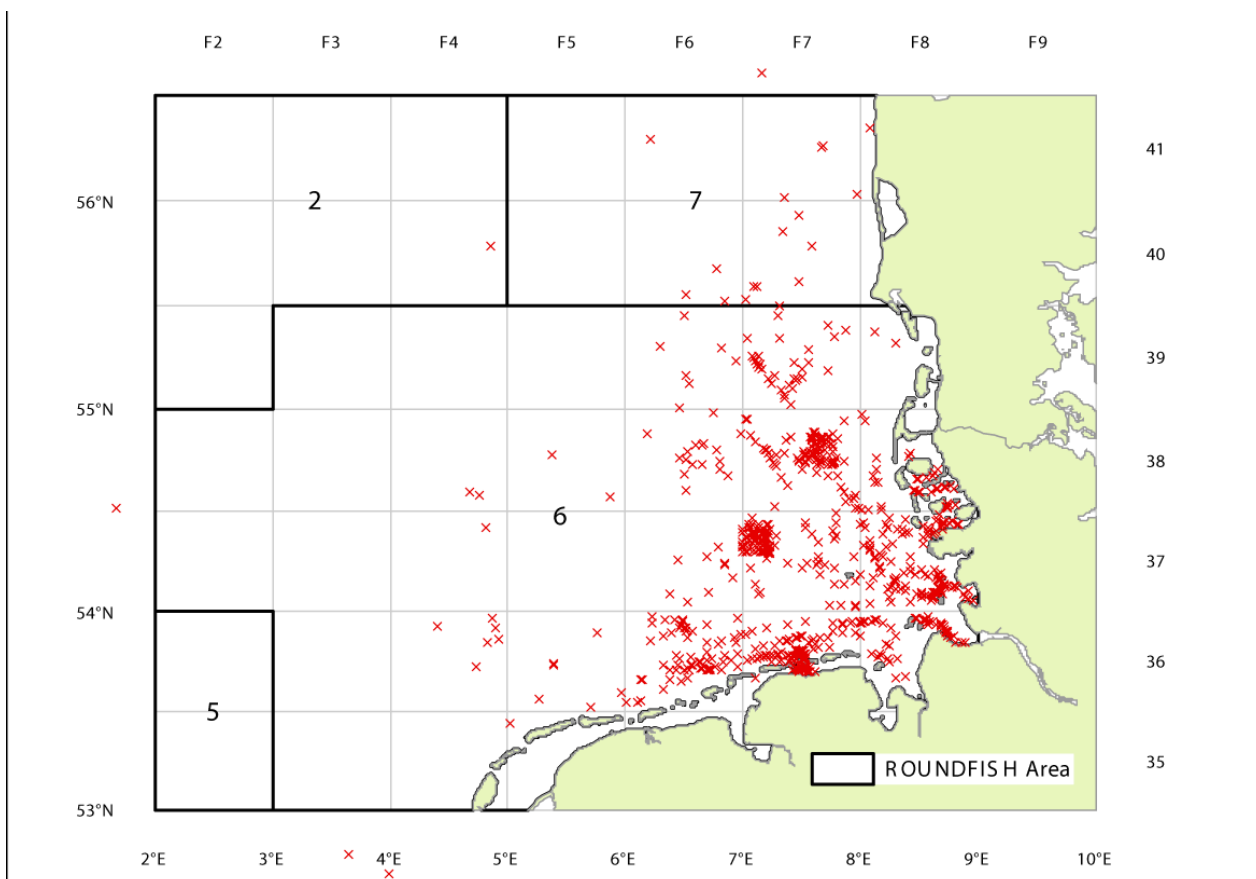
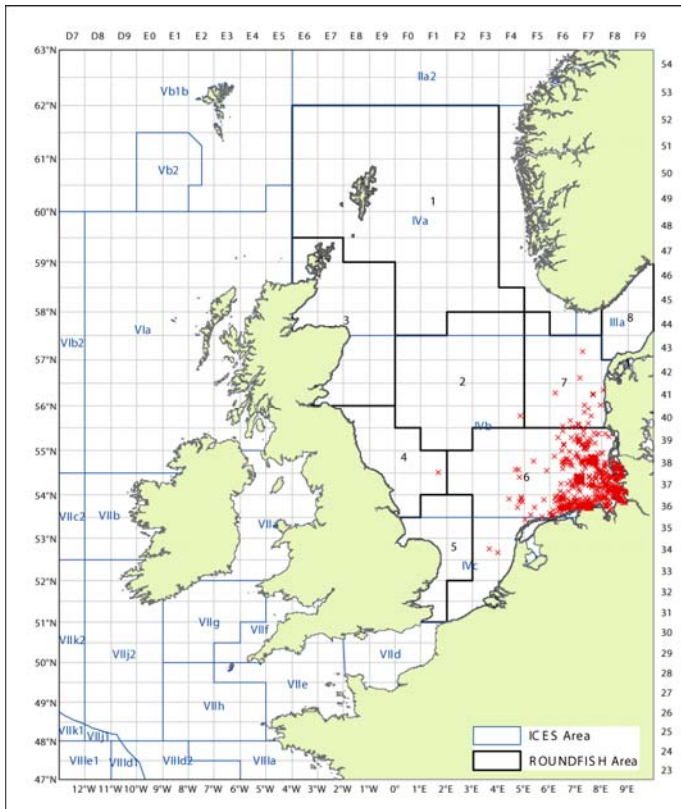


Method of Measurement

- Total length		male	-
- 1/2 cm below, cm below		female	-
min length	5.25 [cm]	undefined	264
max length	25.5 [cm]	total numbers of data	264

Platichthys flesus

Geographical distribution of data used for calculating the length-weight relationship



Platichthys flesus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0098

b = 3.0235

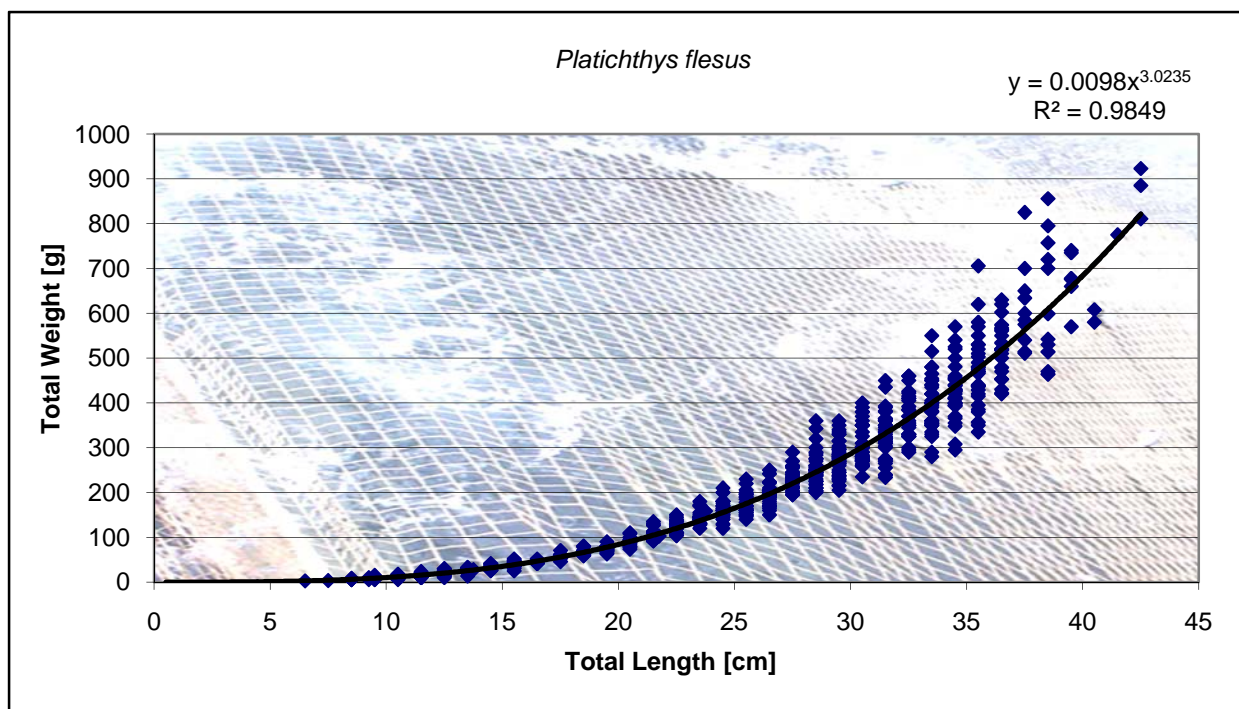
data collected

time period : 1997 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
288	183	198	86																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
231	54	3	34	146	3	44	55	99	29	23	34								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	755	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	-	754	1	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
-	1	-	1	-	736	17	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	15
- cm below		female	14
min length	6.5 [cm]	undefined	726
max length	42.5 [cm]	total numbers of data	755

Pleuronectes platessa

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0103

b = 2.9745

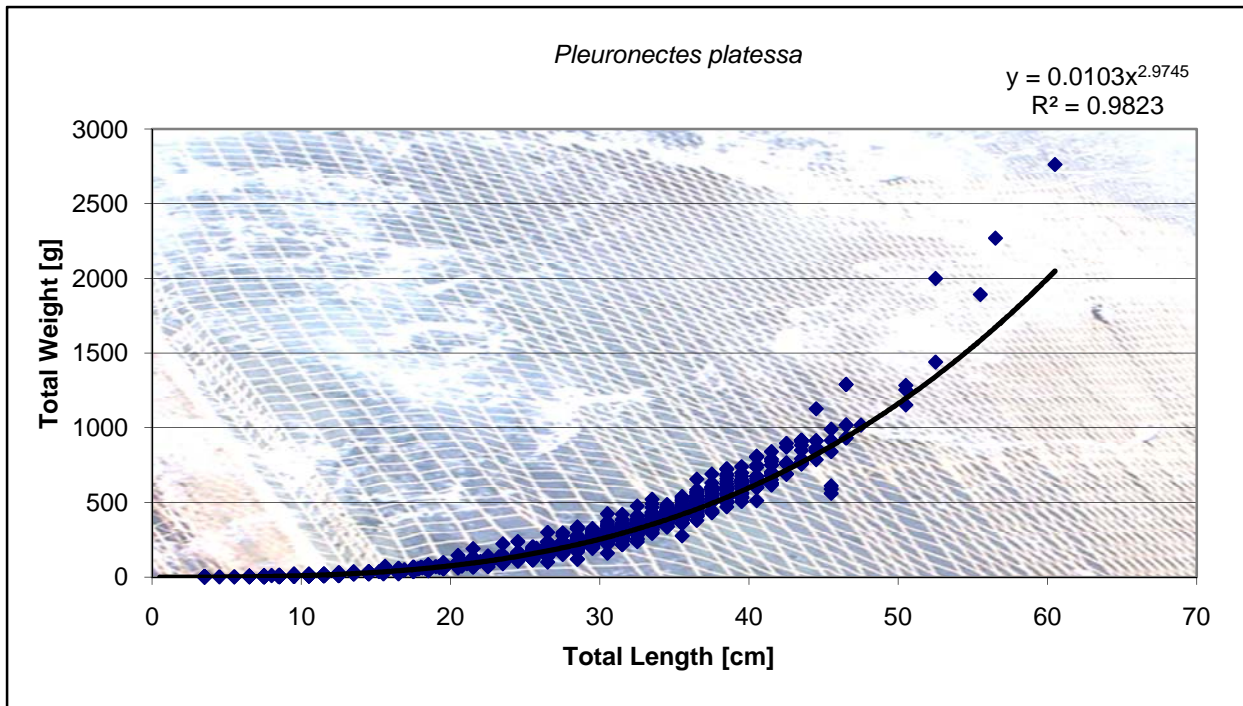
data collected

time period : 1997 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
1166	407	1360	37																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
712	453	1	44	354	9	625	691	44	7	14	16								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2969	-	-	1	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	797	2146	26	-	-	-	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
298	323	504	92	28	1515	209	-	-											
									1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-		

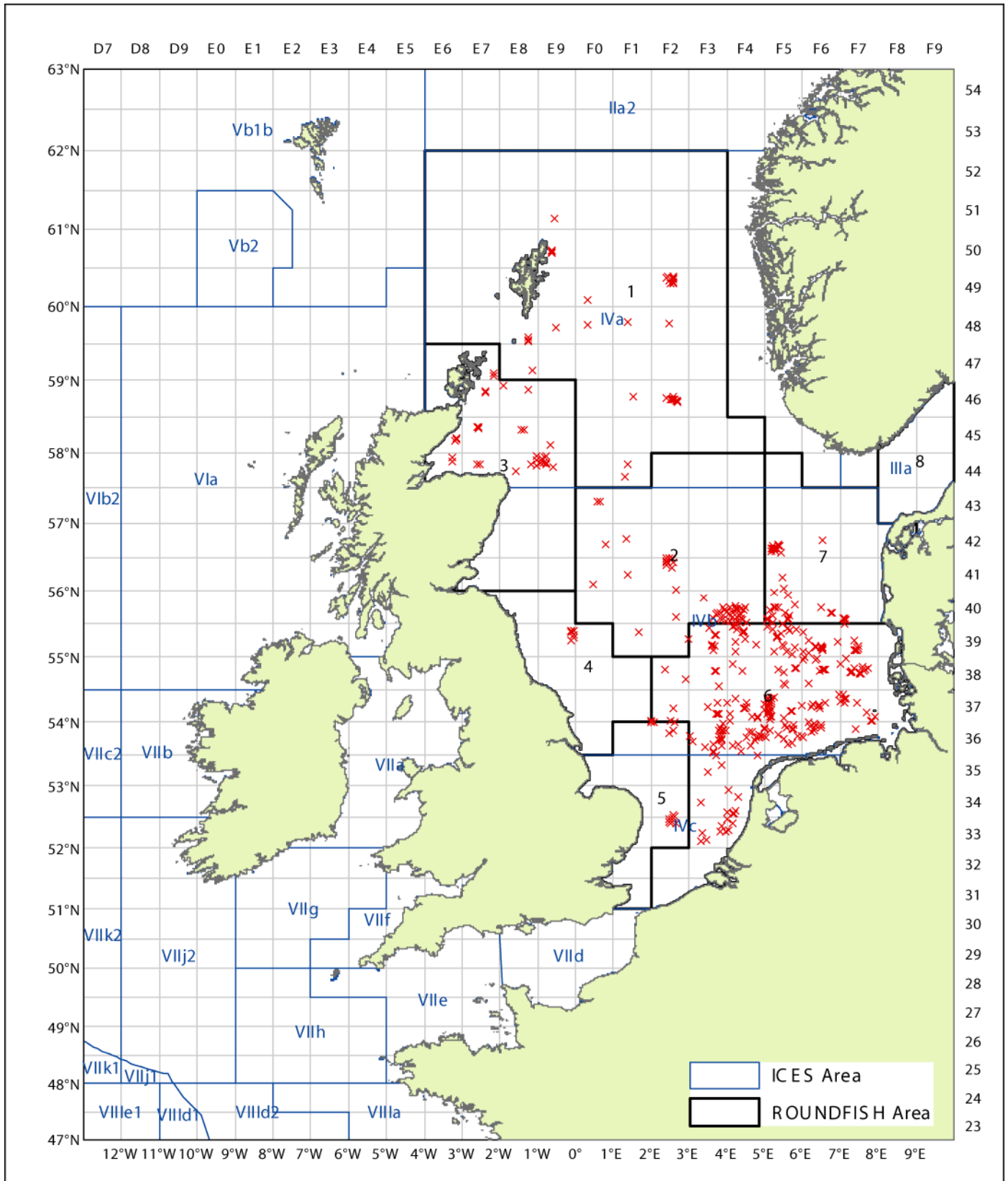


Method of Measurement

- Total length		male	1185
- cm below		female	1136
min length	3.5 [cm]	undefined	649
max length	60.5 [cm]	total numbers of data	2970

Pleuronectes platessa ♀

Geographical distribution of data used for calculating the length-weight relationship



Pleuronectes platessa



Quarter: 1 - 4

(female)

$$TW [g] = a * L [cm]^b$$

a = 0.0059

b = 3.1539

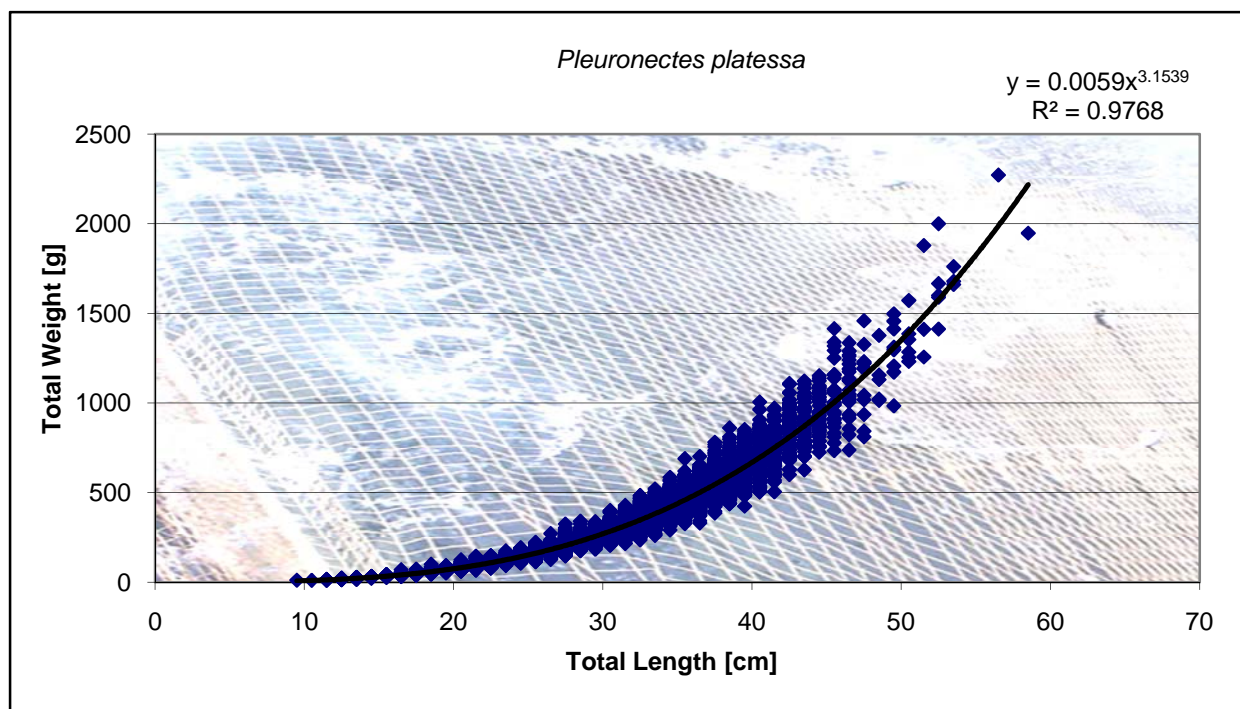
data collected

time period : 1999 - 2009

data source : research vessel, commercial trawler

numbers of data:

Quarter																						
1	2	3	4																			
1574	3793	2883	1406																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
992	233	349	1835	326	1632	1340	965	578	689	352	365											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	9656	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	245	8085	1326	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
90	269	155	27	418	7805	892	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

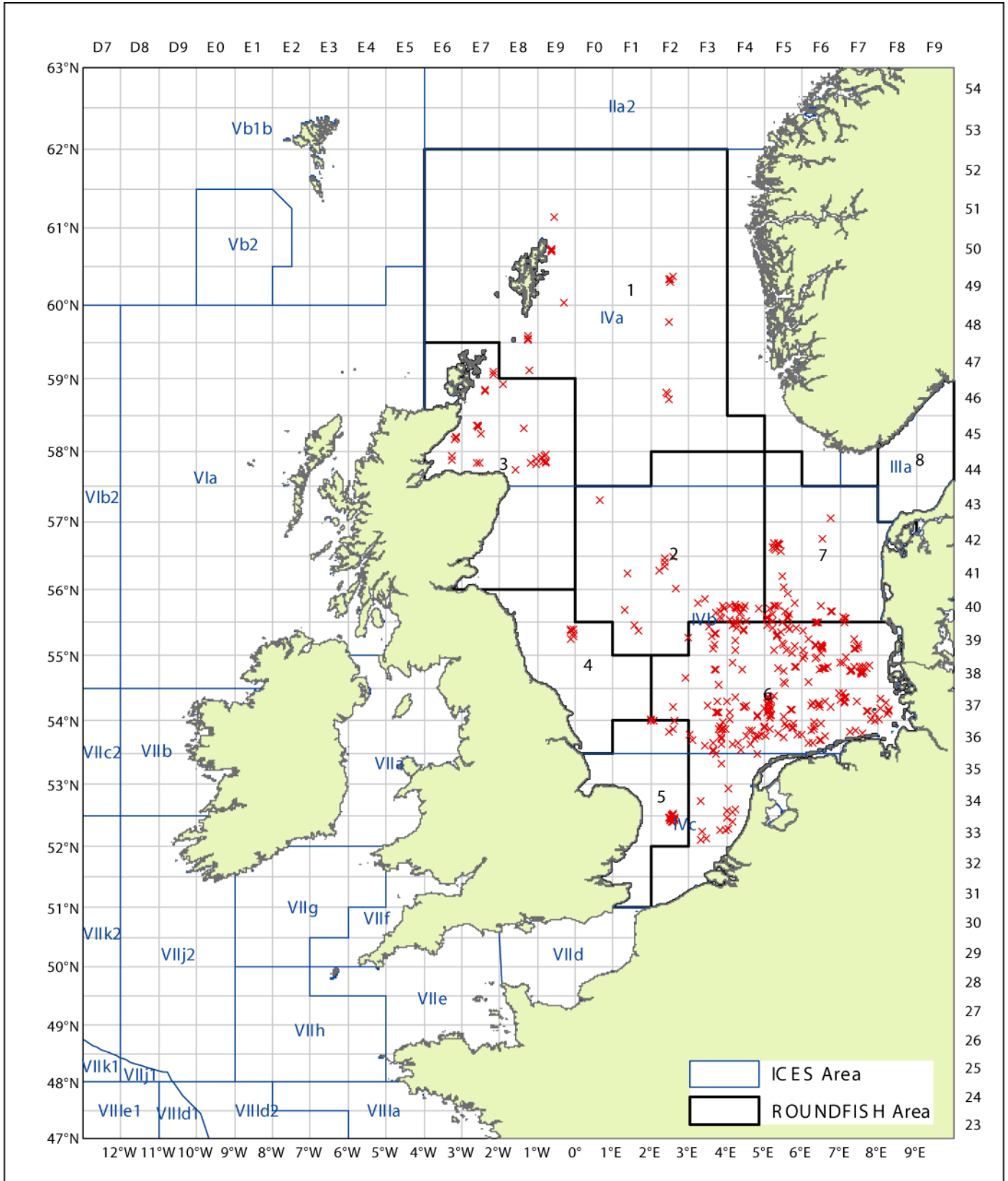
min length 9.5 [cm]
max length 58.5 [cm]

male -
female 9656
undefined -

total numbers of data 9656

Pleuronectes platessa ♂

Geographical distribution of data used for calculating the length-weight relationship



Pleuronectes platessa



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0077

b = 3.0623

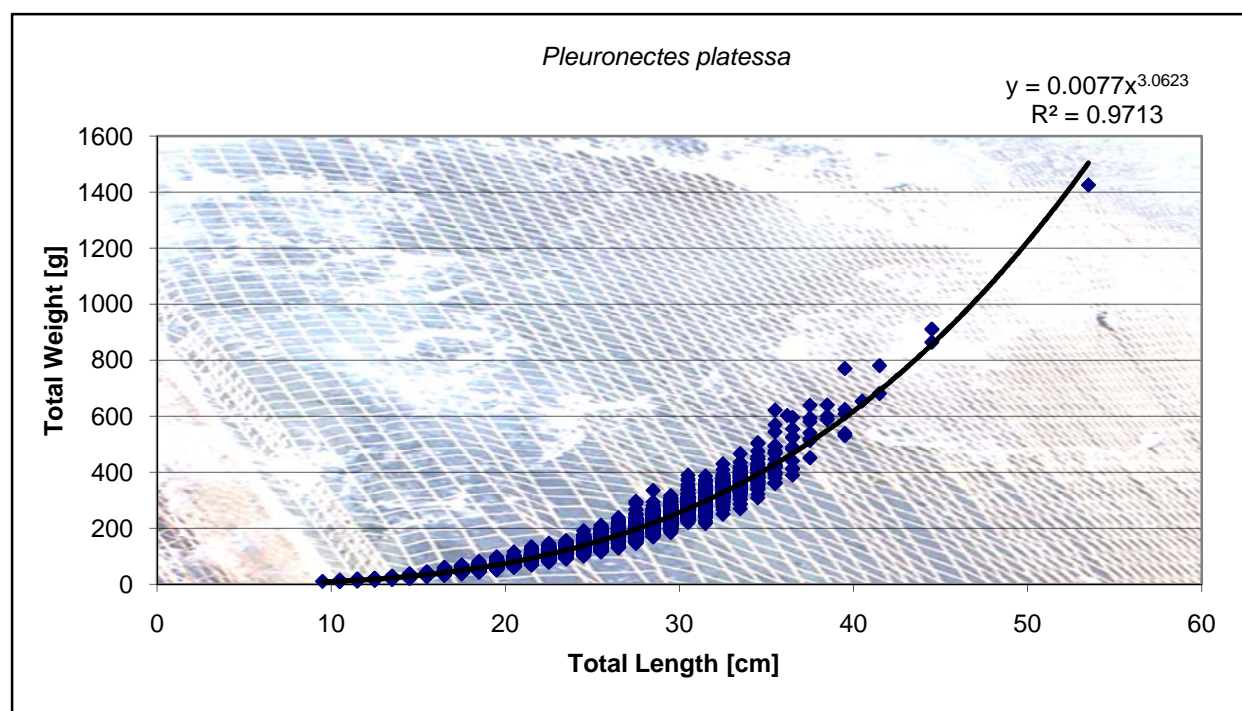
data collected

time period : 1998 - 2009

data source : research vessel, commercial trawler

numbers of data:

Quarter																							
1	2	3	4																				
1402	1929	1292	794																				
Month																							
1	2	3	4	5	6	7	8	9	10	11	12												
823	359	220	1101	132	696	569	525	198	410	216	168												
Subarea																							
1	2	3	4	5	6	7	8	9	10	12	14												
-	-	-	5417	-	-	-	-	-	-	-	-												
Division																							
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F				
-	-	-	-	-	-	-	456	4068	893	-	-	-	-	-	-	-	-	-	-				
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO													
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J	
123	77	339	74	80	4280	444	-	-						-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	5417
- cm below		female	-
min length	9.5 [cm]	undefined	-
max length	53.5 [cm]	total numbers of data	5417

Pollachius pollachius

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0107

b = 2.966

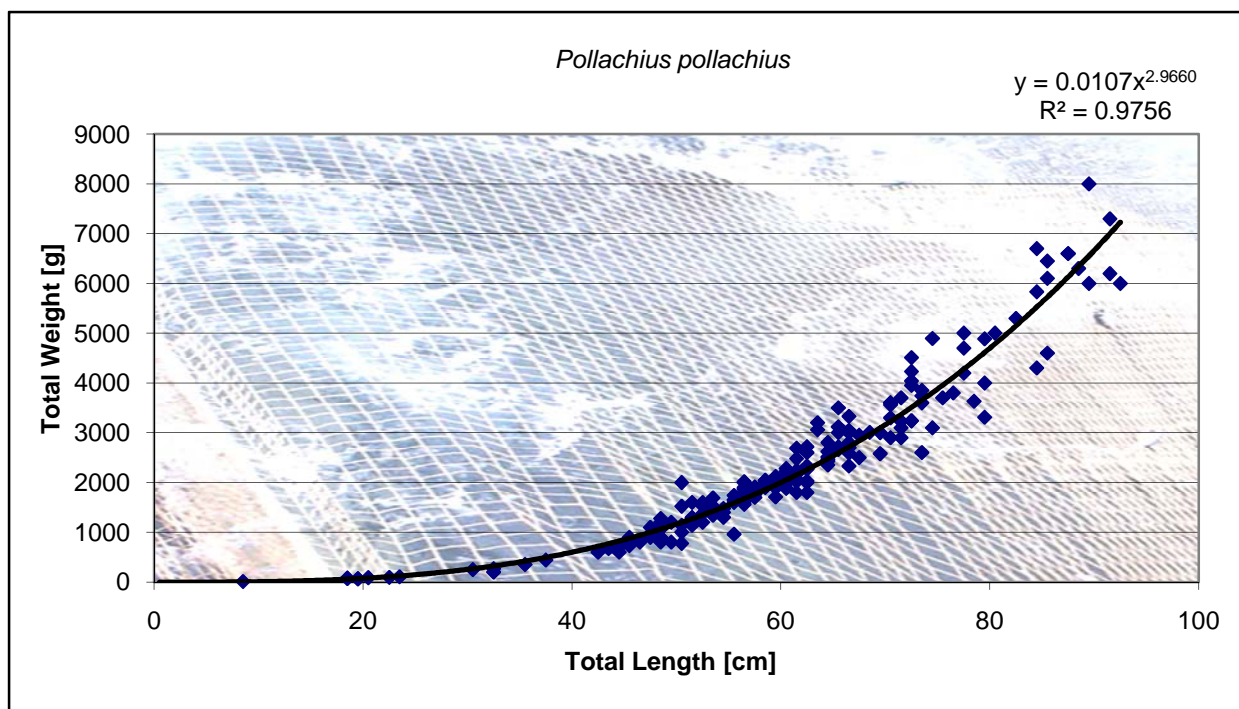
data collected

time period : 1959 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
90	17	35	41																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
44	33	13	9	2	6	23	5	7	-	37	4								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	154	-	12	16	1	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	119	33	2	-	-	12	-	-	4	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	1	8	-	1	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
108	6	2	1	1	16	19	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length
- cm below

min length
max length

8.5 [cm]
92.5 [cm]

male 18
female 27
undefined 138

total numbers of data 183

Pollachius virens

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0055

b = 3.1071

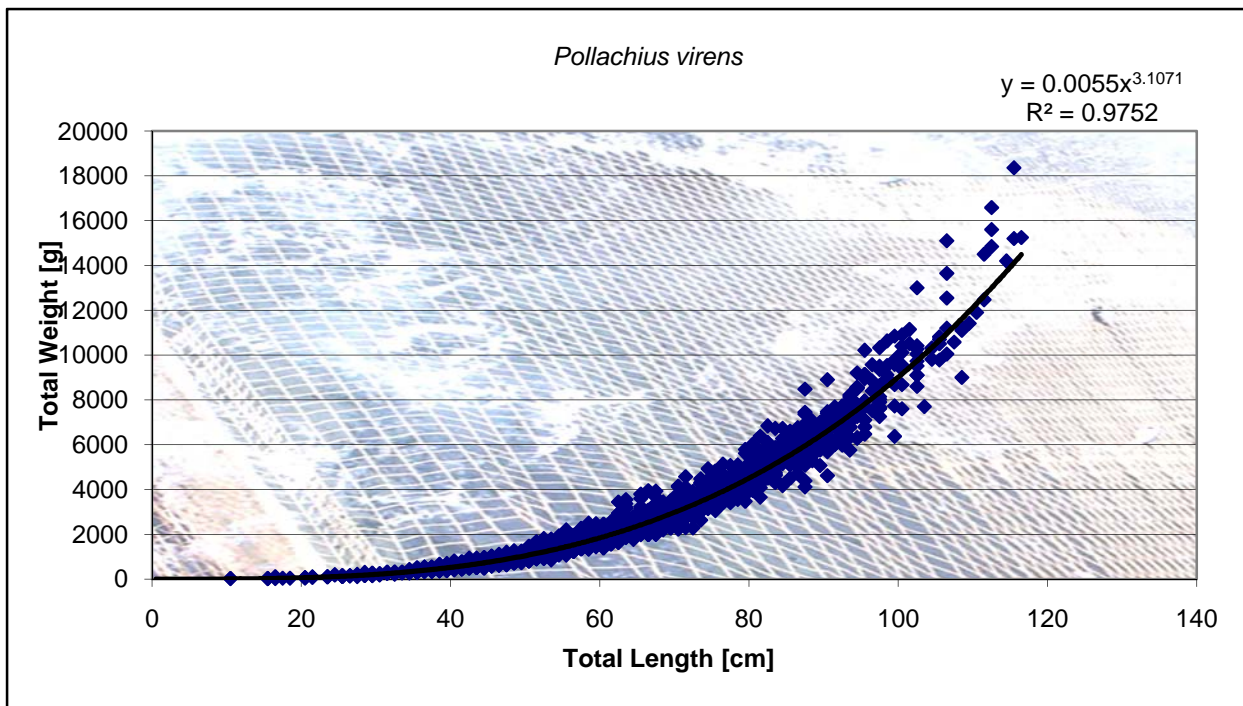
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
3809	215	642	11																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
1628	2071	110	3	187	25	508	132	2	-	6	5								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	2	-	4666	-	1	8	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	2	-	-	-	-	-	4549	115	2	-	-	1	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
2	-	5	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
4247	67	89	15	2	17	227	1	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	2456
- cm below		female	1919
min length	10.5 [cm]	undefined	302
max length	116.5 [cm]	total numbers of data	4677

Pollachius virens



Quarter: 1 - 3

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0043

b = 3.1692

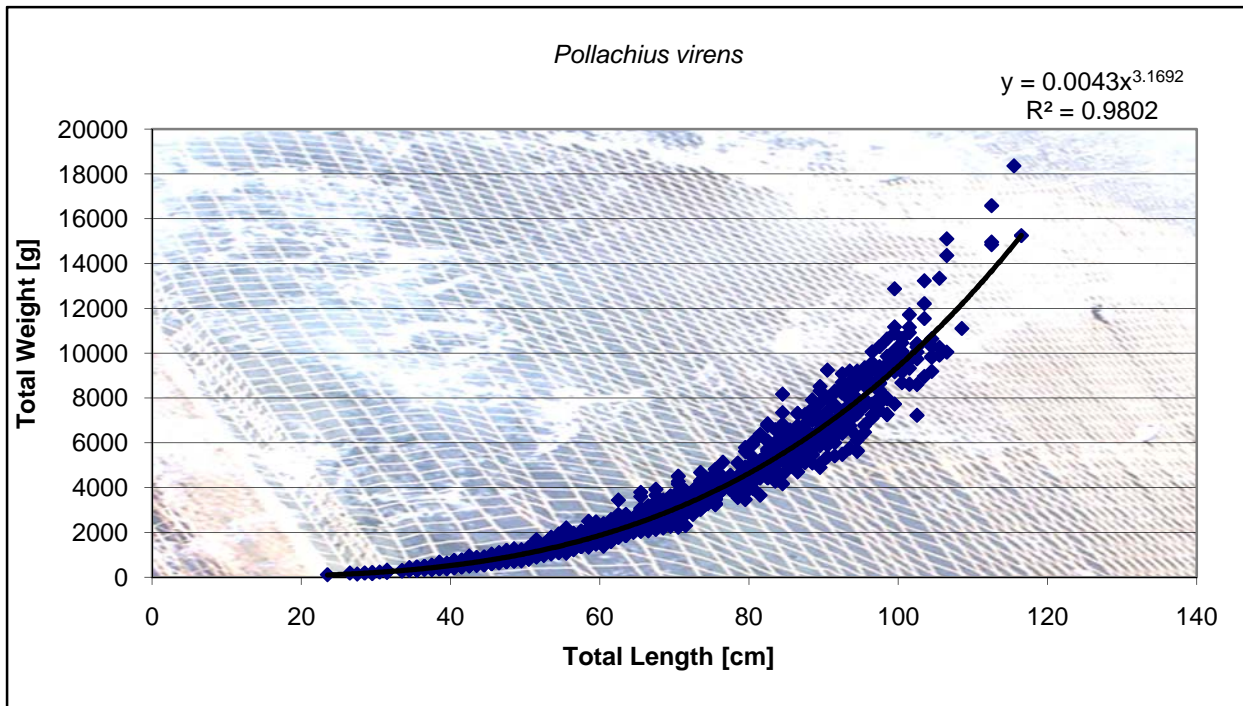
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
2244	134	240	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
750	1450	44	35	95	4	202	38	-	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	2618	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	2602	16	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
2439	14	13	1	-	1	115	-	-						-	-	-	-	-	-	-	-	-

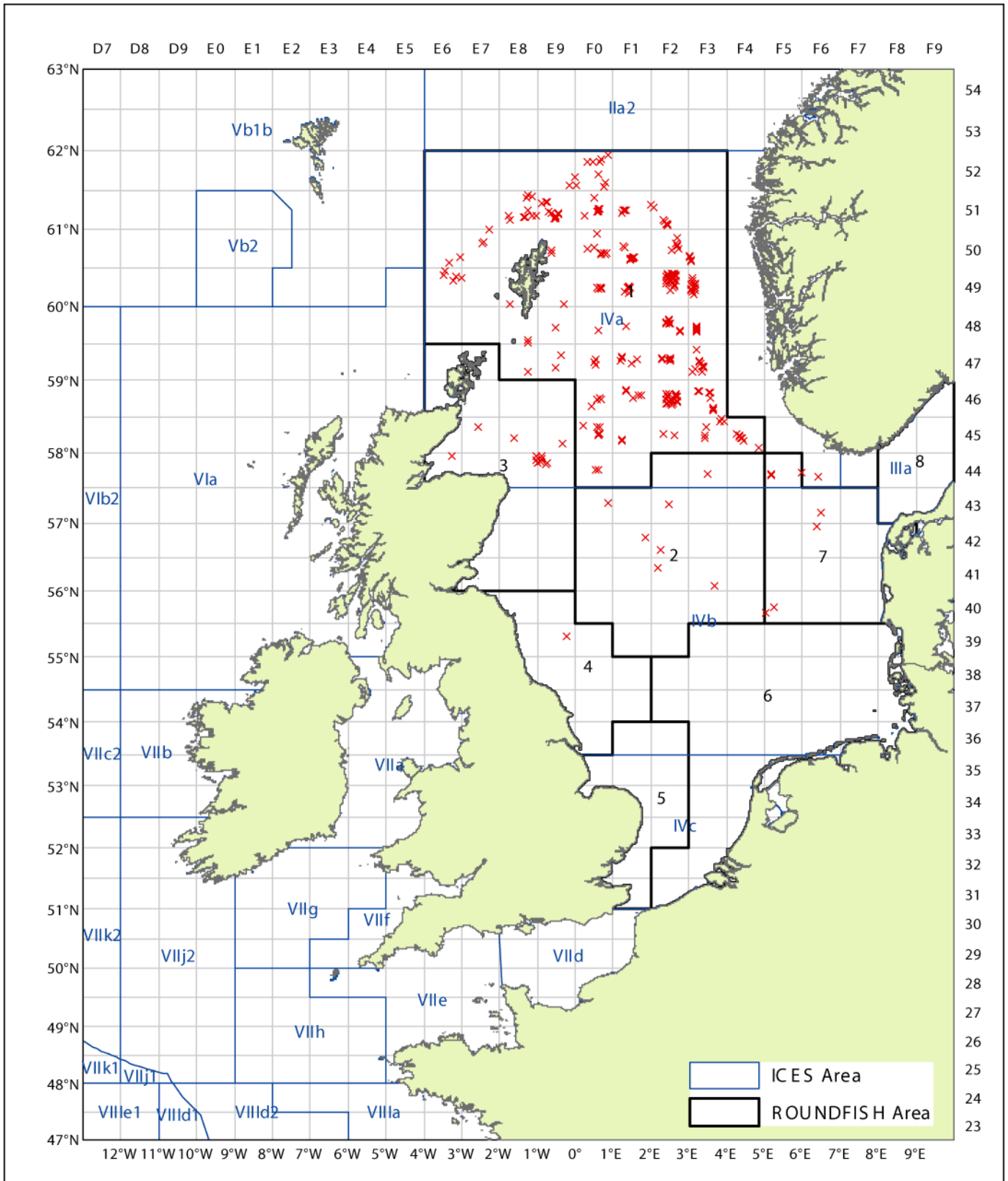


Method of Measurement

- Total length		male	-
- cm below		female	2618
min length	23.5 [cm]	undefined	-
max length	116.5 [cm]	total numbers of data	2618

Pollachius virens ♂

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens



Quarter: 1 - 3

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0049

b = 3.1328

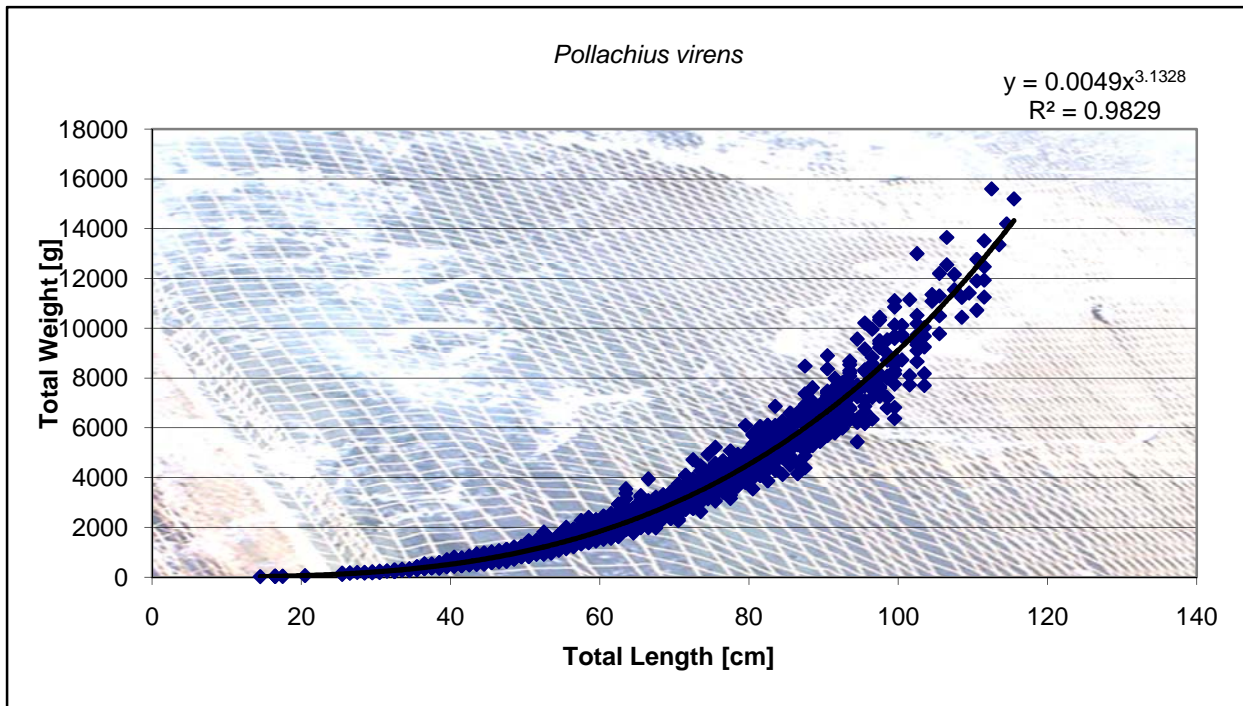
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
2779	115	262	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
876	1851	52	21	86	8	219	43	-	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	3156	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	3139	17	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
3003	8	20	2	-	-	102	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	3156
- cm below		female	-
min length	14.5 [cm]	undefined	-
max length	115.5 [cm]	total numbers of data	3156

Pollachius virens

Quarter: 1

$$TW [g] = a * L [cm]^b$$

a = 0.004

b = 3.1853

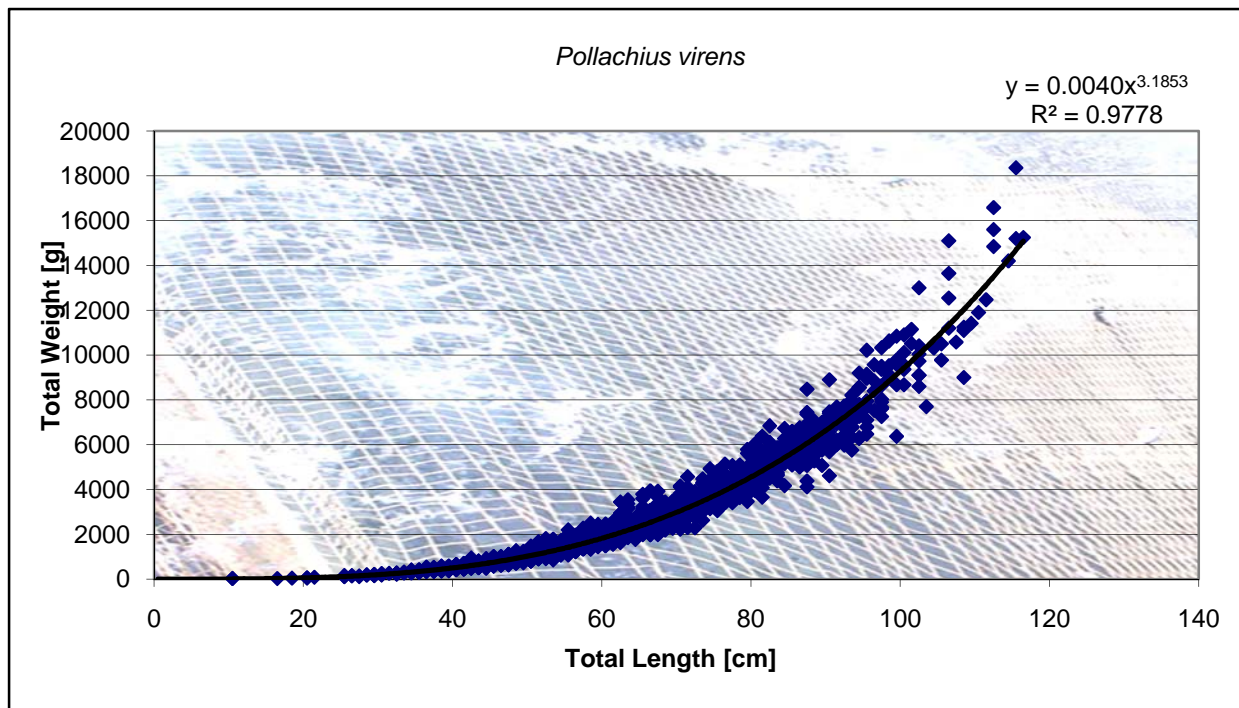
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
3809	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
1628	2071	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	2	-	3801	-	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	2	-	-	-	-	-	3770	31	-	-	-	1	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	-	4	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
3534	25	23	-	-	6	213	-	-	-	-	-	-	-	-	-	-	-	-	-

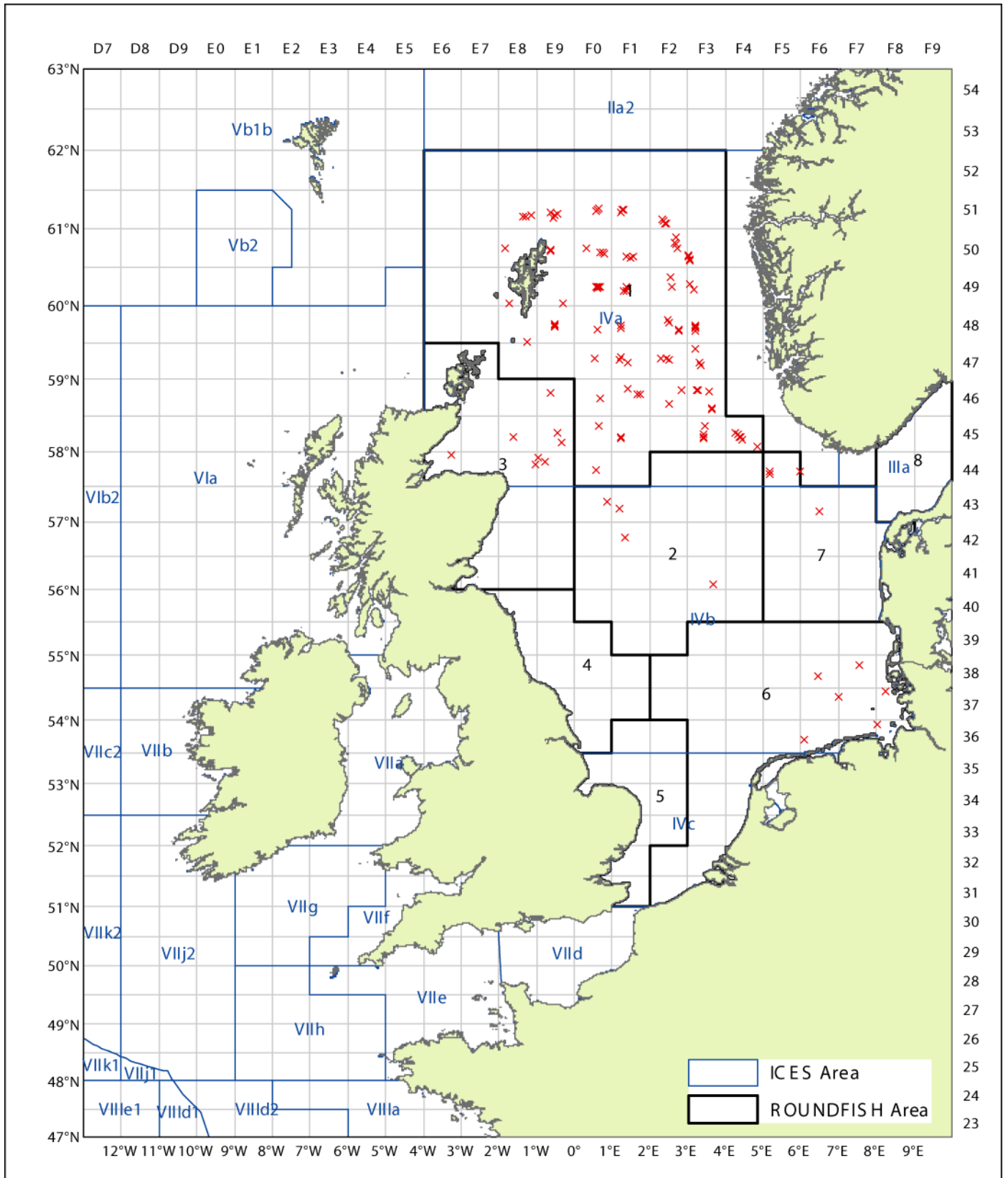


Method of Measurement

- Total length		male	2105
- cm below		female	1581
		undefined	123
min length	10.5 [cm]		
max length	116.5 [cm]		
		total numbers of data	3809

Pollachius virens January

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens

January

$$Tw [g] = a * L [cm]^b$$

a = 0.0032

b = 3.2409

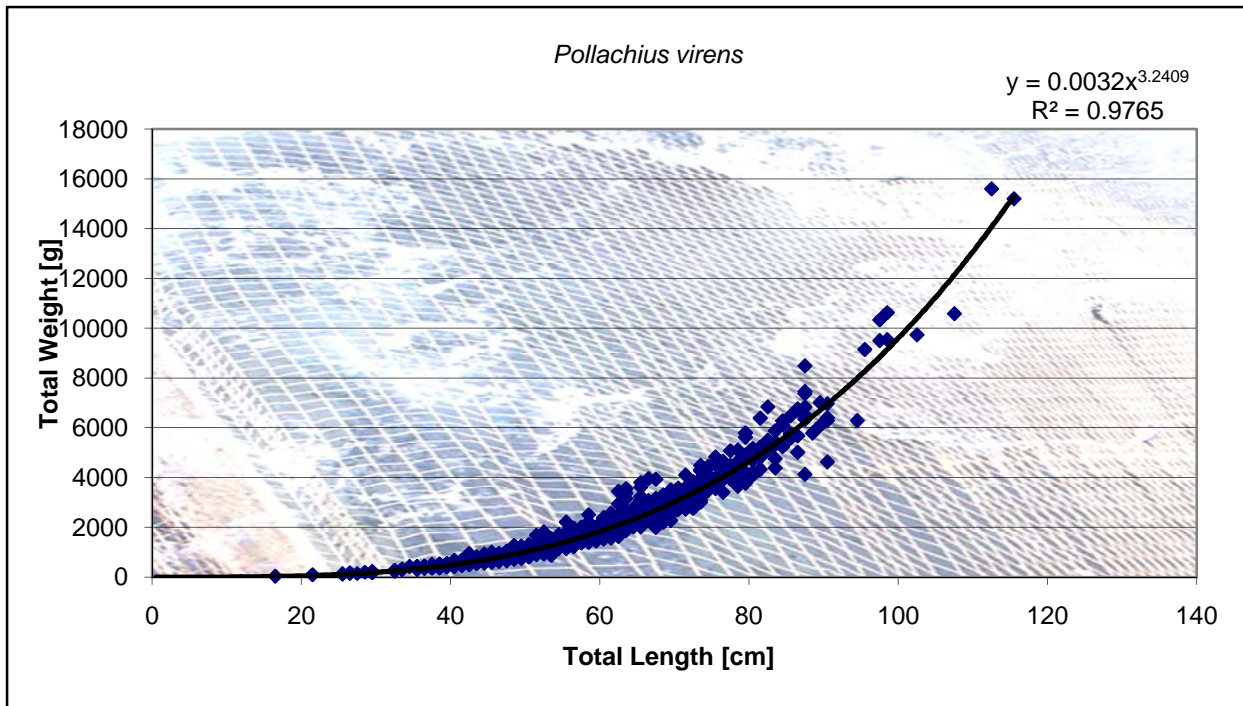
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
1628	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
1628	-	-	-	-	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	1628	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	1604	24	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
1408	14	13	-	-	6	187	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

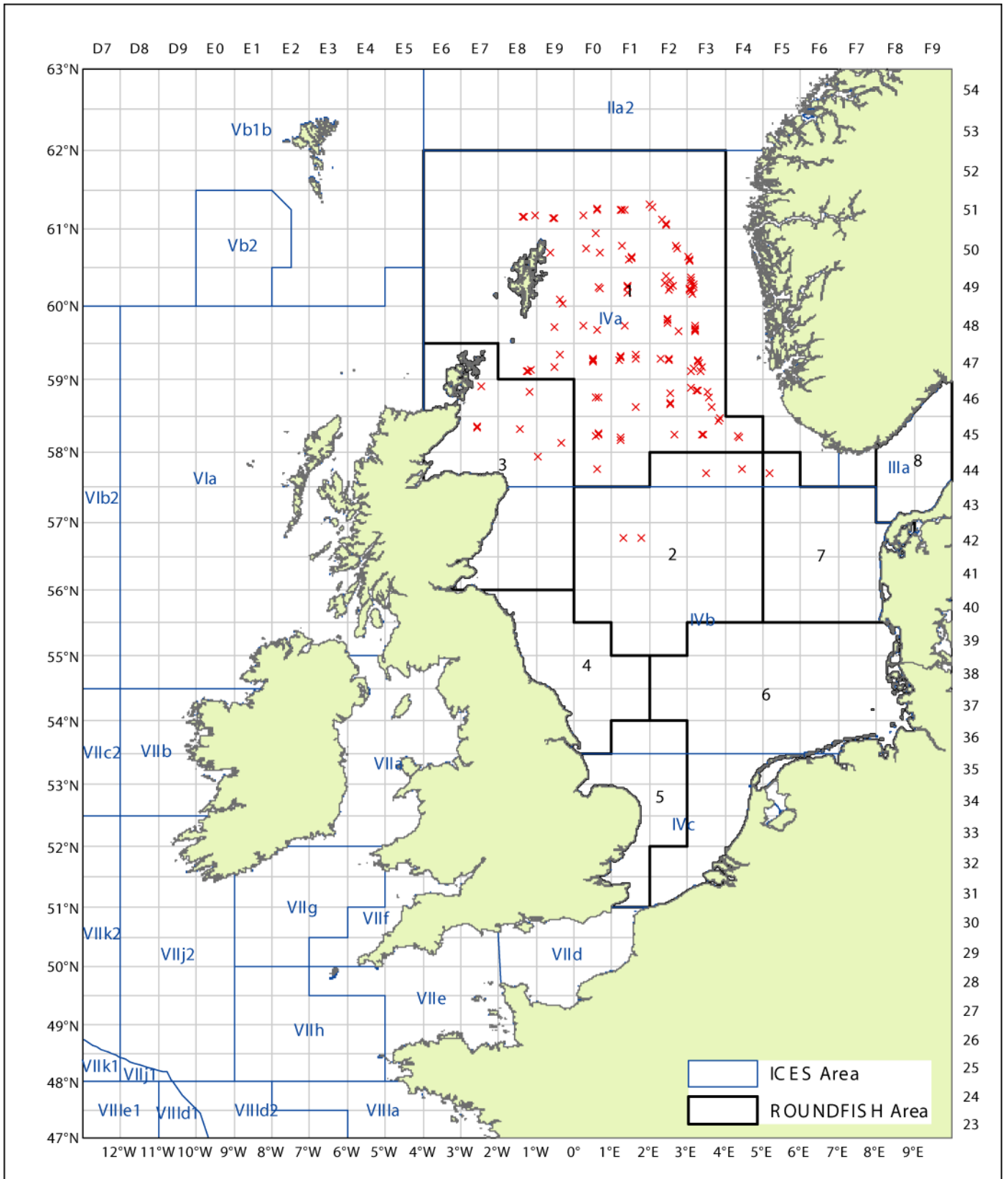


Method of Measurement

- Total length		male	852
- cm below		female	725
		undefined	51
min length	16.5 [cm]		
max length	115.5 [cm]		
		total numbers of data	1628

Pollachius virens February

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens

February

$$Tw [g] = a * L [cm]^b$$

a = 0.0044

b = 3.1573

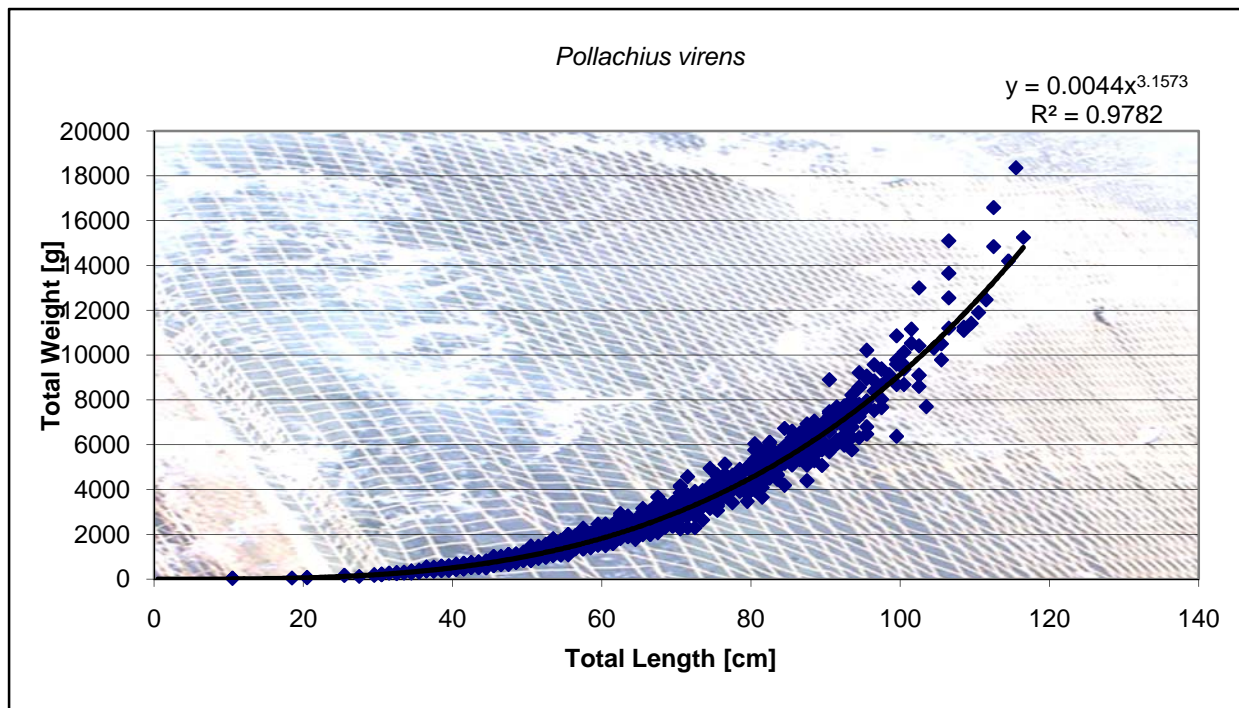
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
2071	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	2071	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2071	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2068	3	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
2028	7	10	-	-	-	26	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	1200
- cm below		female	812
min length	10.5 [cm]	undefined	59
max length	116.5 [cm]	total numbers of data	2071

Pollachius virens

March

$$TW [g] = a * L [cm]^b$$

a = 0.0065

b = 3.0596

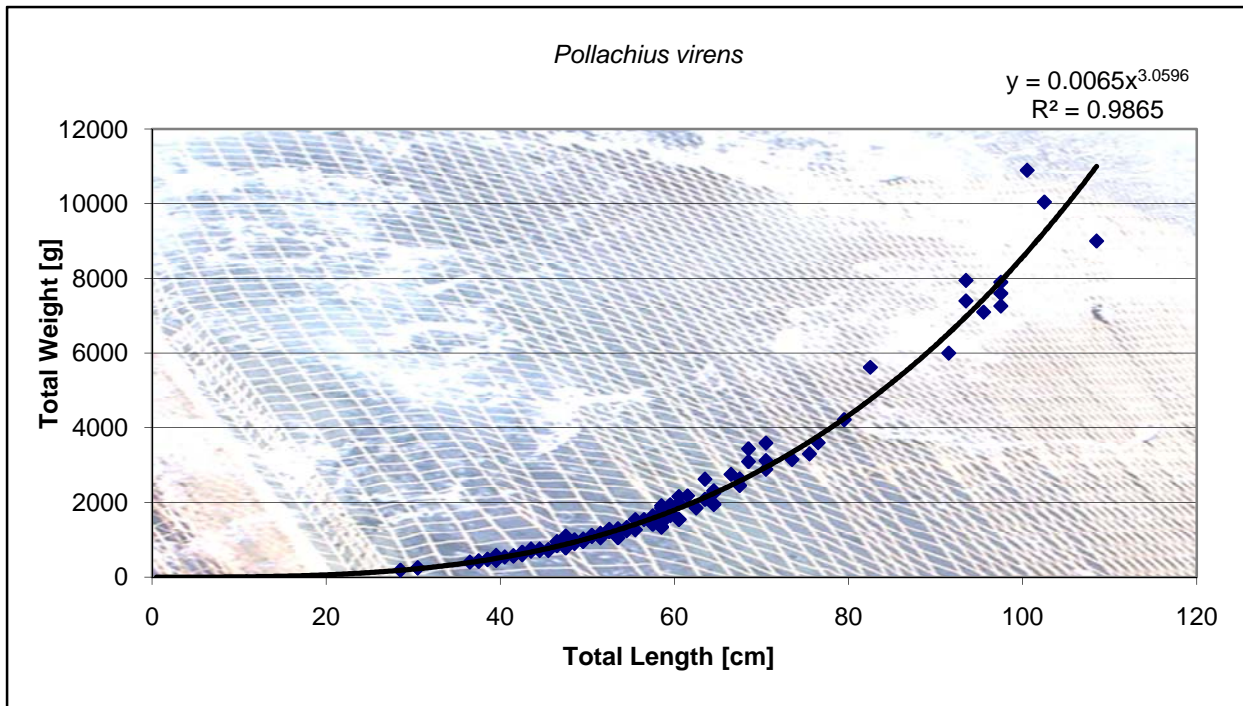
data collected

time period : 1994 - 2003

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
109	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	109	-	-	-	-	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	2	-	101	-	1	5	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	2	-	-	-	-	-	97	4	-	-	-	1	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	-	4	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
97	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	52
- cm below		female	44
		undefined	13
min length	28.5 [cm]		
max length	108.5 [cm]		
		total numbers of data	109

Pollachius virens

Quarter: 2

$$TW [g] = a * L [cm]^b$$

a = 0.0164

b = 2.8586

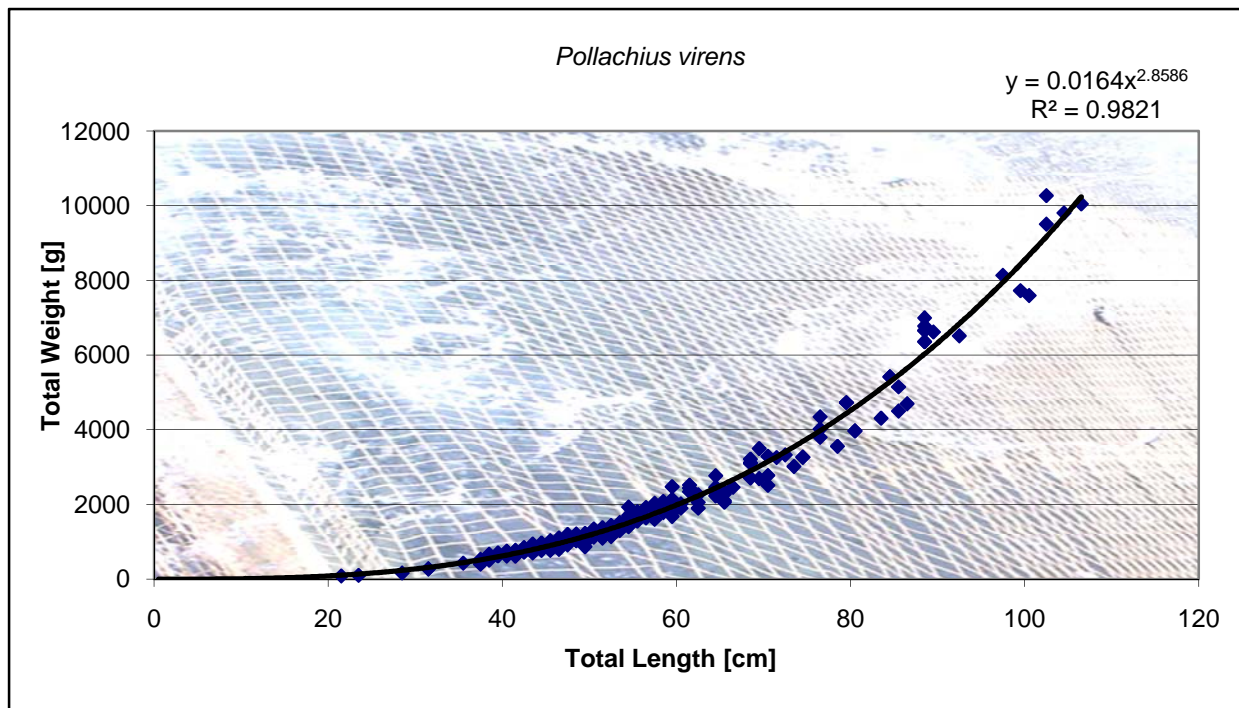
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	215	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	3	187	25	-	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	212	-	-	3	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	201	11	-	-	-	-	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	-	1	-	-	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
186	8	15	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	90
- cm below		female	99
min length	21.5 [cm]	undefined	26
max length	106.5 [cm]	total numbers of data	215

Pollachius virens

May

$$TW [g] = a * L [cm]^b$$

a = 0.0204

b = 2.8079

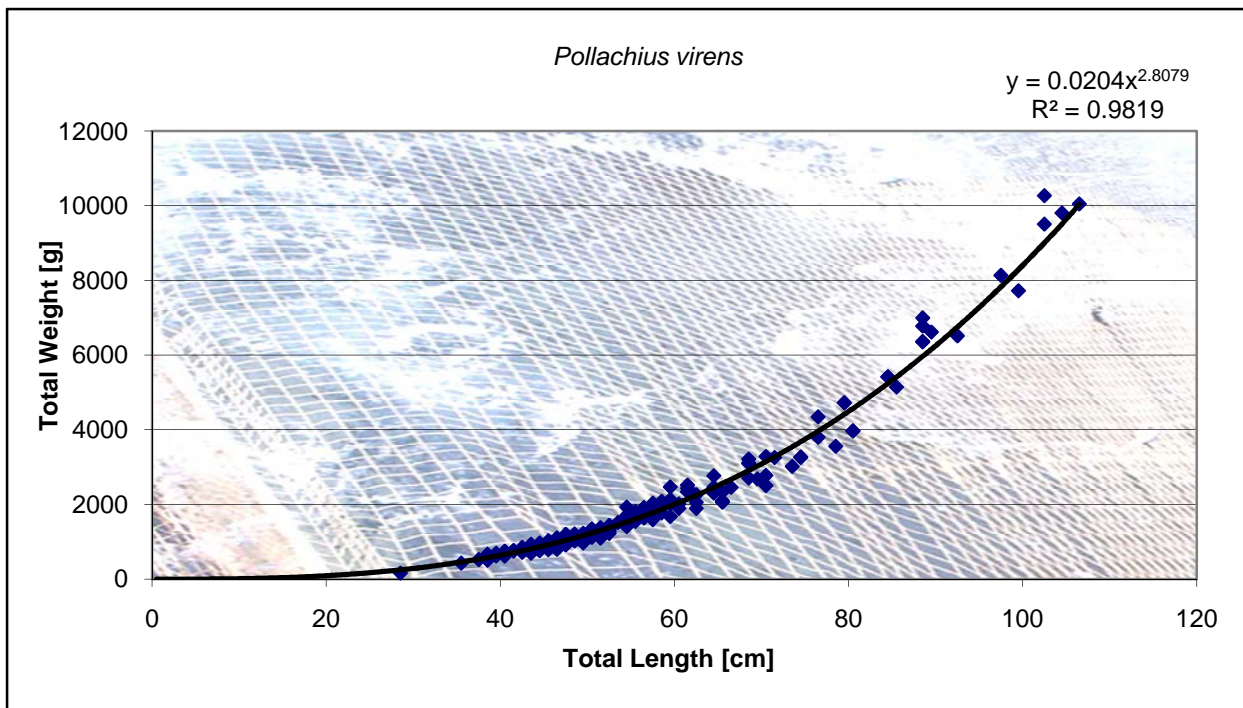
data collected

time period : 1994 - 1995

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	187	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	187	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	187	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	185	2	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J			
185	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

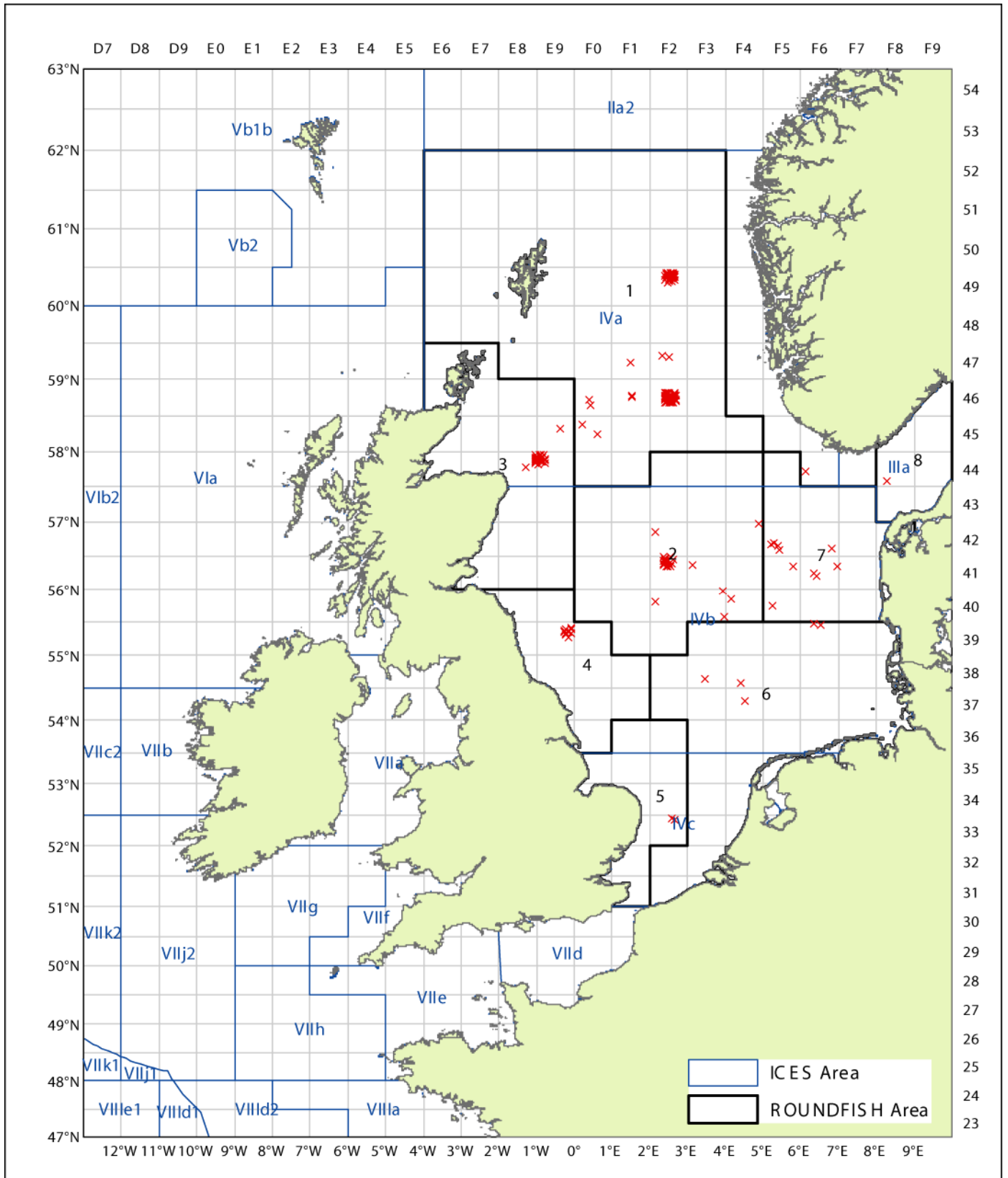


Method of Measurement

- Total length		male	86
- cm below		female	95
		undefined	6
min length	28.5 [cm]		
max length	106.5 [cm]		
		total numbers of data	187

Pollachius virens Quarter 3

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens

Quarter: 3

$$TW [g] = a * L [cm]^b$$

a = 0.0103

b = 2.9632

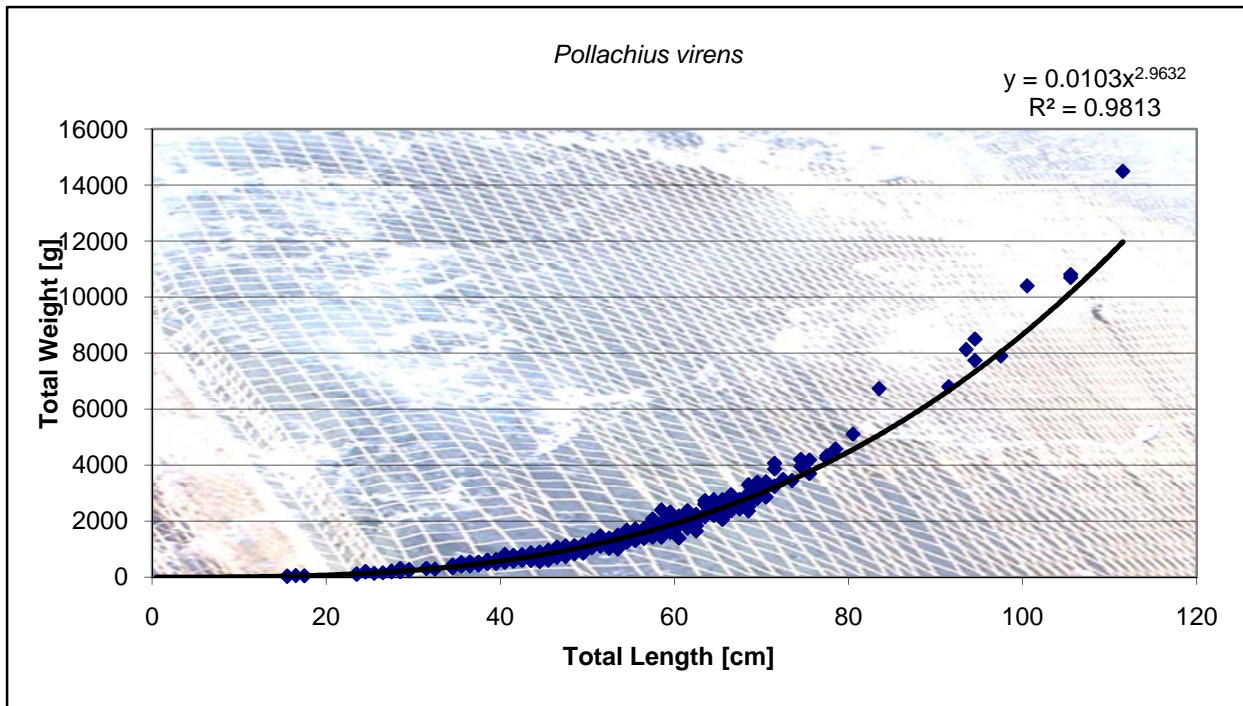
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	642	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	508	132	2	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	642	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	578	62	2	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
527	33	47	15	2	5	11	1	-		-	-	-	-	-	-	-	-	-	

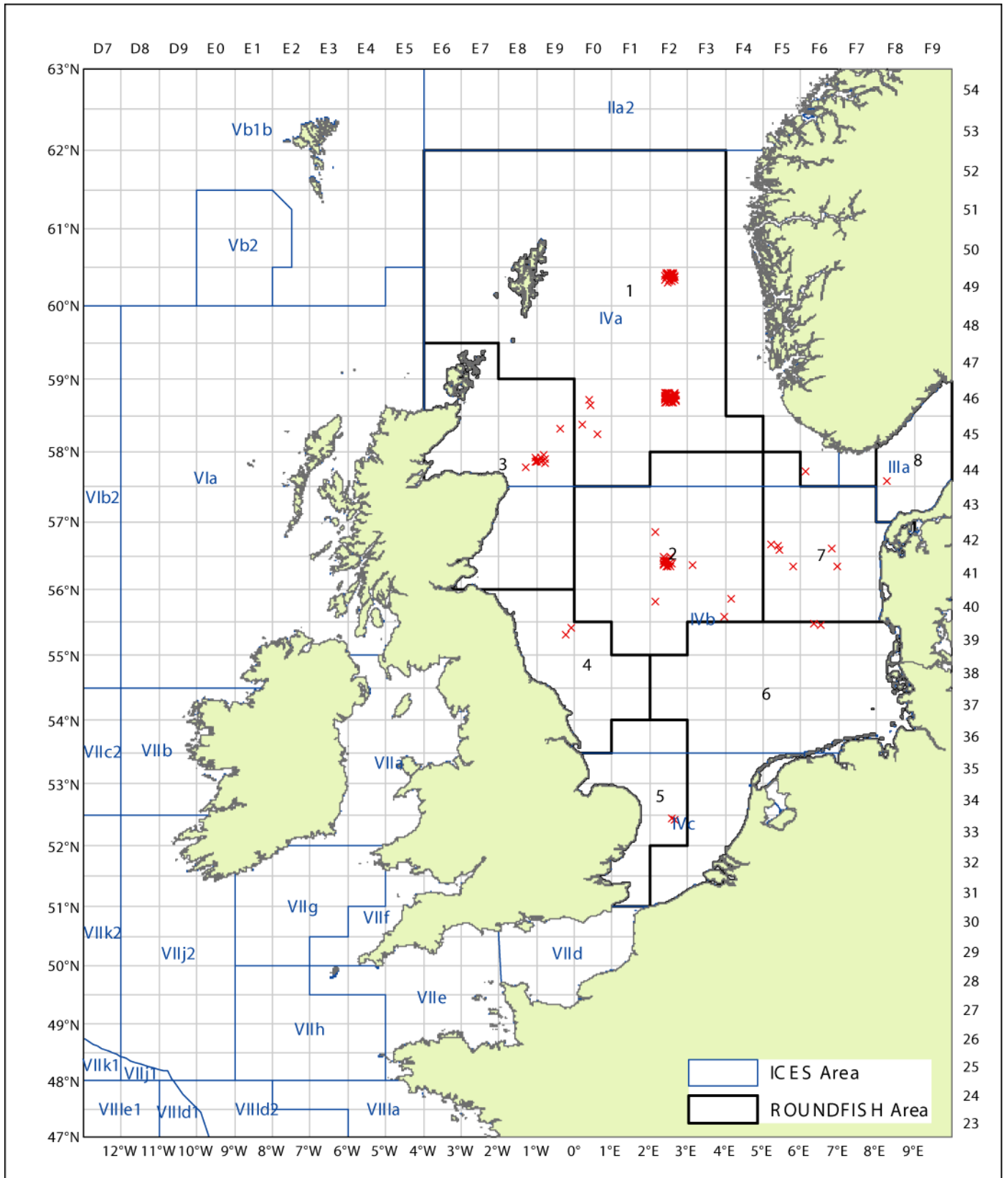


Method of Measurement

- Total length		male	261
- cm below		female	239
		undefined	142
min length	15.5 [cm]		
max length	111.5 [cm]		
		total numbers of data	642

Pollachius virens July

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens

July

$$TW [g] = a * L [cm]^b$$

a = 0.0107

b = 2.9549

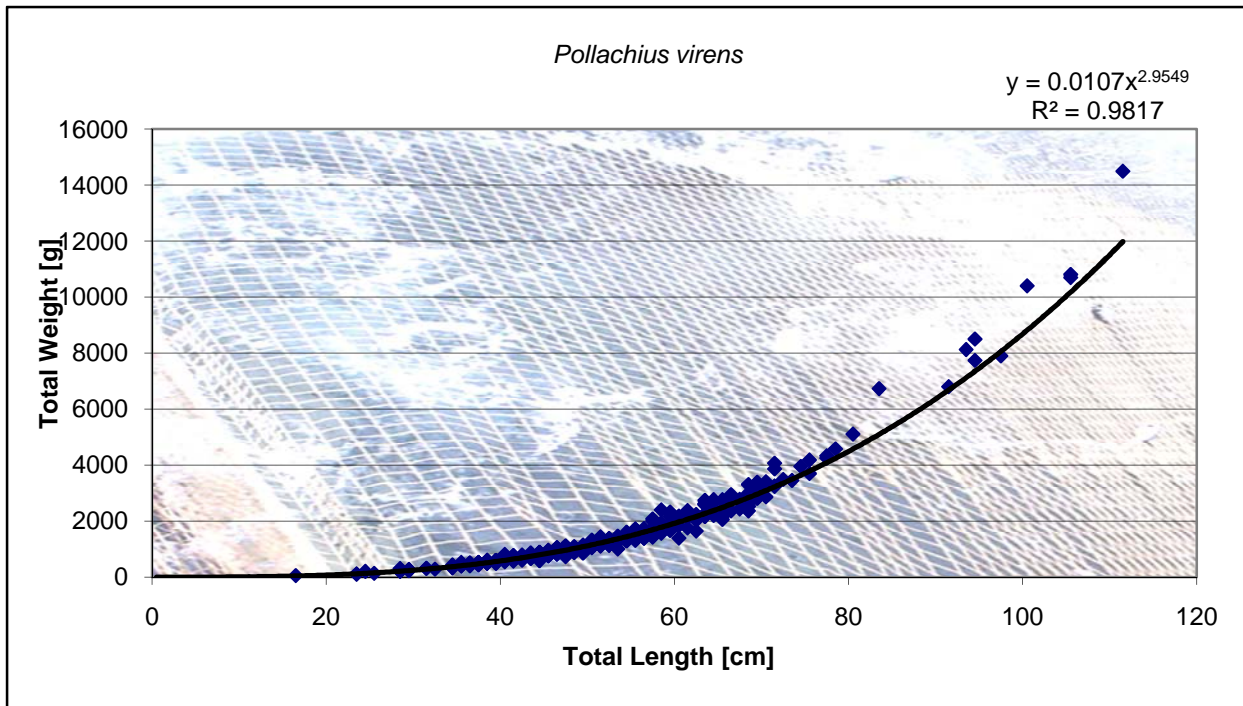
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	508	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	508	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	508	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	470	36	2	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
452	24	17	3	2	2	6	1	-	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

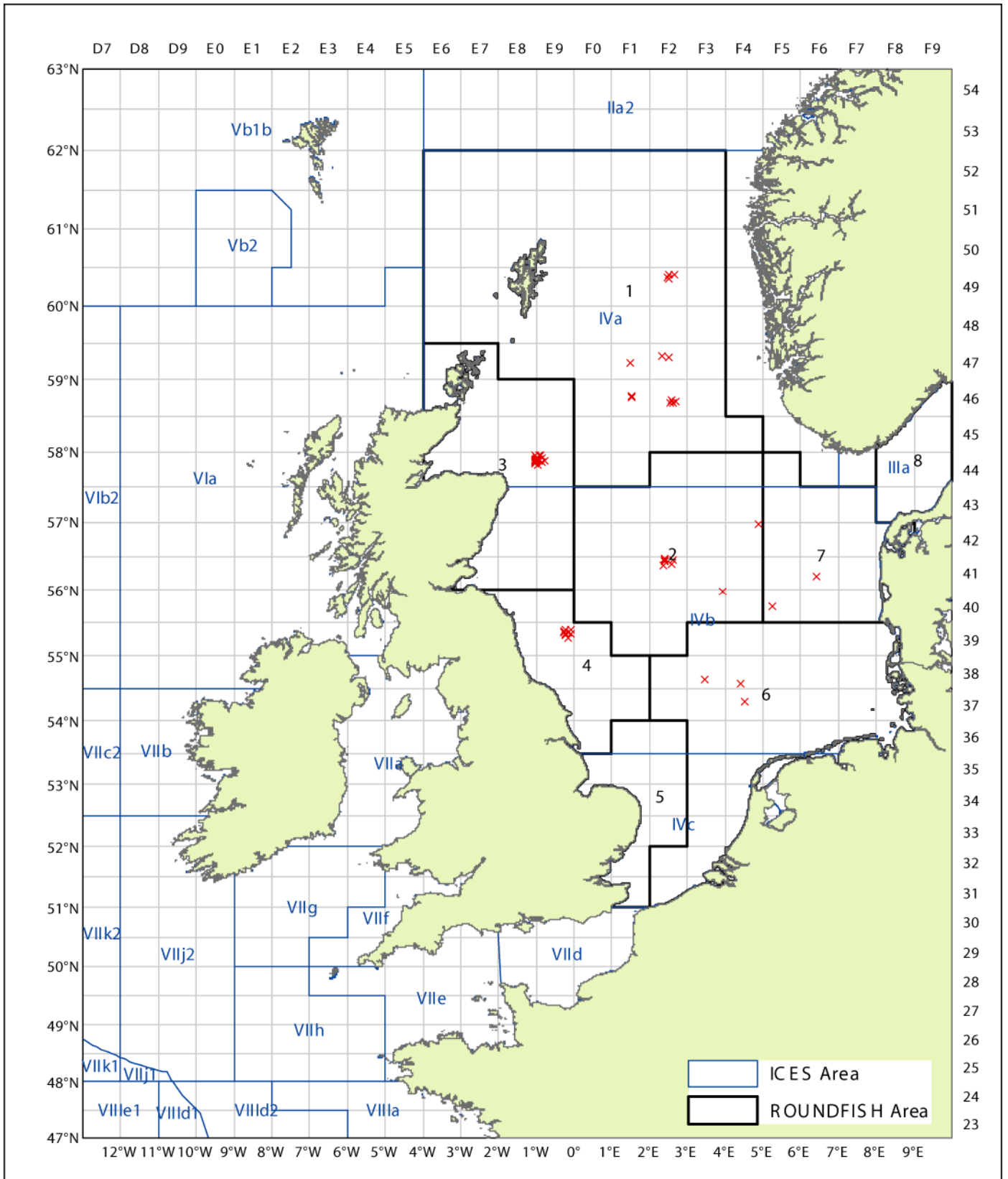


Method of Measurement

- Total length		male	219
- cm below		female	202
min length	16.5 [cm]	undefined	87
max length	111.5 [cm]	total numbers of data	508

Pollachius virens August

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens

August

$$TW [g] = a * L [cm]^b$$

a = 0.0105

b = 2.9504

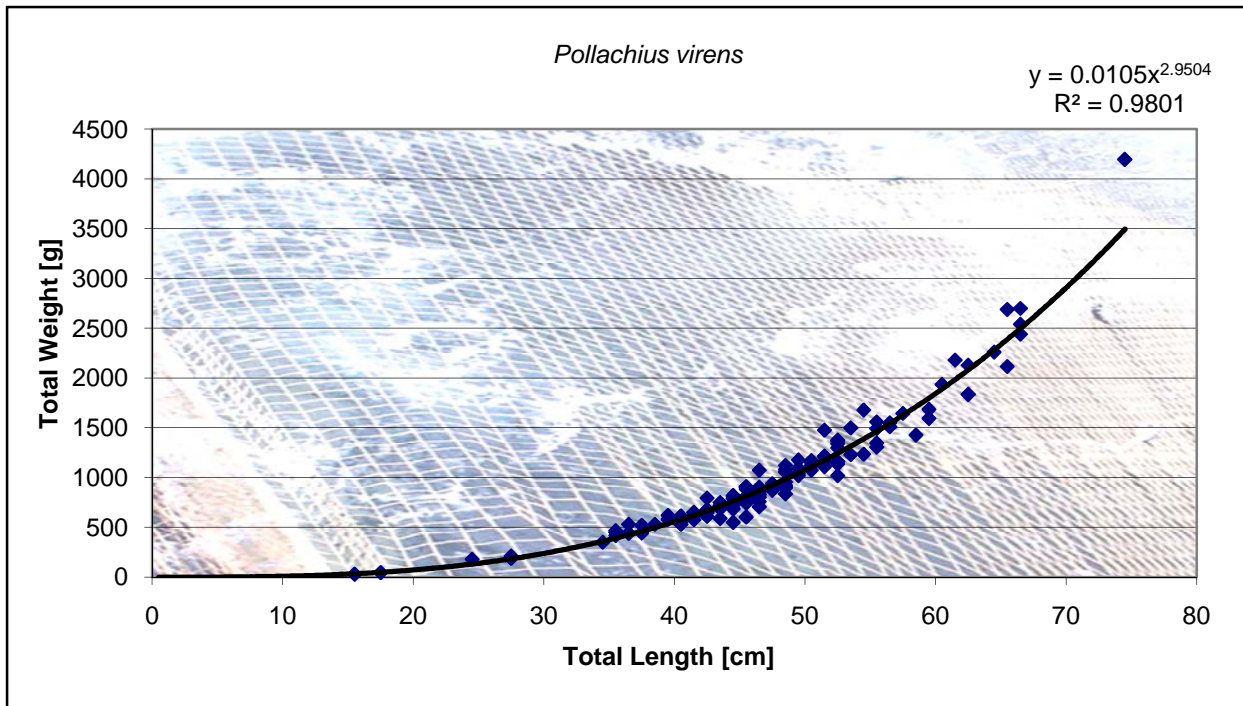
data collected

time period : 1997 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	132	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	132	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	132	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	108	24	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
75	9	30	12	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-

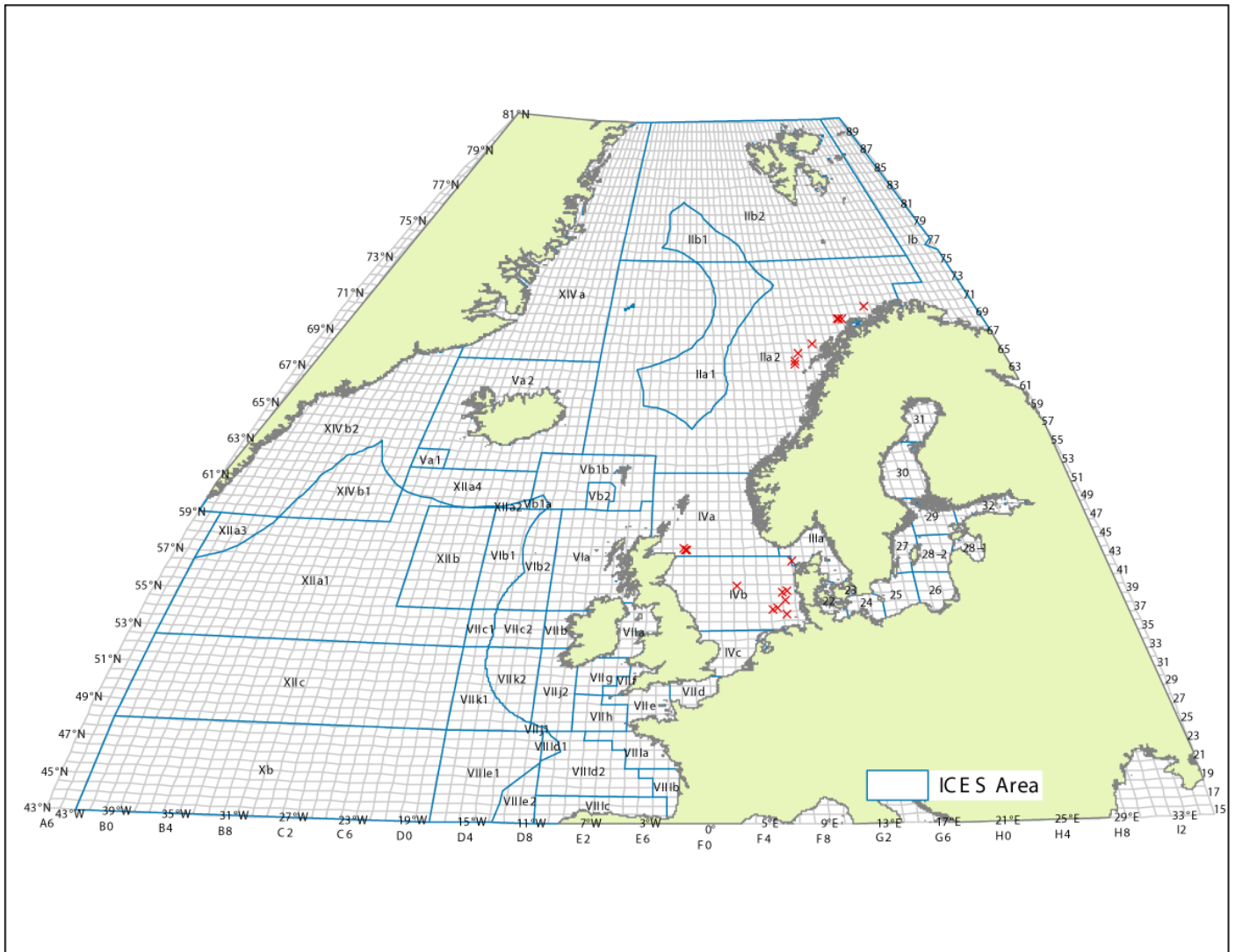


Method of Measurement

- Total length		male	42
- cm below		female	37
		undefined	53
min length	15.5 [cm]		
max length	74.5 [cm]		
		total numbers of data	132

Pollachius virens Quarter 4

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens

Quarter: 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0077

b = 3.0455

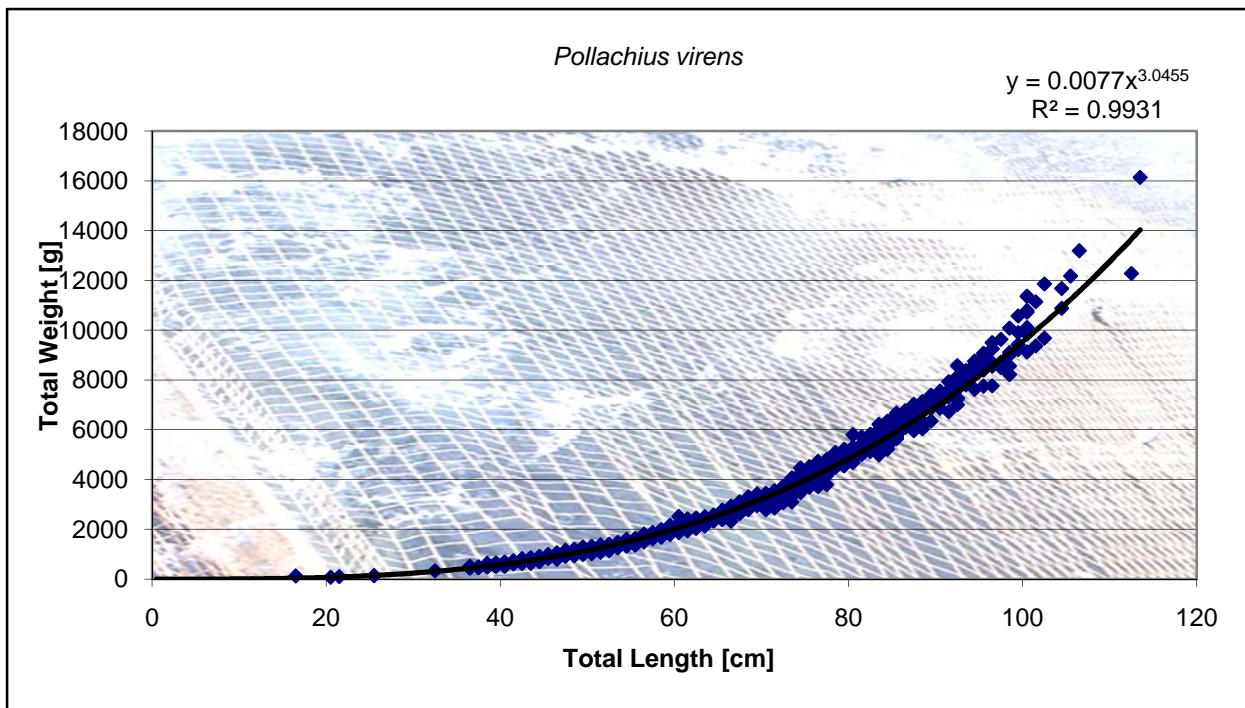
data collected

time period : 1996 - 2006

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	1055																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	551	498	6								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	1043	1	11	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	1043	-	1	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	1	4	-	-	6	-	1	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	-
- cm below		female	-
min length	16.5 [cm]	undefined	1055
max length	113.5 [cm]	total numbers of data	1055

Pollachius virens

October

$$TW [g] = a * L [cm]^b$$

a = 0.0106

b = 2.9637

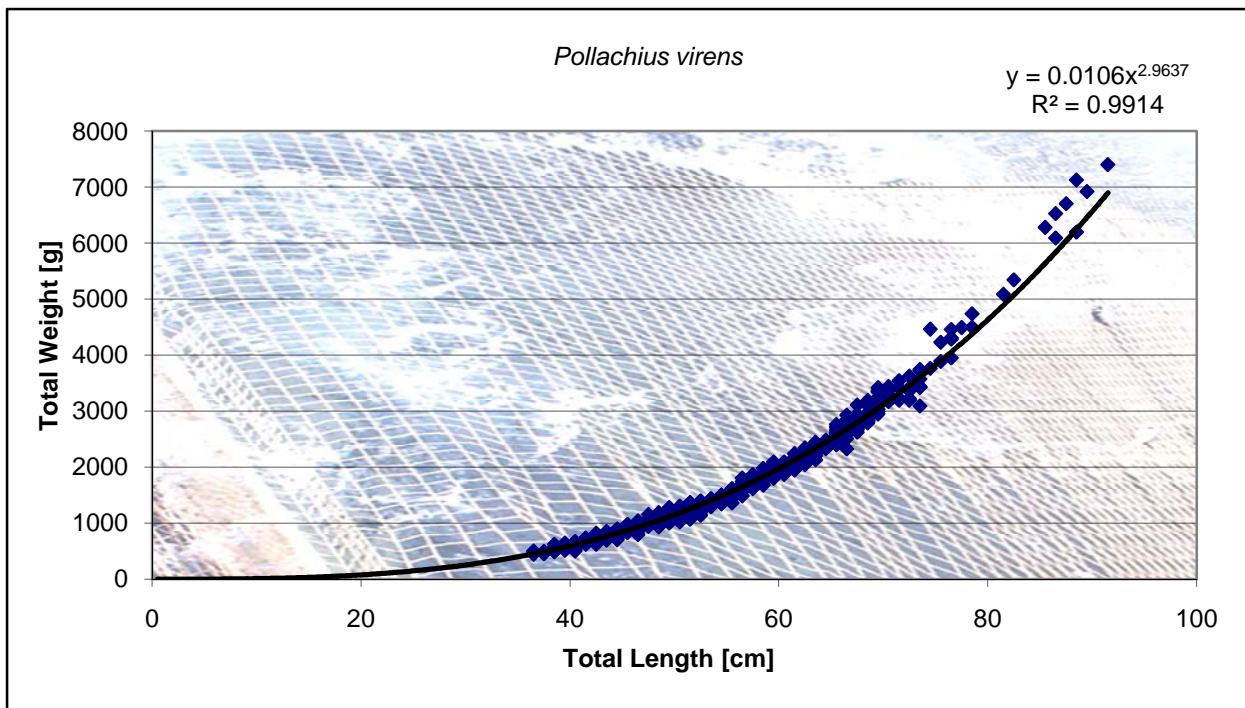
data collected

time period : 2002

data source : commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	551																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	551	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	551	-	-	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	551	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

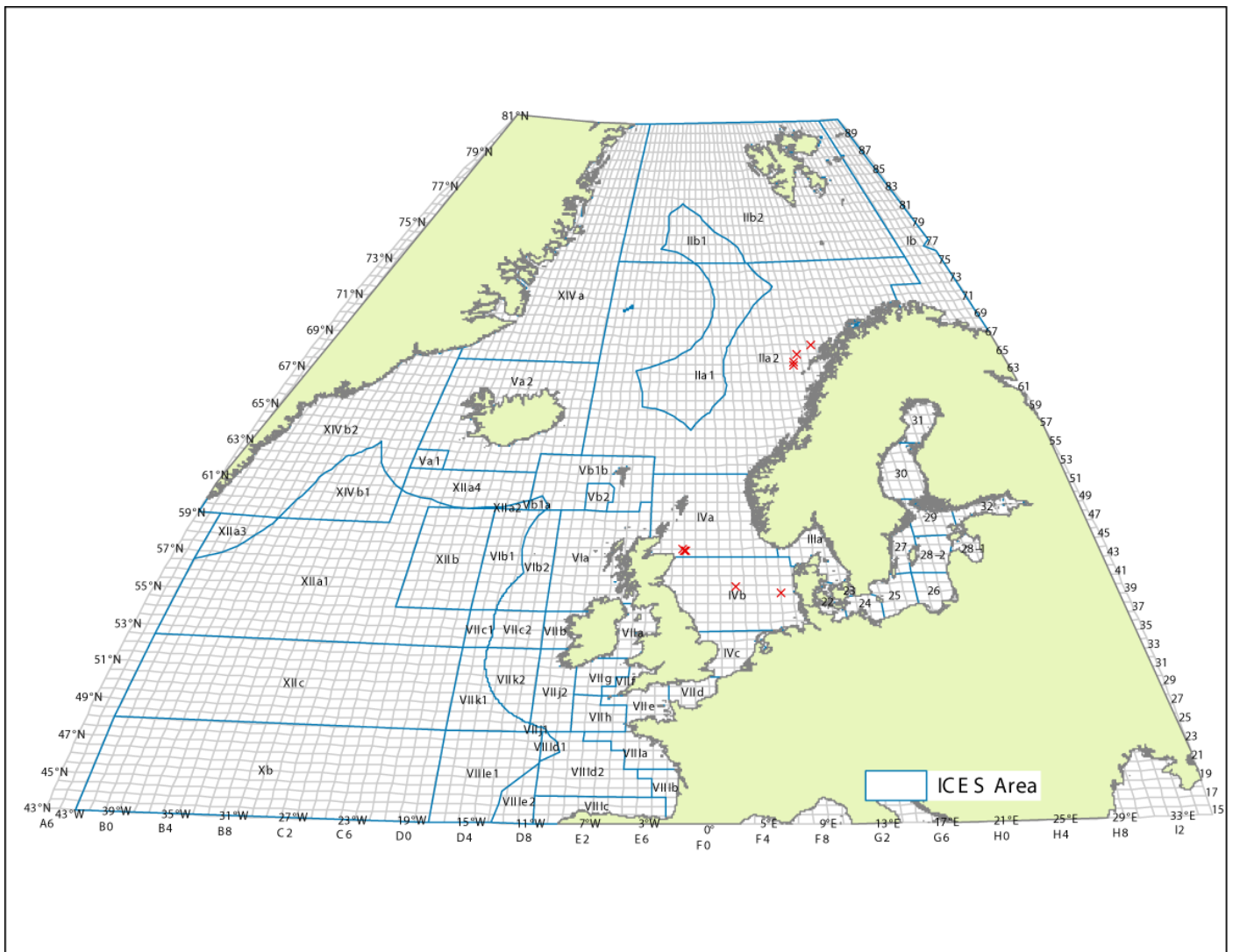


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	36.5 [cm]	undefined	551
max length	91.5 [cm]	total numbers of data	551

Pollachius virens November

Geographical distribution of data used for calculating the length-weight relationship



Pollachius virens

November

$$Tw [g] = a * L [cm]^b$$

a = 0.0054

b = 3.1297

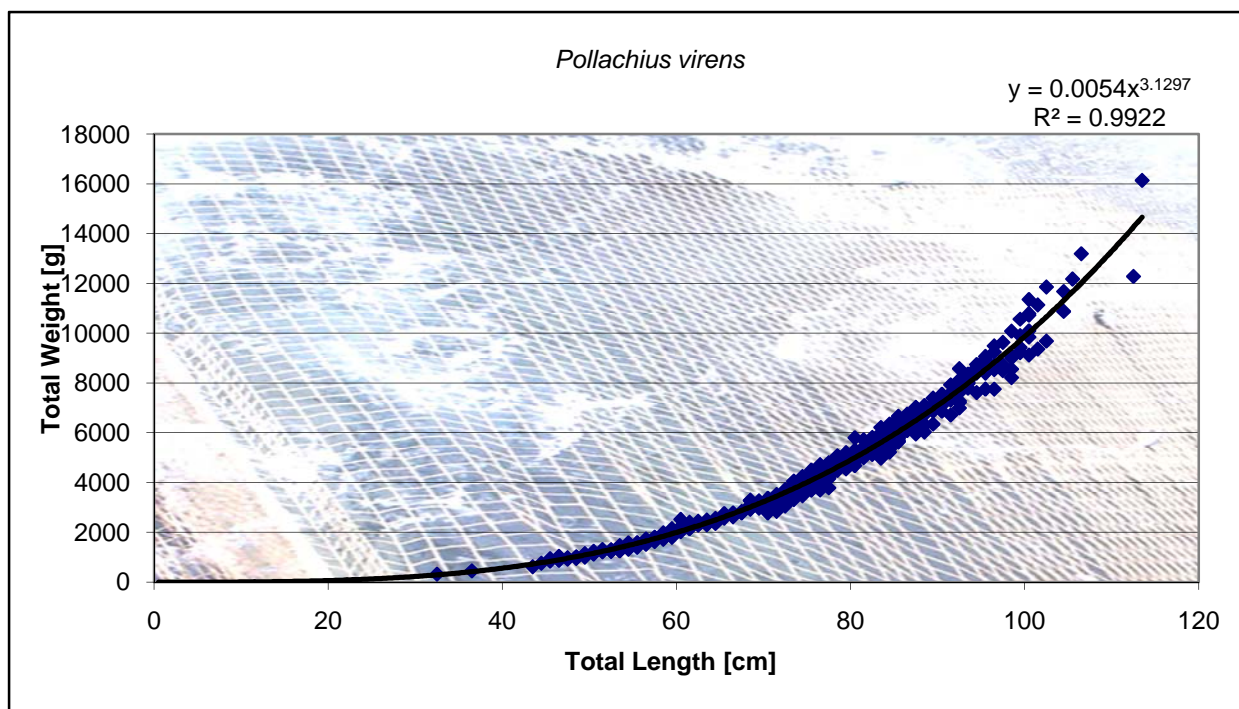
data collected

time period : 1997 - 2006

data source : research vessel, commercial trawler

numbers of data:

Quarter																				
1	2	3	4																	
-	-	-	498																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	-	-	-	-	498	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	492	-	6	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	492	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	1	4	-	-	1	-	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

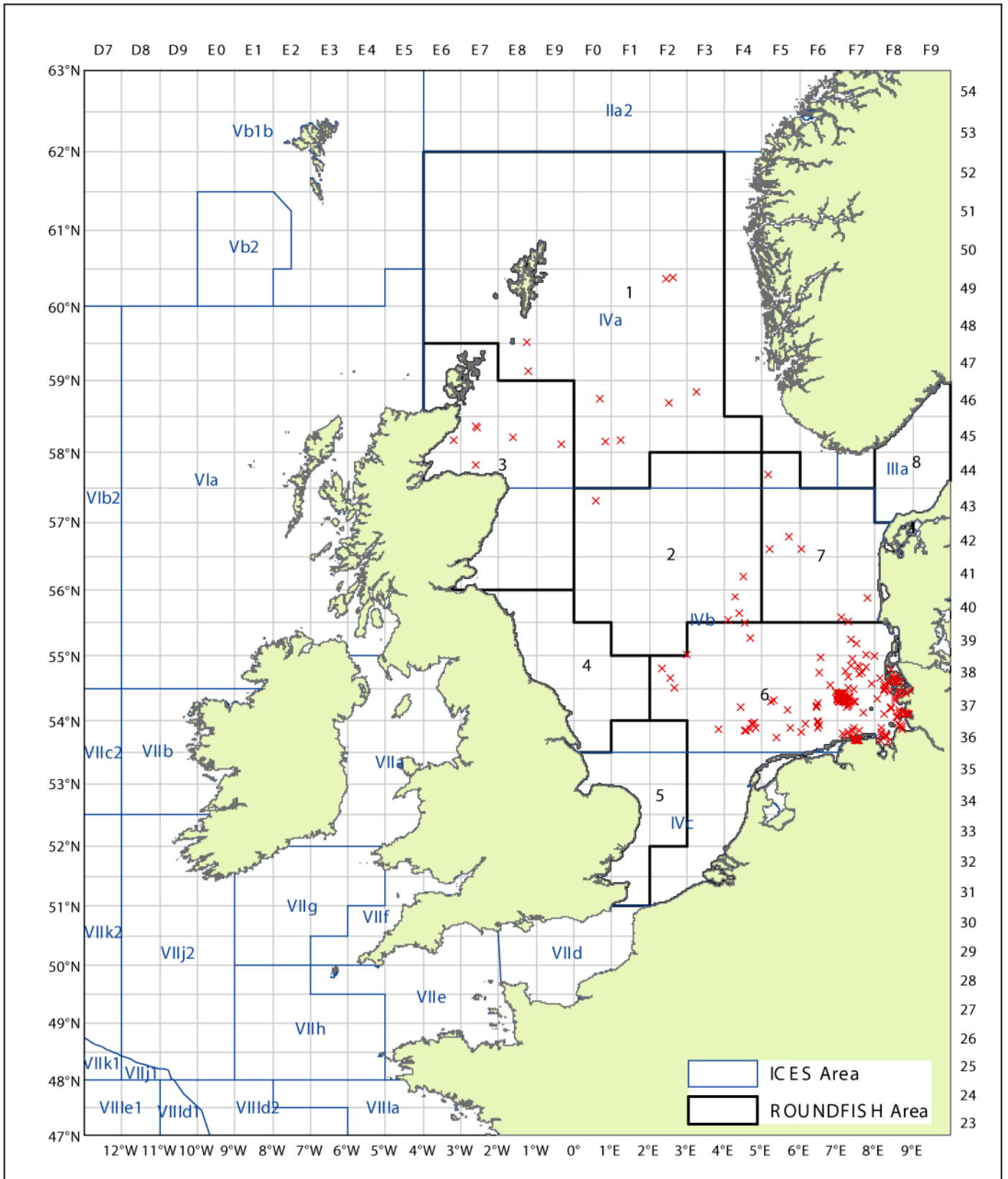


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	32.5 [cm]	undefined	498
max length	113.5 [cm]	total numbers of data	498

Pomatoschistus minutus

Geographical distribution of data used for calculating the length-weight relationship



Pomatoschistus minutus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.01

b = 2.8976

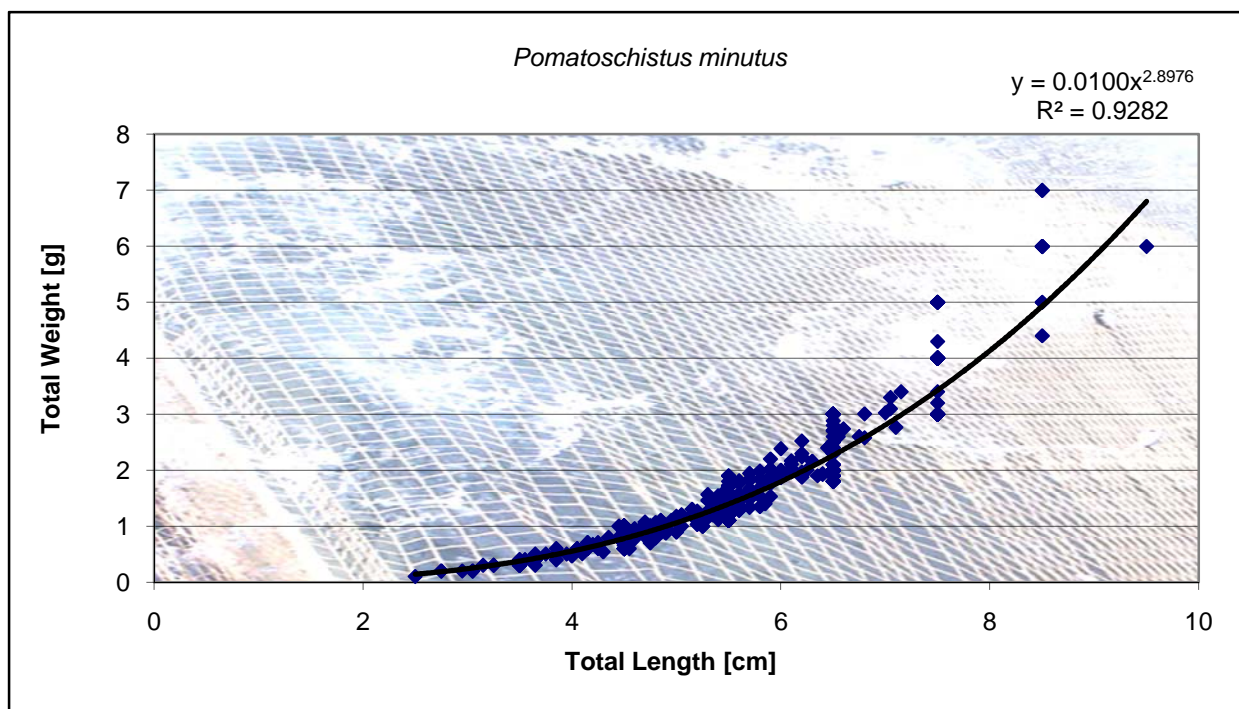
data collected

time period : 1998 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
286	26	292	11																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
277	9	-	1	25	-	74	172	46	4	5	2								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	615	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	16	599	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
9	6	6	1	-	582	11	-	-		-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length		male	-
- mm below, cm below		female	-
min length	2.5 [cm]	undefined	615
max length	9.5 [cm]	total numbers of data	615

Psetta maxima

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0128

b = 3.1267

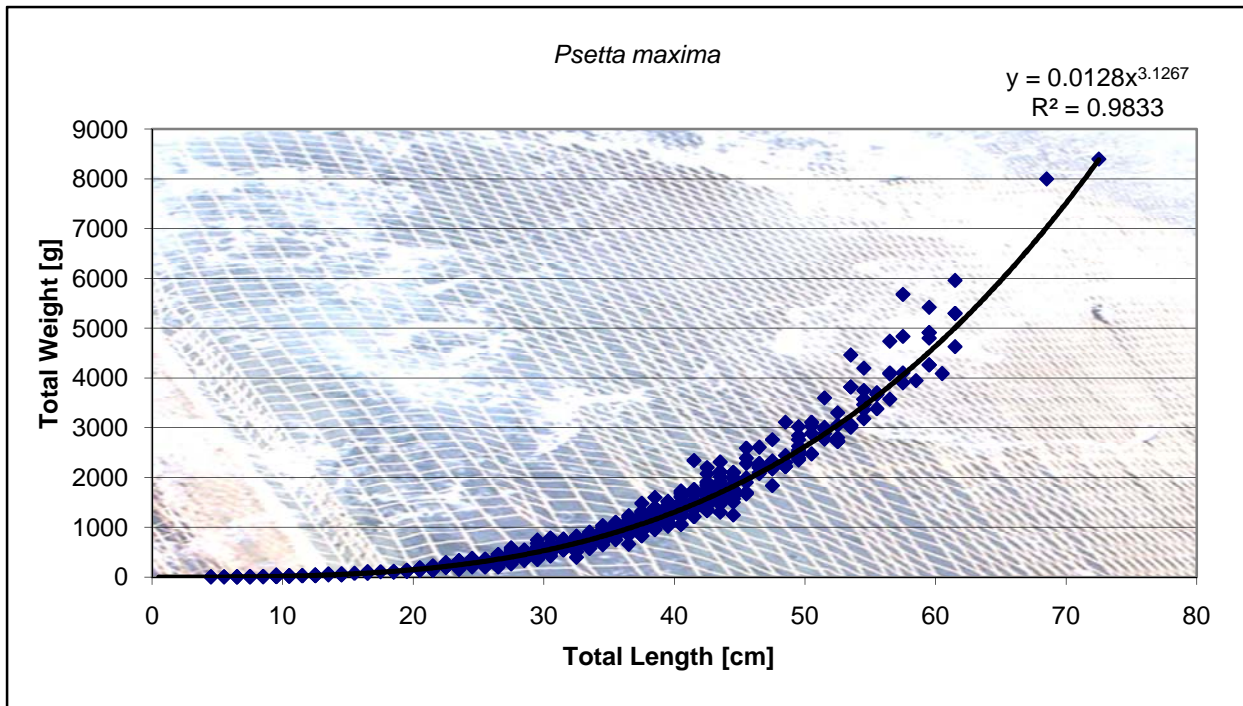
data collected

time period : 1993 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
154	302	364	124																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
116	38	-	10	260	32	133	198	33	18	49	57								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	944	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	35	903	6	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
17	36	22	8	1	791	69	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	75
- cm below		female	66
min length	4.5 [cm]	undefined	803
max length	72.5 [cm]	total numbers of data	944

Psetta maxima



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0112

b = 3.1702

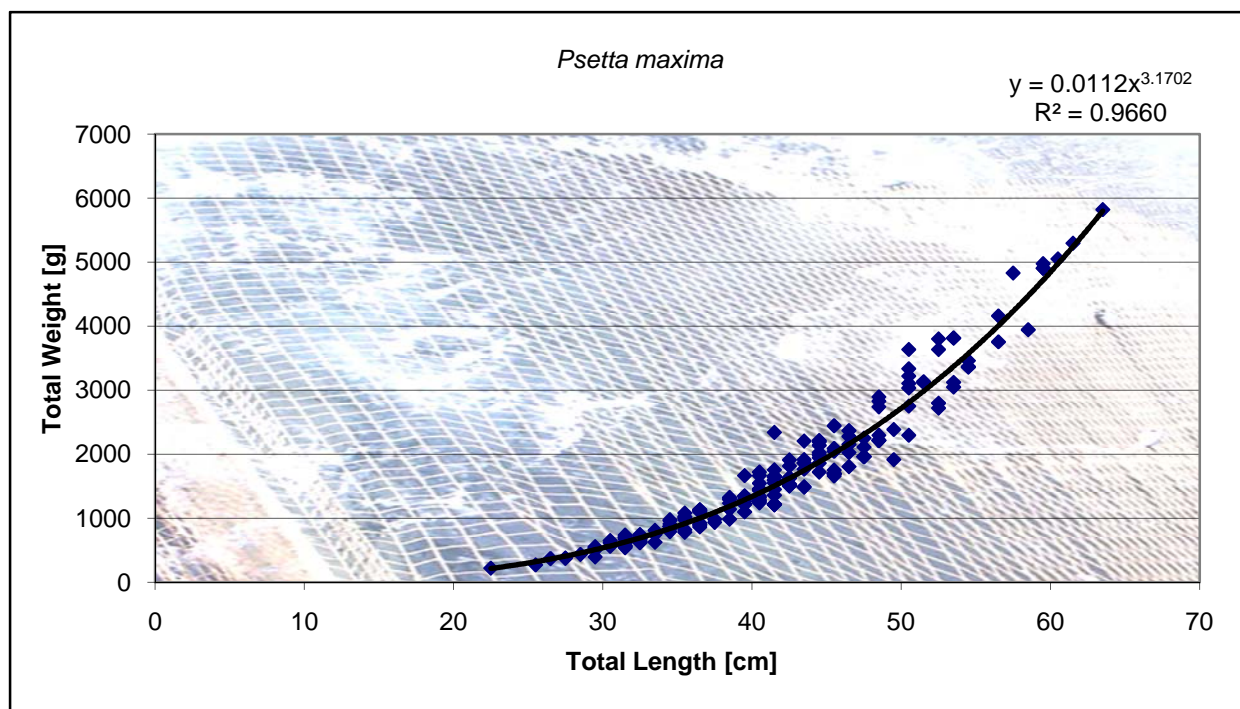
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
7	98	74	5																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
6	1	-	23	5	70	14	60	-	-	-	5								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	184	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	3	181	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
2	2	2	2	1	166	9	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

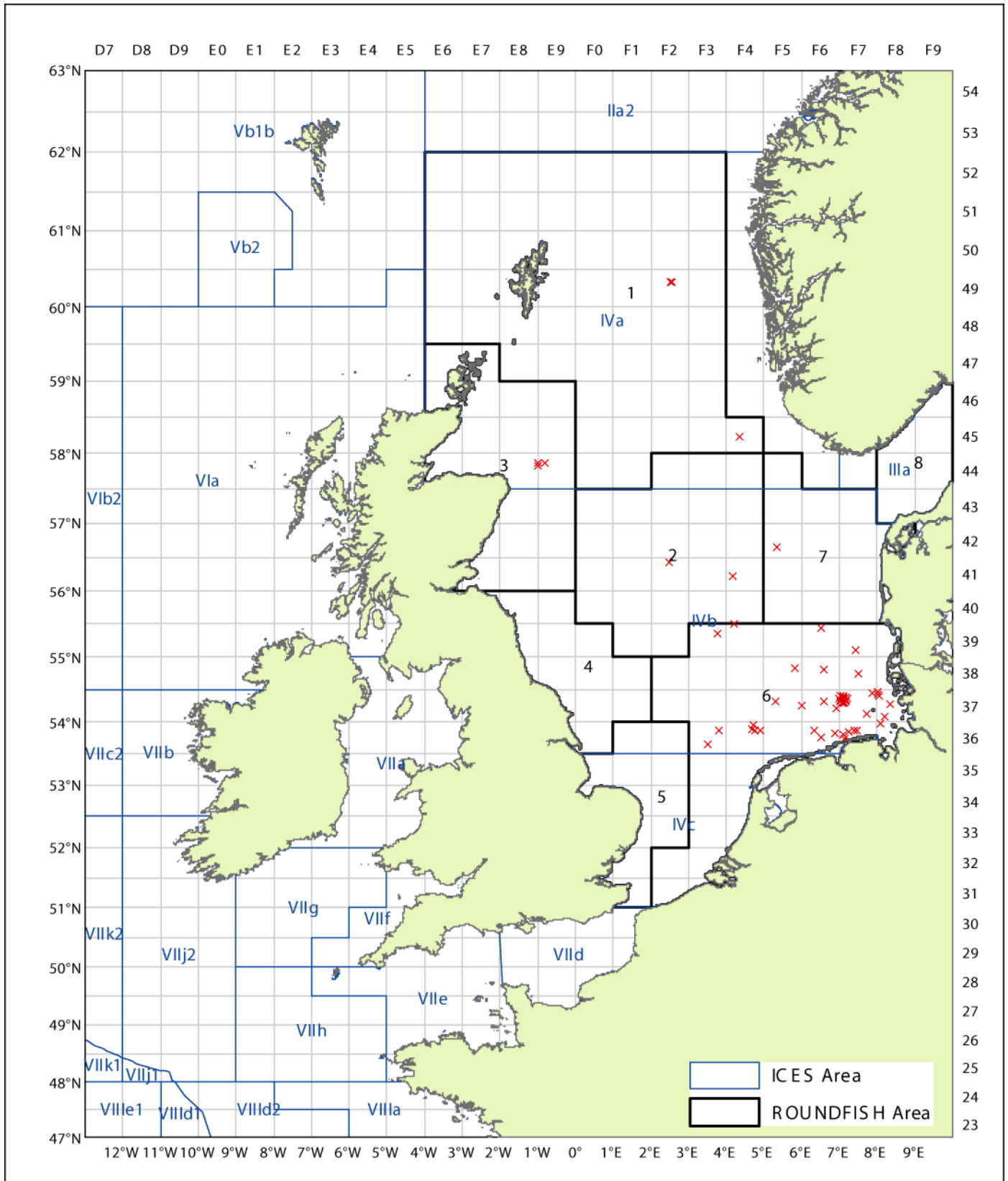
min length 22.5 [cm]
max length 63.5 [cm]

male -
female 184
undefined -

total numbers of data 184

Psetta maxima ♂

Geographical distribution of data used for calculating the length-weight relationship



Psetta maxima



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0138

b = 3.0988

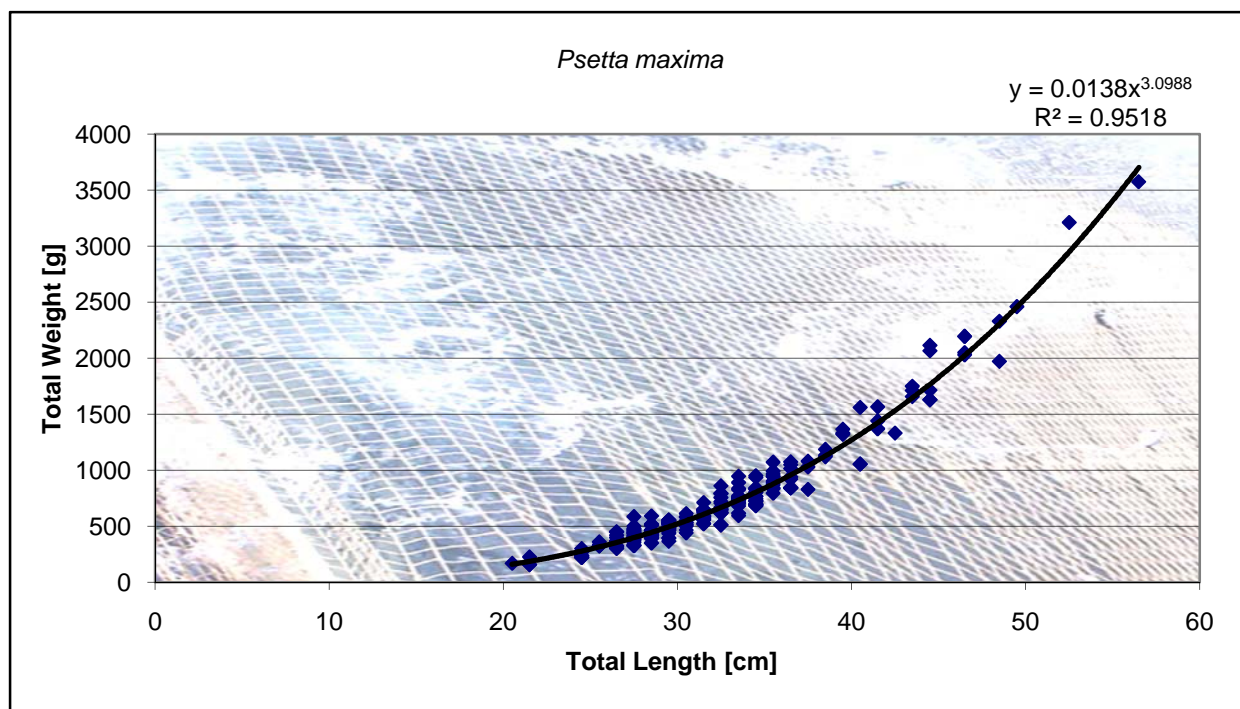
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
6	159	54	2																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
5	1	-	18	16	125	9	45	-	-	1	1								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	221	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	10	211	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
4	2	6	-	-	208	1	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

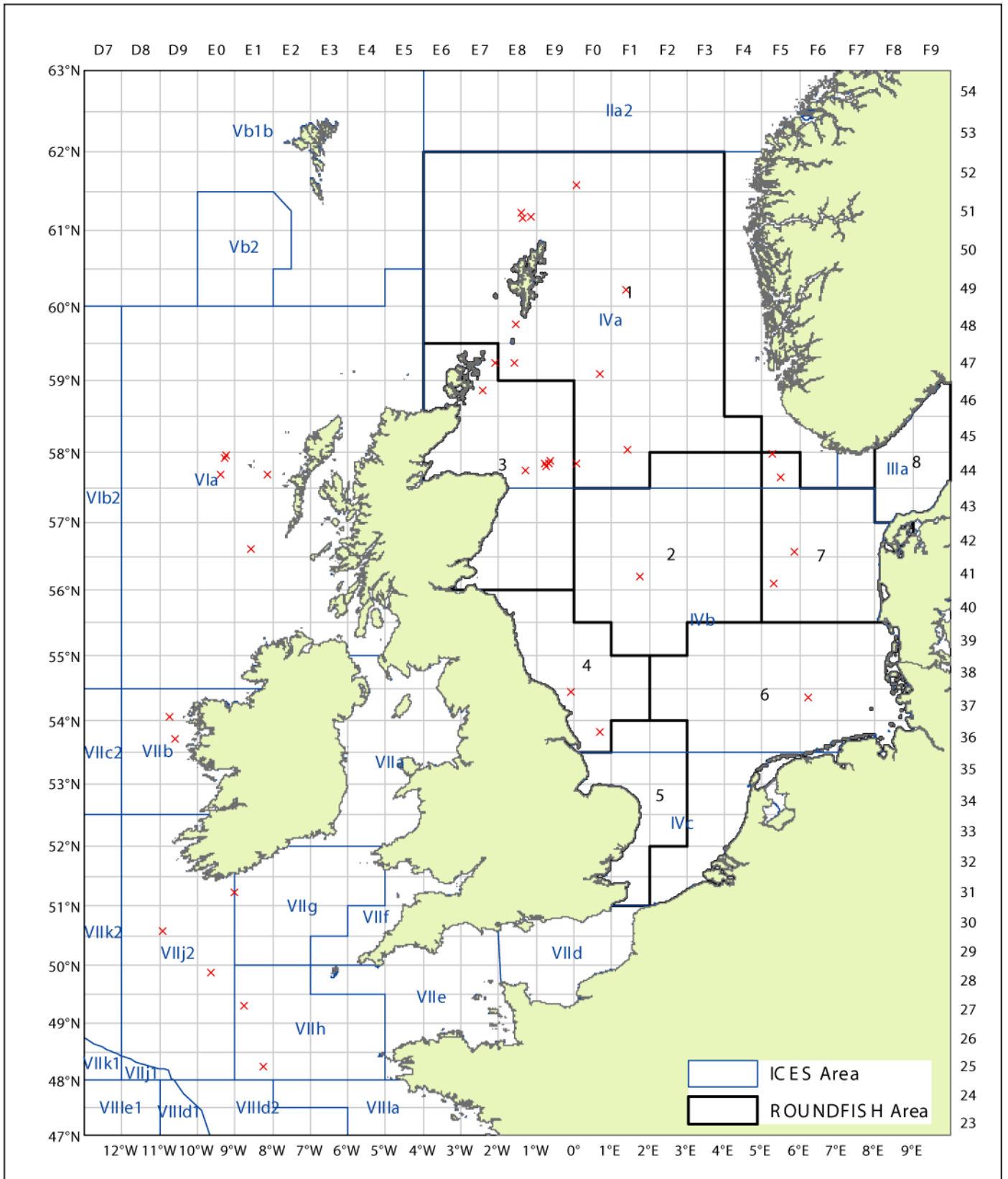
min length 20.5 [cm]
max length 56.5 [cm]

male 221
female -
undefined -

total numbers of data 221

Raja batis

Geographical distribution of data used for calculating the length-weight relationship



Raja batis

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0074

b = 2.9532

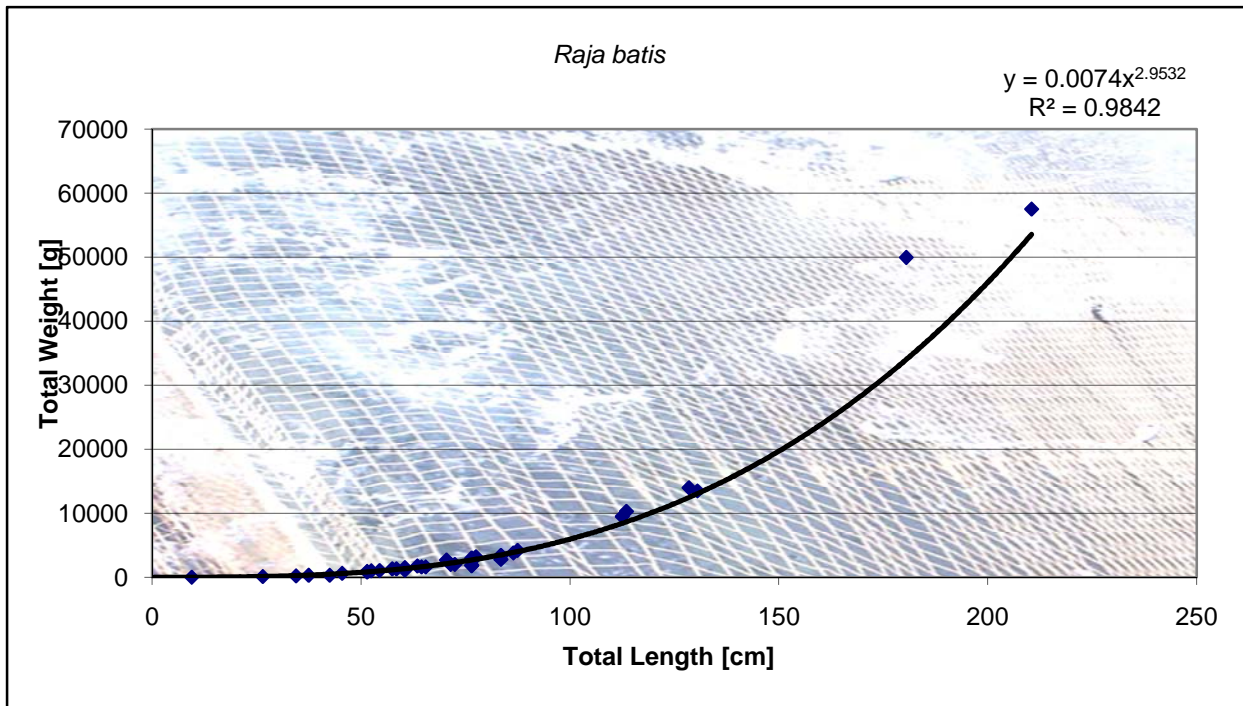
data collected

time period : 1962 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
25	10	1	1																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
6	16	3	5	-	5	-	1	-	-	1	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	25	-	5	7	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	18	7	-	-	-	5	-	-	2	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	1	3	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
10	1	7	2	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-

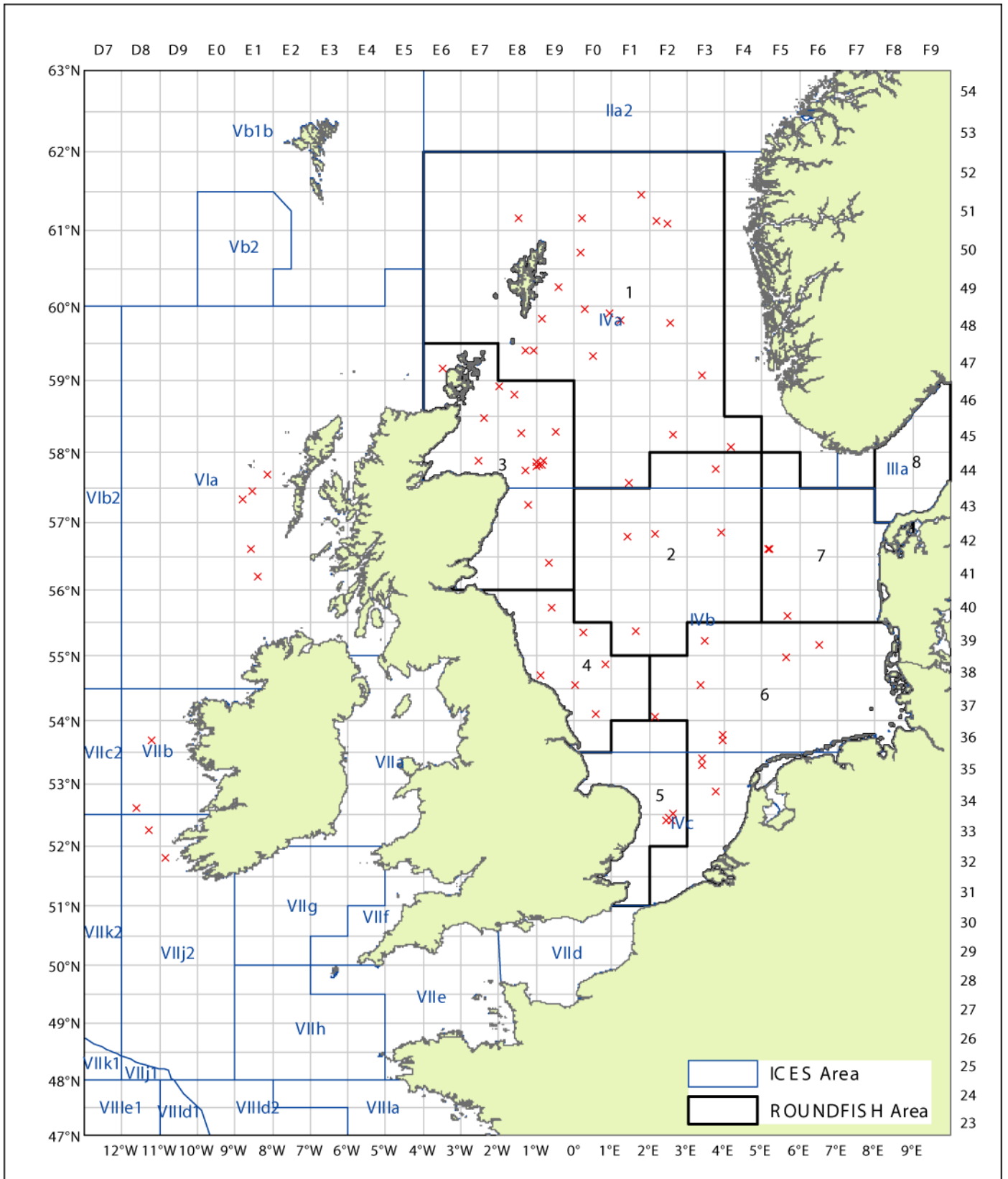


Method of Measurement

- Total length	male	12
- cm below	female	20
min length	undefined	5
max length	9.5 [cm]	
	210.5 [cm]	
	total numbers of data	37

Raja clavata

Geographical distribution of data used for calculating the length-weight relationship



Raja clavata

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0081

b = 2.976

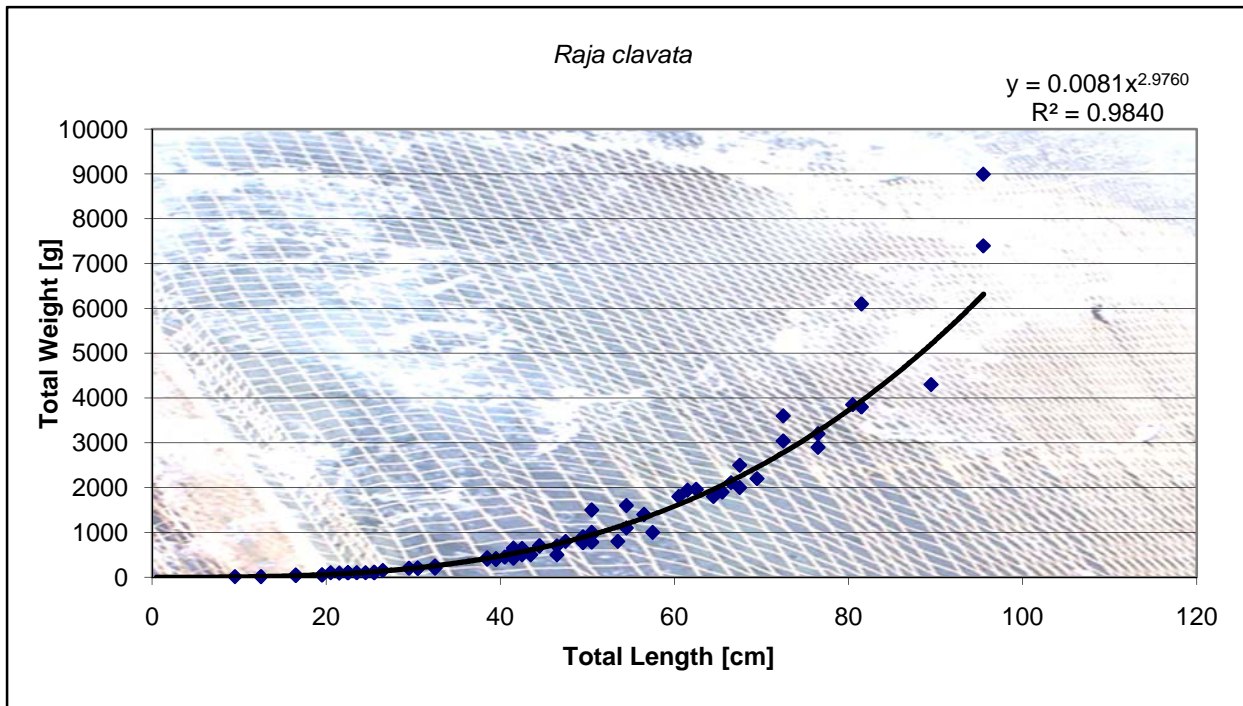
data collected

time period : 1959 - 2004

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
37	10	22	4																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
8	28	1	2	-	8	19	2	1	-	4	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	64	-	5	4	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	34	24	6	-	-	5	-	-	2	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	2	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
19	5	16	6	5	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-

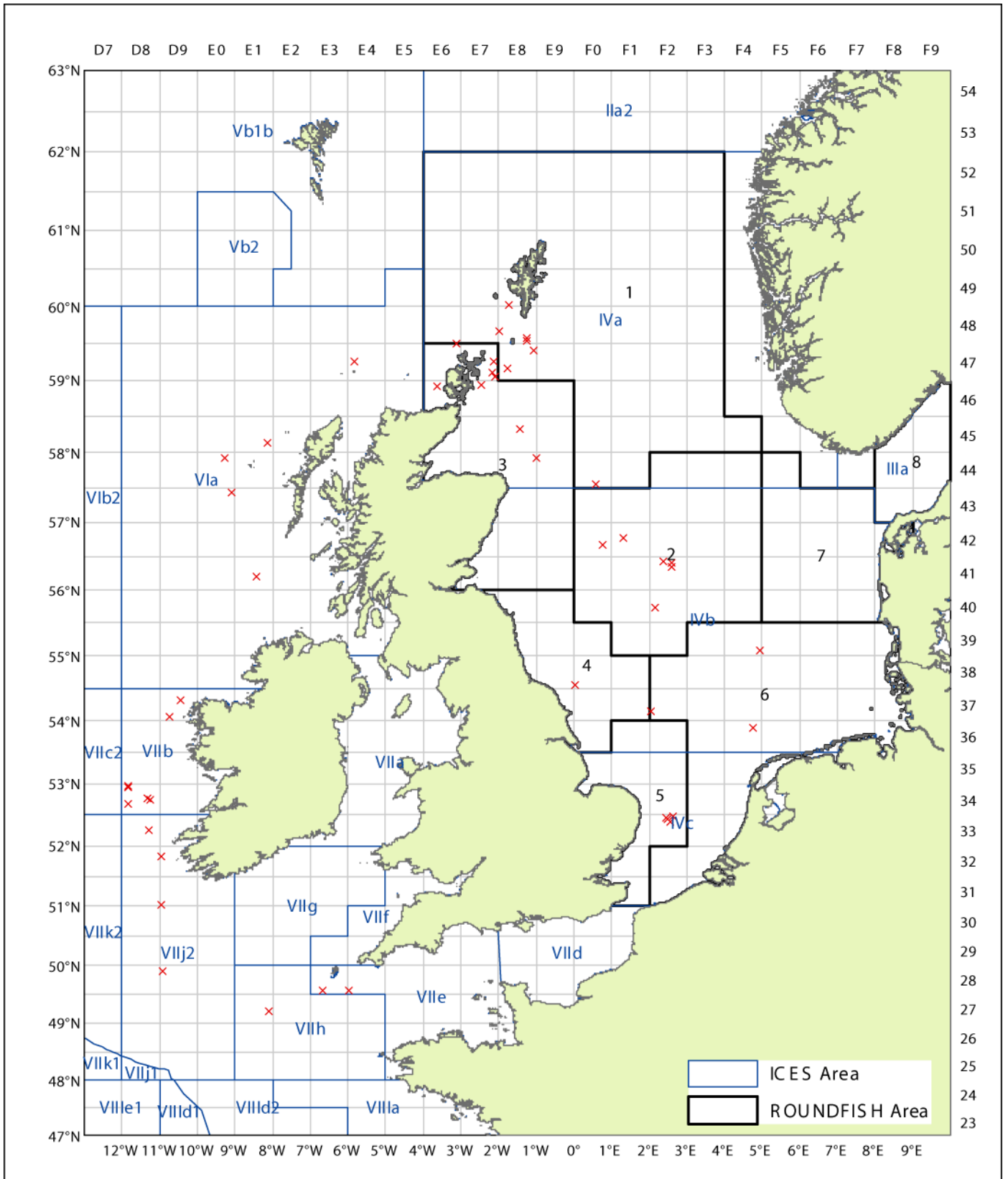


Method of Measurement

- Total length		male	18
- cm below		female	23
min length	9.5 [cm]	undefined	32
max length	95.5 [cm]	total numbers of data	73

Raja montagui

Geographical distribution of data used for calculating the length-weight relationship



Raja montagui

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0029

b = 3.2006

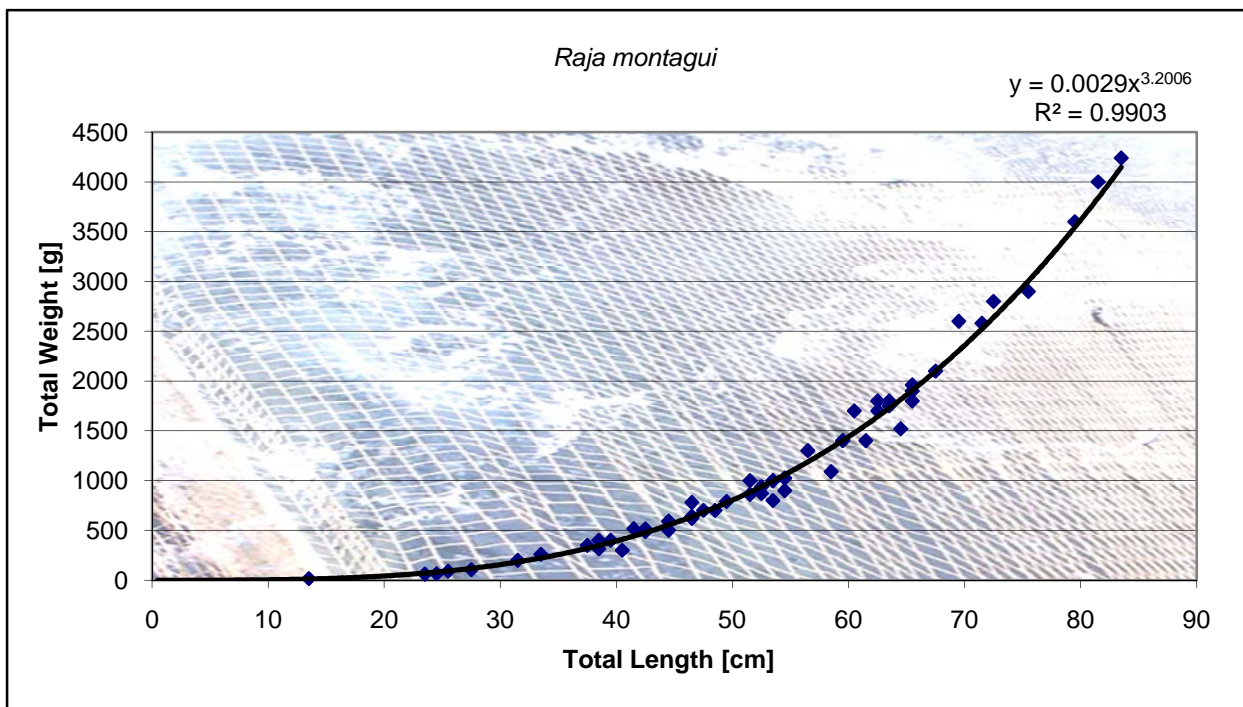
data collected

time period : 1962 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
34	11	11	1																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
12	20	2	8	1	2	7	4	-	-	1	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	36	-	5	14	2	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	19	12	5	-	-	5	-	-	7	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	1	4	-	-	2	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
9	8	10	1	5	3	-	-	-	-	-	-	-	-	-	-	-	-		

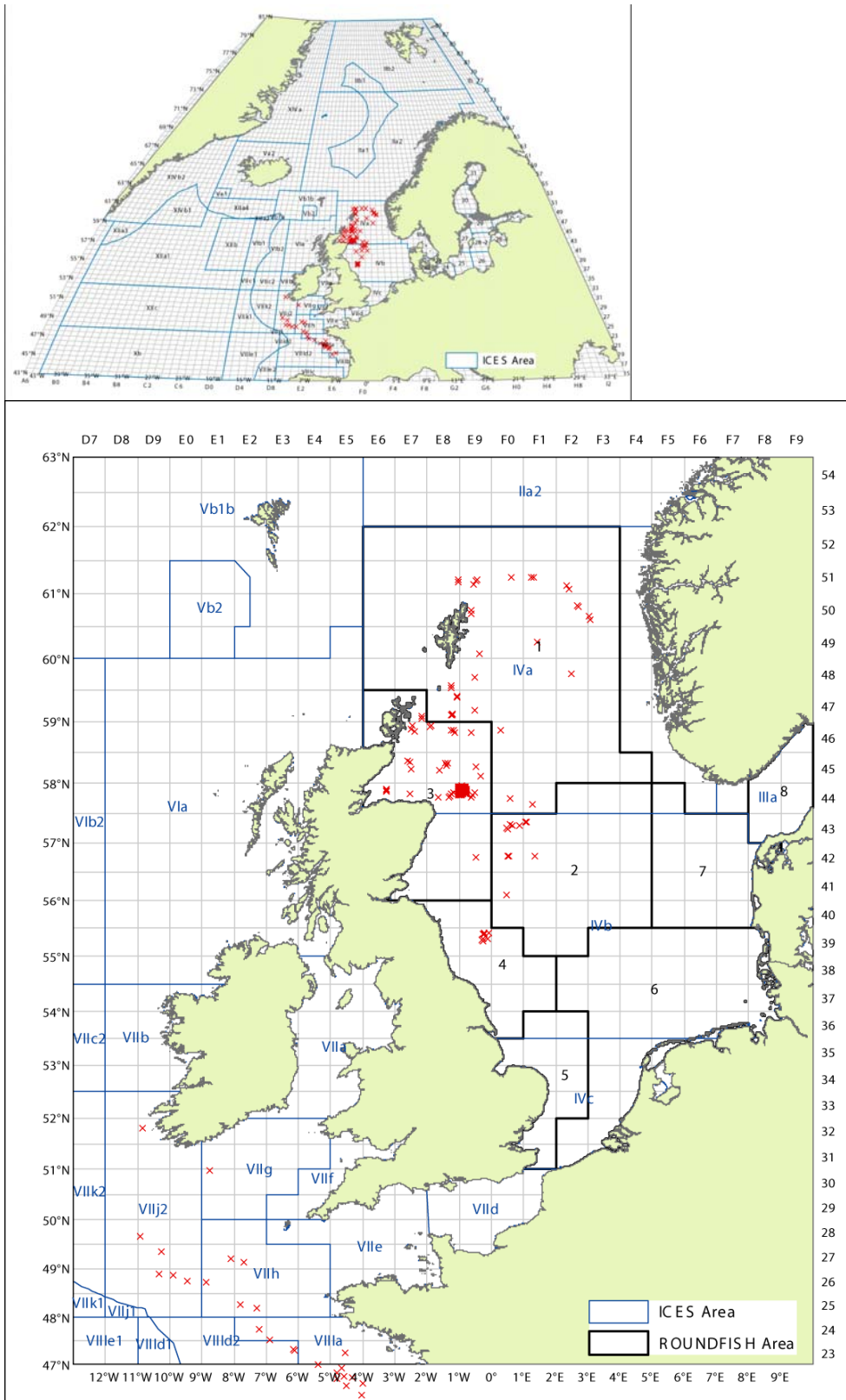


Method of Measurement

- Total length		male	28
- cm below		female	23
min length	13.5 [cm]	undefined	6
max length	83.5 [cm]	total numbers of data	57

Raja naevus

Geographical distribution of data used for calculating the length-weight relationship



Raja naevus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0025

b = 3.216

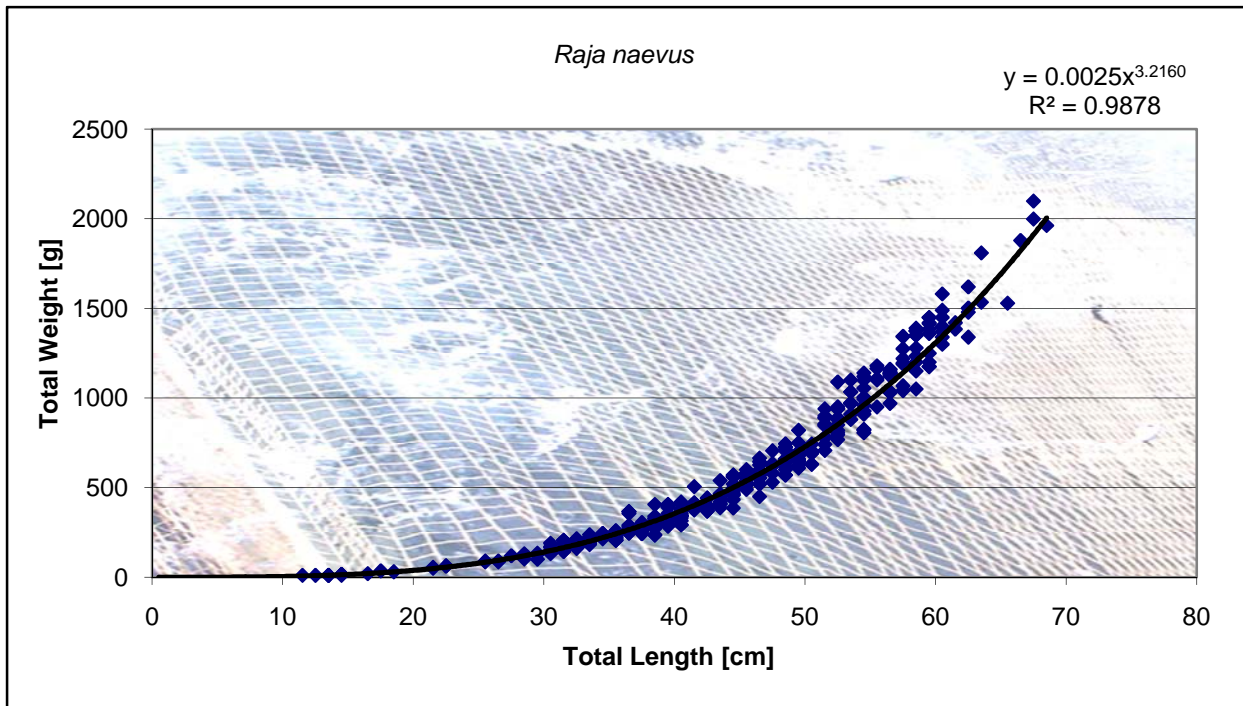
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
156	25	198	11																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
63	73	20	15	-	10	45	151	2	-	11	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	361	-	-	12	17	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	315	46	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	4	7	-	12	2	-	3	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
58	15	273	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

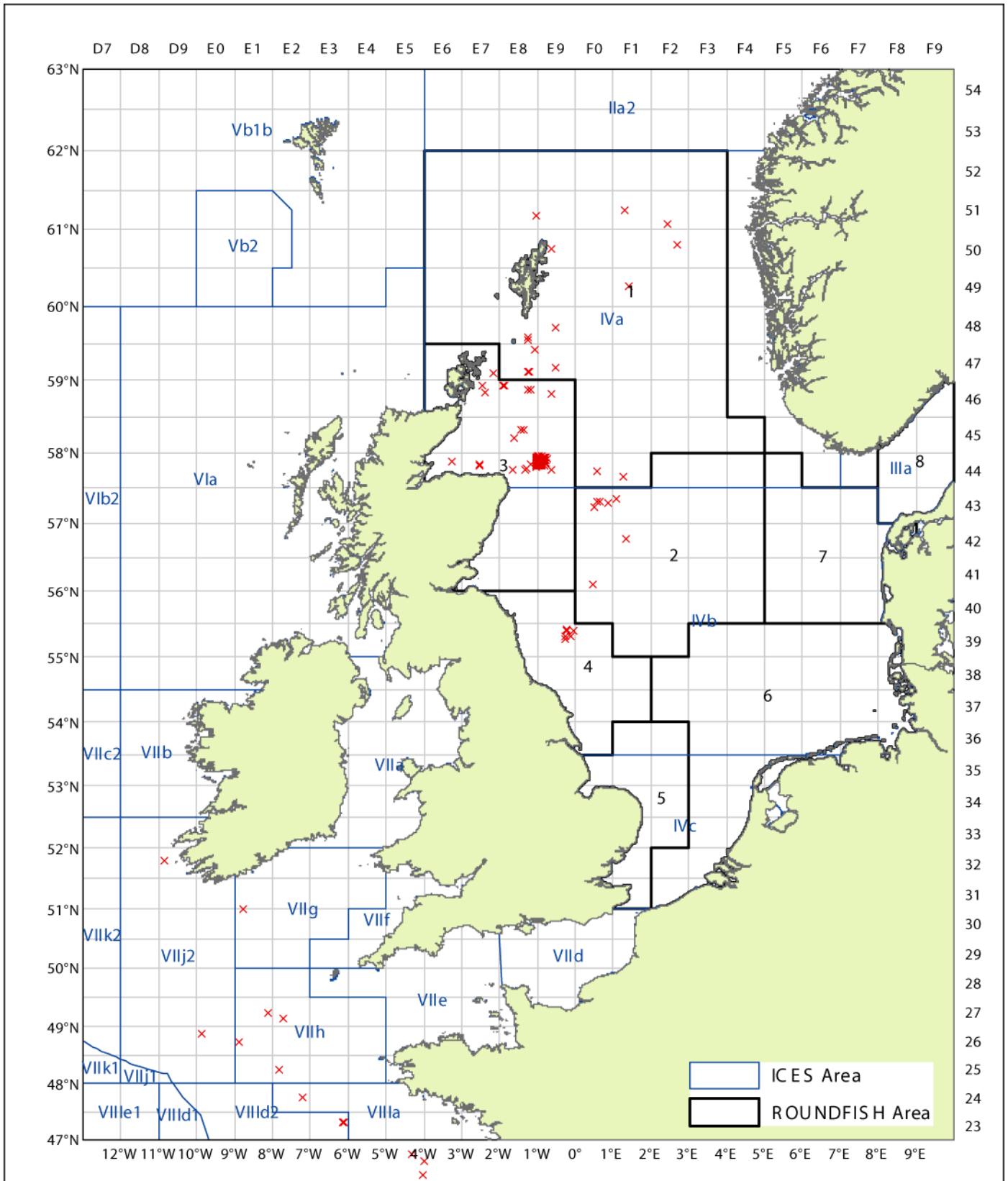


Method of Measurement

- Total length		male	148
- cm below		female	225
min length	11.5 [cm]	undefined	17
max length	68.5 [cm]	total numbers of data	390

Raja naevus ♀

Geographical distribution of data used for calculating the length-weight relationship



Raja naevus



Quarter: 1 - 4

(female)

$$TW [g] = a * L [cm]^b$$

a = 0.0023

b = 3.2423

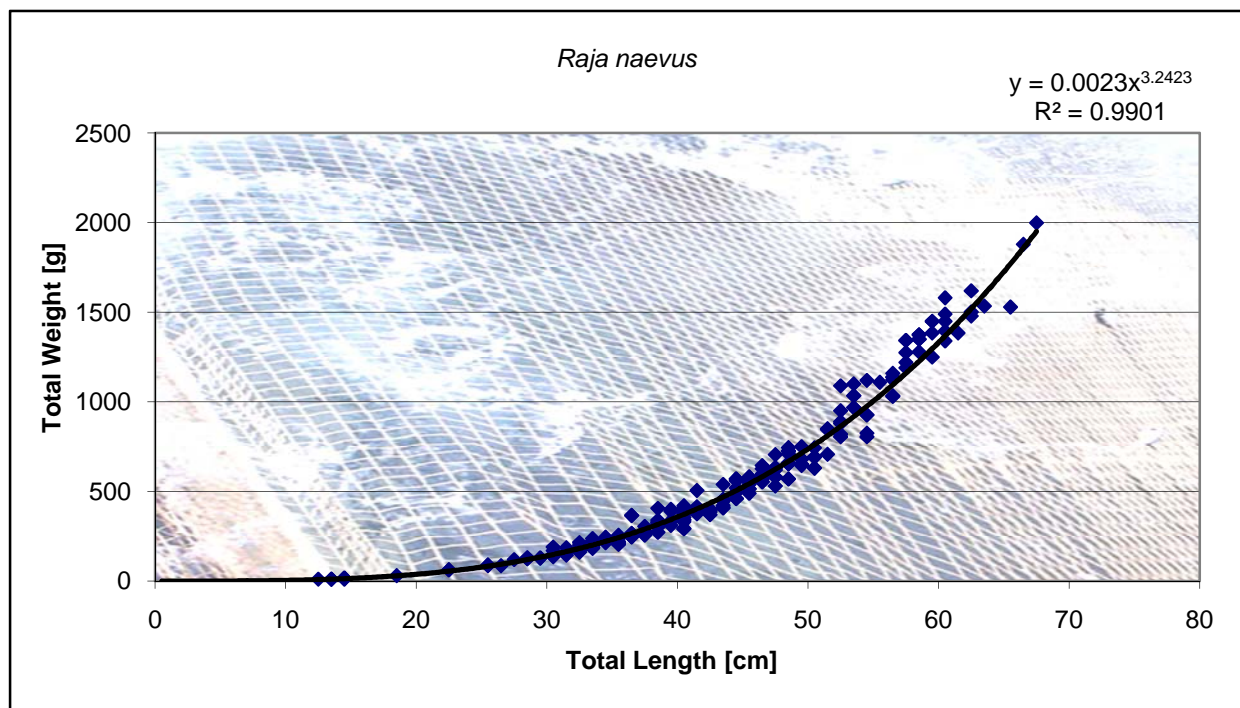
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
76	18	124	7																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
34	38	4	13	-	5	28	94	2	-	7	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	211	-	-	7	7	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	181	30	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	3	3	-	4	1	-	2	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
24	9	168	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- cm below

min length
max length

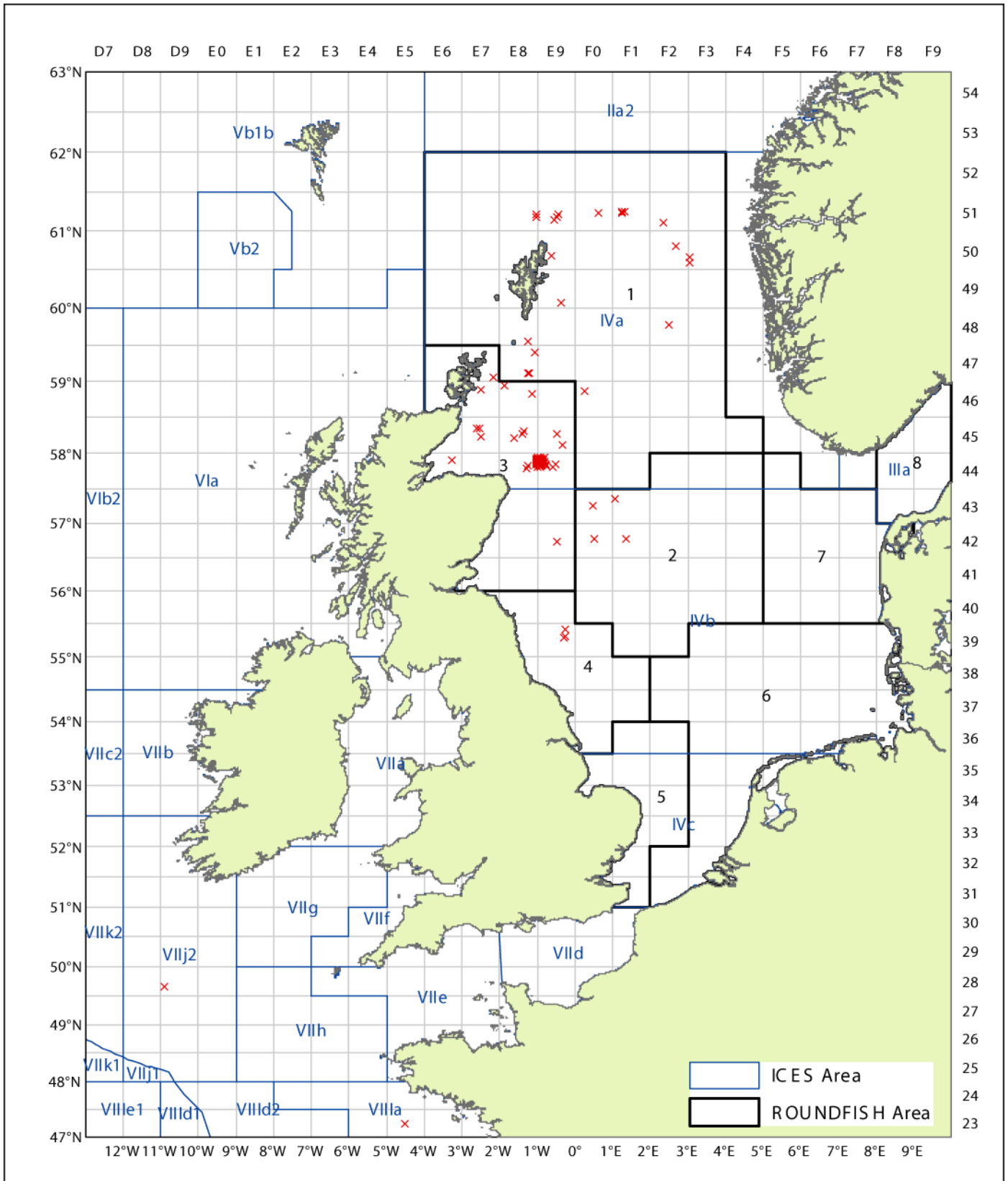
12.5 [cm]
67.5 [cm]

male -
female 225
undefined -

total numbers of data 225

Raja naevus ♂

Geographical distribution of data used for calculating the length-weight relationship



Raja naevus



Quarter: 1 - 4

(male)

$$TW [g] = a * L [cm]^b$$

a = 0.0032

b = 3.1435

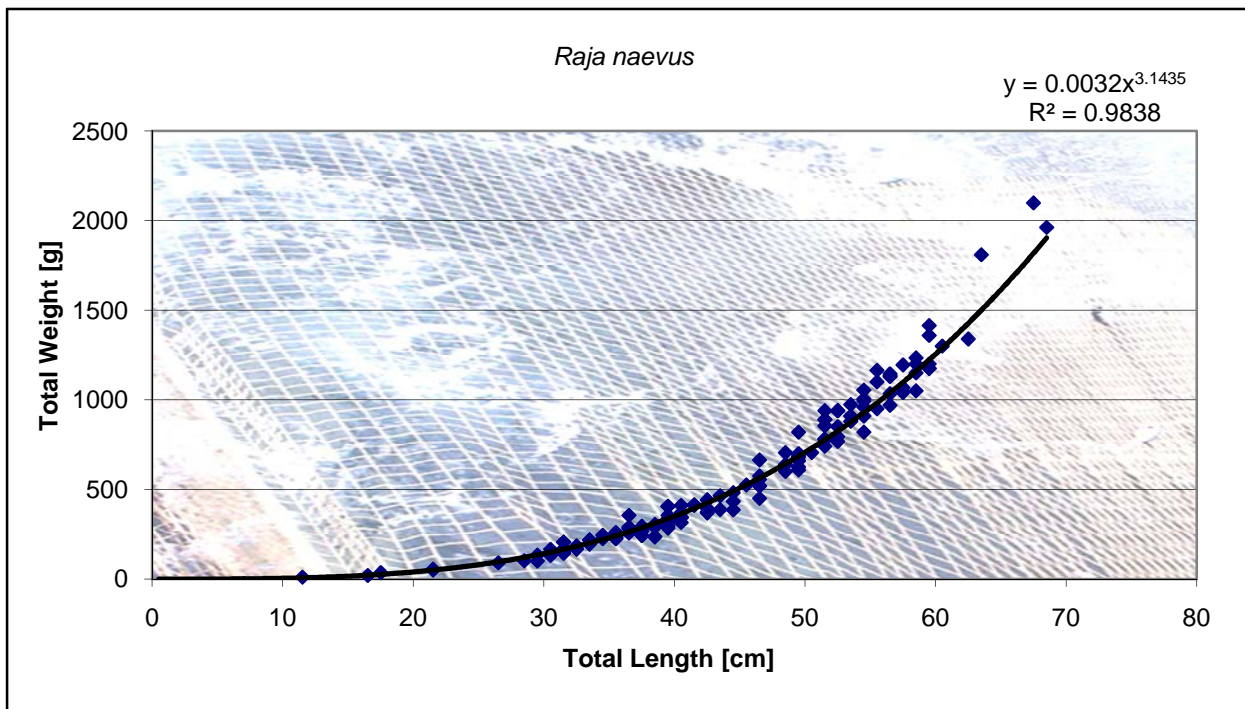
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
64	7	73	4																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
26	34	4	2	-	5	16	57	-	-	4	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	145	-	-	1	2	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	129	16	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	1	-	1	1	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
33	6	101	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

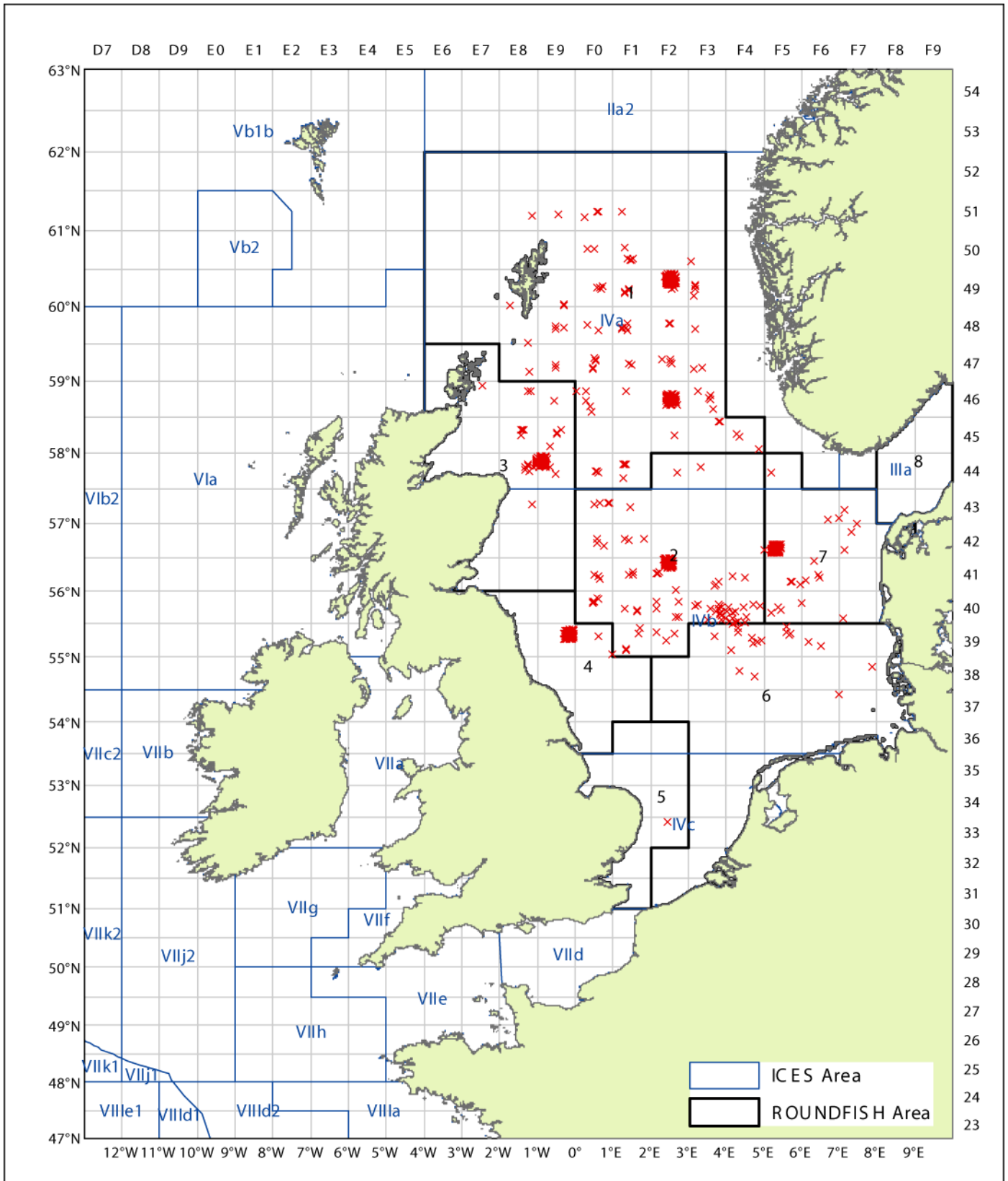


Method of Measurement

- Total length		male	148
- cm below		female	-
		undefined	-
min length	11.5 [cm]		
max length	68.5 [cm]		
		total numbers of data	148

Raja radiata

Geographical distribution of data used for calculating the length-weight relationship



Raja radiata

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0069

b = 3.0343

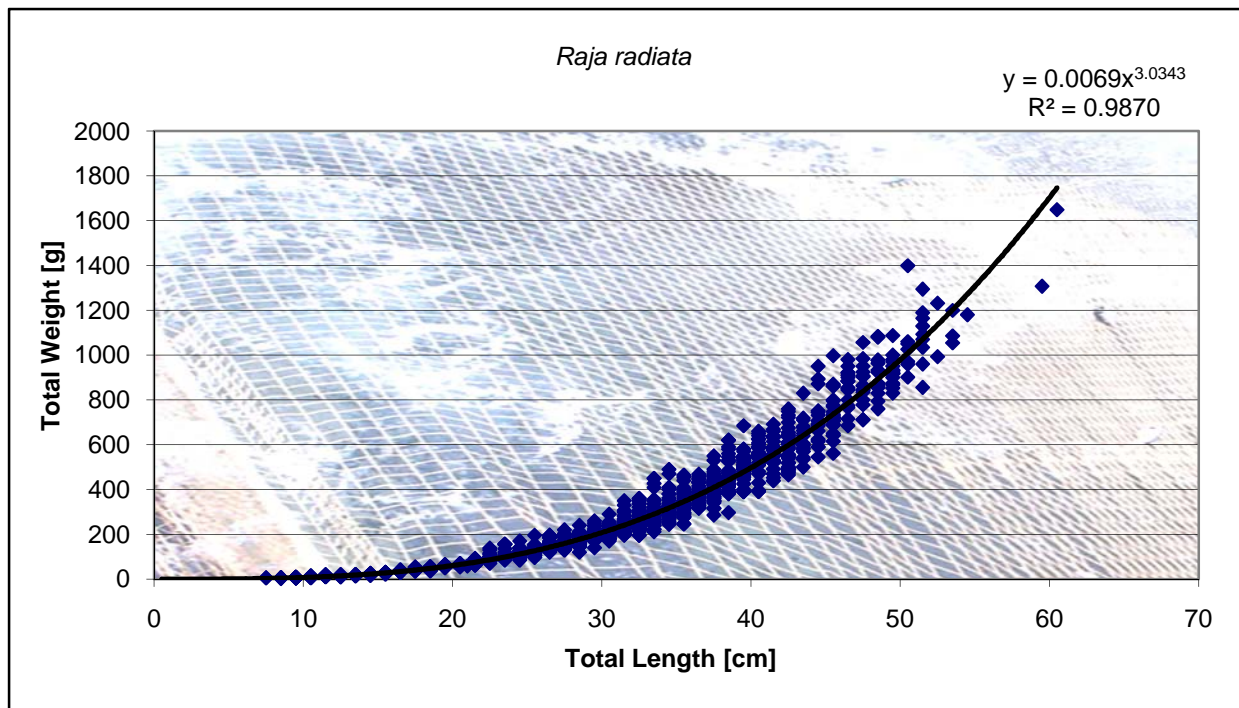
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
277	58	808	13																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
157	110	10	3	31	24	498	300	10	-	13	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1156	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	562	594	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
423	197	102	86	1	26	321	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	528
- cm below		female	584
min length	7.5 [cm]	undefined	44
max length	60.5 [cm]	total numbers of data	1156

Raja radiata



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0073

b = 3.0145

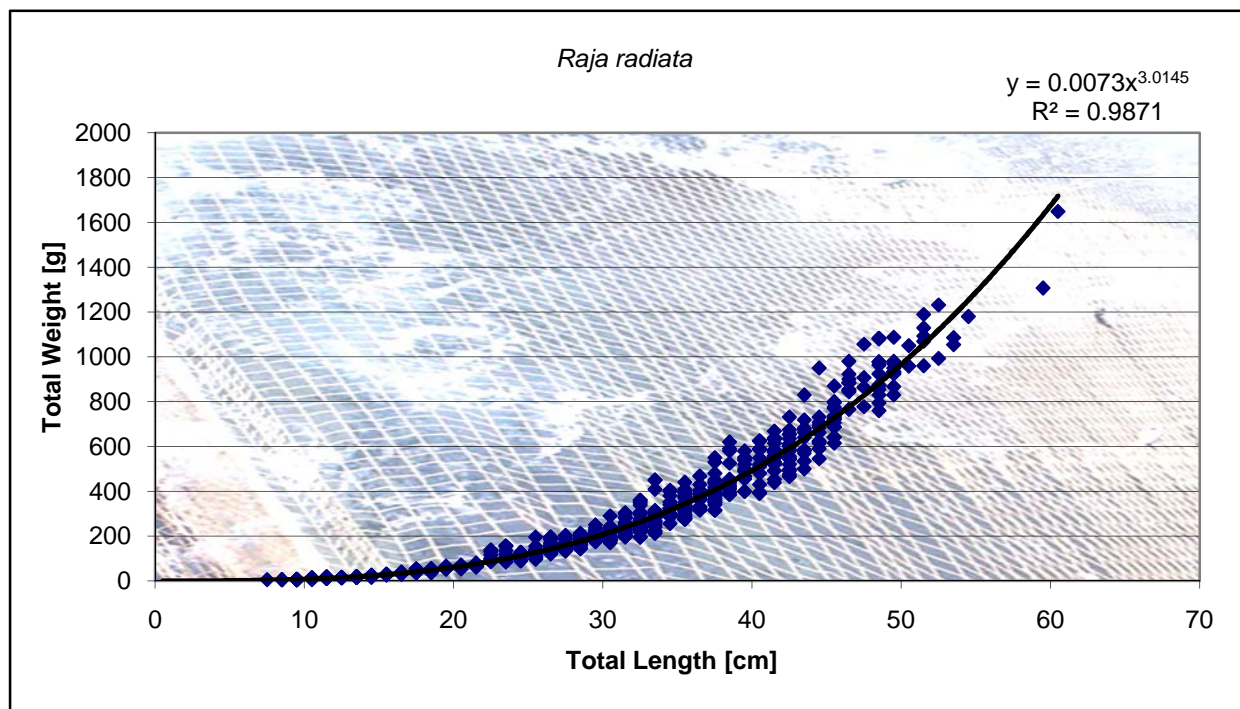
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
123	30	428	3																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
70	49	4	-	14	16	268	153	7	-	3	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	584	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	280	304	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9			1A	1B	1C	1D	1E	1F	2G	2H	2J
215	87	52	45	1	16	168	-	-			-	-	-	-	-	-	-	-	-

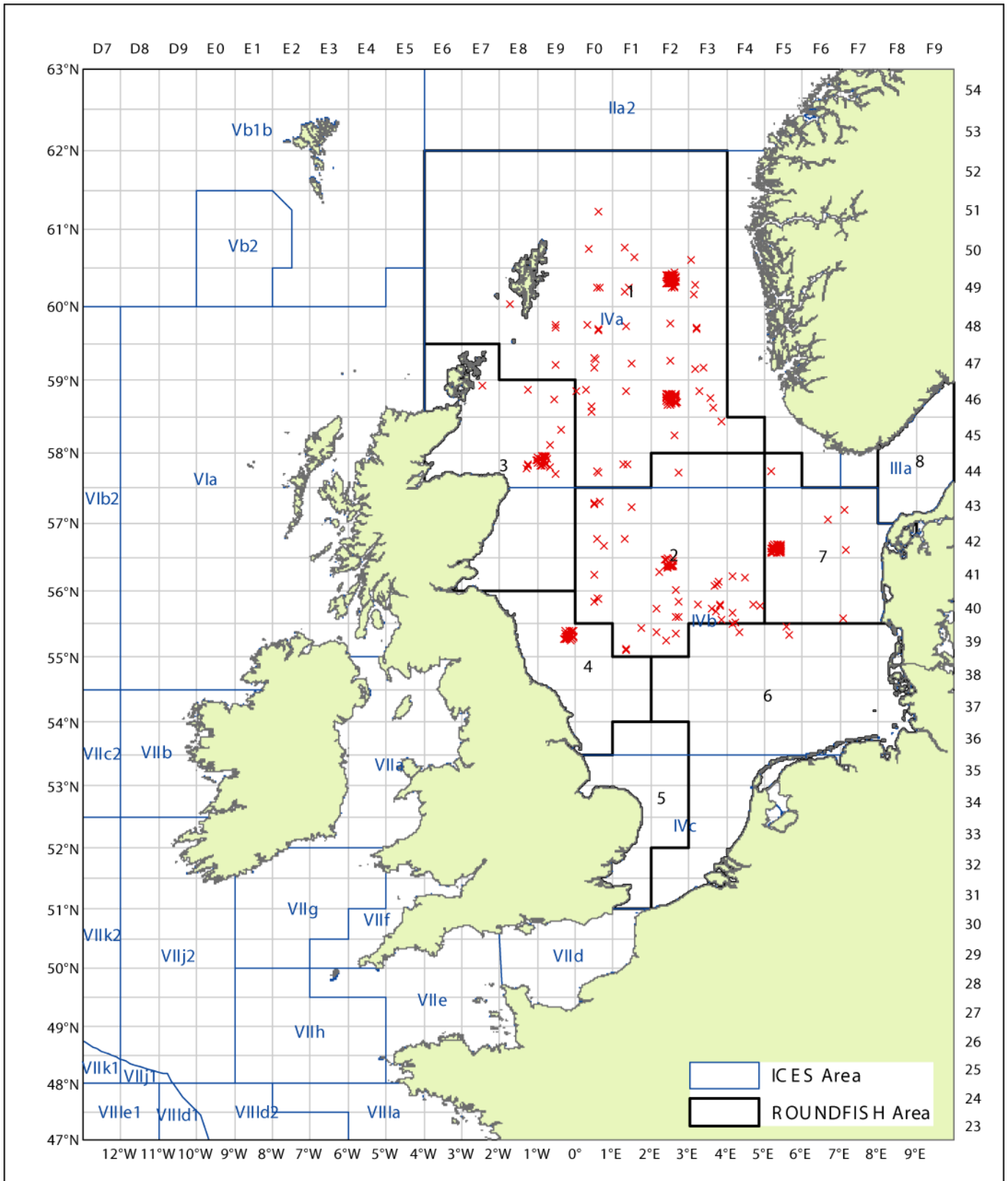


Method of Measurement

- Total length		male	-
- cm below		female	584
min length	7.5 [cm]	undefined	-
max length	60.5 [cm]	total numbers of data	584

Raja radiata ♂

Geographical distribution of data used for calculating the length-weight relationship



Raja radiata



Quarter: 1 - 4

(male)

$$TW [g] = a * L [cm]^b$$

a = 0.0063

b = 3.0574

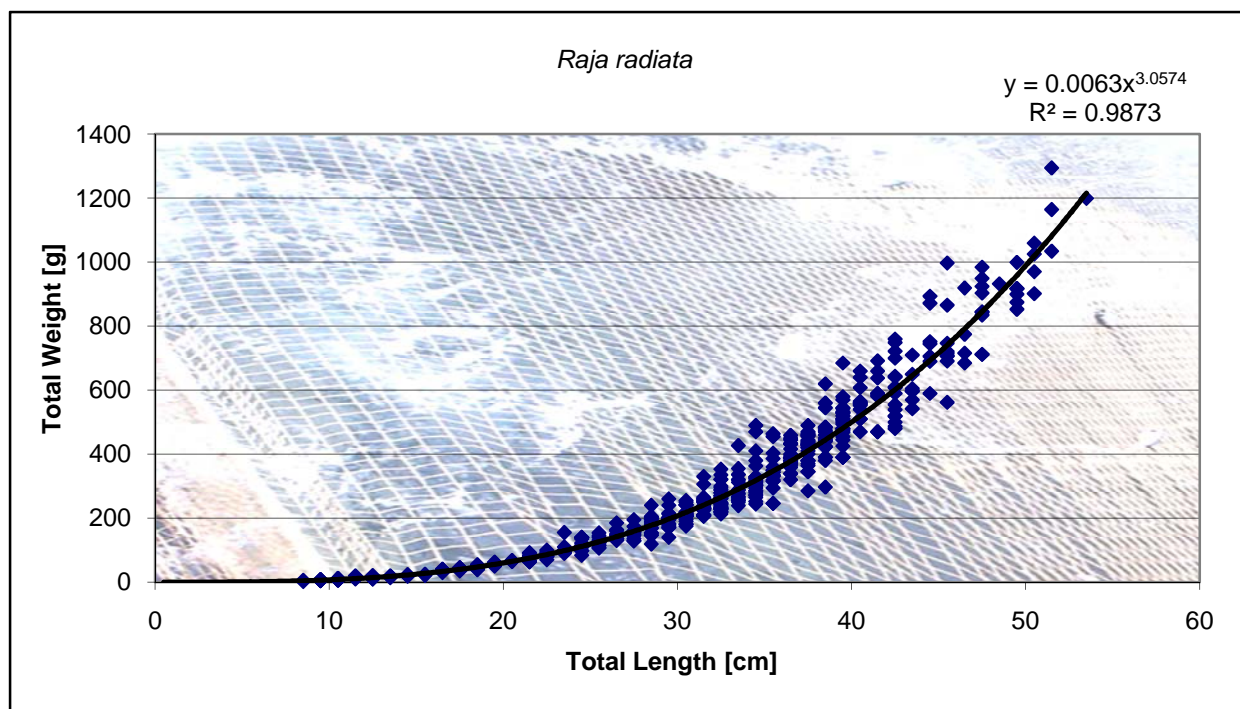
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
142	19	358	9																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
82	56	4	2	11	6	221	134	3	-	9	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	528	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	271	257	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
199	92	48	39	-	4	146	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- cm below

min length
max length

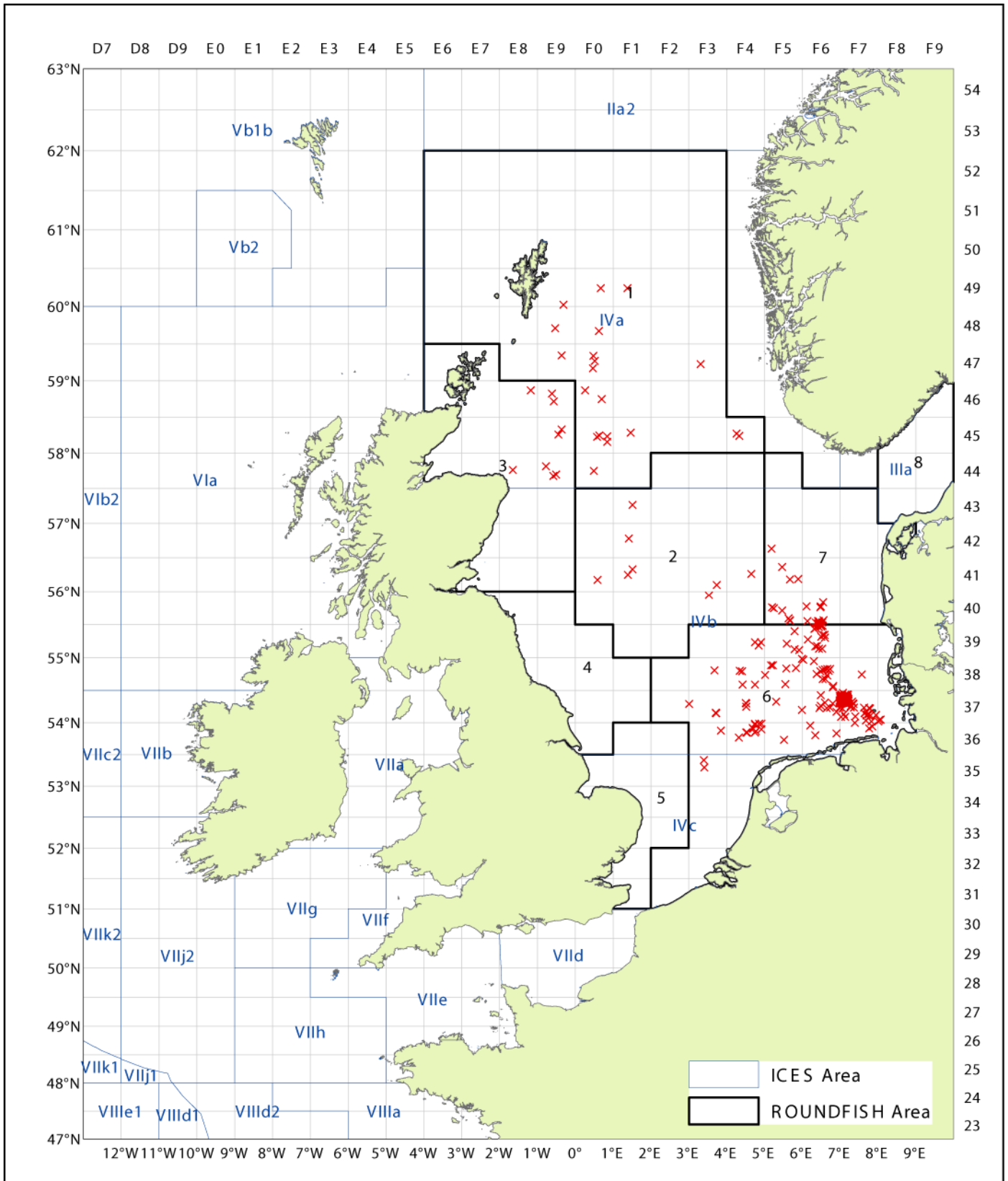
8.5 [cm]
53.5 [cm]

male 528
female -
undefined -

total numbers of data 528

Rhinonemus cimbricus

Geographical distribution of data used for calculating the length-weight relationship



Rhinonemus cimbricus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0032

b = 3.1436

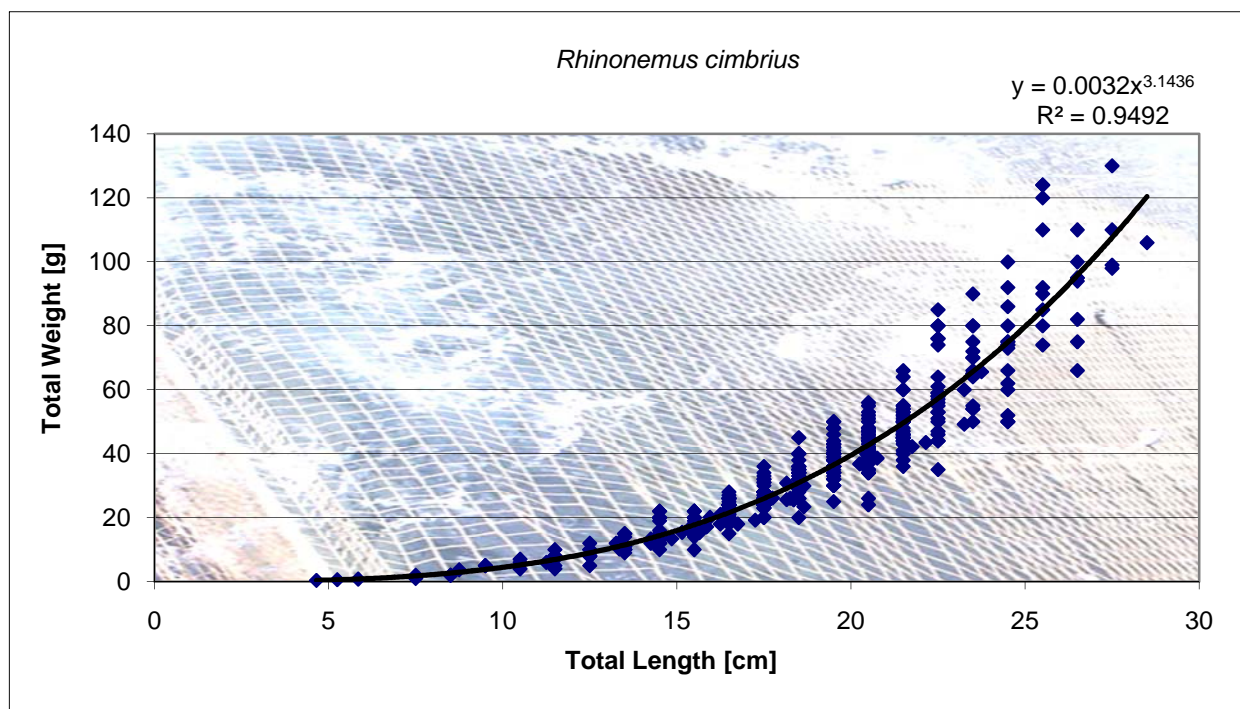
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
145	10	264	29																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
101	42	2	-	6	4	40	224	-	1	9	19								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	448	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	35	411	2	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
23	8	12	-	-	373	32	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	-
- cm below, mm below		female	-
min length	4.65 [cm]	undefined	448
max length	28.5 [cm]	total numbers of data	448

Sardina pilchardus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0034

b = 3.2665

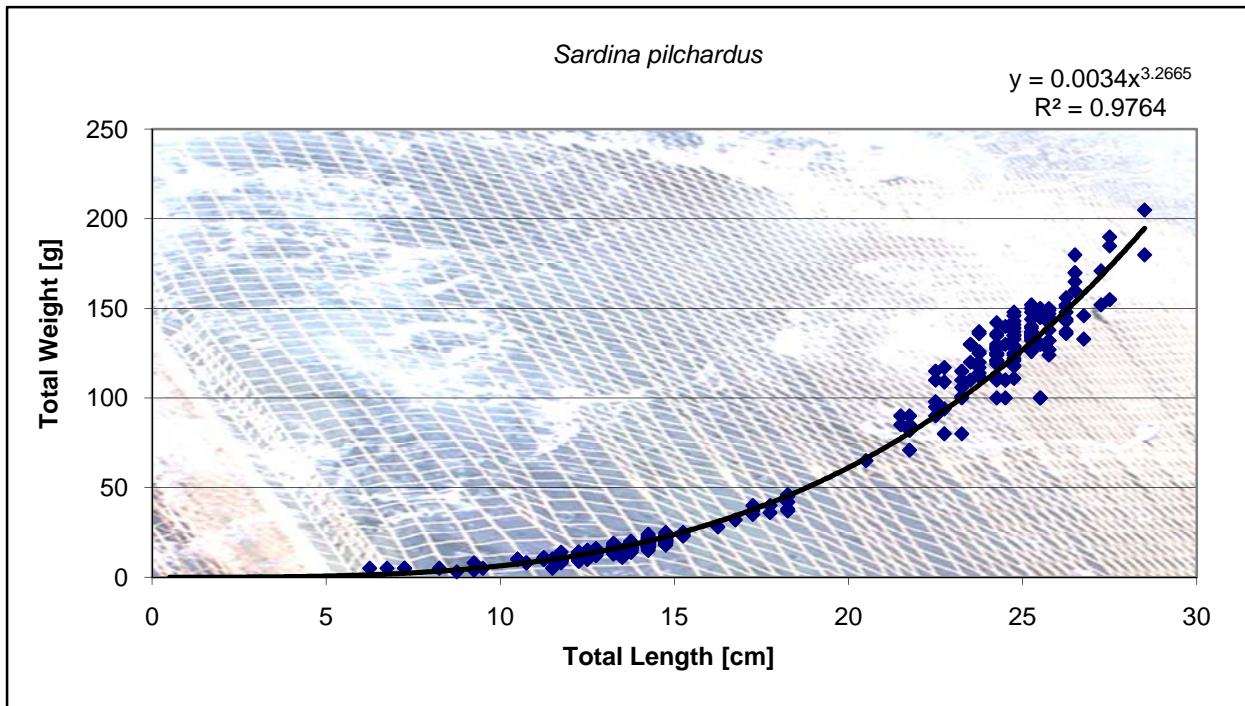
data collected

time period : 1995 - 2008

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
216	28	109	12																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
110	102	4	2	2	24	75	33	1	5	6	1									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	359	-	1	3	2	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	108	250	1	-	-	1	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	3	-	2	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
7	103	102	3	2	137	5	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	73
- 1/2 cm below		female	84
min length	6.25 [cm]	undefined	208
max length	28.75 [cm]	total numbers of data	365

Scomber scombrus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.004

b = 3.1996

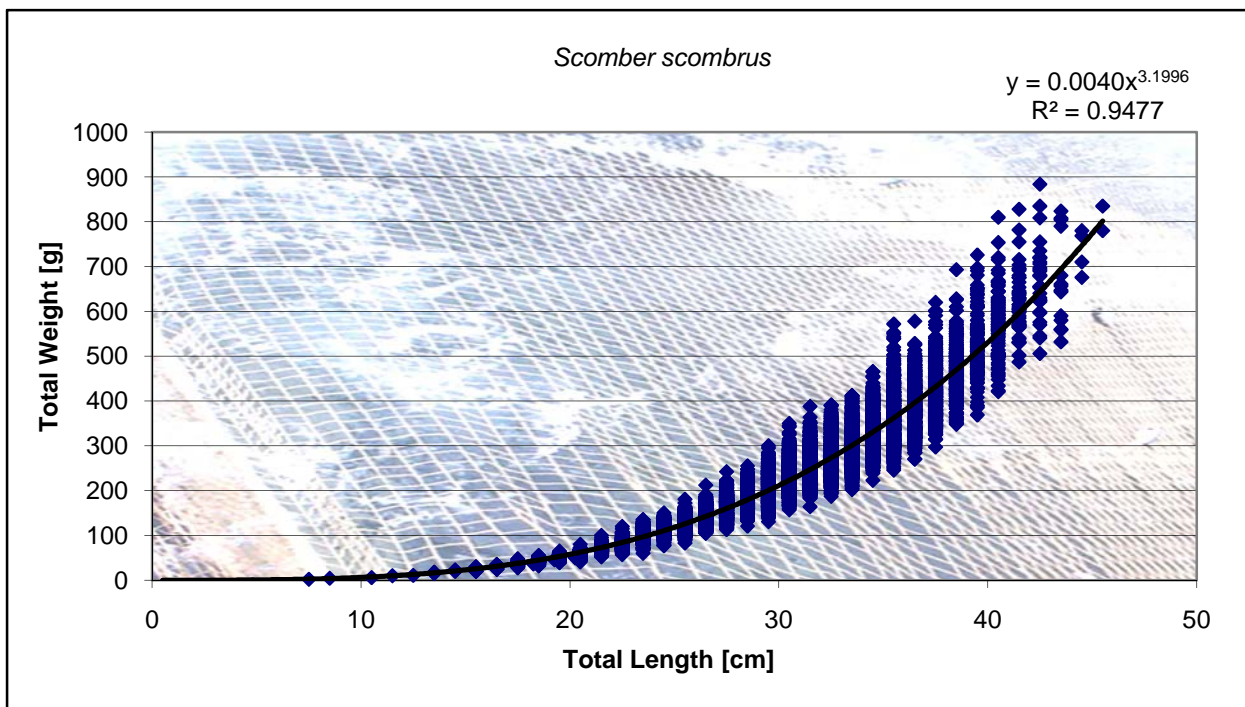
data collected

time period : 1996 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
3239	1828	3509	24																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
807	1223	1209	1697	118	13	1781	1478	250	4	14	6								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	5696	-	435	2208	261	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2719	2965	12	-	-	435	-	-	419	16	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	277	1496	-	208	18	20	15	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
2171	471	453	317	11	1858	415	-	-											
									1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	3721
- cm below		female	3713
min length	7.5 [cm]	undefined	1166
max length	45.5 [cm]	total numbers of data	8600

Scomber scombrus



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.002

b = 3.4011

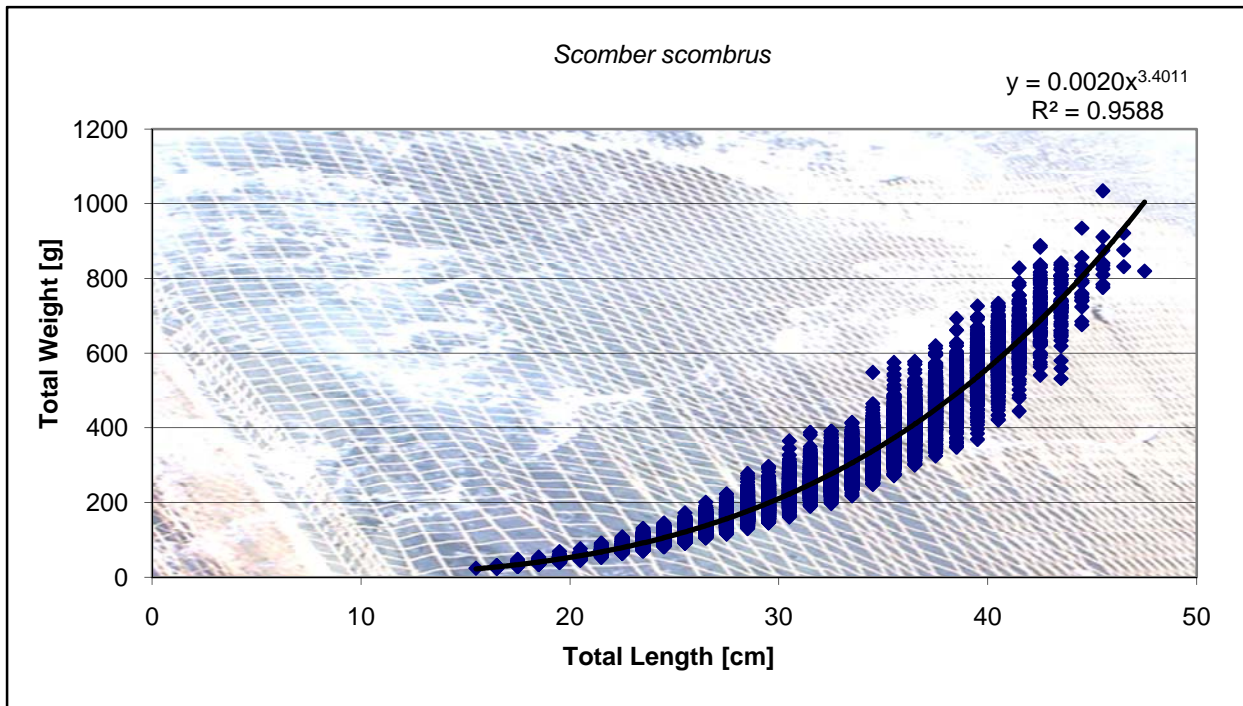
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
5497	1146	2154	1035																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
1985	2721	791	938	157	51	988	1030	136	348	457	230										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	4630	-	1734	3134	334	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	2805	1825	-	-	-	1683	-	-	1092	102	119	39	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
-	194	1639	-	311	-	-	23	-	-	-	-	-	-	-							
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9				1A	1B	1C	1D	1E	1F	2G	2H	2J	
2483	237	285	154	132	1026	313	-	-				-	-	-	-	-	-	-	-	-	-

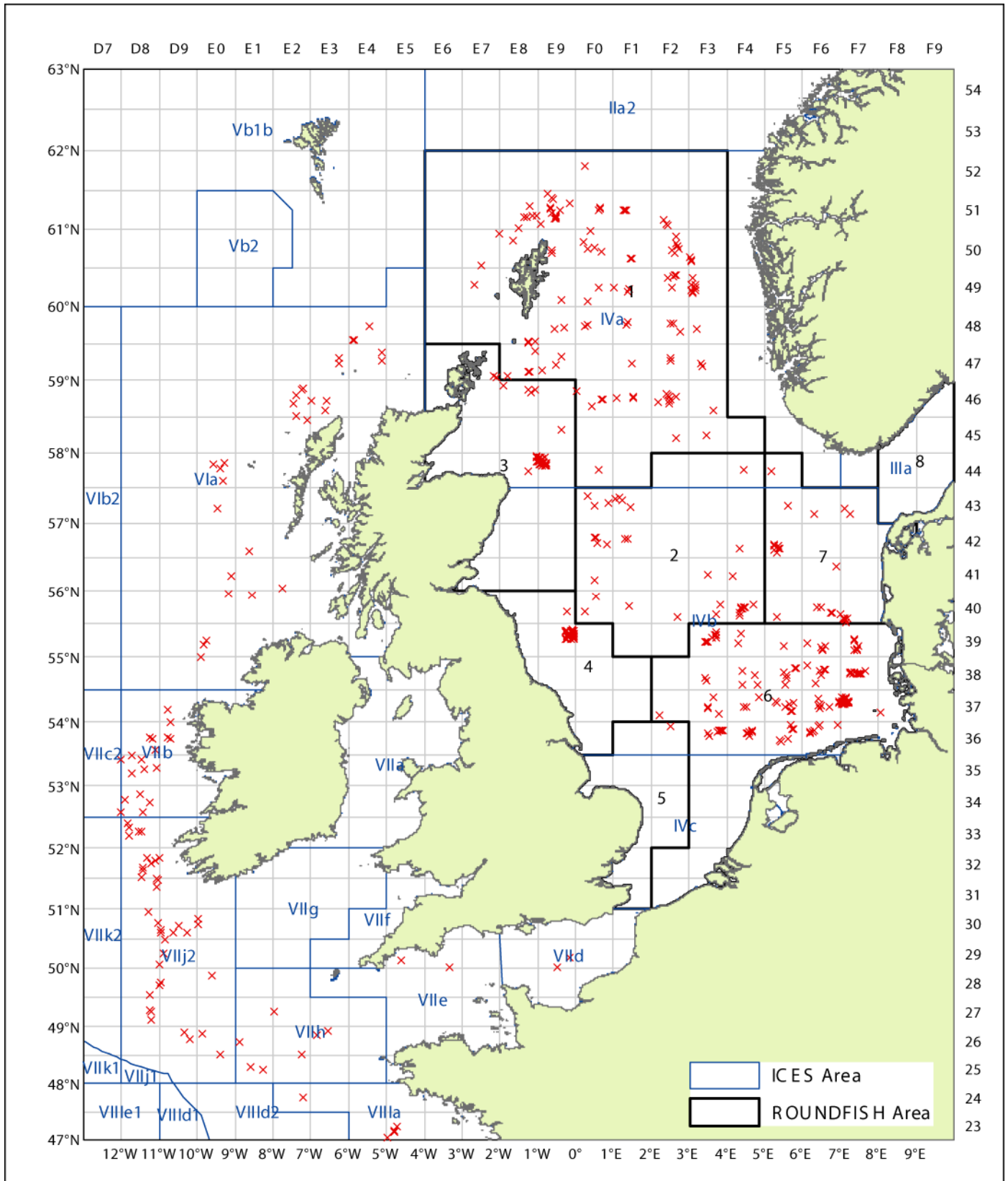


Method of Measurement

- Total length		male	-
- cm below		female	9832
min length	15.5 [cm]	undefined	-
max length	47.5 [cm]	total numbers of data	9832

Scomber scombrus ♂

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.002

b = 3.4036

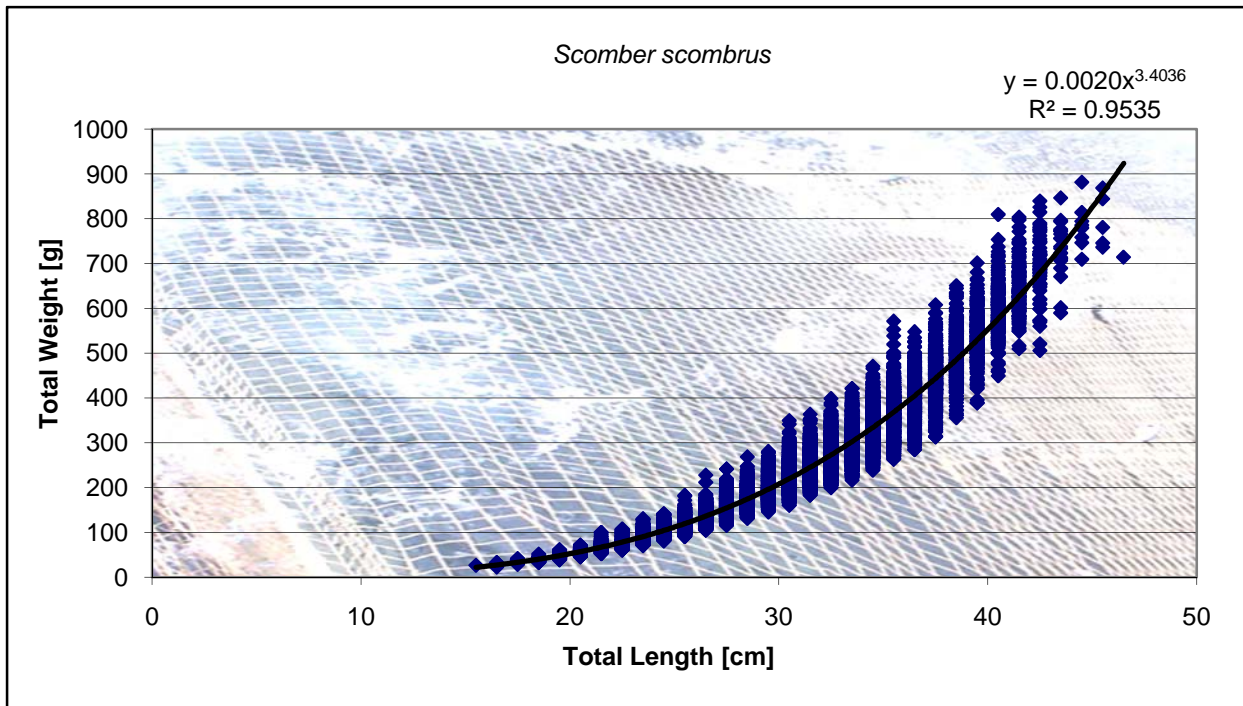
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
5375	1246	1823	884																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
1872	2573	930	1022	154	70	812	906	105	359	336	189										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	4039	-	1720	3292	277	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	2461	1578	-	-	-	1673	-	-	1048	108	114	59	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
-	234	1776	-	239	-	-	38	-	-	-	-	-	-	-							
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9					1A	1B	1C	1D	1E	1F	2G	2H	2J
2183	226	254	176	114	855	231	-	-					-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	9328
- cm below		female	-
min length	15.5 [cm]	undefined	-
max length	46.5 [cm]	total numbers of data	9328

Scomber scombrus

Quarter: 1

$$TW [g] = a * L [cm]^b$$

a = 0.0027

b = 3.3022

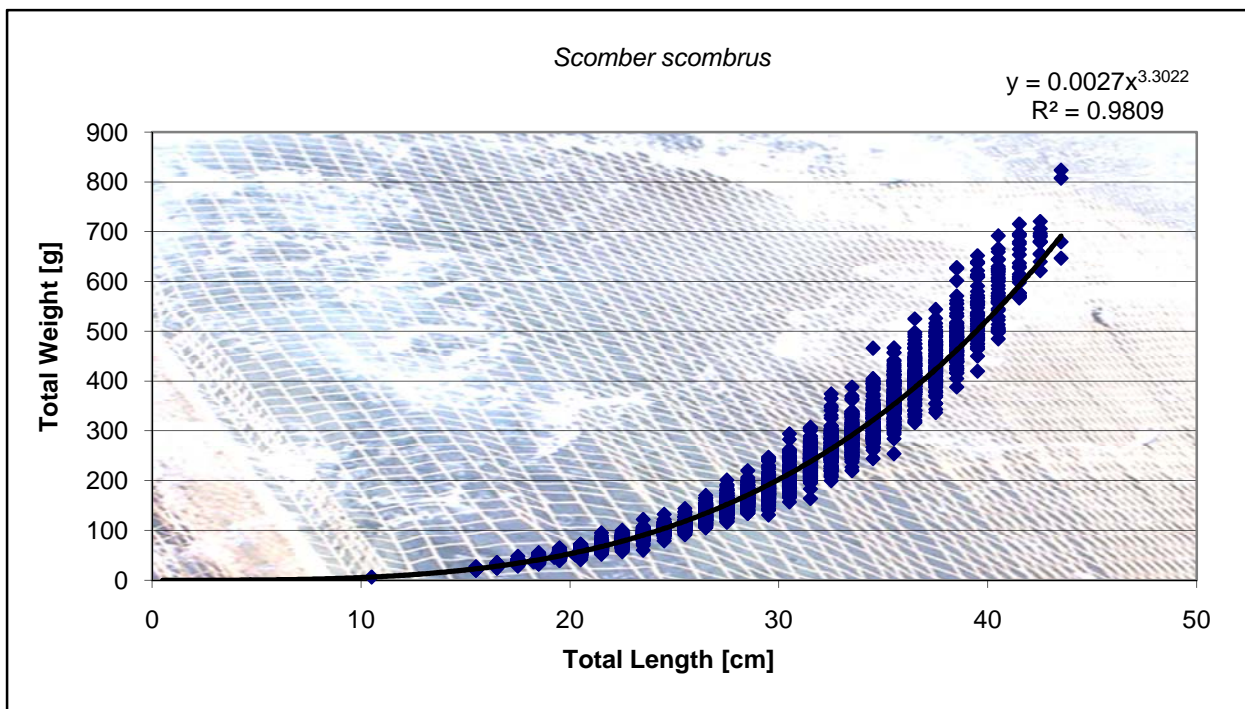
data collected

time period : 1996 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
3239	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
807	1223	1209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2030	-	435	773	1	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	1733	295	2	-	-	435	-	-	171	16	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	586	-	1	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
1576	301	79	-	-	14	60	-	-		-	-	-	-	-	-	-	-	-	

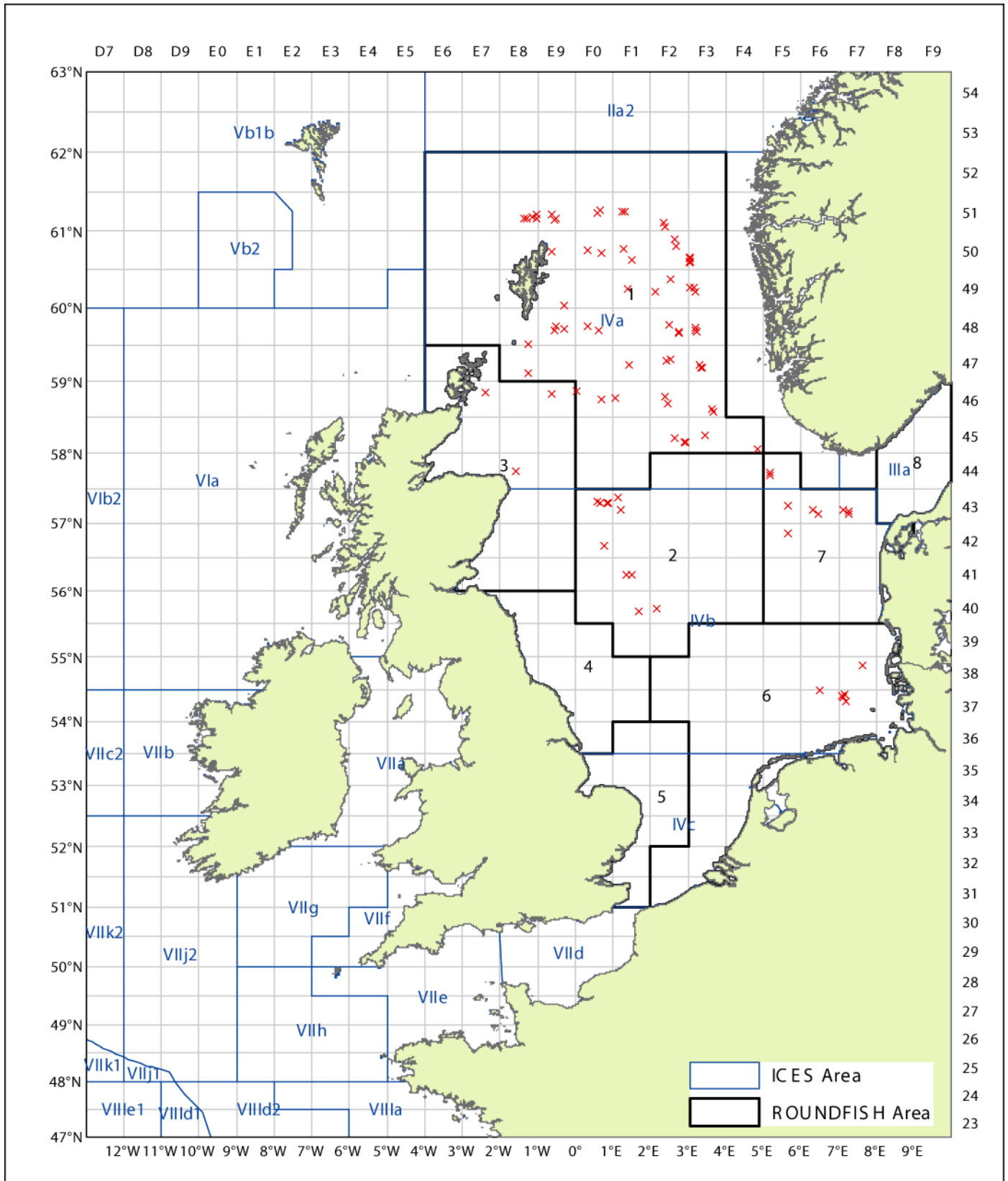


Method of Measurement

- Total length		male	1451
- cm below		female	1342
min length	10.5 [cm]	undefined	446
max length	43.5 [cm]	total numbers of data	3239

Scomber scombrus January

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

January

$$TW [g] = a * L [cm]^b$$

a = 0.0022

b = 3.3809

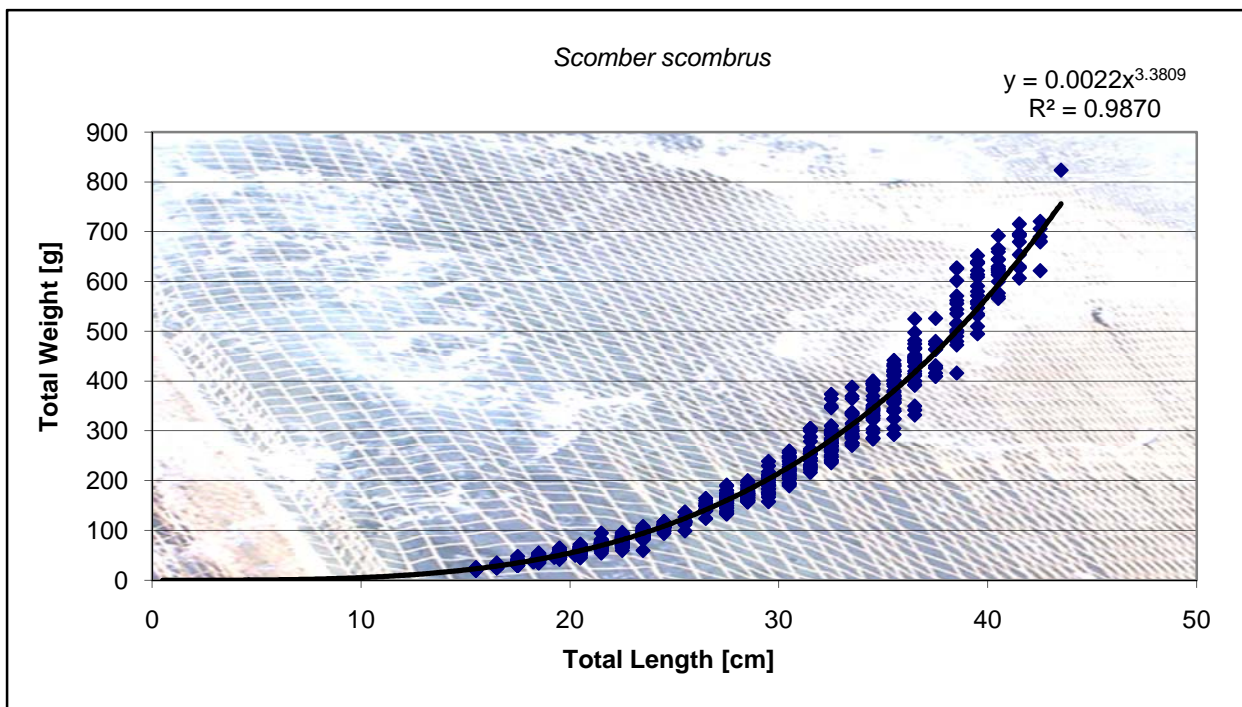
data collected

time period : 1996 - 2008

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
807	-	-	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
807	-	-	-	-	-	-	-	-	-	-	-	-										
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	807	-	-	-	-	-	-	-	-	-										
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	722	85	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B												
-	-	-	-	-	-	-	-	-	-	-												
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
707	29	4	-	-	7	60	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	286
- cm below		female	318
min length	15.5 [cm]	undefined	203
max length	43.5 [cm]	total numbers of data	807

Scomber scombrus

February

$$TW [g] = a * L [cm]^b$$

a = 0.0026

b = 3.3148

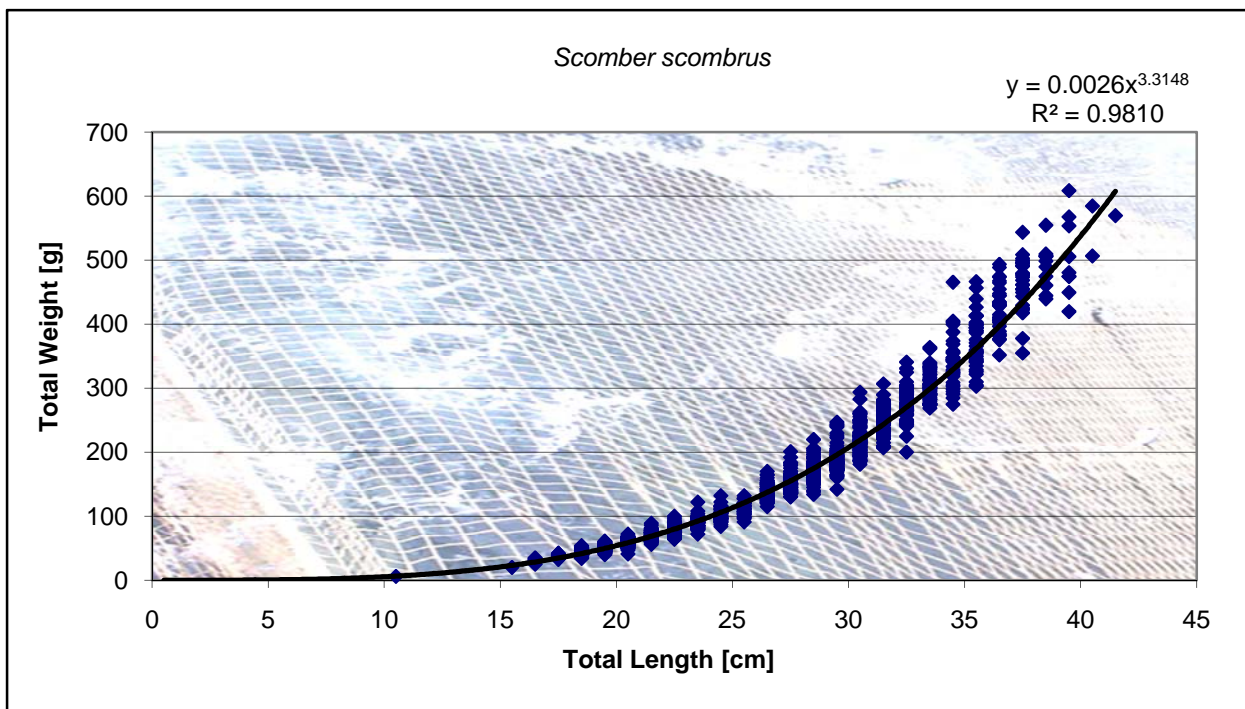
data collected

time period : 1996 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
1223	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	1223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	1011	210	2	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
869	272	75	-	-	7	-	-	-		-	-	-	-	-	-	-	-	-	

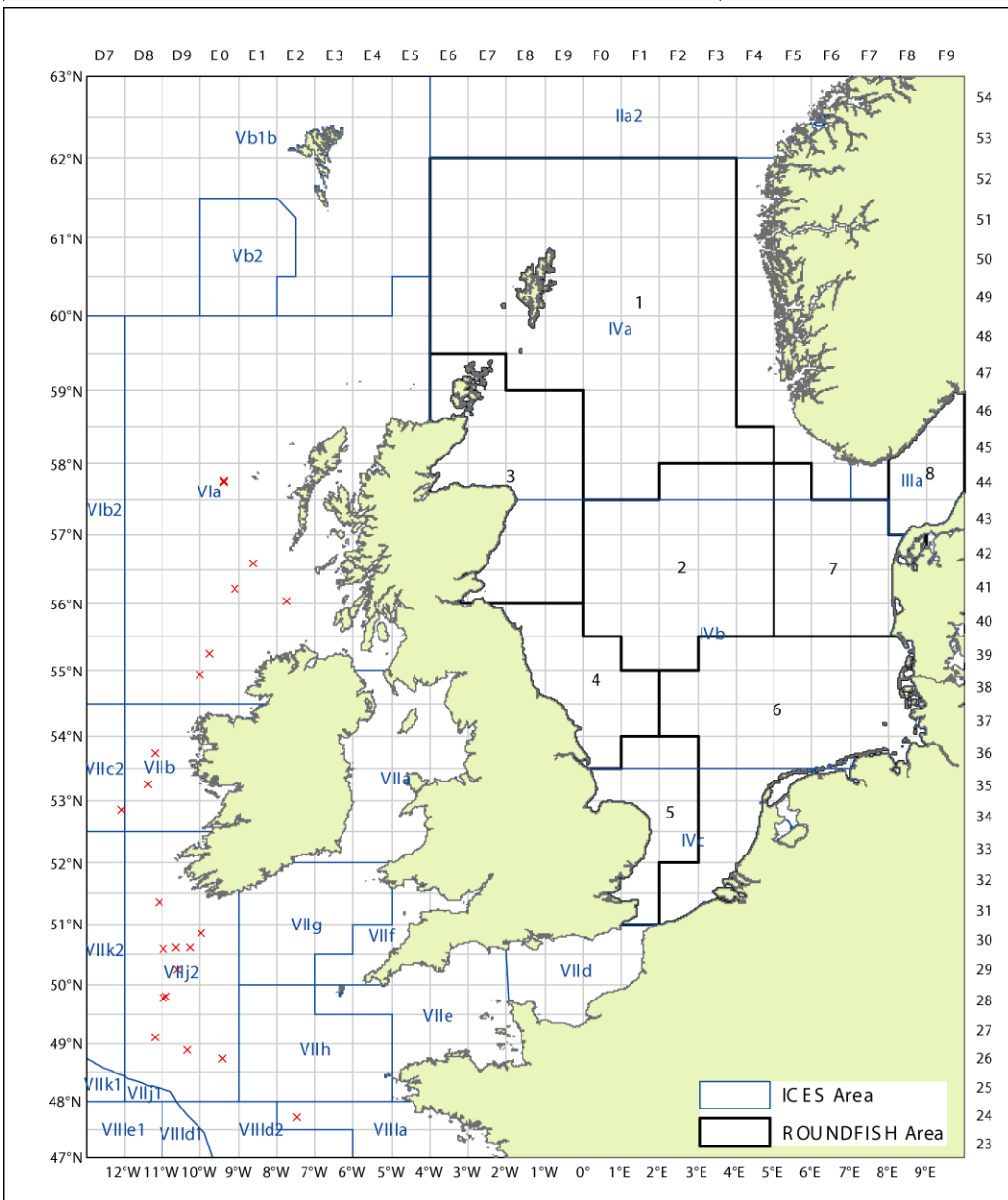
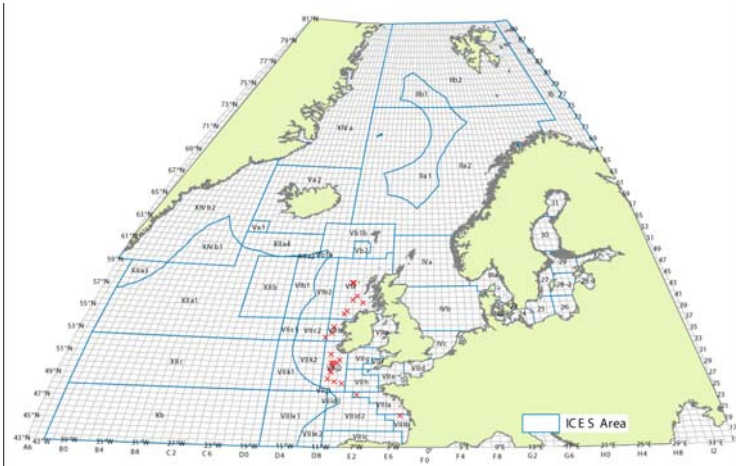


Method of Measurement

- Total length		male	519
- cm below		female	557
min length	10.5 [cm]	undefined	147
max length	41.5 [cm]	total numbers of data	1223

Scomber scombrus March

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

March

$$Tw [g] = a * L [cm]^b$$

a = 0.0017

b = 3.4118

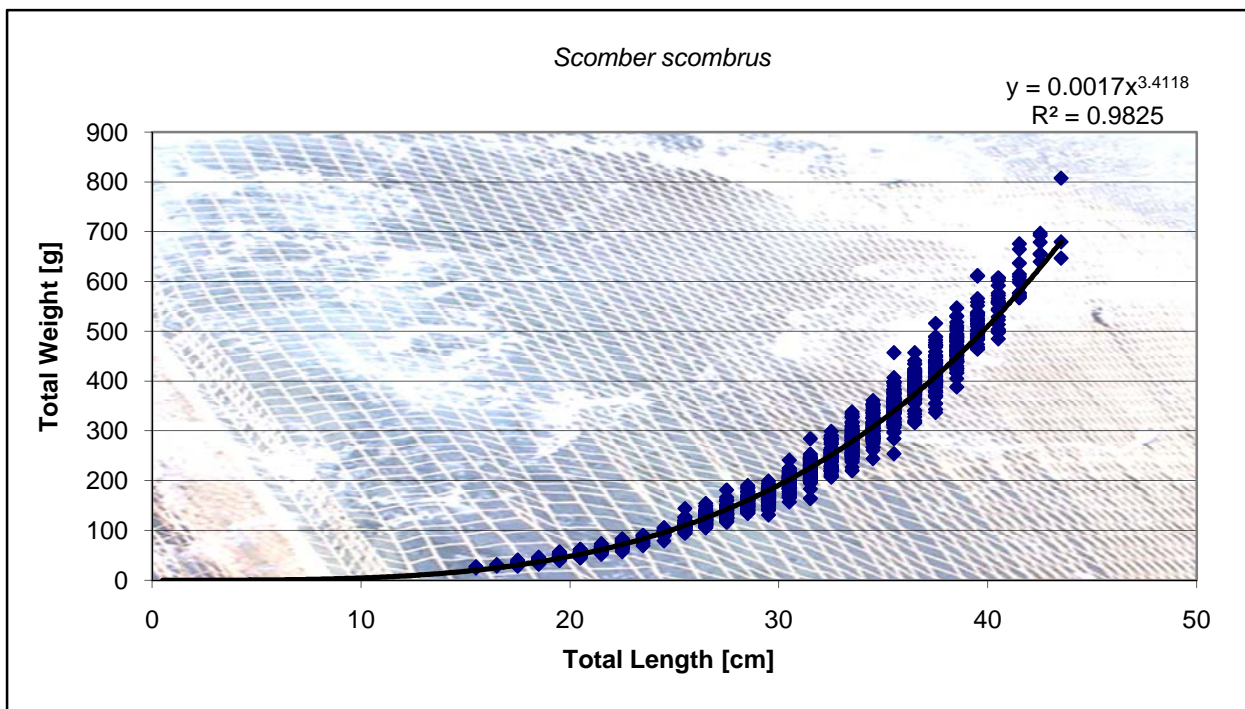
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
1209	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	1209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	-	-	435	773	1	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	-	-	-	-	435	-	-	171	16	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	586	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9			1A	1B	1C	1D	1E	1F	2G	2H	2J
-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-

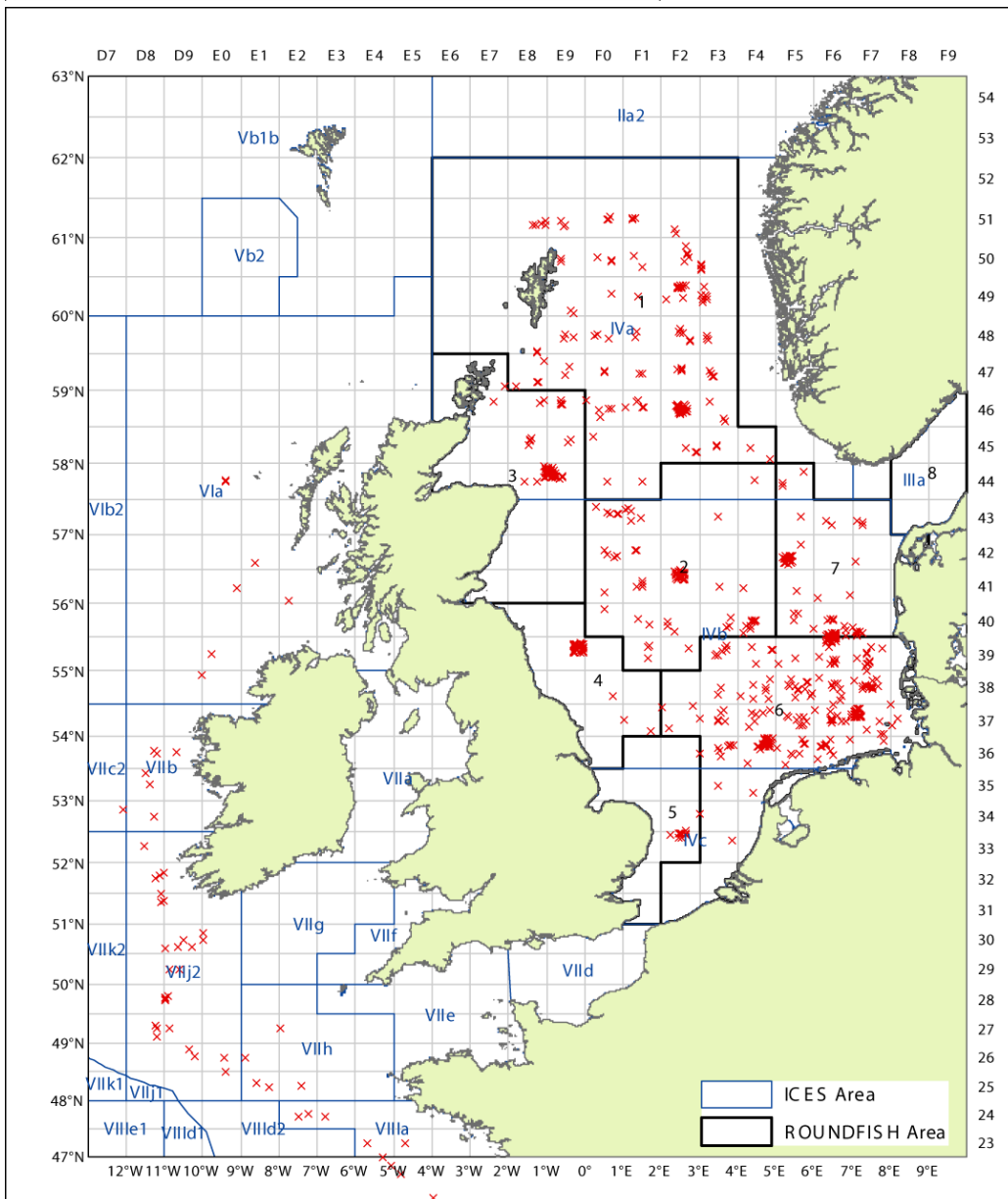
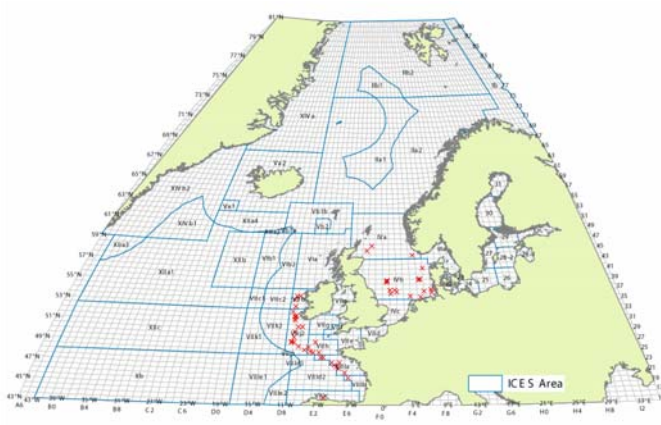


Method of Measurement

- Total length		male	646
- cm below		female	467
min length	15.5 [cm]	undefined	96
max length	43.5 [cm]	total numbers of data	1209

Scomber scombrus Quarter 2

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

Quarter: 2

$$TW [g] = a * L [cm]^b$$

a = 0.0024

b = 3.308

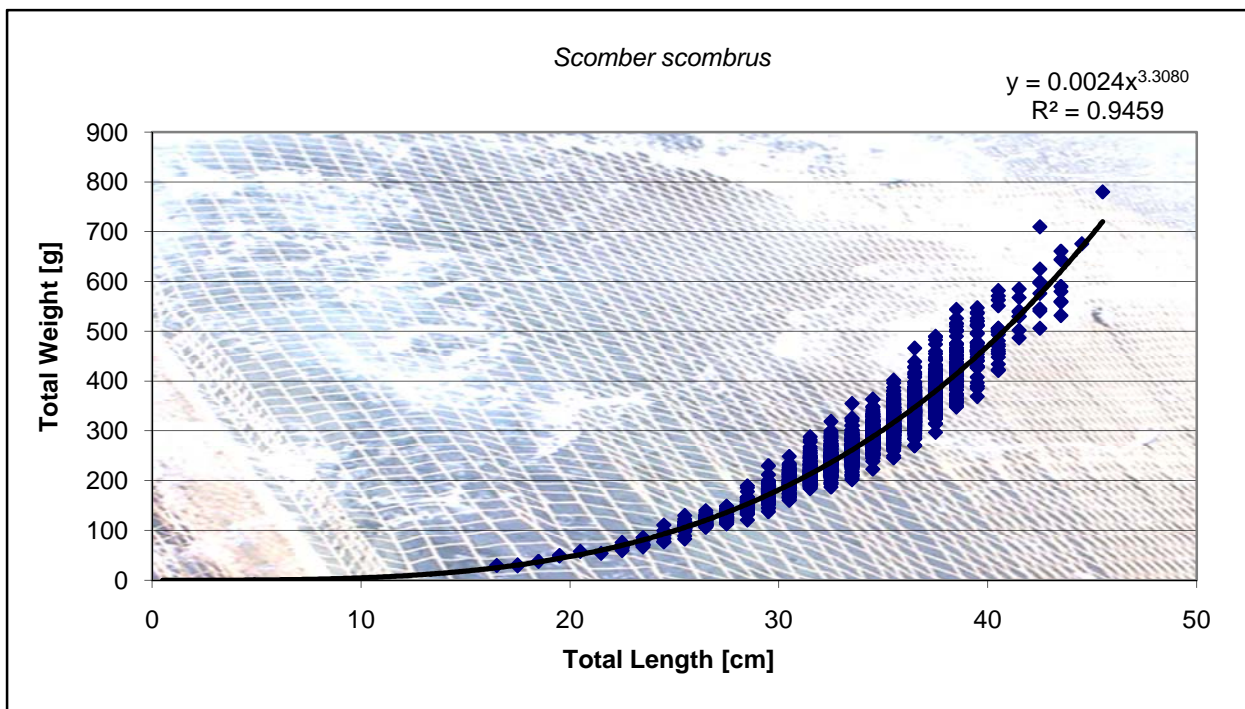
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1828	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	1697	118	13	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	133	-	-	1435	260	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	3	130	-	-	-	-	-	-	248	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	277	910	-	207	18	20	15	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	3	2	-	-	123	5	-	-	-	-	-	-	-	-	-	-	-	-	-

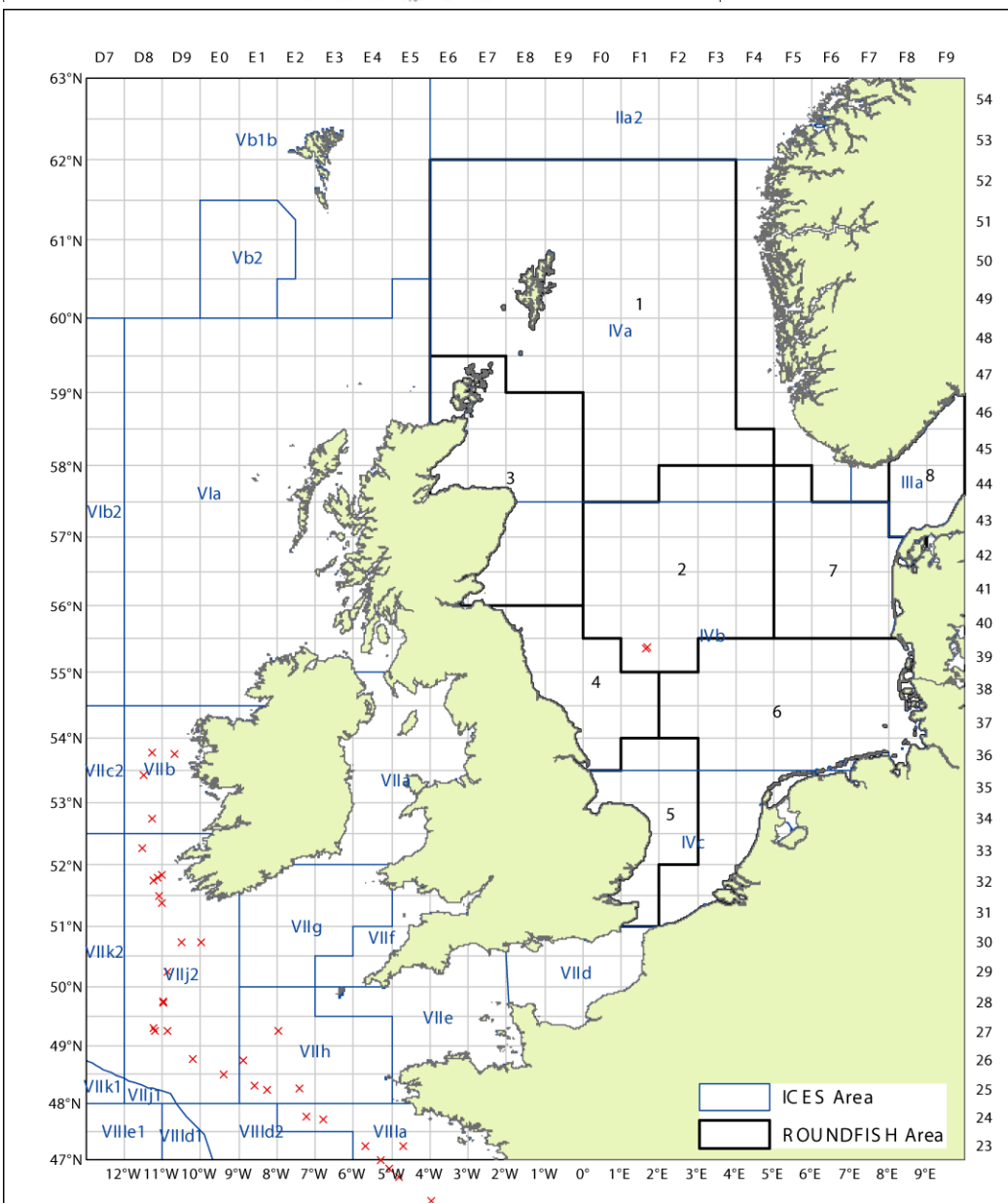
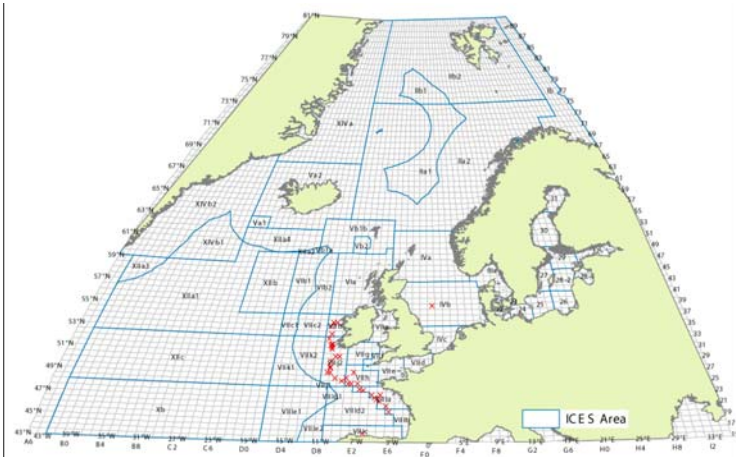


Method of Measurement

- Total length		male	866
- cm below		female	815
min length	16.5 [cm]	undefined	147
max length	45.5 [cm]	total numbers of data	1828

Scomber scombrus April

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

April

$$Tw [g] = a * L [cm]^b$$

a = 0.0024

b = 3.2954

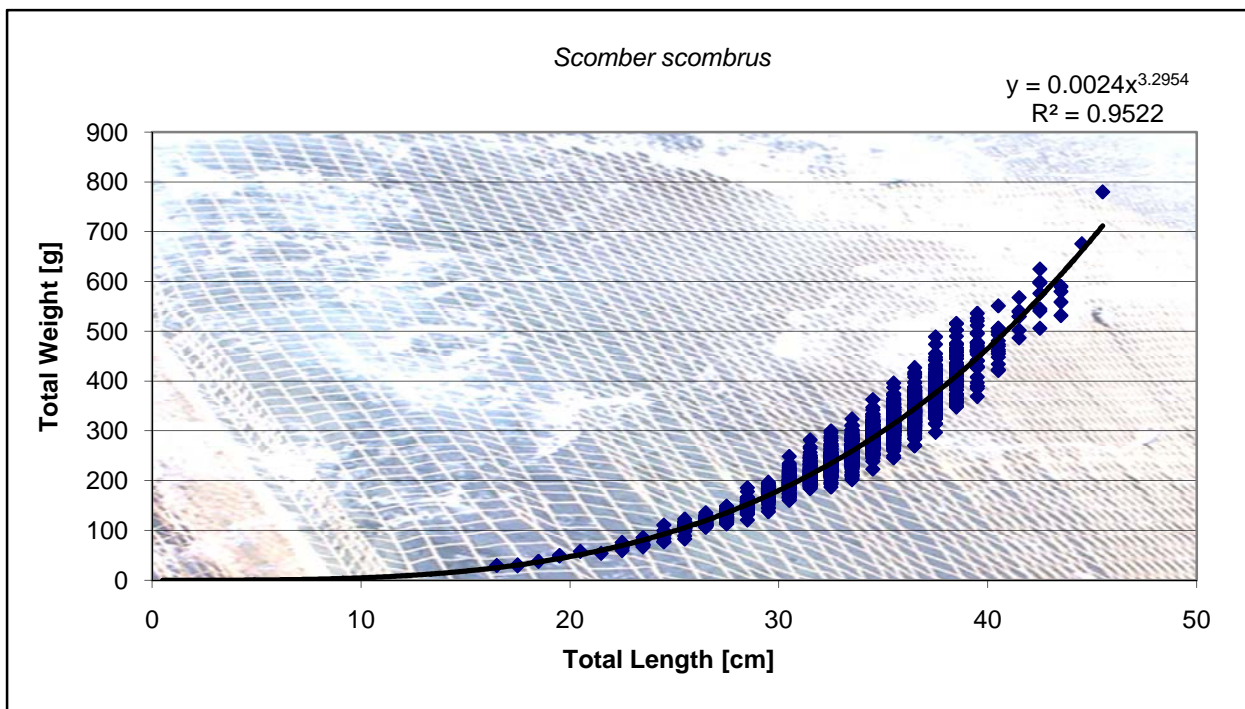
data collected

time period : 1997 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1696	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	1696	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2	-	-	1434	260	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	248	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	277	909	-	207	18	20	15	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

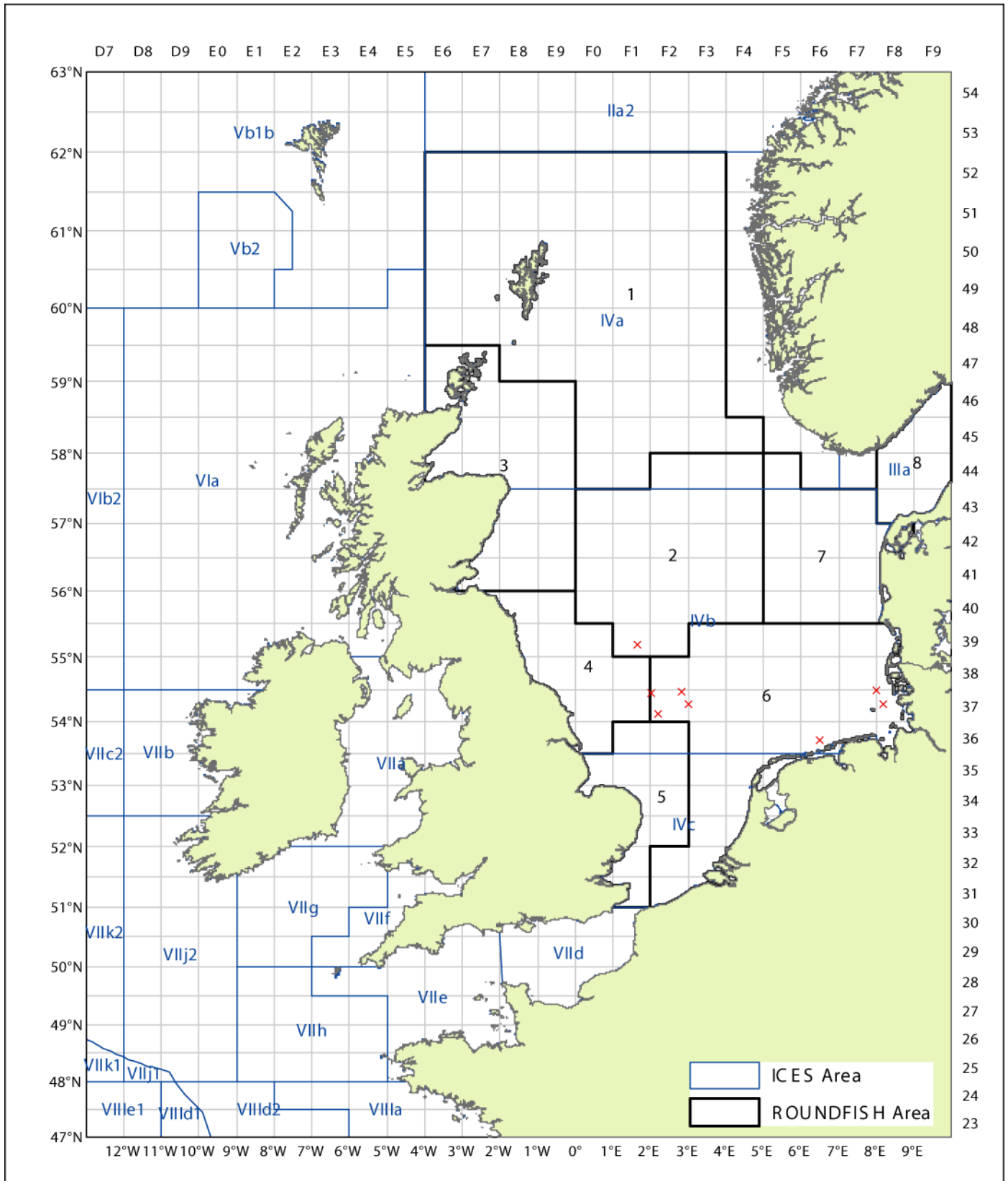


Method of Measurement

- Total length		male	817
- cm below		female	752
min length	16.5 [cm]	undefined	127
max length	45.5 [cm]	total numbers of data	1696

Scomber scombrus May

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

May

$$TW [g] = a * L [cm]^b$$

a = 0.0028

b = 3.2932

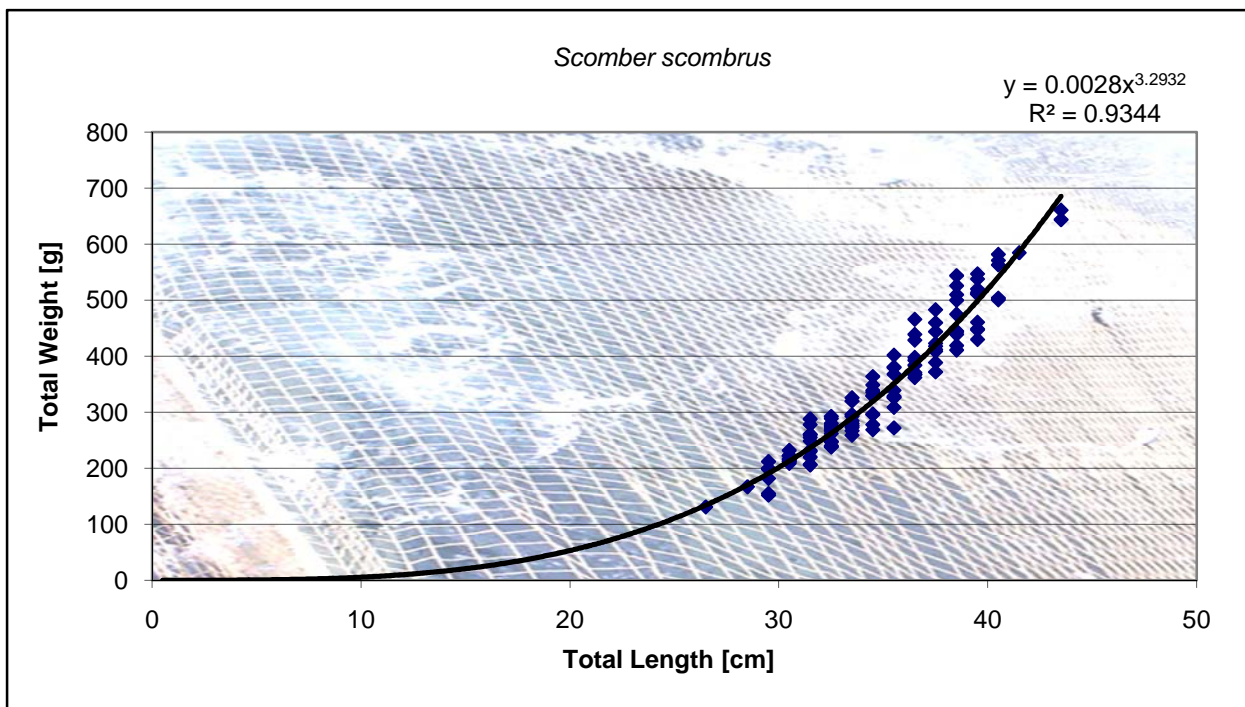
data collected

time period : 1996 - 2006

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	118	-	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	118	-	-	-	-	-	-	-	-										
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	118	-	-	-	-	-	-	-	-	-										
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	118	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B												
-	-	-	-	-	-	-	-	-	-	-												
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	1	-	-	-	117	-	-	-						-	-	-	-	-	-	-	-	-

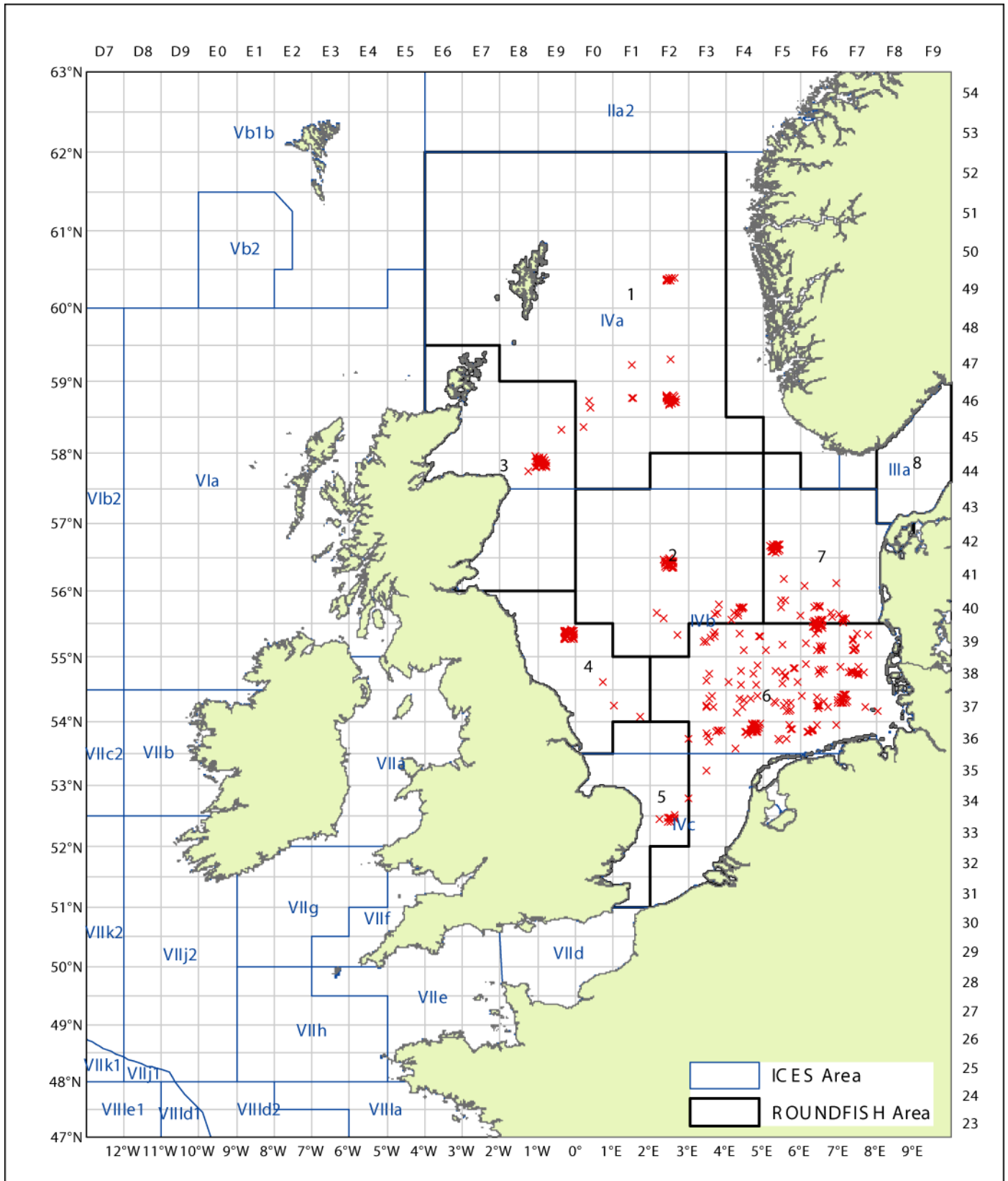


Method of Measurement

- Total length		male	49
- cm below		female	62
min length	26.5 [cm]	undefined	7
max length	43.5 [cm]	total numbers of data	118

Scomber scombrus Quarter 3

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

Quarter: 3

$$TW [g] = a * L [cm]^b$$

a = 0.0043

b = 3.2101

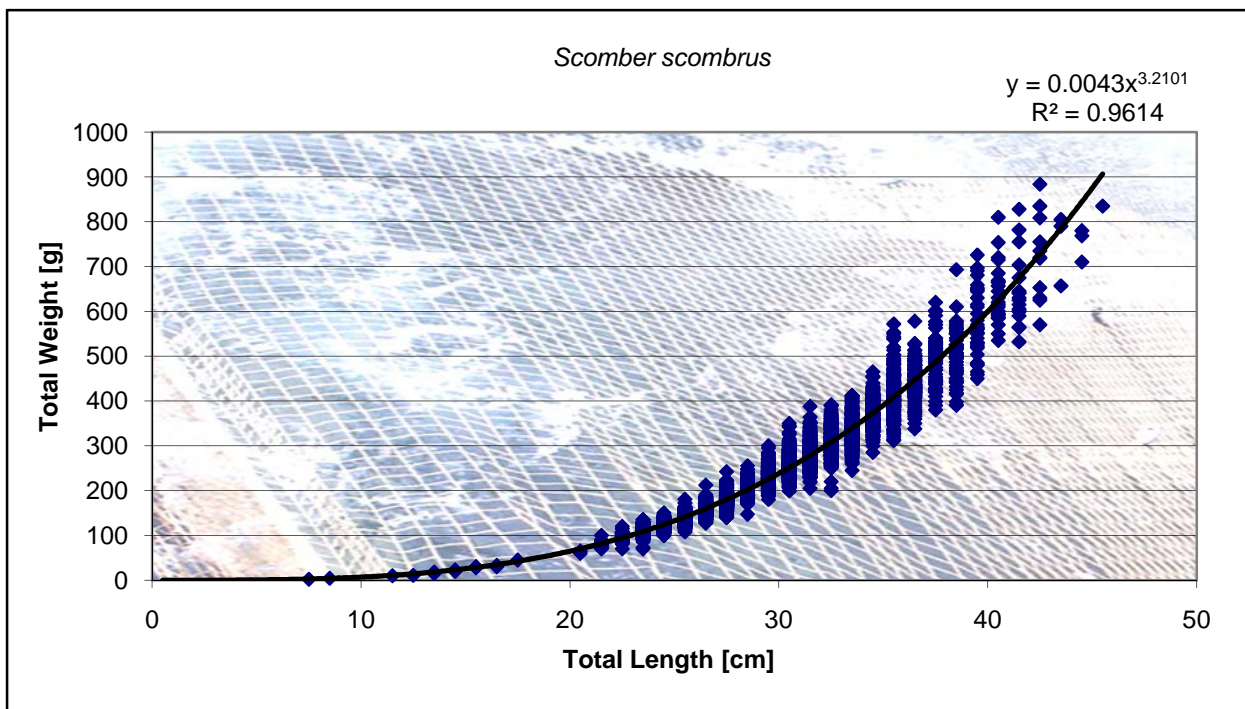
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	3509	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	1781	1478	250	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	3509	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	983	2516	10	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B												
-	-	-	-	-	-	-	-	-	-	-												
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
595	167	370	317	11	1699	350	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	1404
- cm below		female	1556
min length	7.5 [cm]	undefined	549
max length	45.5 [cm]	total numbers of data	3509

Scomber scombrus

July

$$Tw [g] = a * L [cm]^b$$

a = 0.0043

b = 3.2122

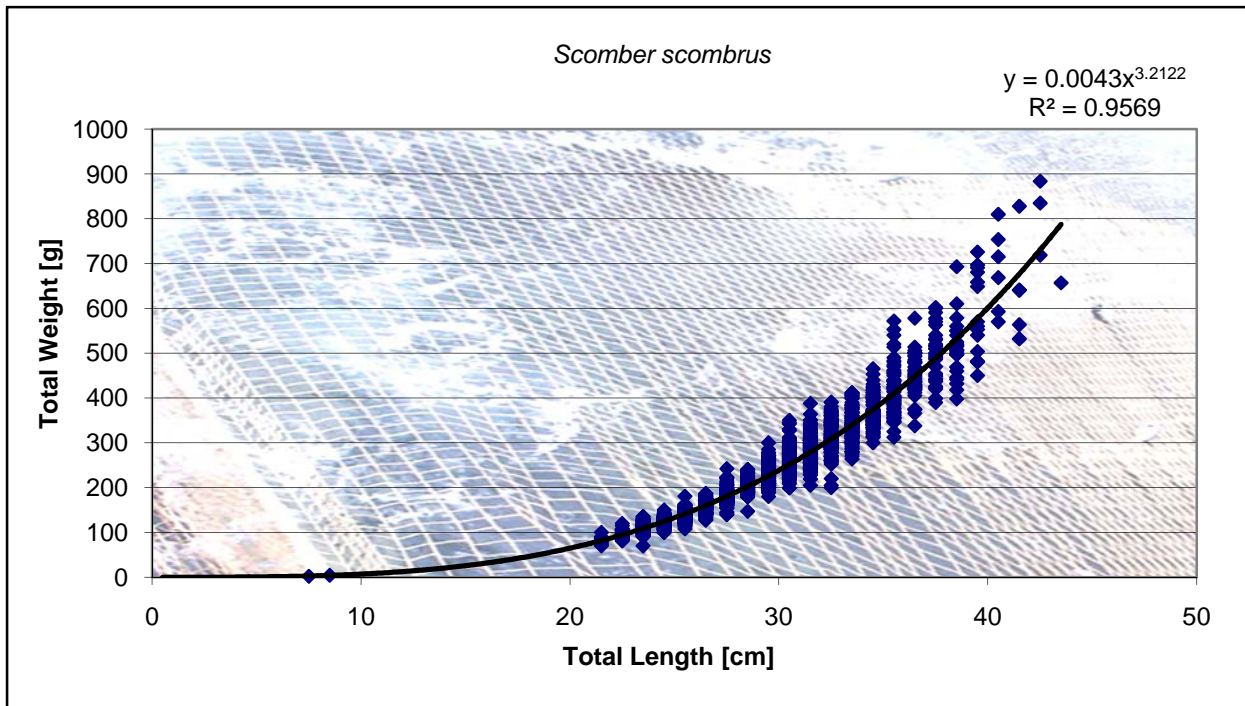
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	1781	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	1781	-	-	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	1781	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	737	1034	10	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B												
-	-	-	-	-	-	-	-	-	-	-												
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
517	78	217	121	11	627	210	-	-						-	-	-	-	-	-	-	-	-

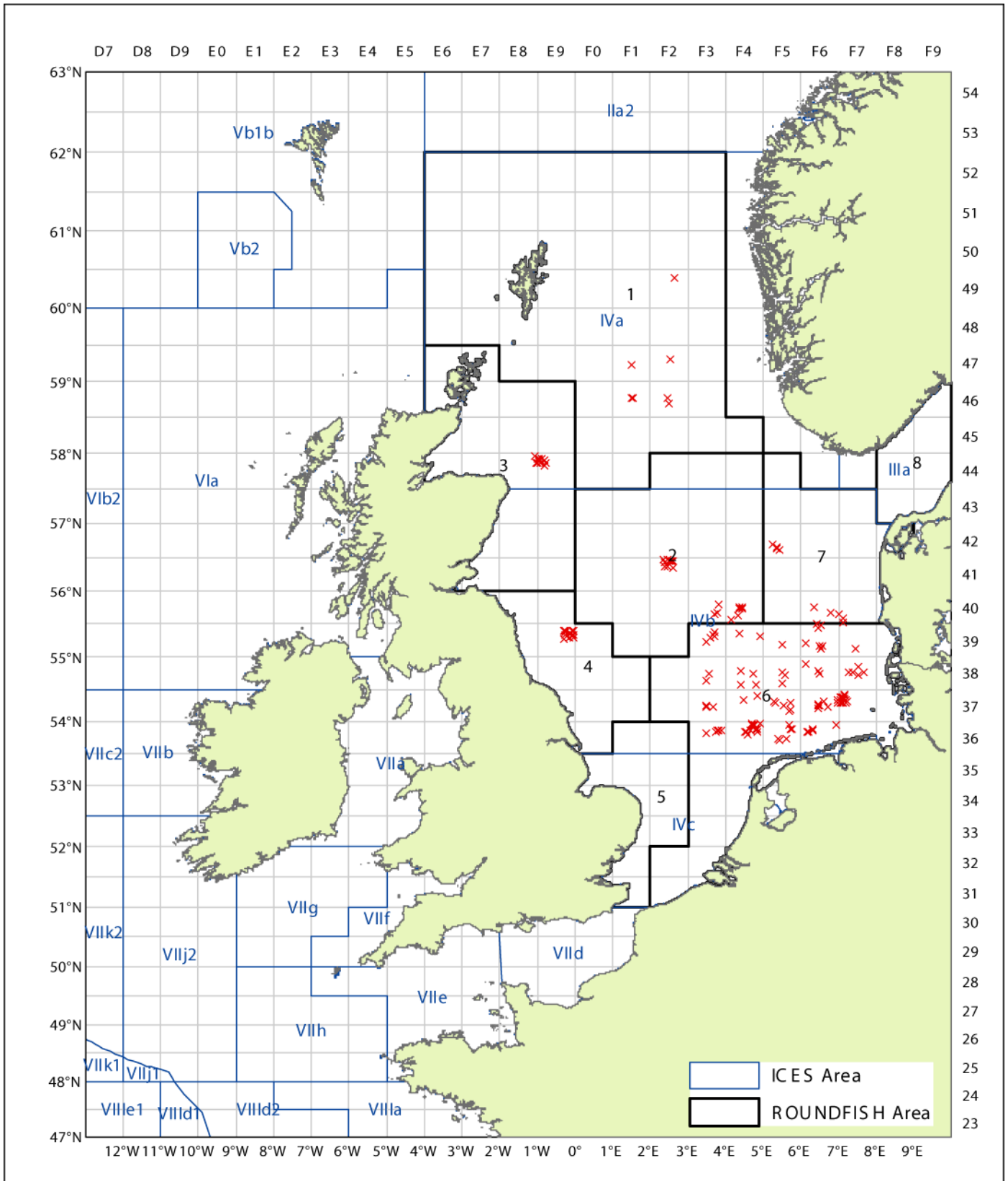


Method of Measurement

- Total length		male	637
- cm below		female	706
min length	7.5 [cm]	undefined	438
max length	43.5 [cm]	total numbers of data	1781

Scomber scombrus August

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

August

$$Tw [g] = a * L [cm]^b$$

a = 0.0046

b = 3.1875

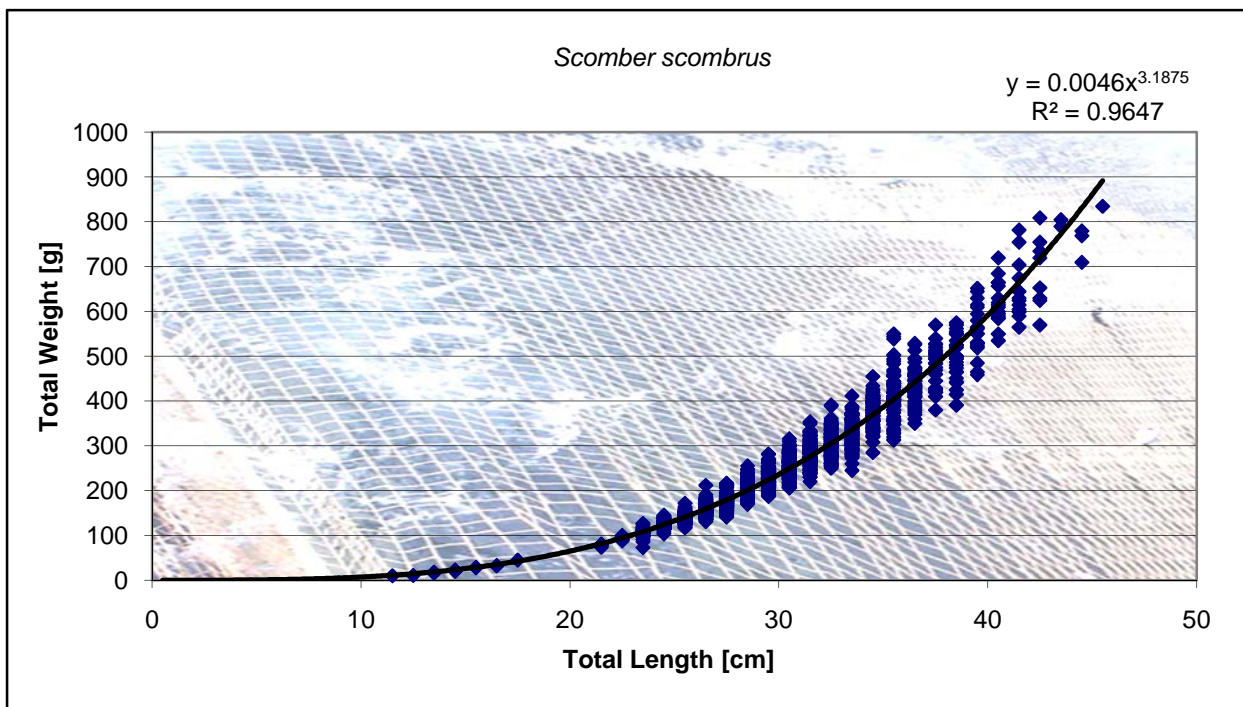
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	1478	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	-	1478	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	1478	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	178	1300	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	-	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
78	89	85	113	-	995	118	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	662
- cm below		female	714
min length	11.5 [cm]	undefined	102
max length	45.5 [cm]	total numbers of data	1478

Scomber scombrus

September

$$TW [g] = a * L [cm]^b$$

a = 0.0029

b = 3.335

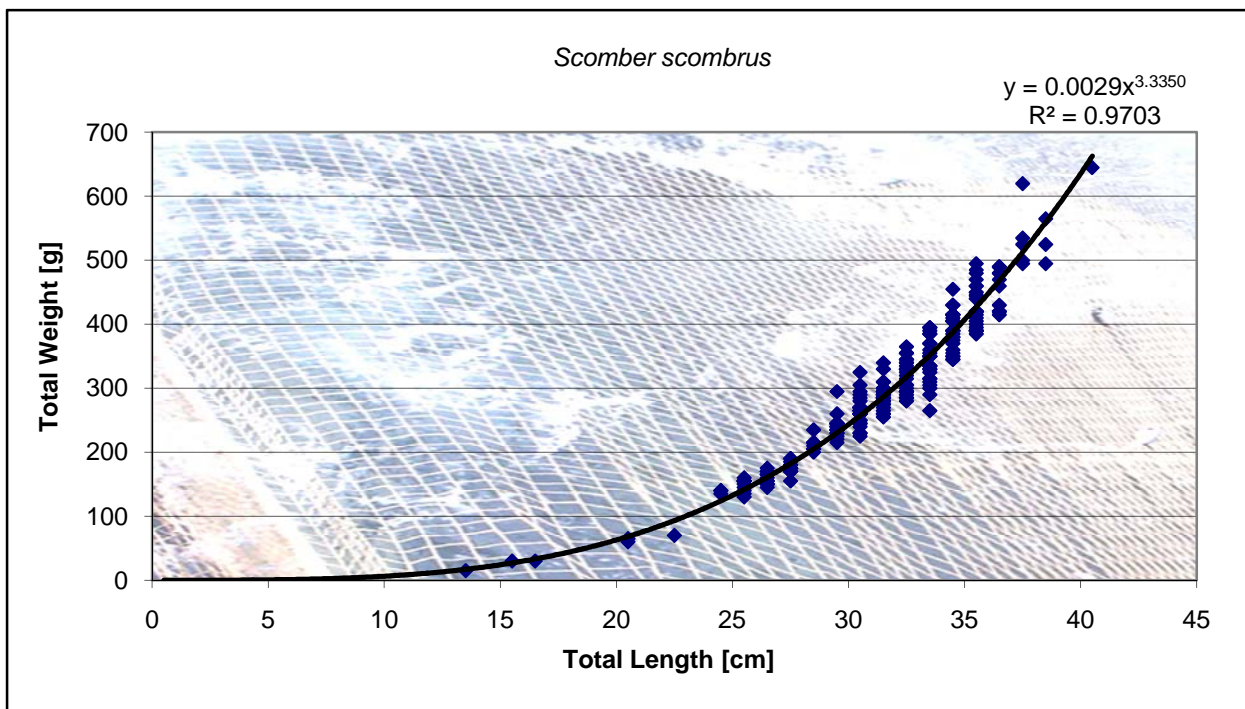
data collected

time period : 1997

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	250	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	-	-	250	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	250	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	68	182	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B												
-	-	-	-	-	-	-	-	-	-	-												
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	-	68	83	-	77	22	-	-						-	-	-	-	-	-	-	-	-

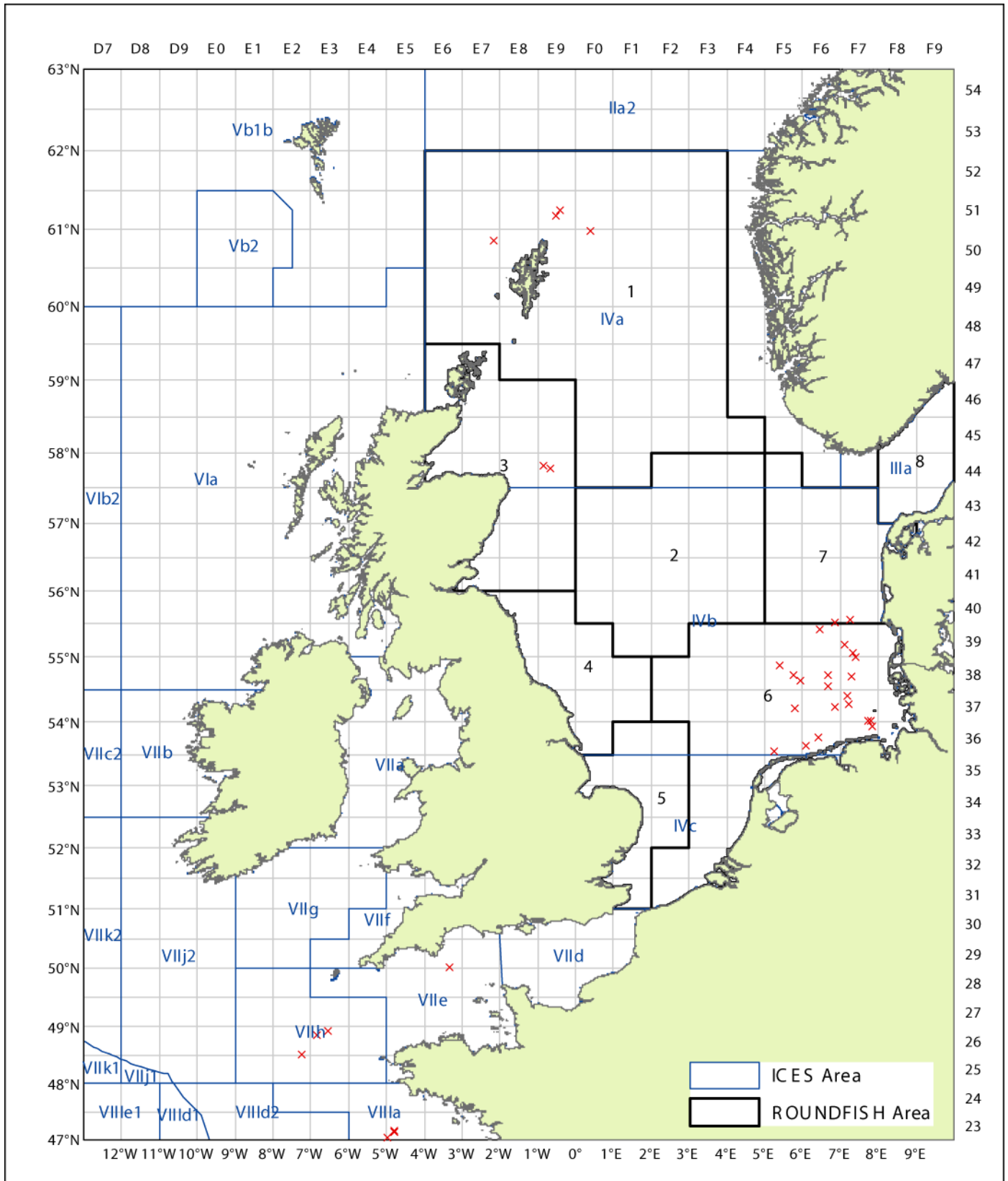


Method of Measurement

- Total length		male	105
- cm below		female	136
min length	13.5 [cm]	undefined	9
max length	40.5 [cm]	total numbers of data	250

Scomber scombrus Quarter 4

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

Quarter: 4

$$TW [g] = a * L [cm]^b$$

a = 0.0015

b = 3.4916

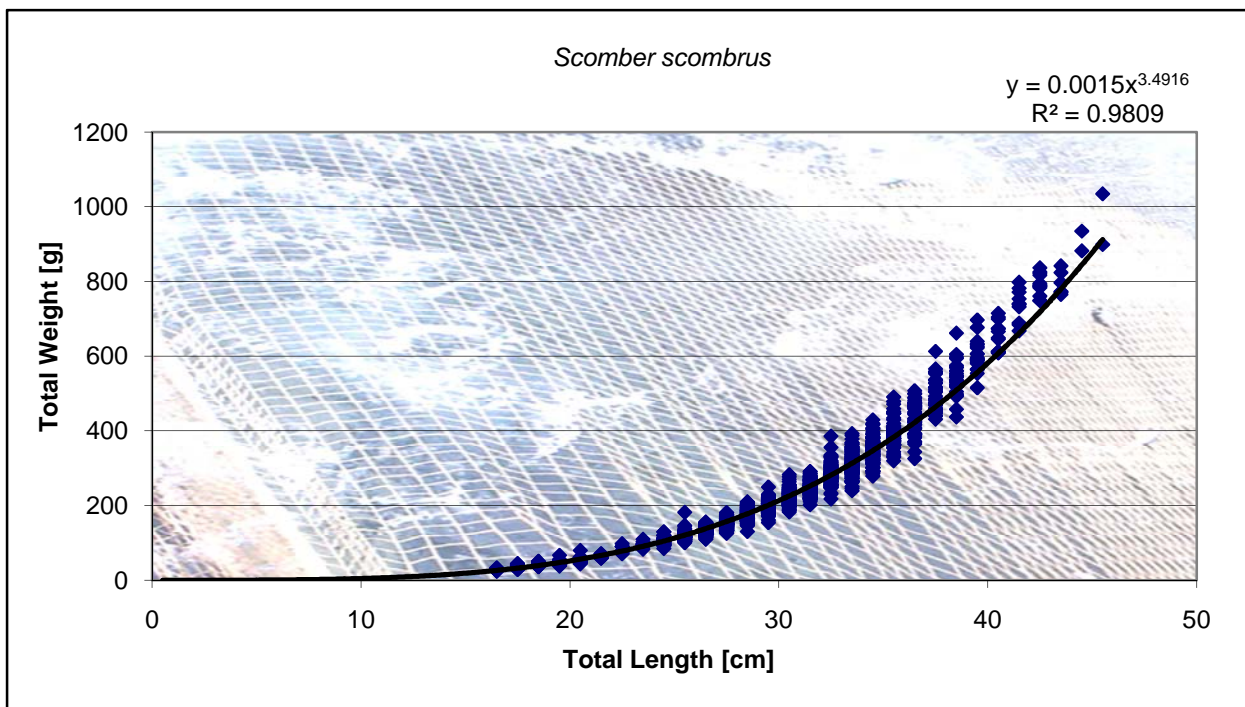
data collected

time period : 1997 - 2003

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	1510																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	286	499	725								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	673	-	-	352	485	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	649	24	-	-	-	-	-	-	-	-	-	88	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	264	-	-	485	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
649	-	2	-	-	22	-	-	-											
									1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-		

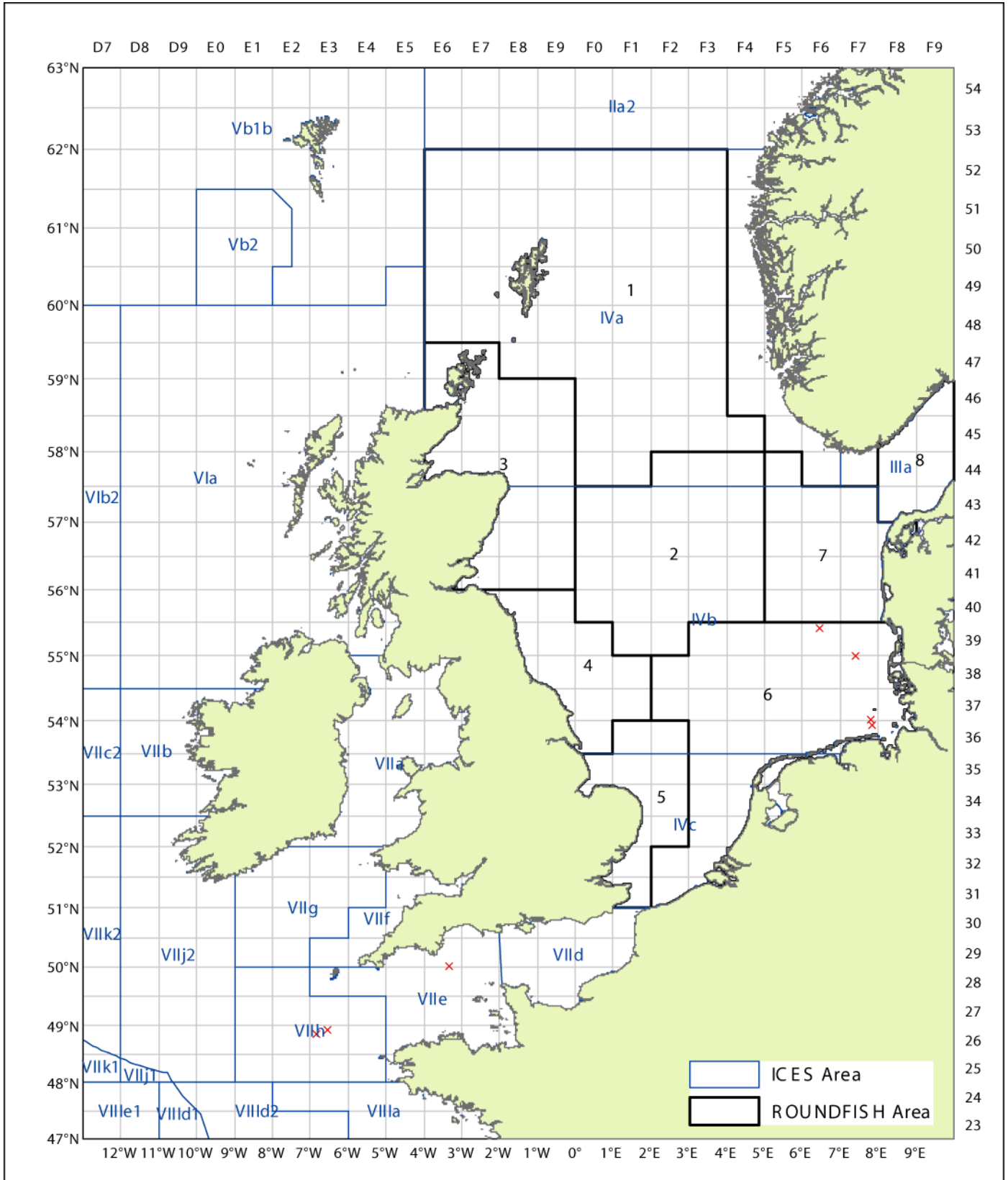


Method of Measurement

- Total length		male	395
- cm below		female	490
min length	16.5 [cm]	undefined	625
max length	45.5 [cm]	total numbers of data	1510

Scomber scombrus October

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

October

$$TW [g] = a * L [cm]^b$$

a = 0.003

b = 3.2714

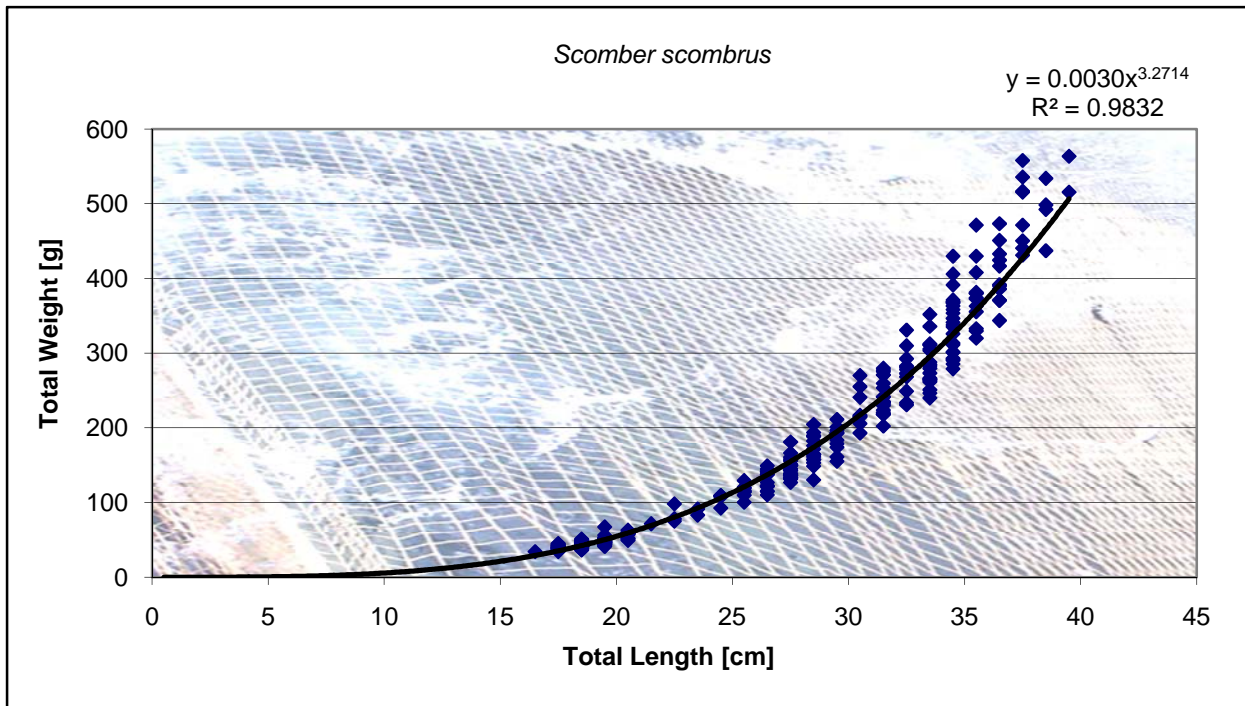
data collected

time period : 2001 - 2003

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	286																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	286	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	4	-	-	282	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	88	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	194	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	120
- cm below		female	87
min length	16.5 [cm]	undefined	79
max length	39.5 [cm]	total numbers of data	286

Scomber scombrus

November

$$TW [g] = a * L [cm]^b$$

a = 0.0027

b = 3.3083

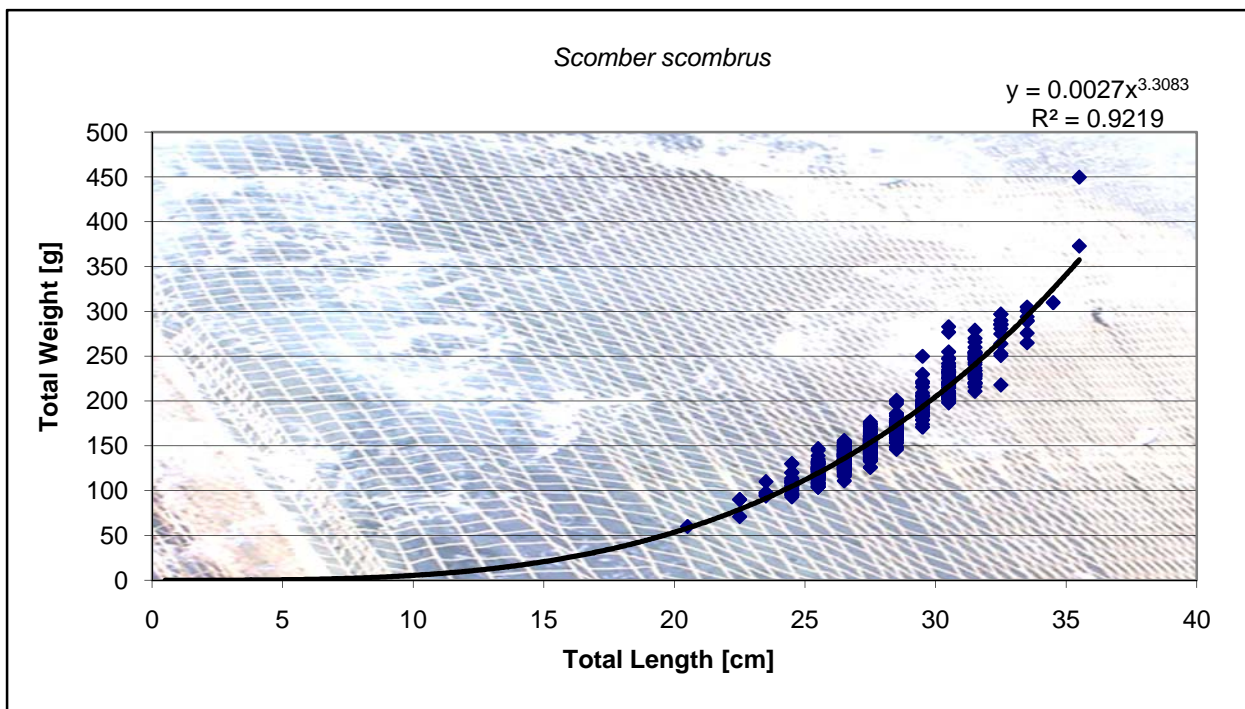
data collected

time period : 1997 - 2003

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	498																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	-	498	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	14	-	-	-	484	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	484	-	-	-	-	-	-									
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	2	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-		

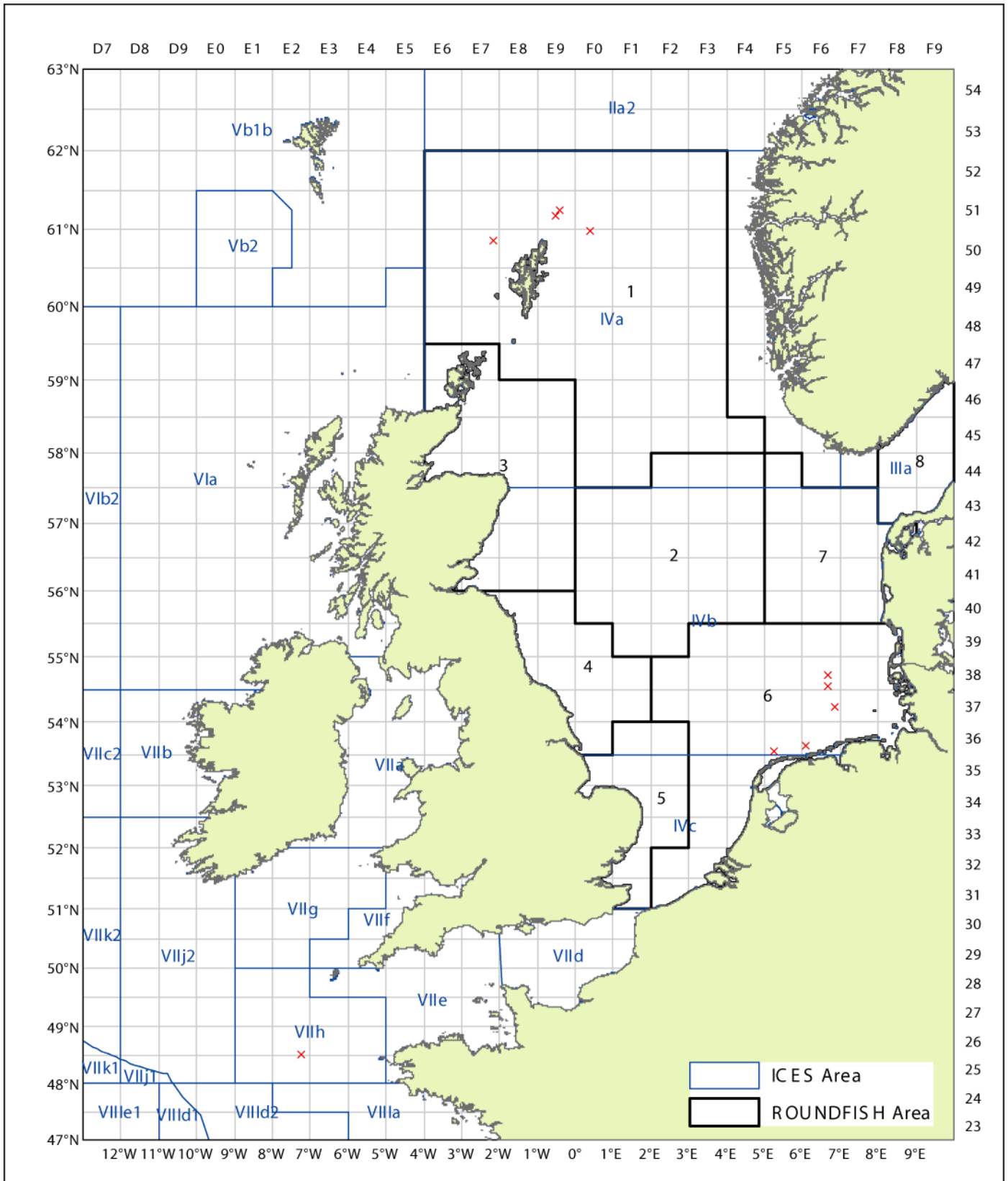


Method of Measurement

- Total length		male	142
- cm below		female	231
min length	20.5 [cm]	undefined	125
max length	35.5 [cm]	total numbers of data	498

Scomber scombrus December

Geographical distribution of data used for calculating the length-weight relationship



Scomber scombrus

December

$$Tw [g] = a * L [cm]^b$$

a = 0.001

b = 3.5993

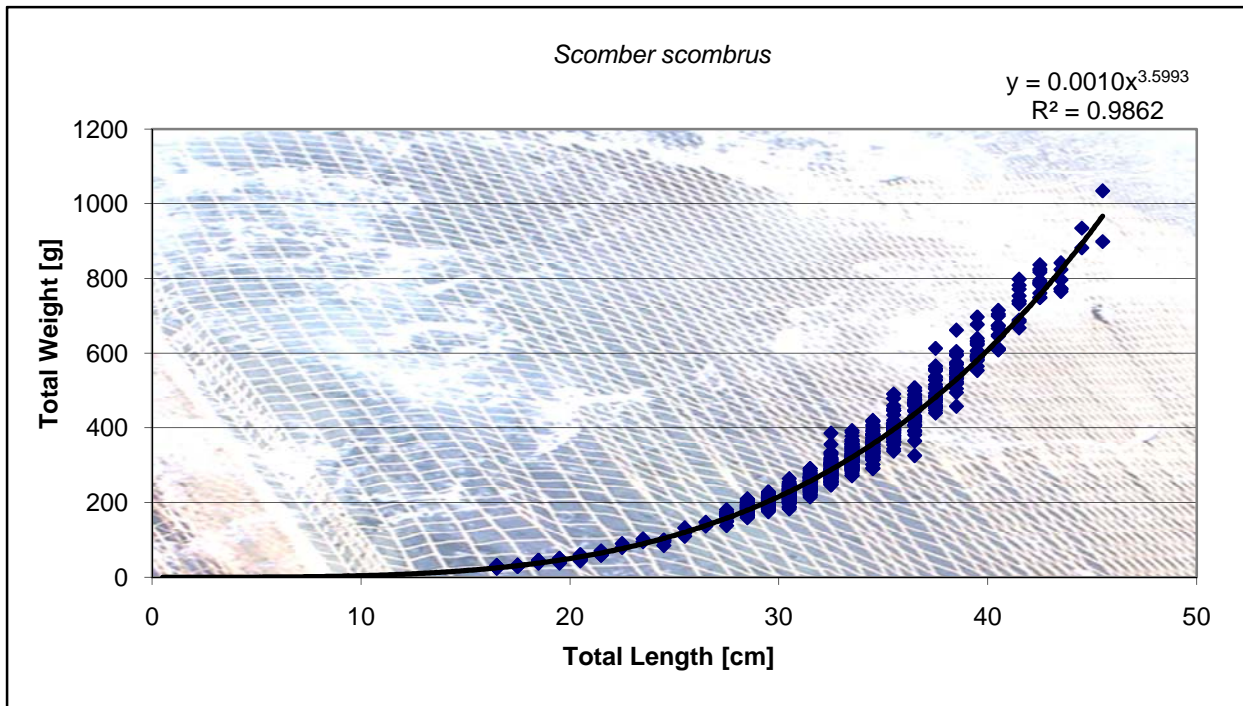
data collected

time period : 1997 - 2003

data source : research vessel, commercial trawler

numbers of data:

Quarter																				
1	2	3	4																	
-	-	-	724																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	-	-	-	-	-	-	724								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	654	-	-	70	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	649	5	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B										
-	70	-	-	-	-	-	-	-	-	-										
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
649	-	-	-	-	5	-	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	132
- cm below		female	172
min length	16.5 [cm]	undefined	420
max length	45.5 [cm]	total numbers of data	724

Scophthalmus rhombus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0103

b = 3.0937

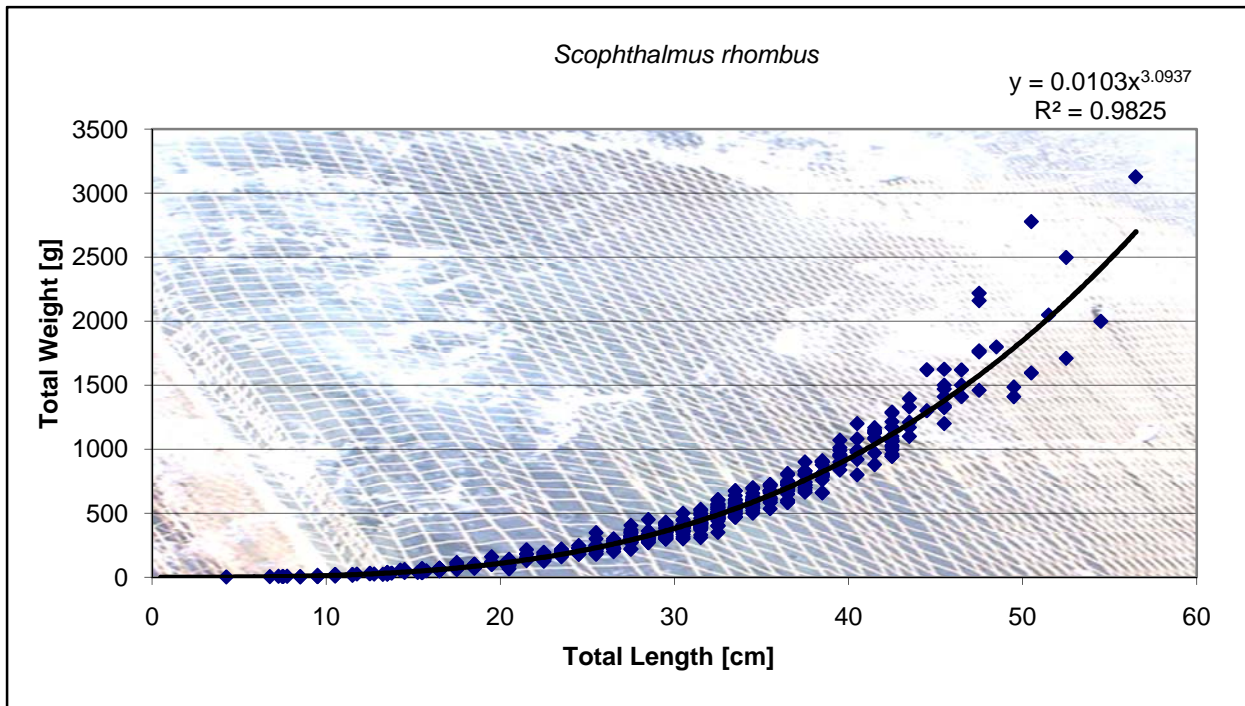
data collected

time period : 1990 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
97	203	157	71																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
72	23	2	8	156	39	53	78	26	10	31	30								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	526	-	1	1	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	4	518	4	-	-	1	-	-	-	-	1	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
1	4	3	2	-	500	16	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

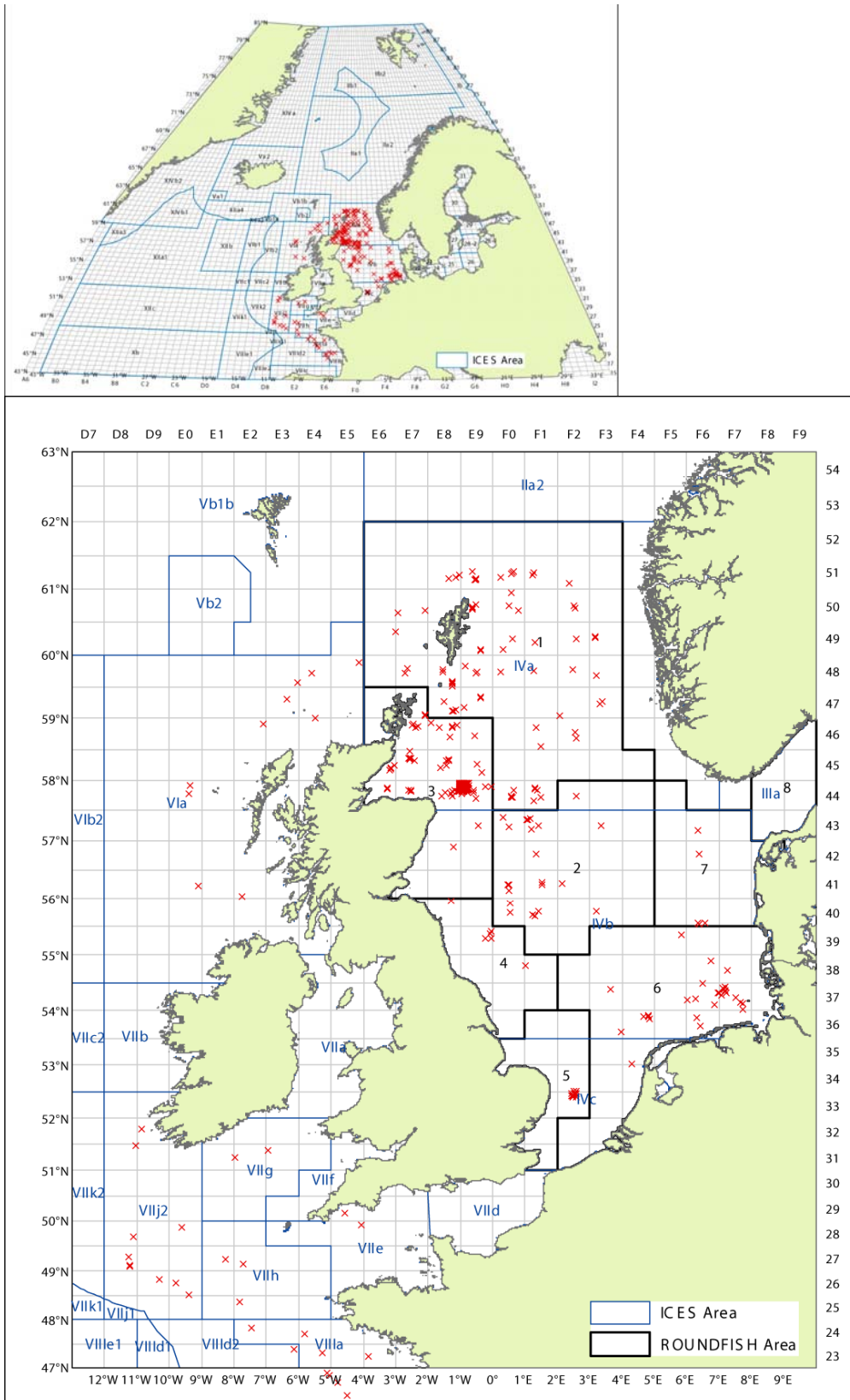


Method of Measurement

- Total length		male	57
- cm below		female	48
min length	4.5 [cm]	undefined	423
max length	56.5 [cm]	total numbers of data	528

Scyliorhinus canicula

Geographical distribution of data used for calculating the length-weight relationship



Scyliorhinus canicula

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0021

b = 3.1276

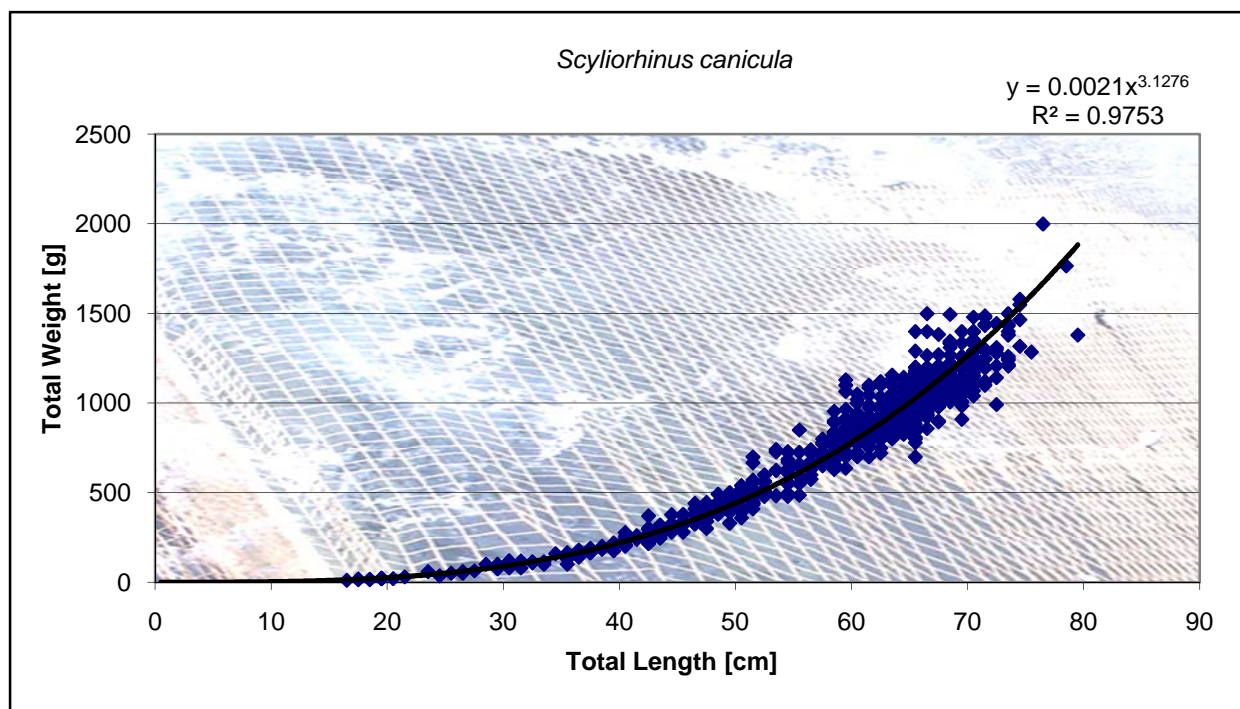
data collected

time period : 1986 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
379	77	209	18																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
149	205	25	44	2	31	66	135	8	1	12	5								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	616	-	13	43	11	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	509	97	10	-	-	13	-	-	-	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
2	3	36	-	5	3	-	3	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
213	36	312	7	12	31	5	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length
- cm below

min length 16.5 [cm]
max length 79.5 [cm]

male 277
female 316
undefined 90

total numbers of data 683

Scyliorhinus canicula



Quarter: 1 - 4

(female)

$$TW [g] = a * L [cm]^b$$

a = 0.0017

b = 3.1946

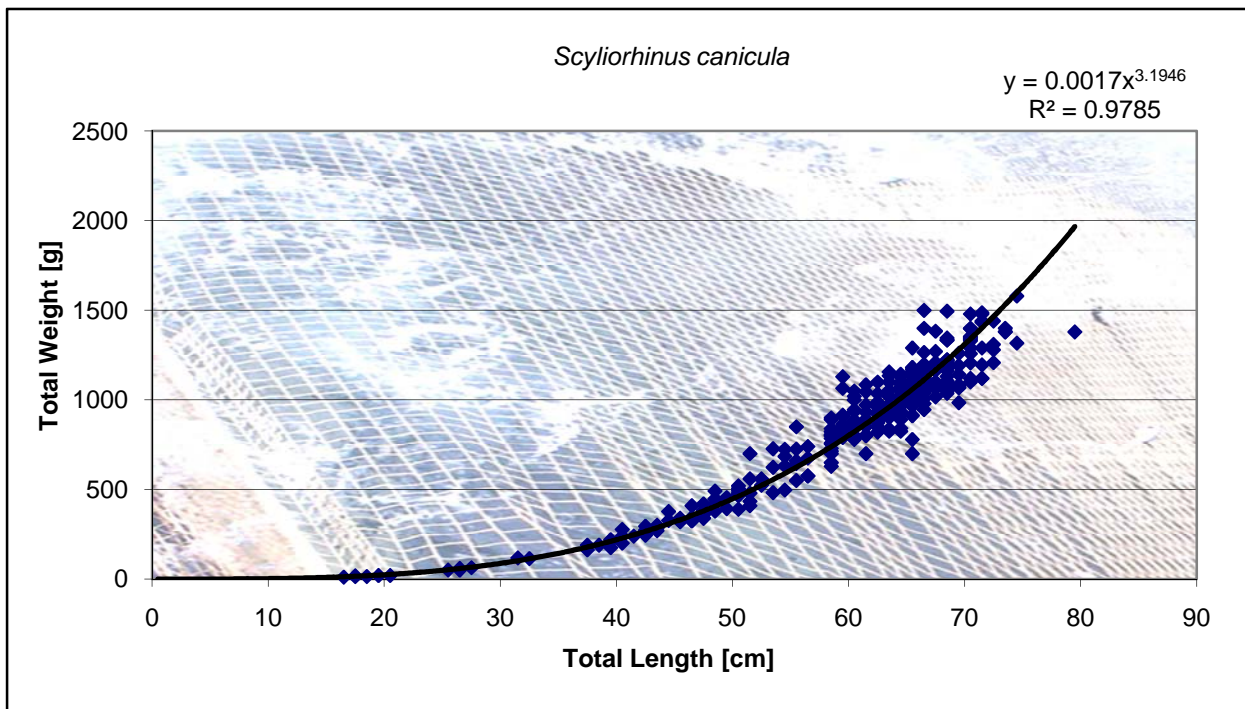
data collected

time period : 1986 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
161	29	124	2																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
66	90	5	17	1	11	24	95	5	-	2	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	295	-	5	16	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	260	35	-	-	-	5	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
1	-	15	-	-	-	-	-	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
68	13	200	5	2	7	-	-	-											
											1A	1B	1C	1D	1E	1F	2G	2H	2J
											-	-	-	-	-	-	-	-	-

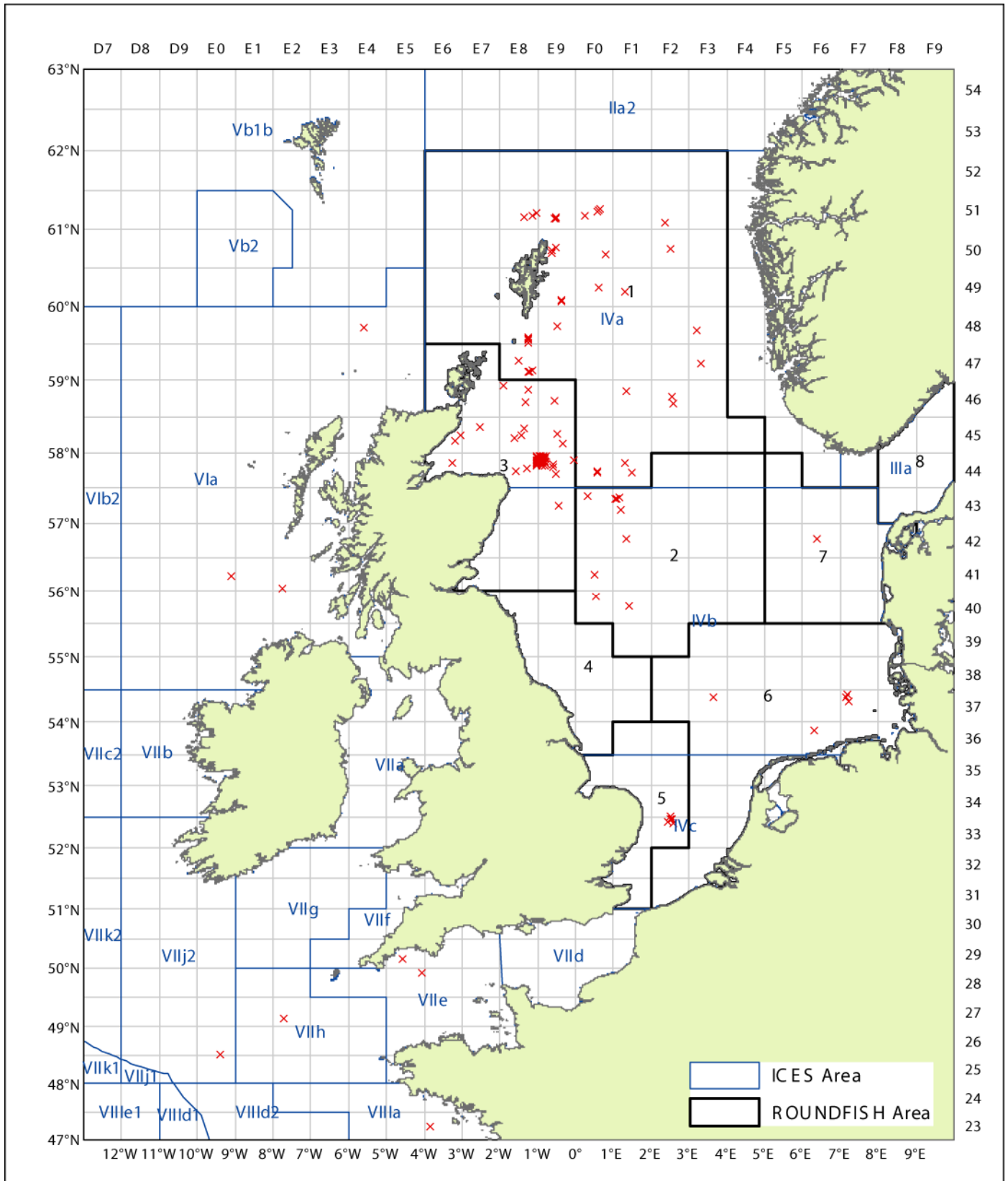


Method of Measurement

- Total length		male	-
- cm below		female	316
		undefined	-
min length	16.5 [cm]		
max length	79.5 [cm]		
		total numbers of data	316

Scyliorhinus canicula ♂

Geographical distribution of data used for calculating the length-weight relationship



Scyliorhinus canicula ♂

Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0033

b = 3.0097

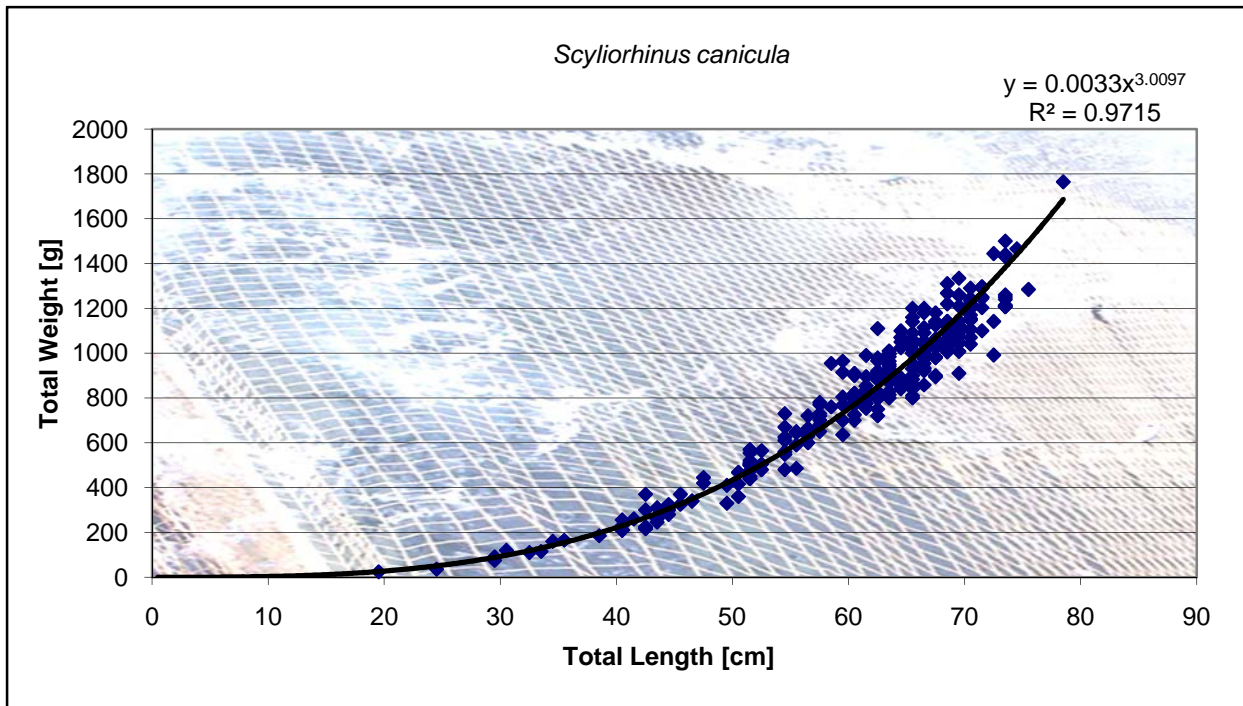
data collected

time period : 1986 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
175	32	66	4																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
75	94	6	17	-	15	28	37	1	-	4	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	255	-	4	13	5	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	218	33	4	-	-	4	-	-	-	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B									
-	1	10	-	1	3	-	1	-	-	-									
Roundfisharea											NAFO								
1	2	3	4	5	6	7	8	9											
132	17	94	-	5	6	1	-	-											
									1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	277
- cm below		female	-
min length	19.5 [cm]	undefined	-
max length	78.5 [cm]	total numbers of data	277

Sebastes marinus

Quarter: 1; 3; 4

$$TW [g] = a * L [cm]^b$$

a = 0.0065

b = 3.2124

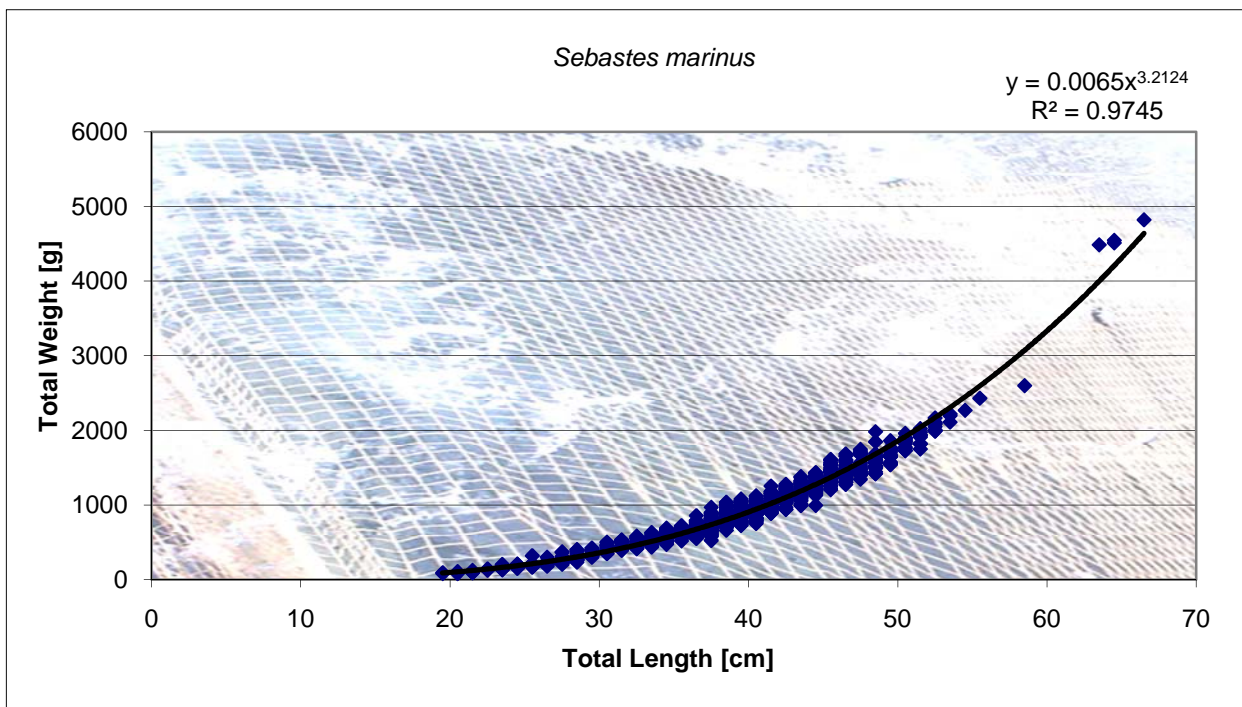
data collected

time period : 1997 - 2007

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
356	-	393	324																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	355	1	-	-	-	393	-	-	-	324	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	677	-	3	-	-	-	-	-	-	-	393								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	677	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	393					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length		male	138
- cm below		female	146
min length	19.5 [cm]	undefined	789
max length	66.5 [cm]	total numbers of data	1073

Sebastes mentella

Quarter: 1 - 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0127

b = 2.9773

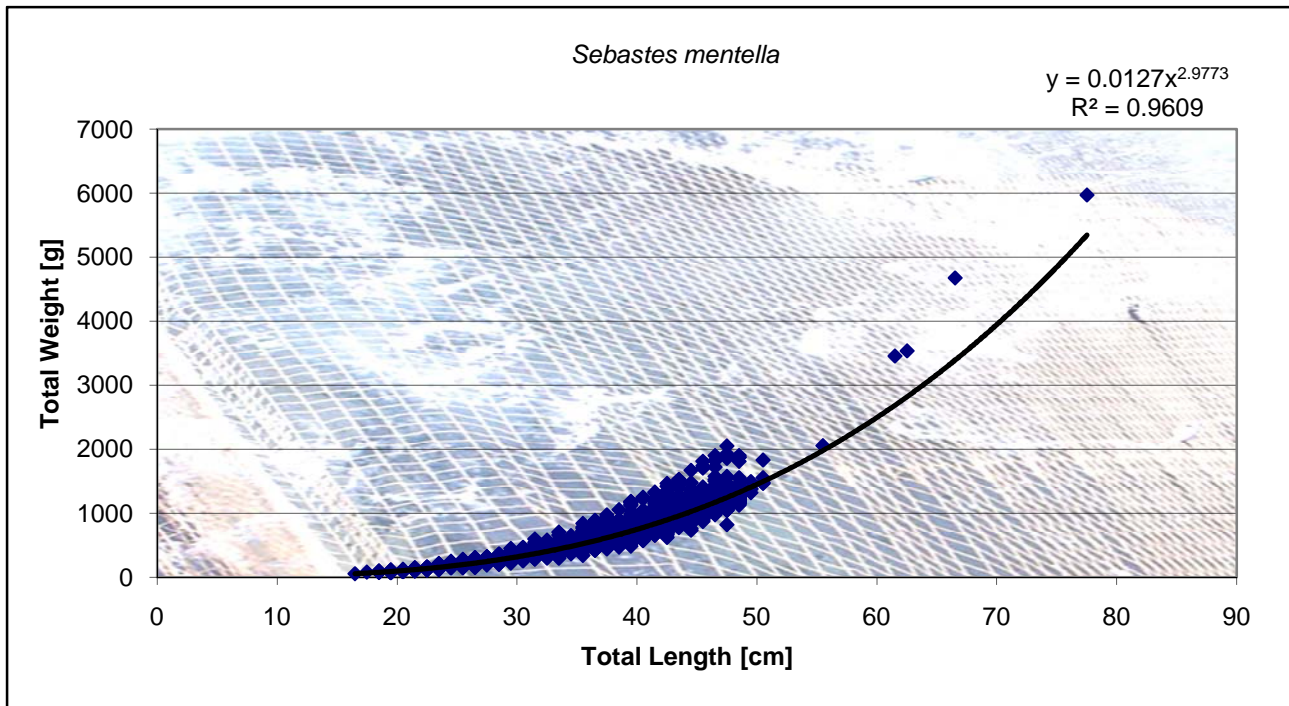
data collected

time period : 1988 - 2005

data source : commercial trawler, research vessel

numbers of data:

Quarter																				
1	2	3	4																	
674	12030	7326	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
127	246	301	7497	4226	307	1957	4770	599	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
3329	1476	-	-	1	-	-	-	-	-	-	1380	13844								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	373	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	1380	-	13844						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J			
5	-	-	-	-	-	-	-	-	-	-	-	-	-	3329	-	-	1103			

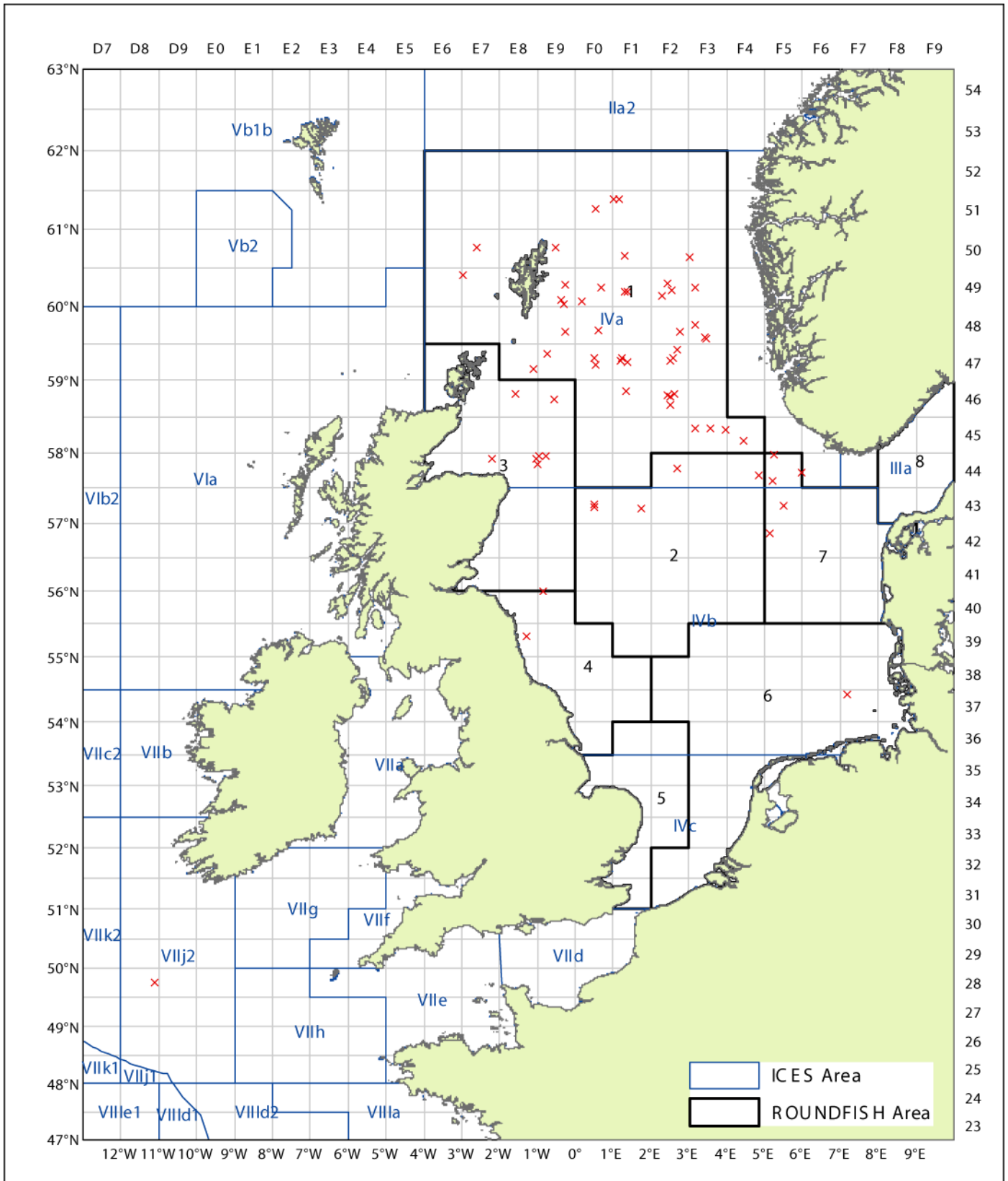


Method of Measurement

- Total length	male	8727
- cm below	female	10011
min length	undefined	1292
max length	16.5 [cm]	
	77.5 [cm]	
	total numbers of data	20030

Sebastes viviparus

Geographical distribution of data used for calculating the length-weight relationship



Sebastes viviparus

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0127

b = 3.0797

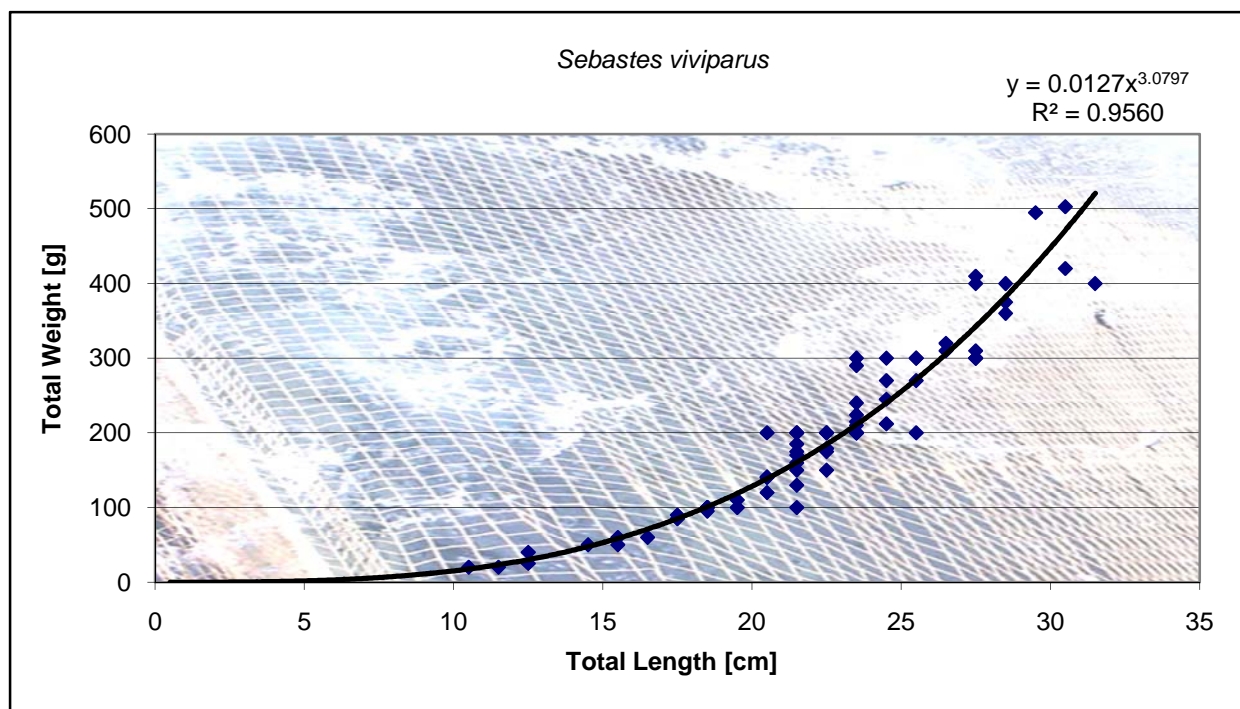
data collected

time period : 1960 - 2005

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
32	9	21	5																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
12	17	3	-	5	4	20	1	-	-	5	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	66	-	-	1	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	58	8	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	1	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
44	5	9	1	-	1	6	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

min length
max length

10.5 [cm]
31.5 [cm]

male -
female -
undefined 67

total numbers of data 67

Solea vulgaris

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0034

b = 3.2974

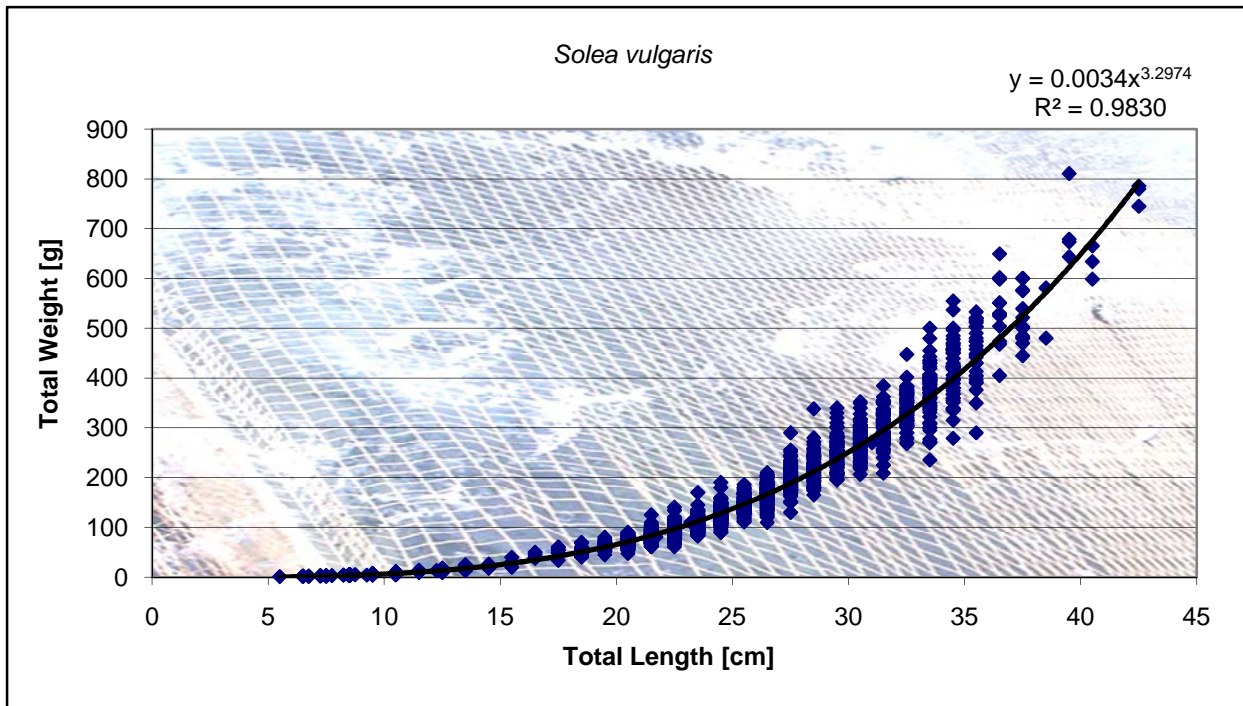
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
400	730	288	374																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
151	19	230	180	446	104	16	104	168	324	23	27								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1791	-	-	1	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2	948	841	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
-	4	3	-	-	1736	48	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	333
- cm below		female	938
min length	5.5 [cm]	undefined	521
max length	42.5 [cm]	total numbers of data	1792

Solea vulgaris



Quarter: 1 - 4

(female)

$$TW [g] = a * L [cm]^b$$

a = 0.0032

b = 3.3307

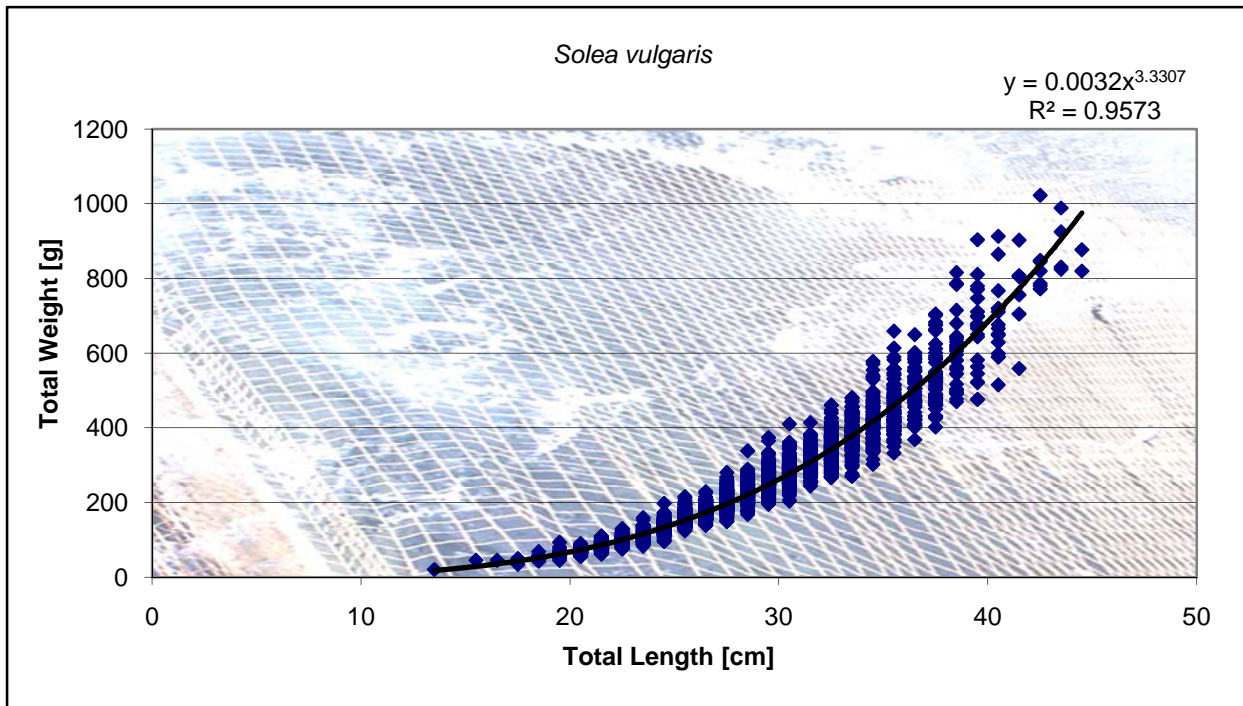
data collected

time period : 1996 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																						
1	2	3	4																			
493	949	569	808																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
109	91	293	361	413	175	350	15	204	627	-	181											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	2819	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	2136	683	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	1	-	-	-	2786	32	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	-
- cm below		female	2819
min length	13.5 [cm]	undefined	-
max length	44.5 [cm]	total numbers of data	2819

Solea vulgaris



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0047

b = 3.1882

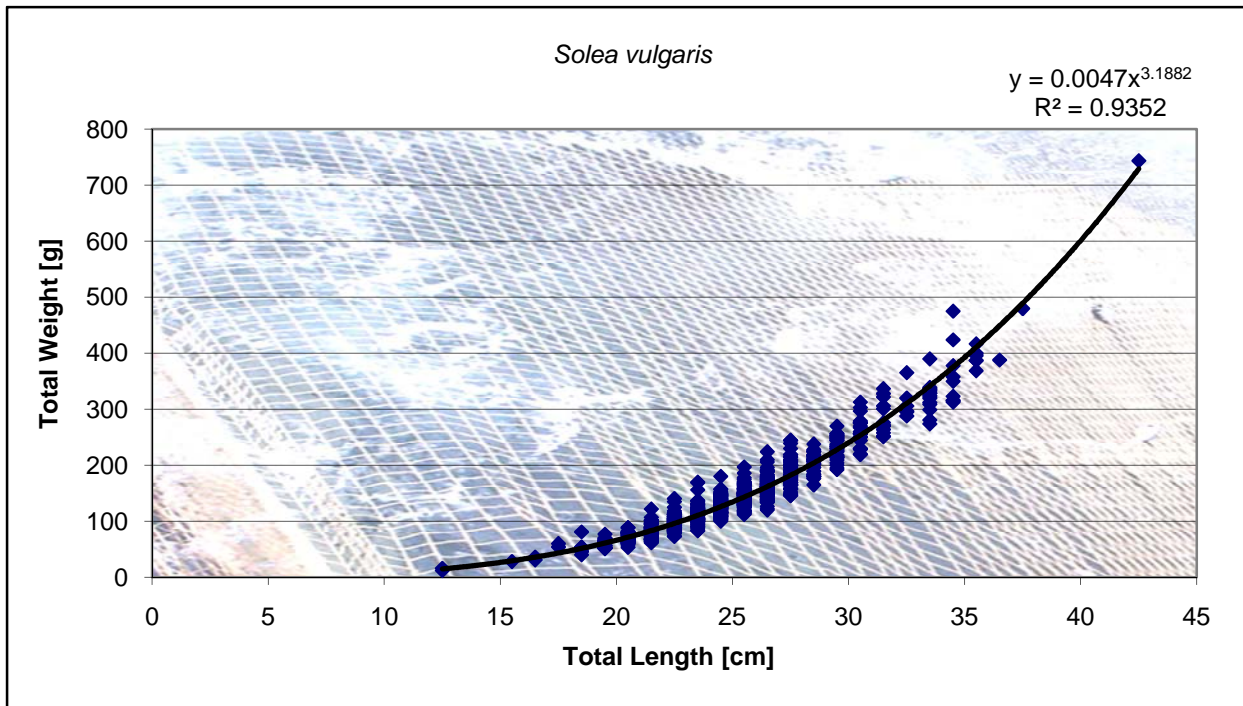
data collected

time period : 1996 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
108	508	159	118																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
11	17	80	79	365	64	46	23	90	64	-	54								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	893	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	757	136	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	-	-	-	-	781	112	-	-		-	-	-	-	-	-	-	-	-	

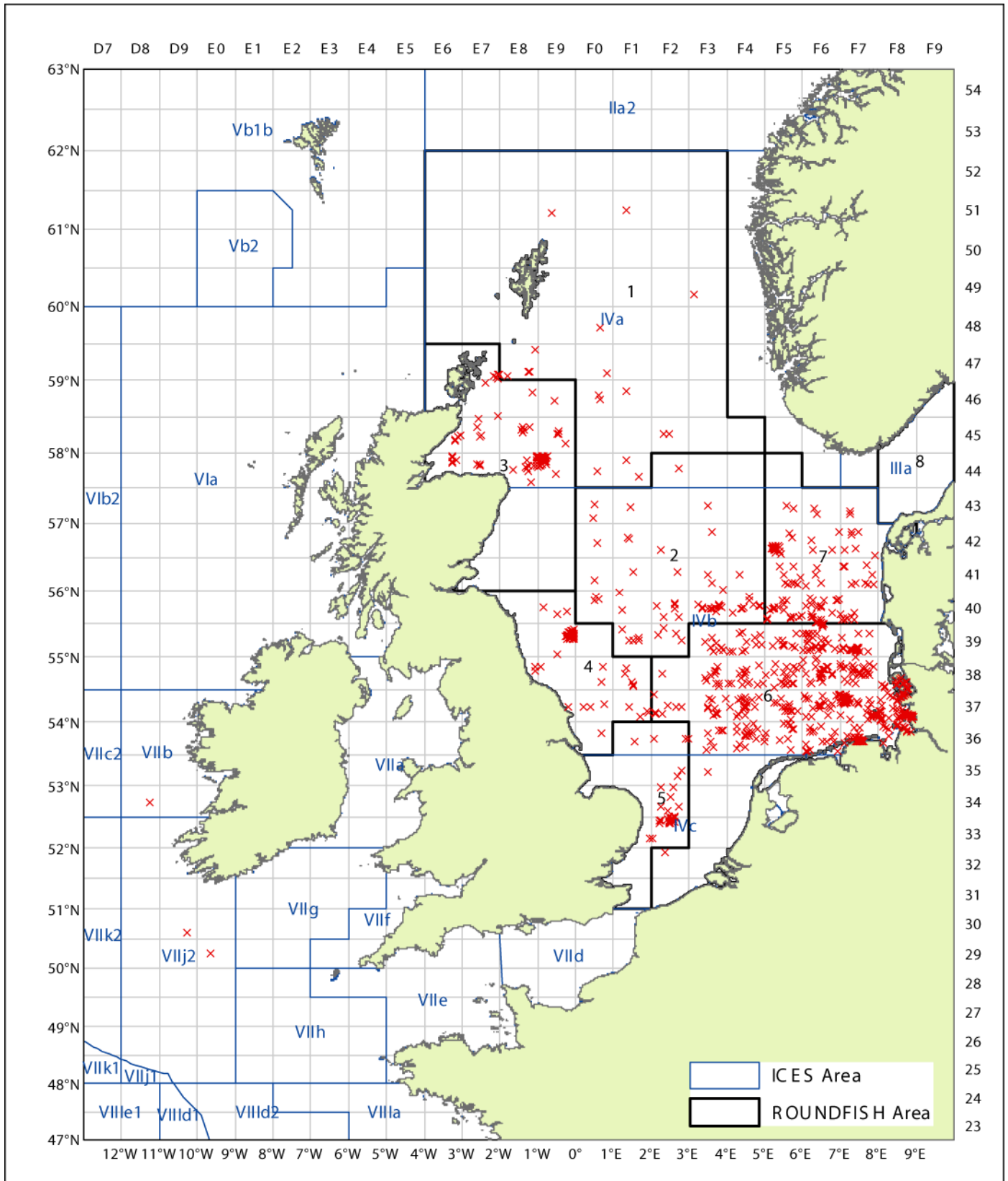


Method of Measurement

- Total length		male	893
- cm below		female	-
		undefined	-
min length	12.5 [cm]		
max length	42.5 [cm]		
		total numbers of data	893

Sprattus sprattus

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0052

b = 3.1474

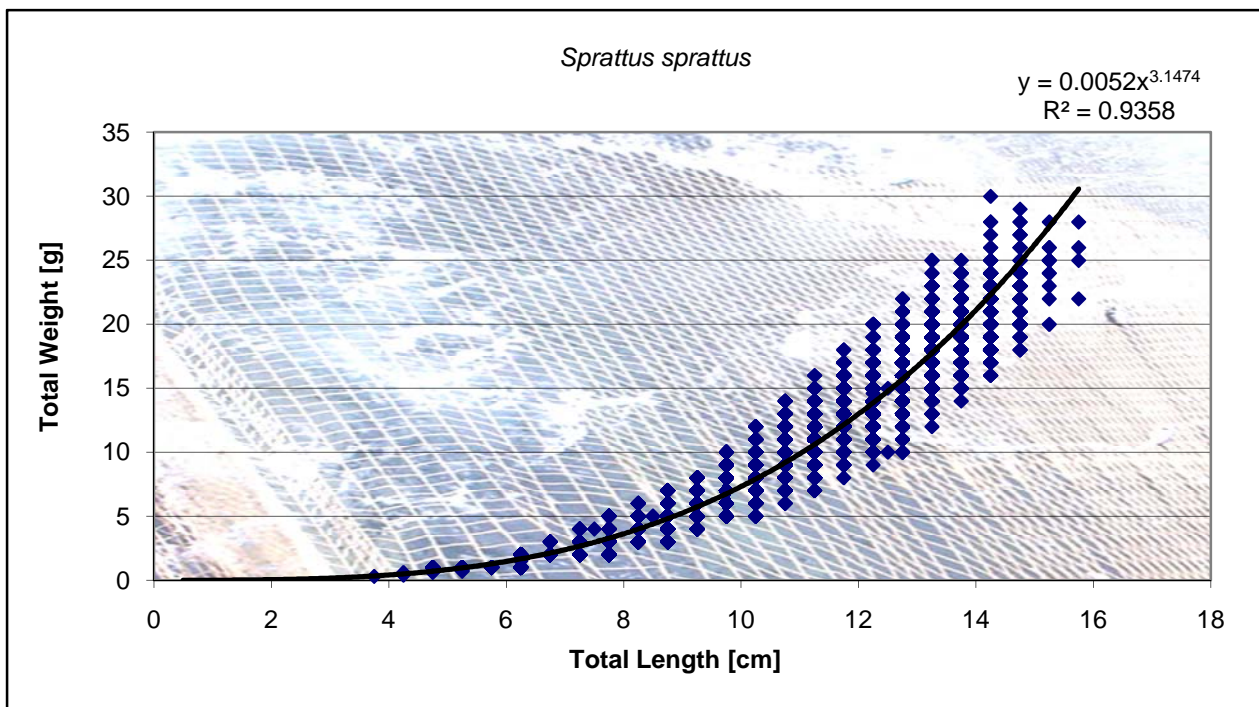
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
2663	1135	7656	25																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
1260	1254	149	122	261	752	5967	1341	348	10	7	8								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	11397	-	-	82	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	1096	9787	514	-	-	-	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	81	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
139	549	967	654	627	6732	1729	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

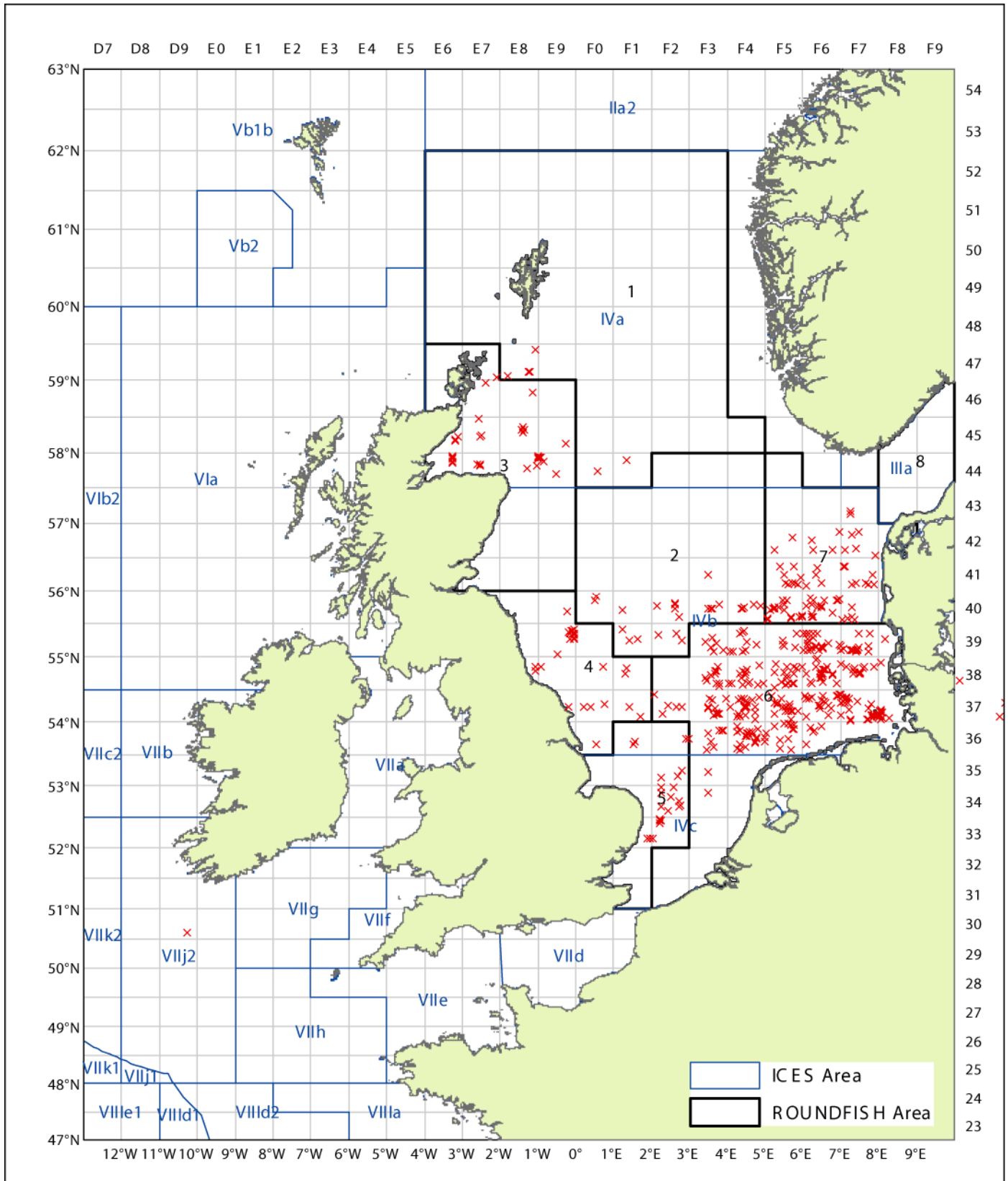


Method of Measurement

- Total length		male	4684
- 1/2 cm below		female	5531
min length	3.75 [cm]	undefined	1264
max length	15.75 [cm]	total numbers of data	11479

Sprattus sprattus ♀

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0078

b = 2.9851

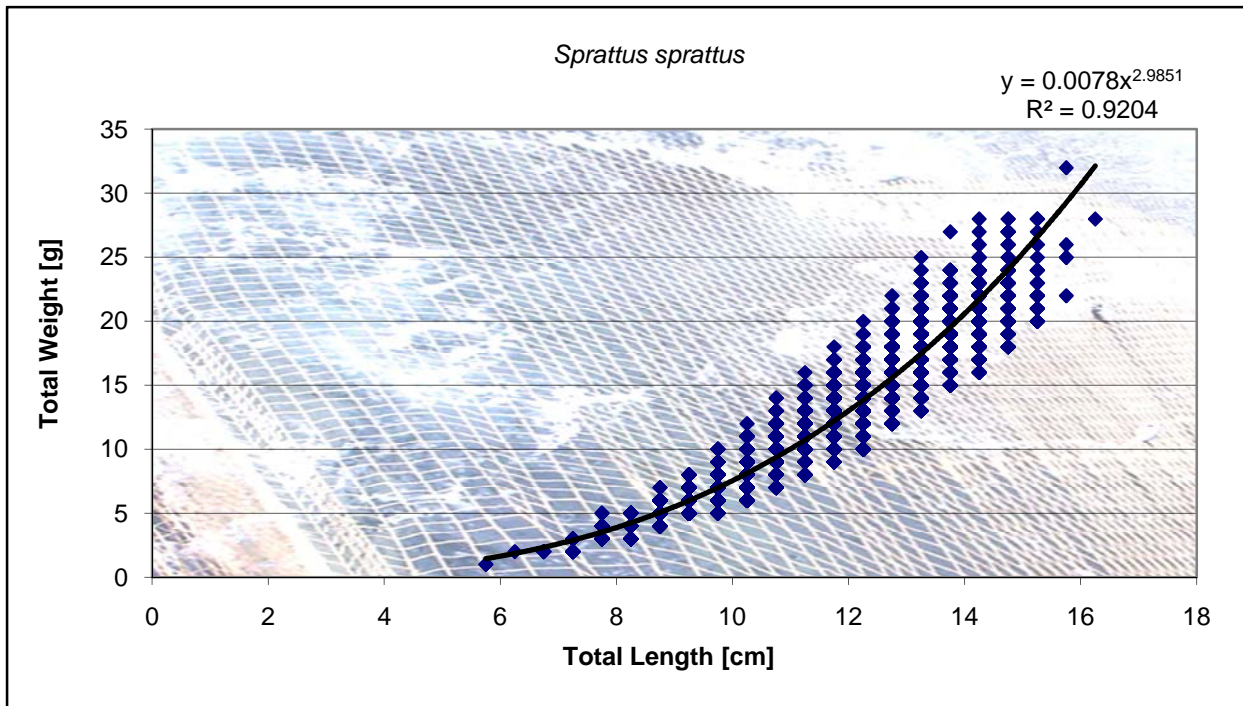
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
1476	793	4859	49																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
688	697	91	153	147	493	4101	649	109	-	-	49											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	301	6838	-	-	38	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	140	161	526	6049	263	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	38	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
66	267	464	370	571	4190	910	-	-						-	-	-	-	-	-	-	-	-

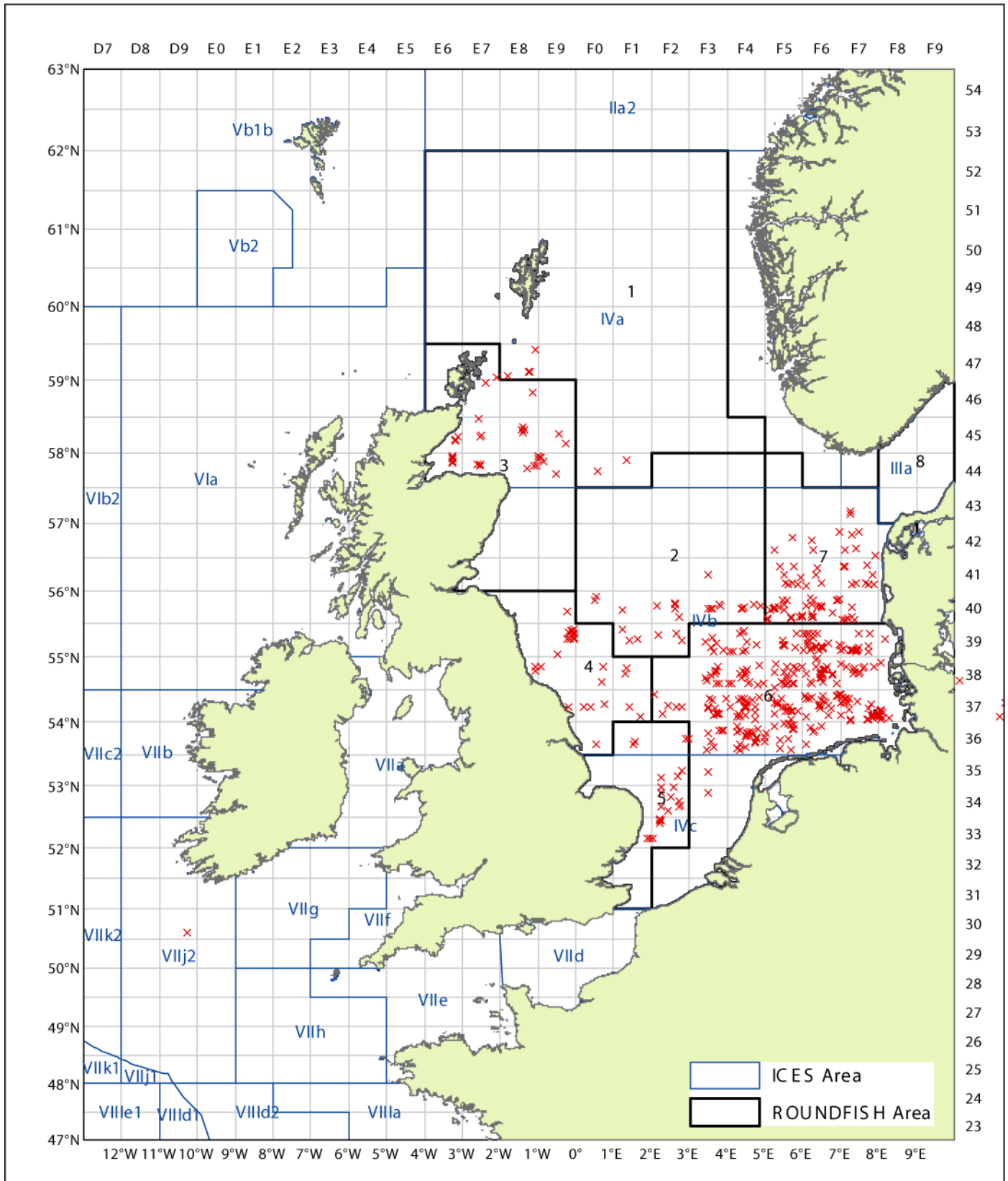


Method of Measurement

- Total length		male	-
- 1/2 cm below		female	7177
min length	5.75 [cm]	undefined	-
max length	16.25 [cm]	total numbers of data	7177

Sprattus sprattus ♂

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus



Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0069

b = 3.0305

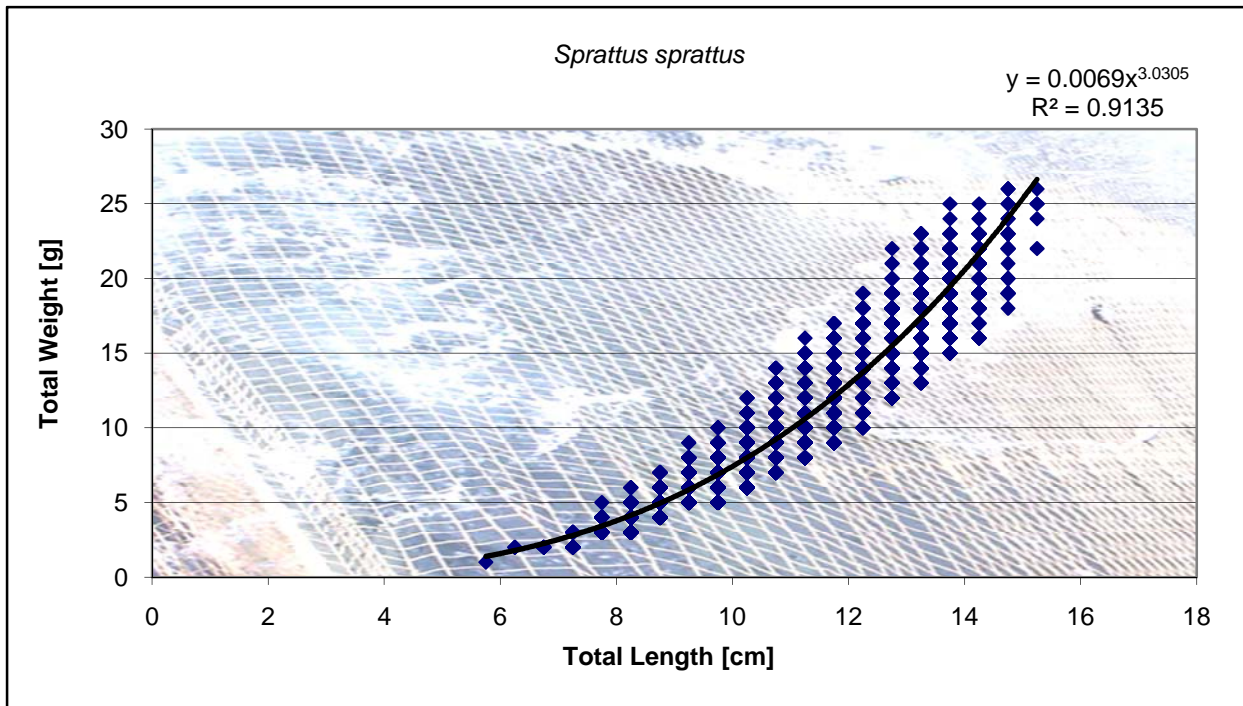
data collected

time period : 1994 - 2009

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
1326	632	3773	19																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
599	635	92	92	170	370	3120	548	105	-	-	19											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	202	5511	-	-	37	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	69	133	516	4782	213	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	37	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
55	241	466	341	431	3244	733	-	-						-	-	-	-	-	-	-	-	-

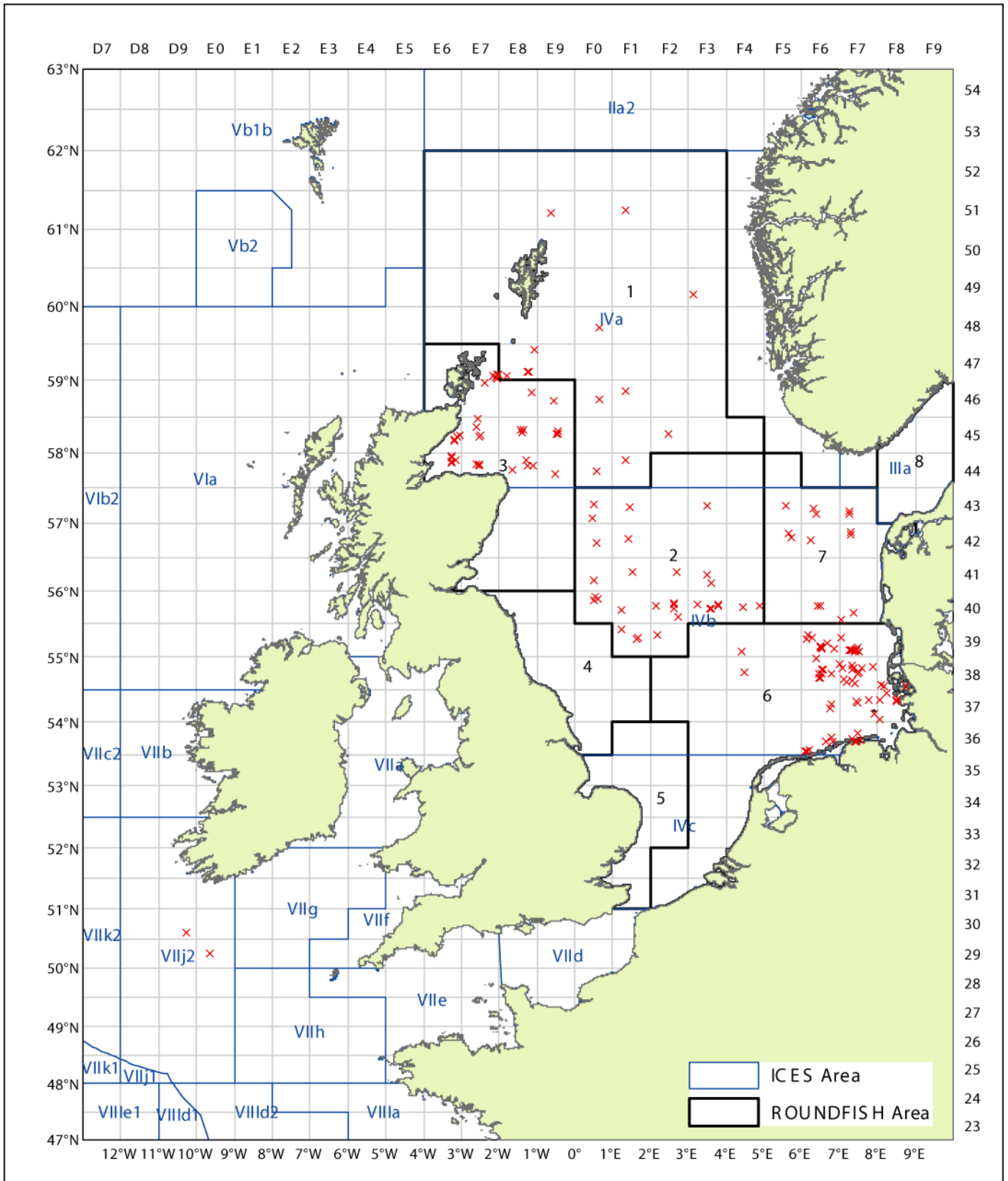


Method of Measurement

- Total length		male	5750
- 1/2 cm below		female	-
min length	5.75 [cm]	undefined	-
max length	15.25 [cm]	total numbers of data	5750

Sprattus sprattus Quarter 1

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

Quarter: 1

$$TW [g] = a * L [cm]^b$$

a = 0.0038

b = 3.2418

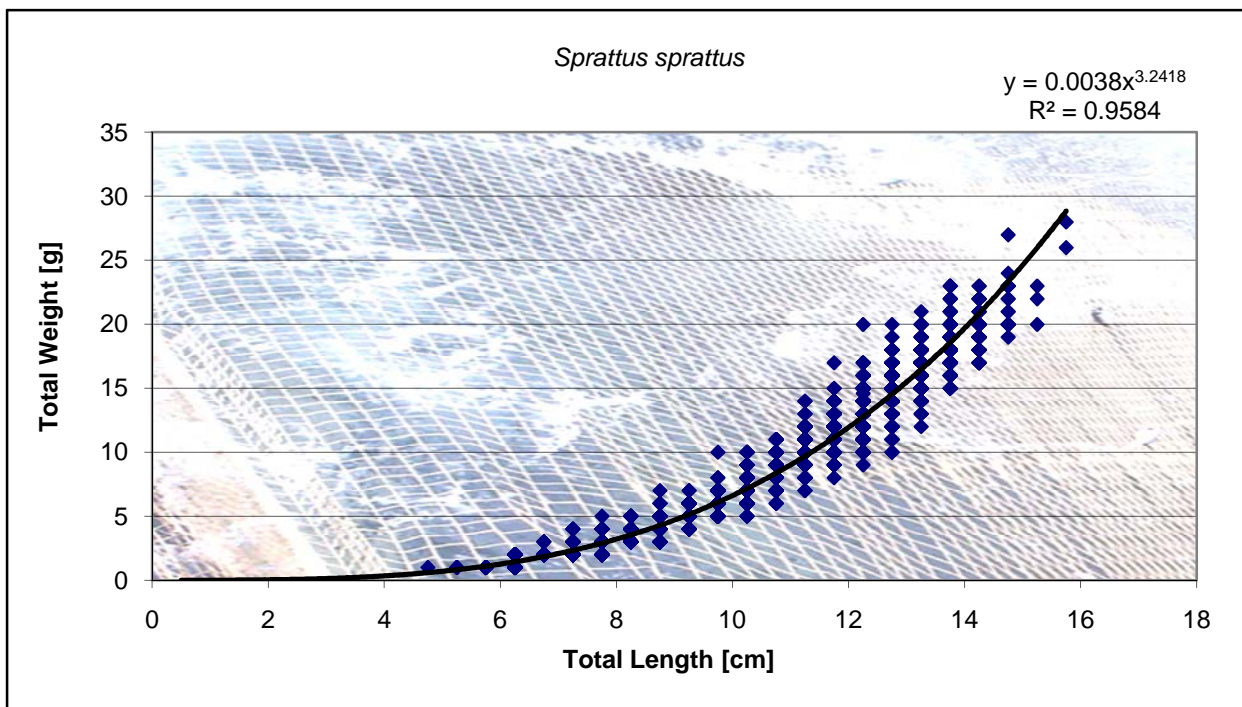
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
2663	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
1260	1254	149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2582	-	-	81	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	913	1669	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
138	376	783	-	-	1073	212	-	-		-	-	-	-	-	-	-	-	-	

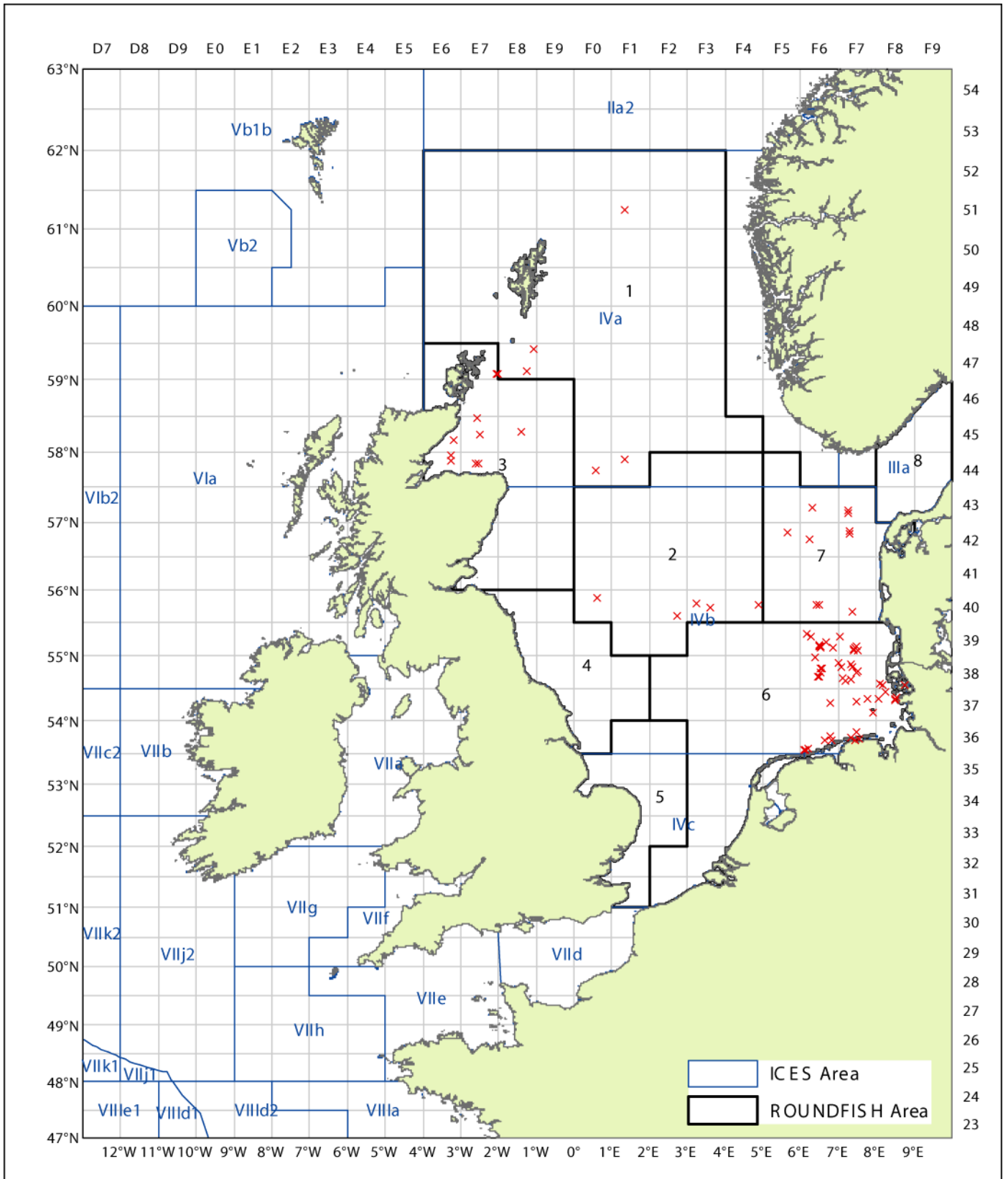


Method of Measurement

- Total length		male	1113
- 1/2 cm below		female	1186
min length	4.75 [cm]	undefined	364
max length	15.75 [cm]	total numbers of data	2663

Sprattus sprattus January

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

January

$$Tw [g] = a * L [cm]^b$$

a = 0.0039

b = 3.2324

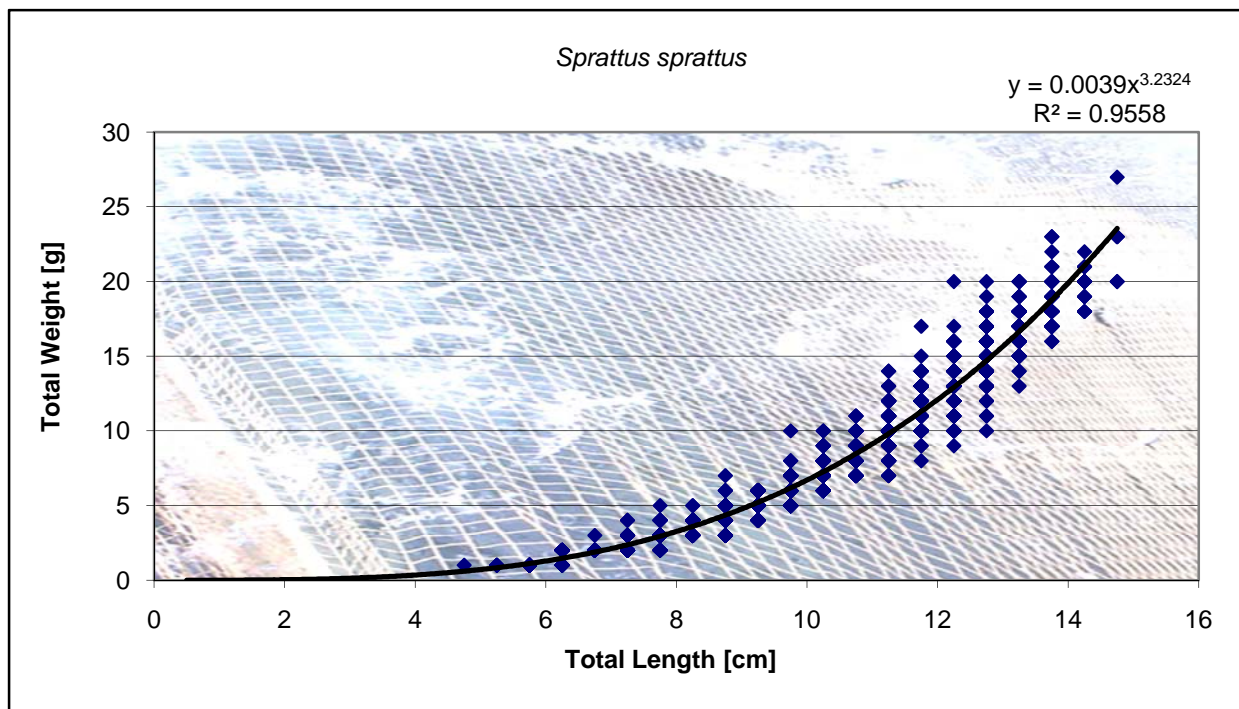
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
1260	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
1260	-	-	-	-	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	1260	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	423	837	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
102	45	330	-	-	646	137	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- 1/2 cm below

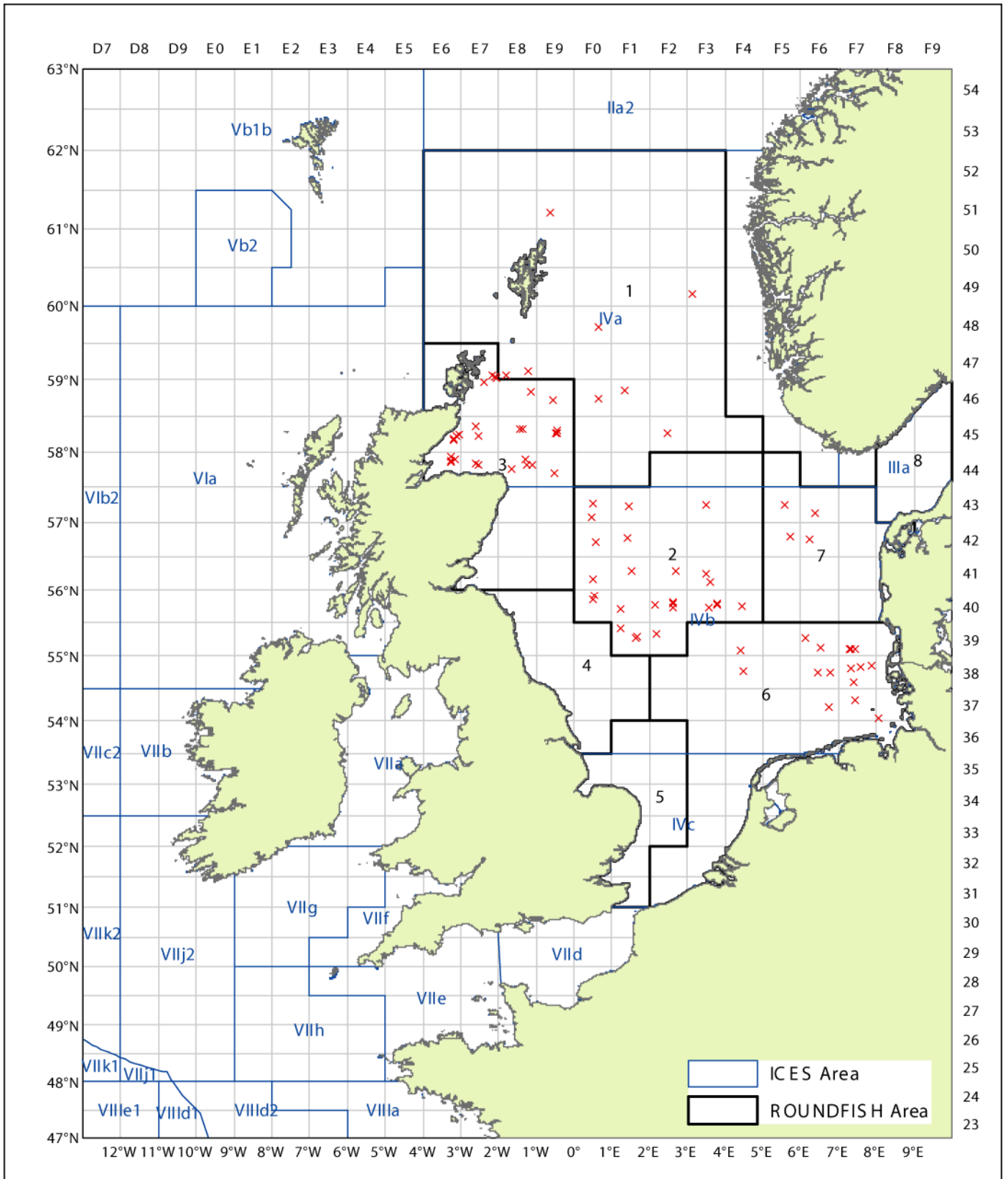
min length 4.75 [cm]
max length 14.75 [cm]

male 504
female 570
undefined 186

total numbers of data 1260

Sprattus sprattus February

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

February

$$TW [g] = a * L [cm]^b$$

a = 0.0033

b = 3.2926

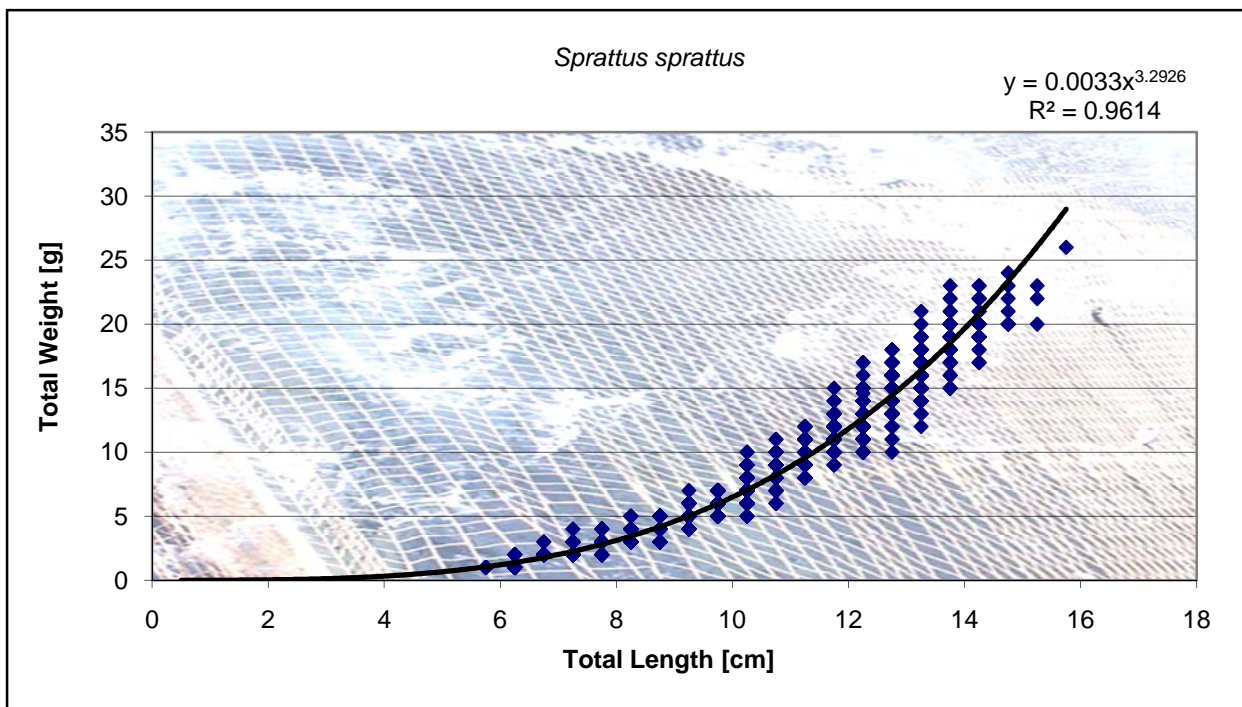
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
1254	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	1254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	490	764	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
36	331	453	-	-	407	27	-	-		-	-	-	-	-	-	-	-	-	

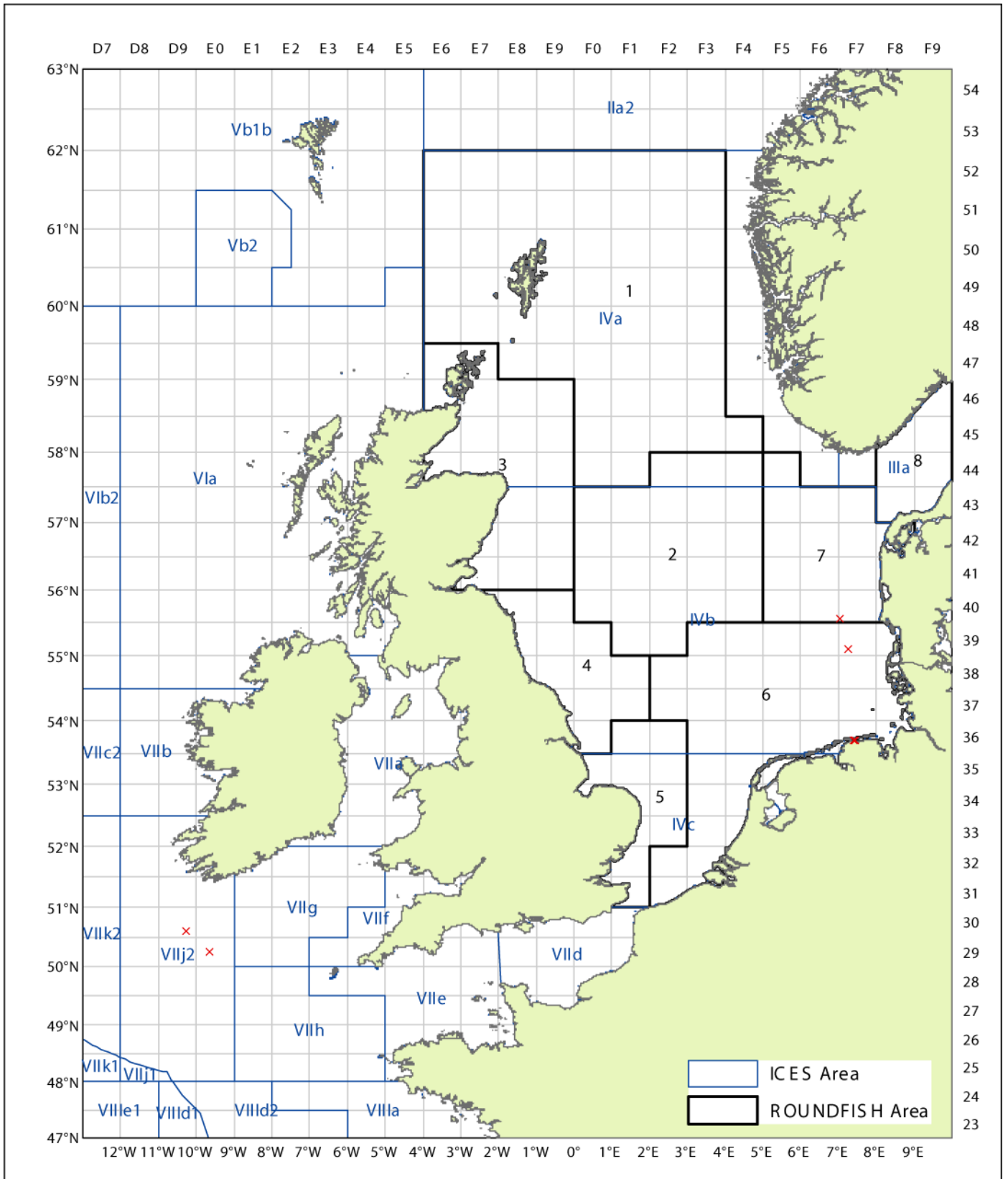


Method of Measurement

- Total length		male	543
- 1/2 cm below		female	550
min length	5.75 [cm]	undefined	161
max length	15.75 [cm]	total numbers of data	1254

Sprattus sprattus March

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

March

$$Tw [g] = a * L [cm]^b$$

a = 0.0072

b = 2.9707

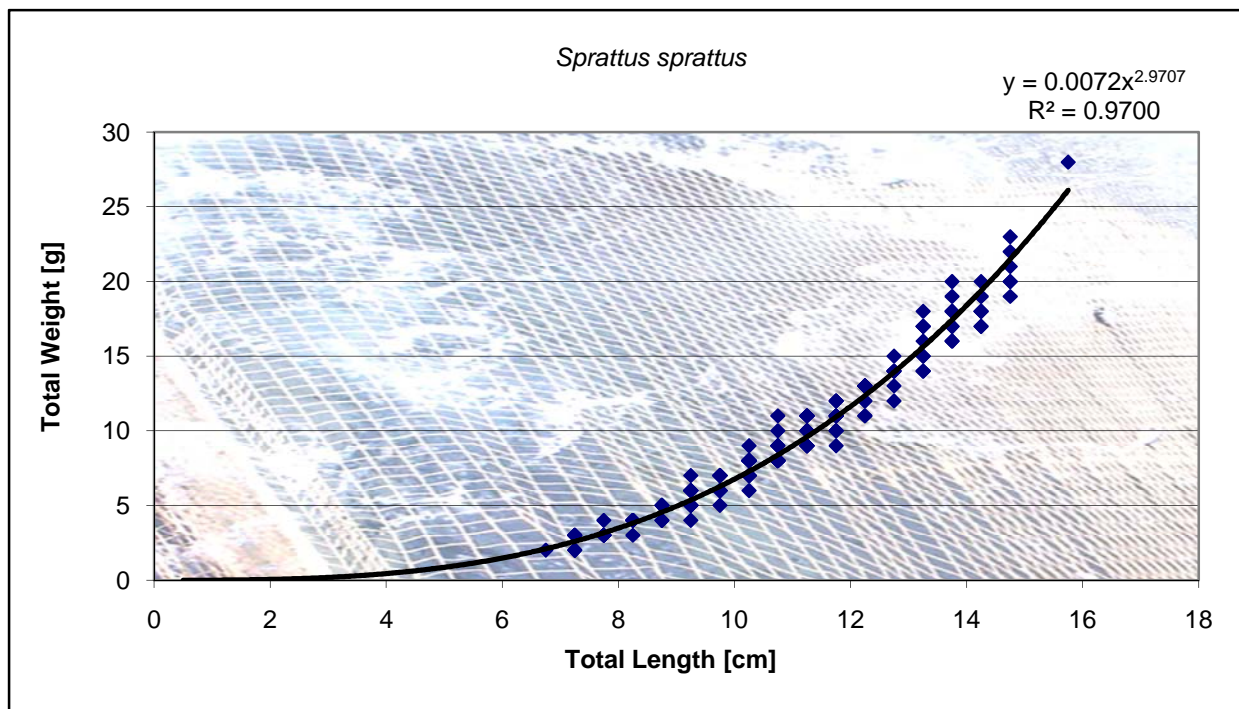
data collected

time period : 1996 - 2000

data source : research vessel

numbers of data:

Quarter																												
1	2	3	4																									
149	-	-	-																									
Month																												
1	2	3	4	5	6	7	8	9	10	11	12																	
-	-	149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
Subarea																												
1	2	3	4	5	6	7	8	9	10	12	14																	
-	-	-	68	-	-	81	-	-	-	-	-	-	-	-	-	-	-	-	-									
Division																												
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F									
-	-	-	-	-	-	-	-	68	-	-	-	-	-	-	-	-	-	-	-									
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B														
-	-	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
Roundfisharea										NAFO																		
1	2	3	4	5	6	7	8	9																				
-	-	-	-	-	20	48	-	-																				
										1A	1B	1C	1D	1E	1F	2G	2H	2J										
										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

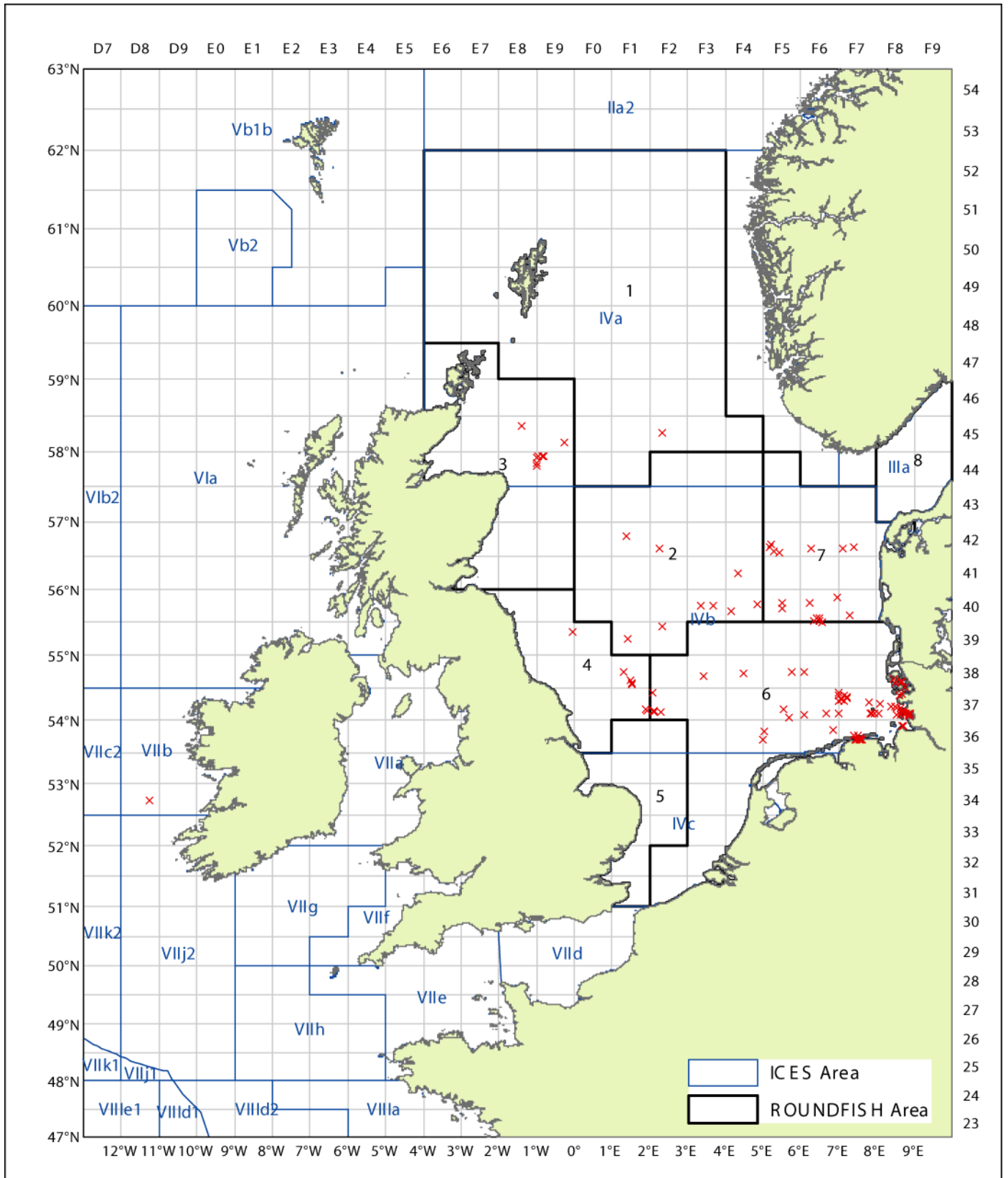


Method of Measurement

- Total length		male	66
- 1/2 cm below		female	66
min length	6.75 [cm]	undefined	17
max length	15.75 [cm]	total numbers of data	149

Sprattus sprattus Quarter 2

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

Quarter: 2

$$TW [g] = a * L [cm]^b$$

a = 0.0075

b = 3.0174

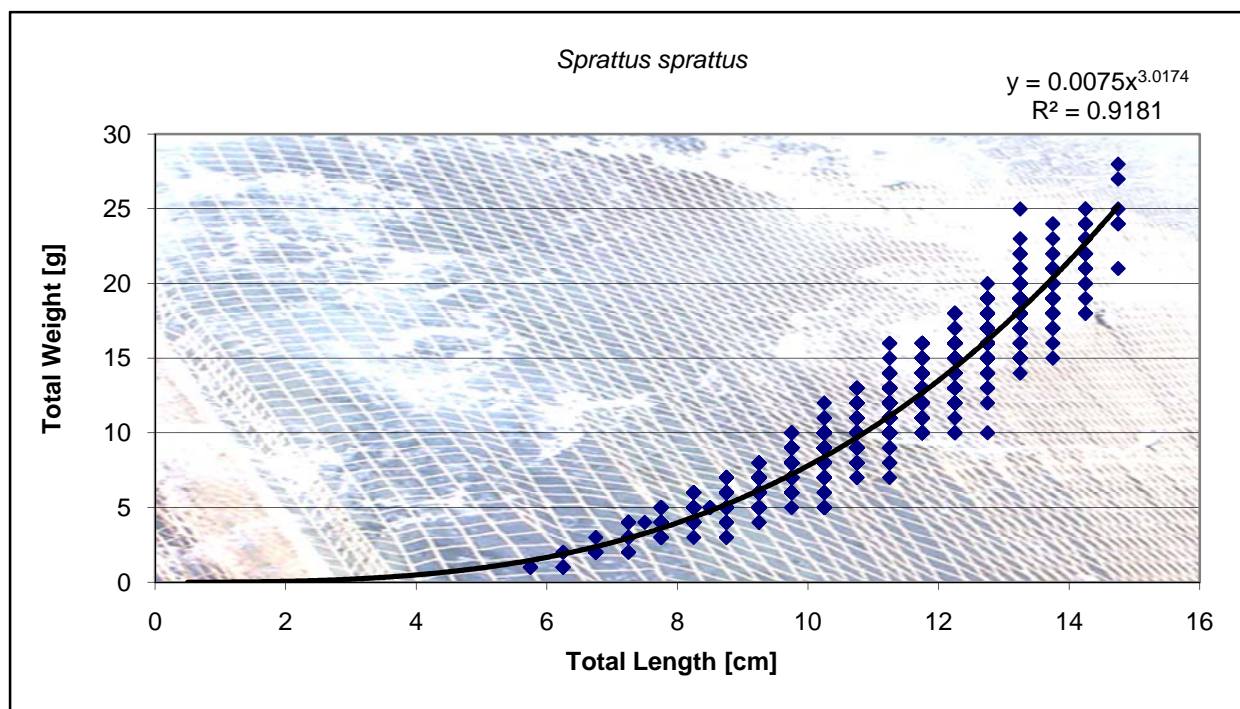
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1135	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	122	261	752	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1134	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	90	1044	-	-	-	-	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
1	31	89	93	-	683	237	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- 1/2 cm below

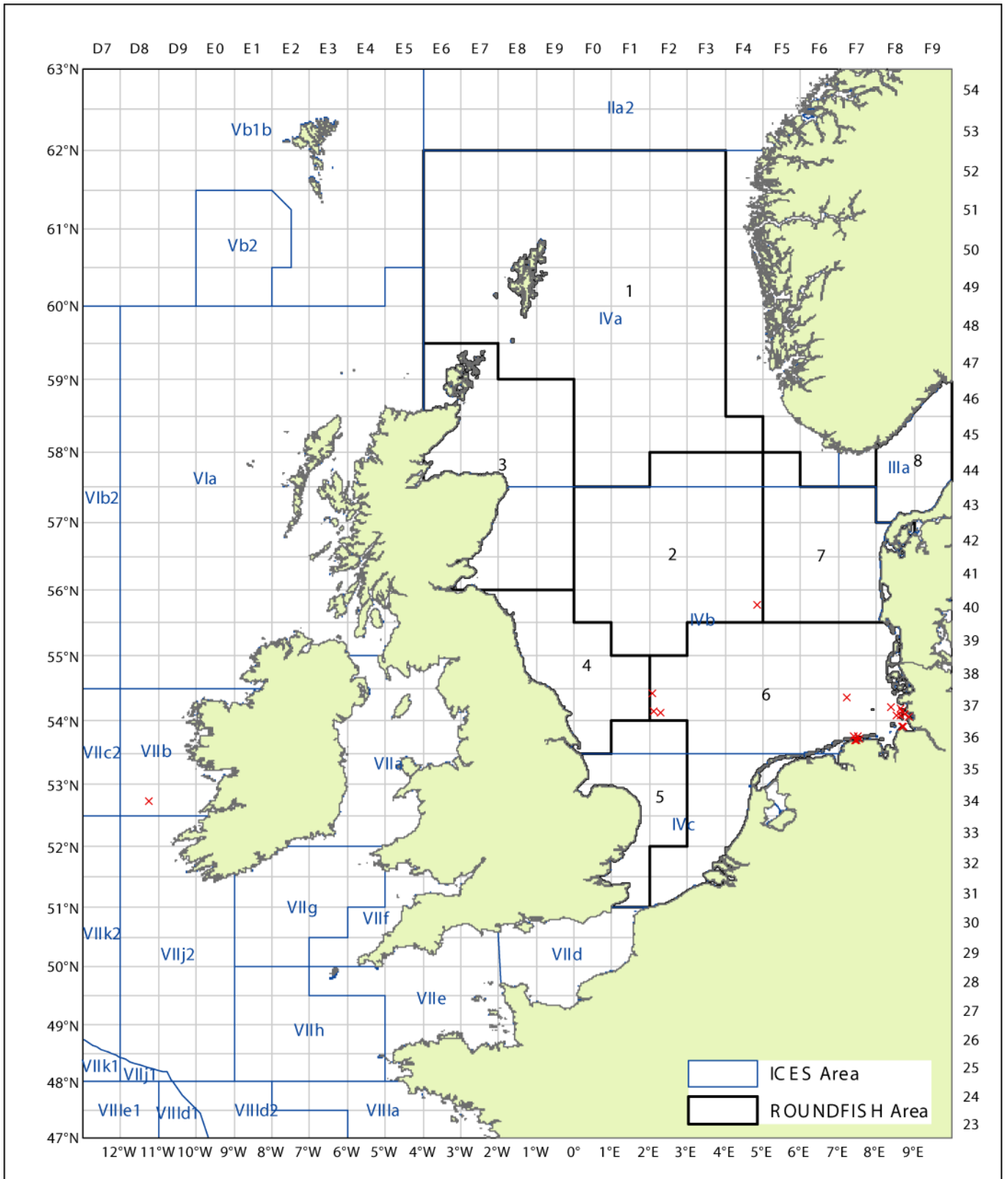
min length 5.75 [cm]
max length 14.75 [cm]

male 493
female 502
undefined 140

total numbers of data 1135

Sprattus sprattus April

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

April

$$TW [g] = a * L [cm]^b$$

a = 0.01

b = 2.8771

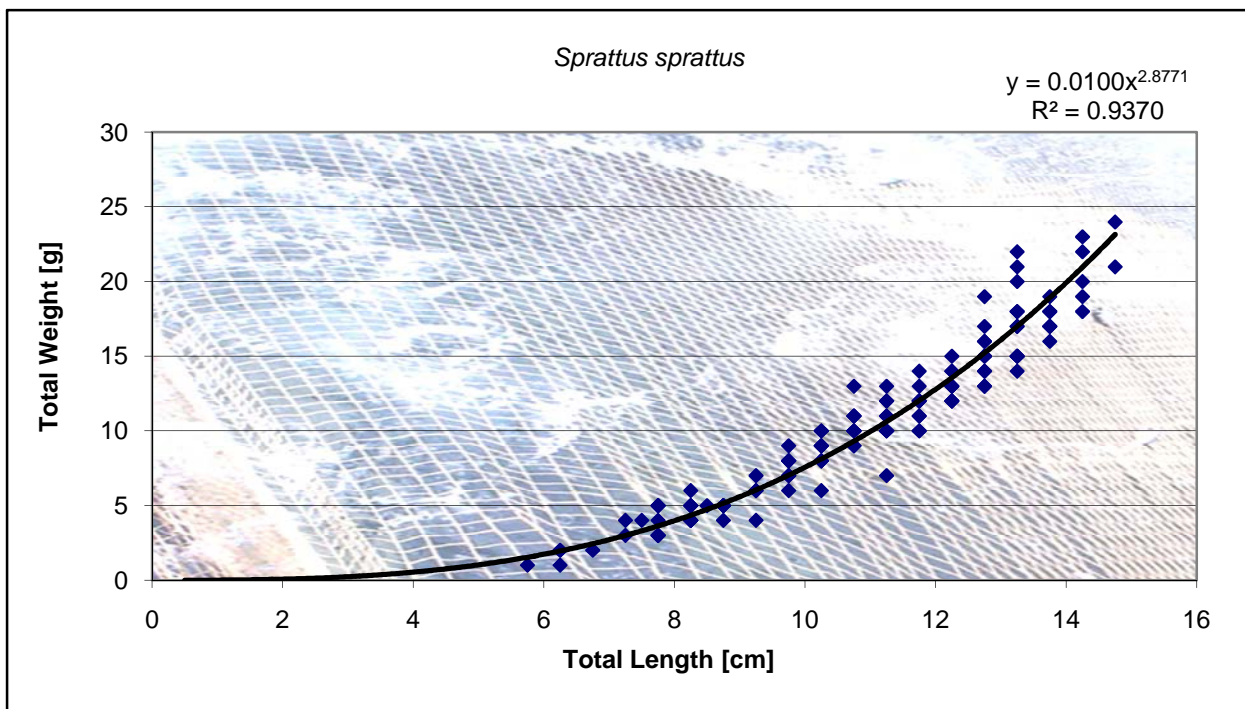
data collected

time period : 1996 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	122	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	122	-	-	-	-	-	-	-	-	-							
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	121	-	-	1	-	-	-	-	-	-							
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	121	-	-	-	-	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	1	-	-	-	120	-	-	-	-	-	-	-	-	-	-	-	-		

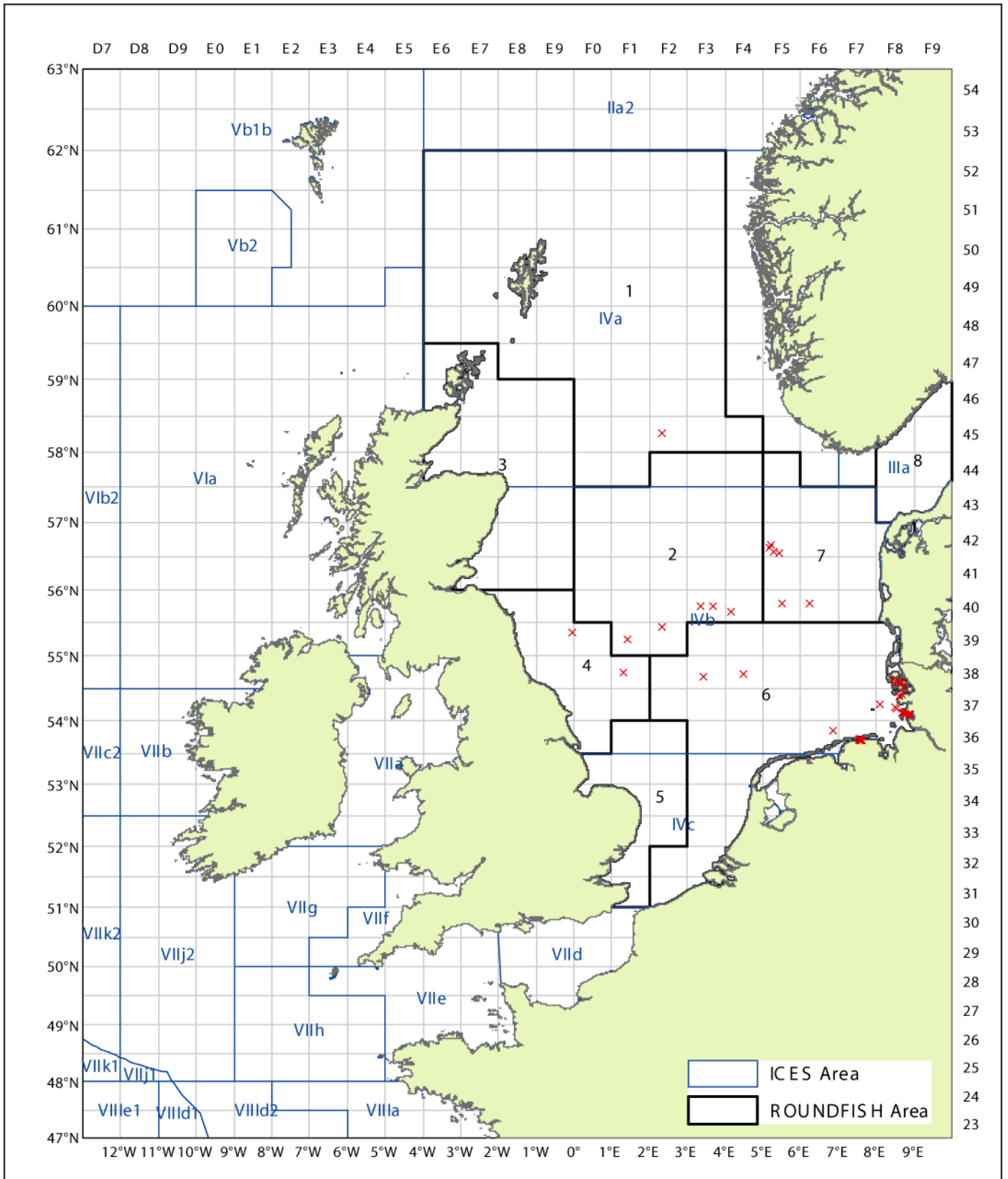


Method of Measurement

- Total length		male	36
- 1/2 cm below		female	62
min length	5.75 [cm]	undefined	24
max length	14.75 [cm]	total numbers of data	122

Sprattus sprattus May

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

May

$$TW [g] = a * L [cm]^b$$

a = 0.0049

b = 3.2161

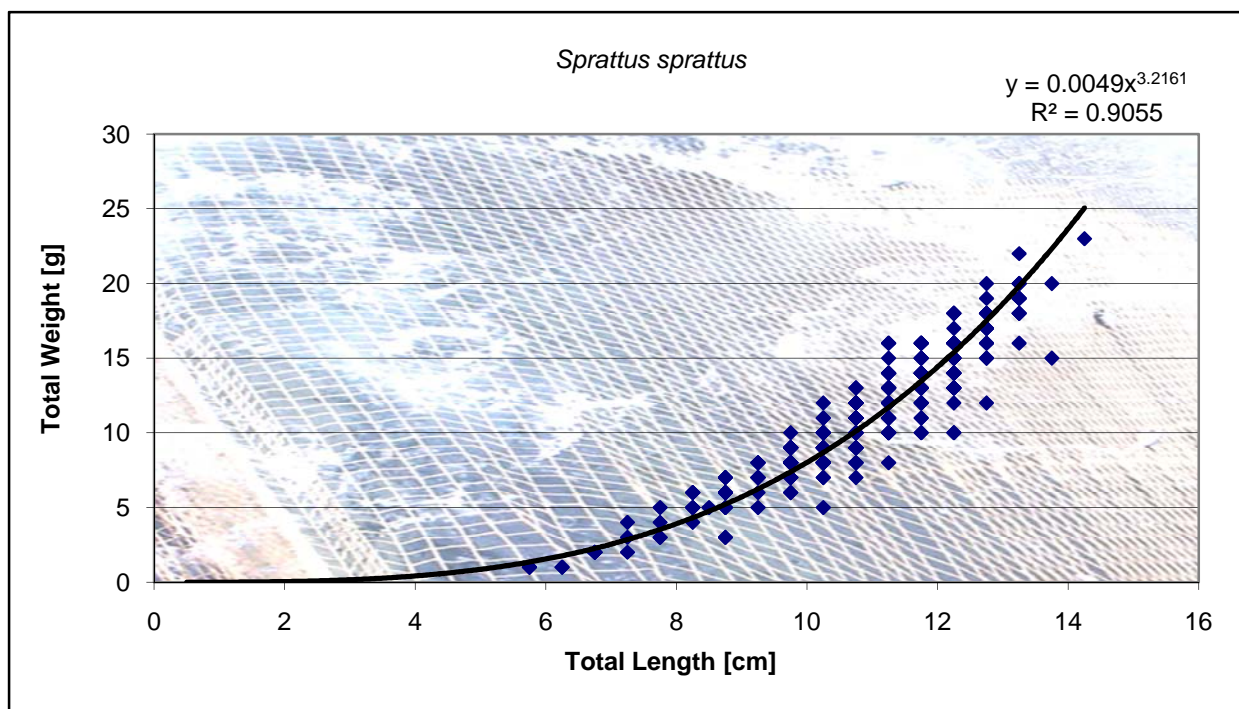
data collected

time period : 1995 - 2006

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	261	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	261	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	261	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	1	260	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
1	27	-	91	-	69	73	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

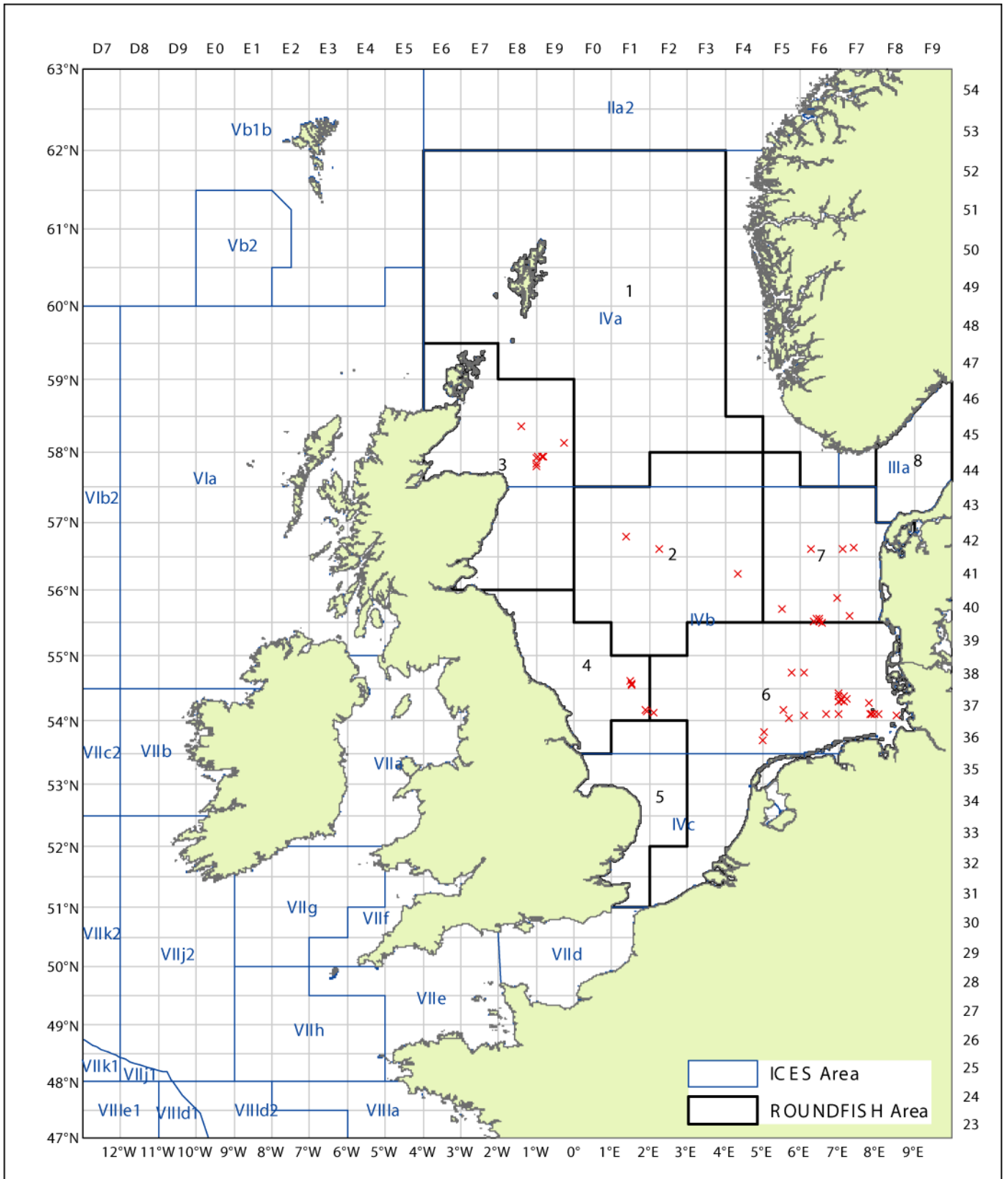


Method of Measurement

- Total length		male	130
- 1/2 cm below		female	92
min length	5.75 [cm]	undefined	39
max length	14.25 [cm]	total numbers of data	261

Sprattus sprattus June

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

June

$$TW [g] = a * L [cm]^b$$

a = 0.008

b = 2.9889

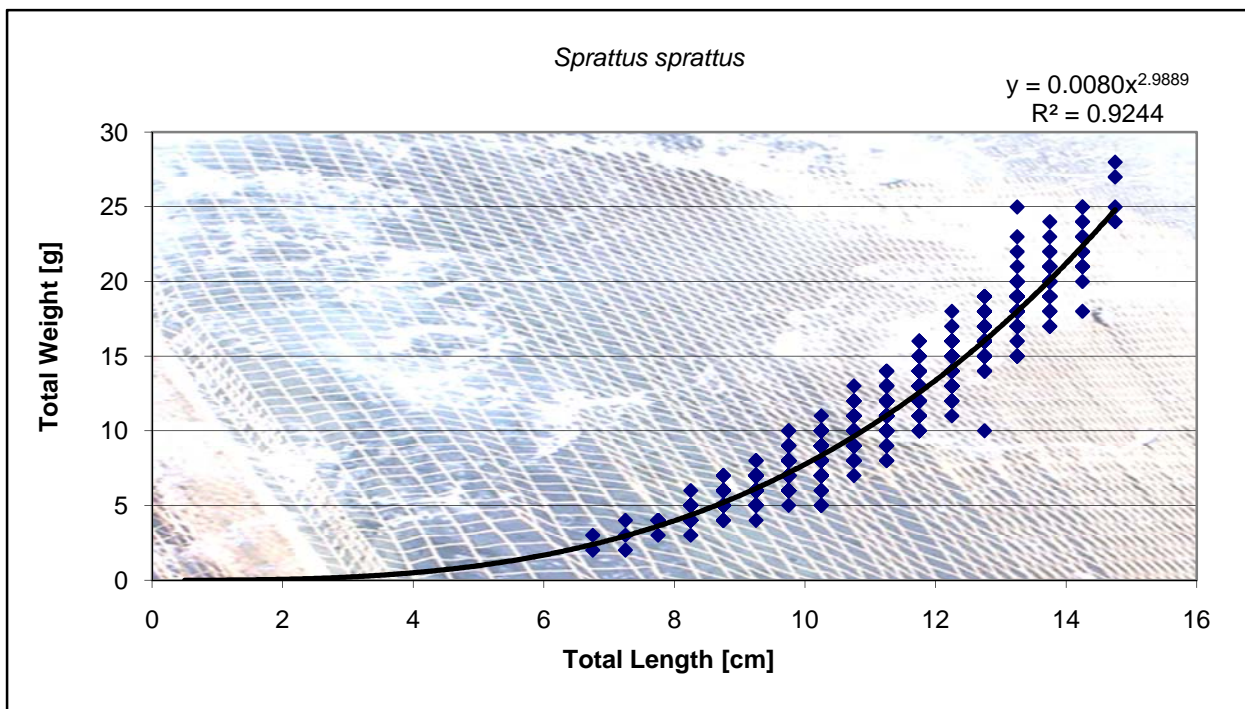
data collected

time period : 1995 - 2004

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	752	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	752	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	752	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	89	663	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	3	89	2	-	494	164	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

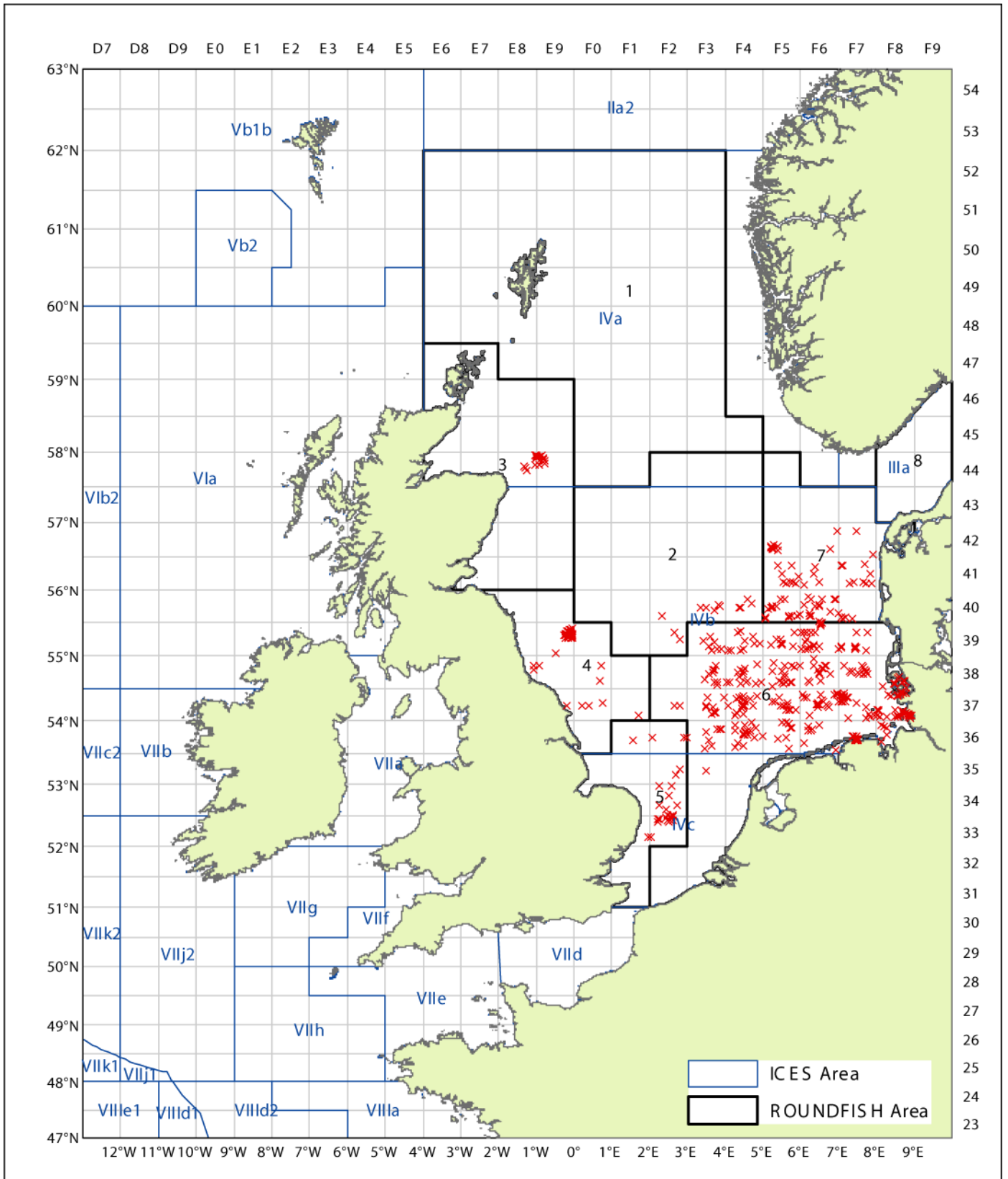


Method of Measurement

- Total length		male	327
- 1/2 cm below		female	348
min length	6.75 [cm]	undefined	77
max length	14.75 [cm]	total numbers of data	752

Sprattus sprattus Quarter 3

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

Quarter: 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0073

b = 3.0207

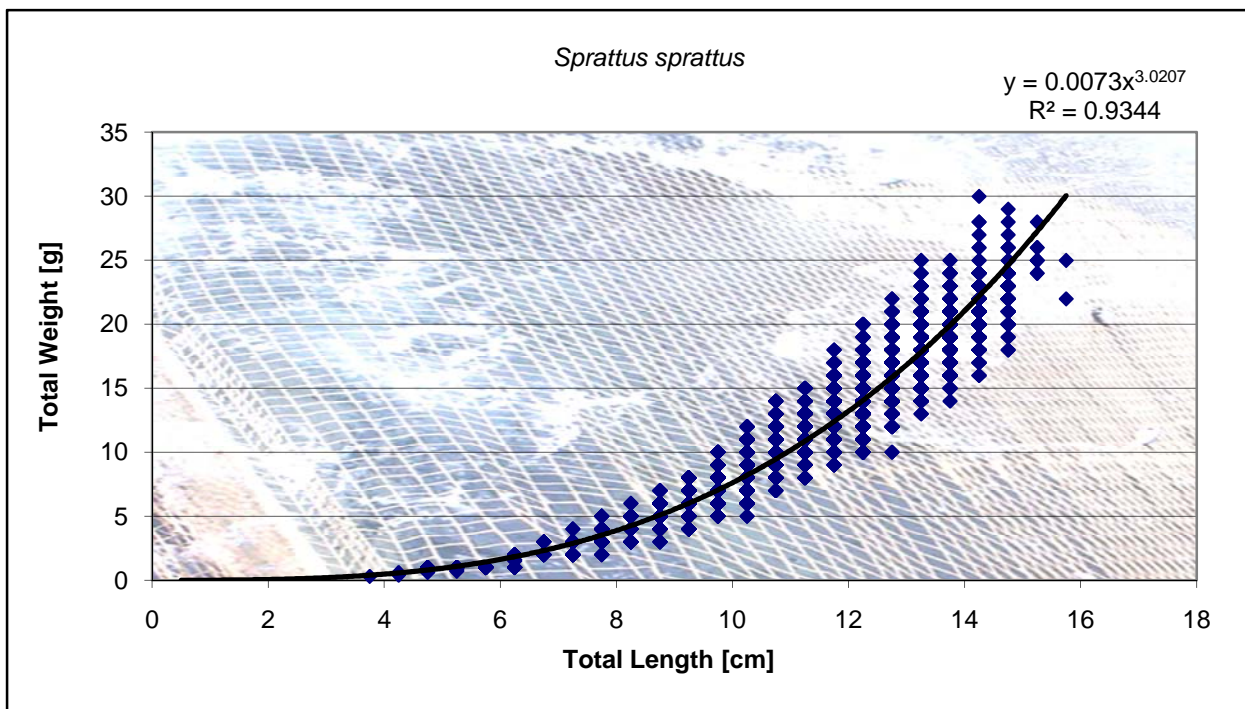
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	7656	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	5967	1341	348	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	7656	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	93	7049	514	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	142	93	561	627	4953	1280	-	-						-	-	-	-	-	-	-	-	-



Method of Measurement

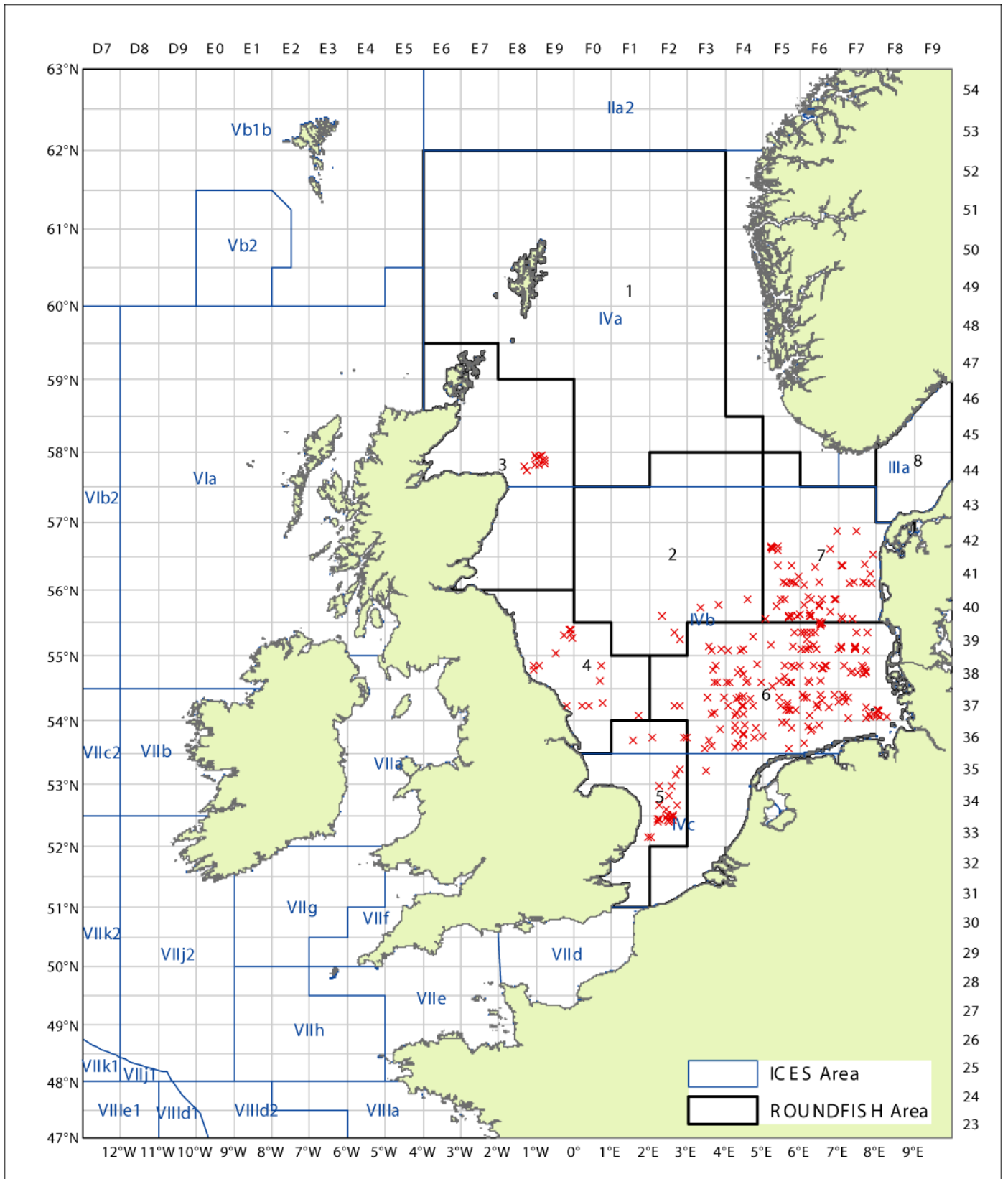
- Total length
- 1/2 cm below

min length 3.75 [cm]
max length 15.75 [cm]

male 3078
female 3843
undefined 735
total numbers of data 7656

Sprattus sprattus July

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

July

$$Tw [g] = a * L [cm]^b$$

a = 0.0084

b = 2.9566

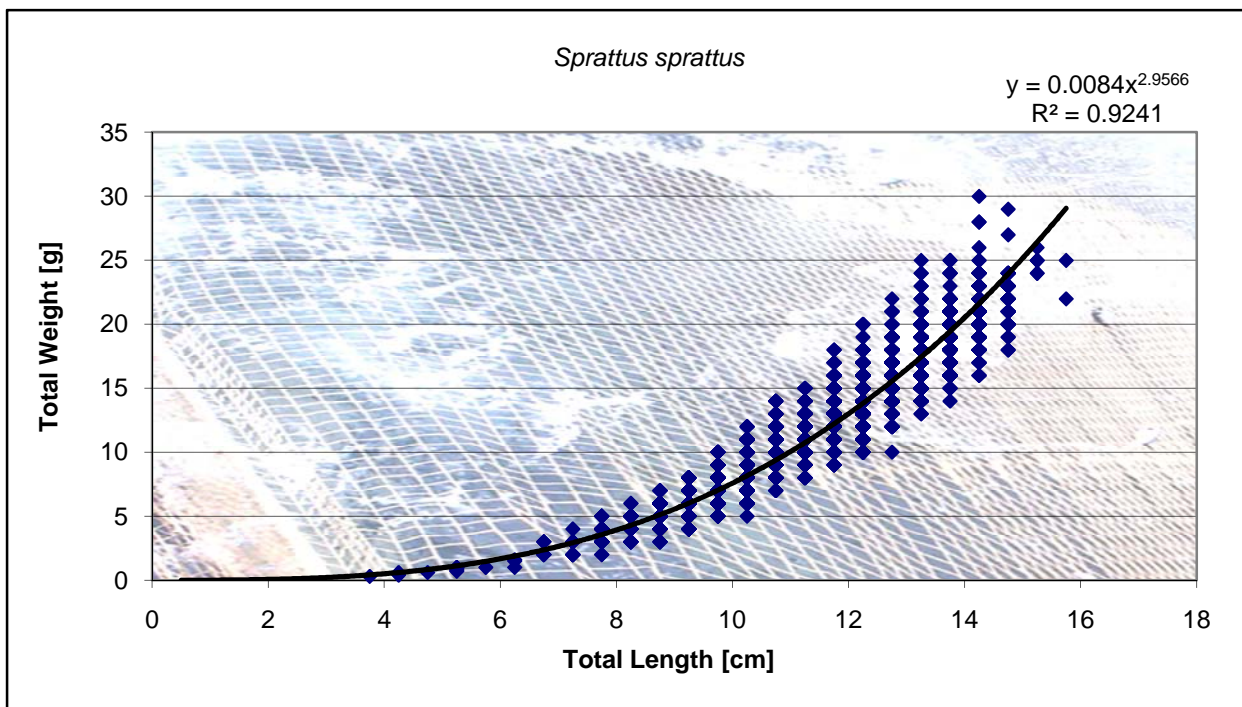
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	5967	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	5967	-	-	-	-	-	-										
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	5967	-	-	-	-	-	-	-	-	-										
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	48	5405	514	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	77	48	371	627	3776	1068	-	-						-	-	-	-	-	-	-	-	-

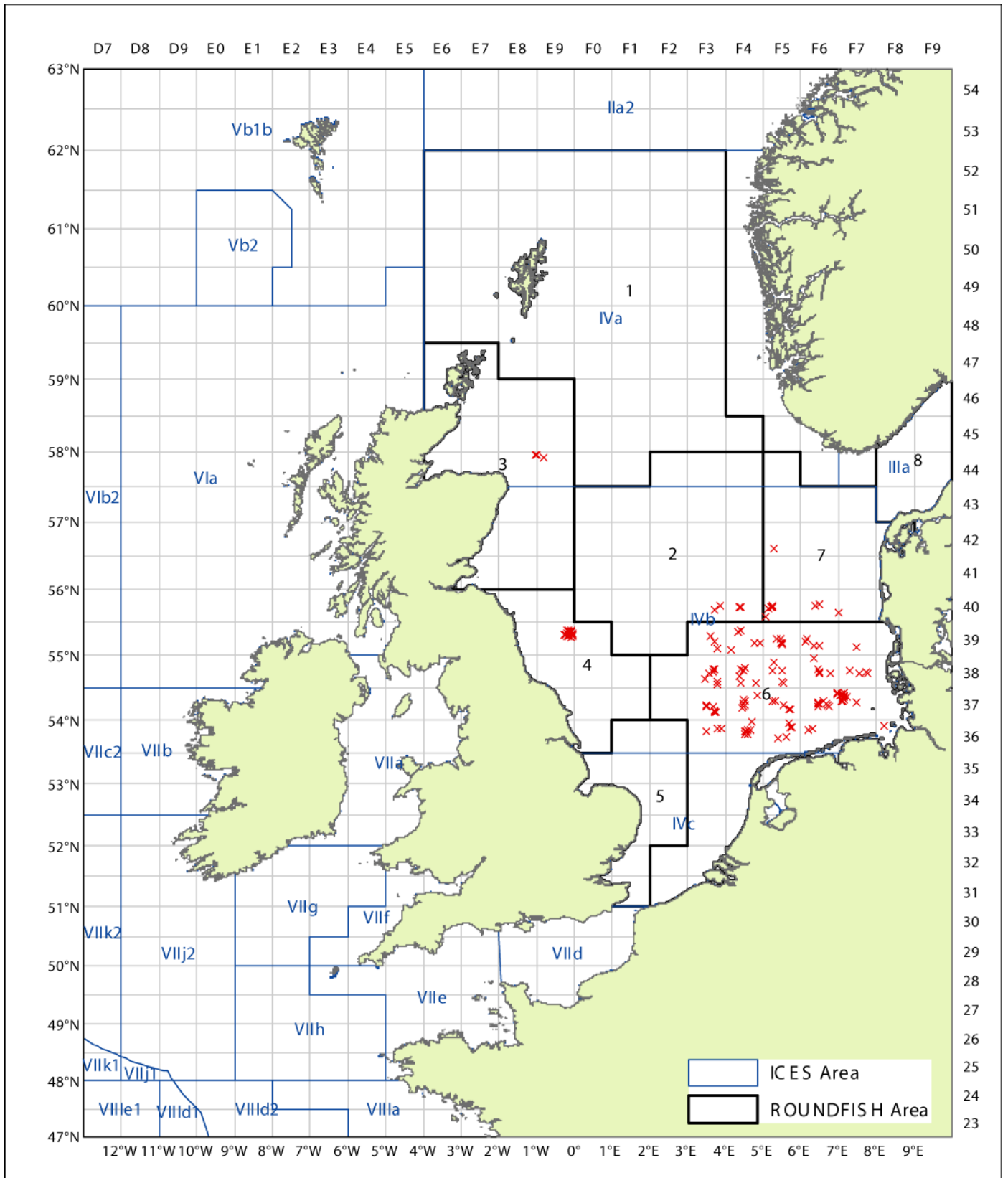


Method of Measurement

- Total length		male	2468
- 1/2 cm below		female	3142
min length	3.75 [cm]	undefined	357
max length	15.75 [cm]	total numbers of data	5967

Sprattus sprattus August

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

August

$$Tw [g] = a * L [cm]^b$$

a = 0.0055

b = 3.1562

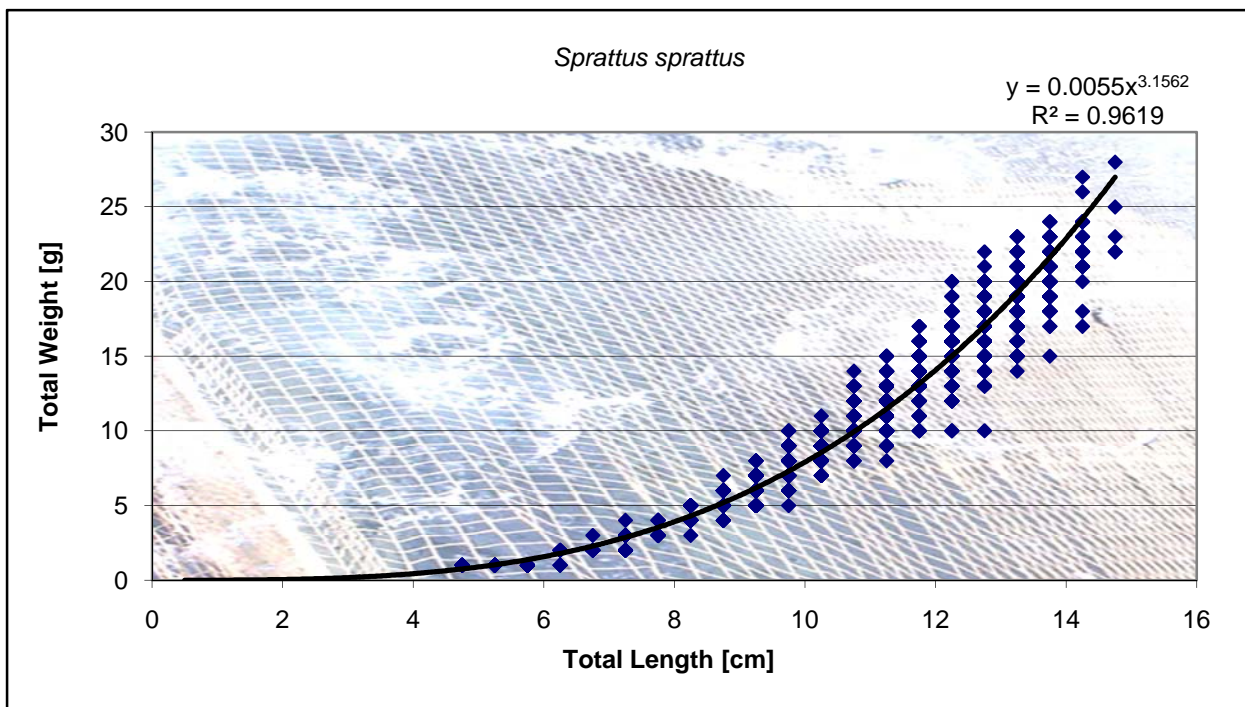
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	1341	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	-	1341	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	1341	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	3	1338	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	17	3	120	-	1025	176	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

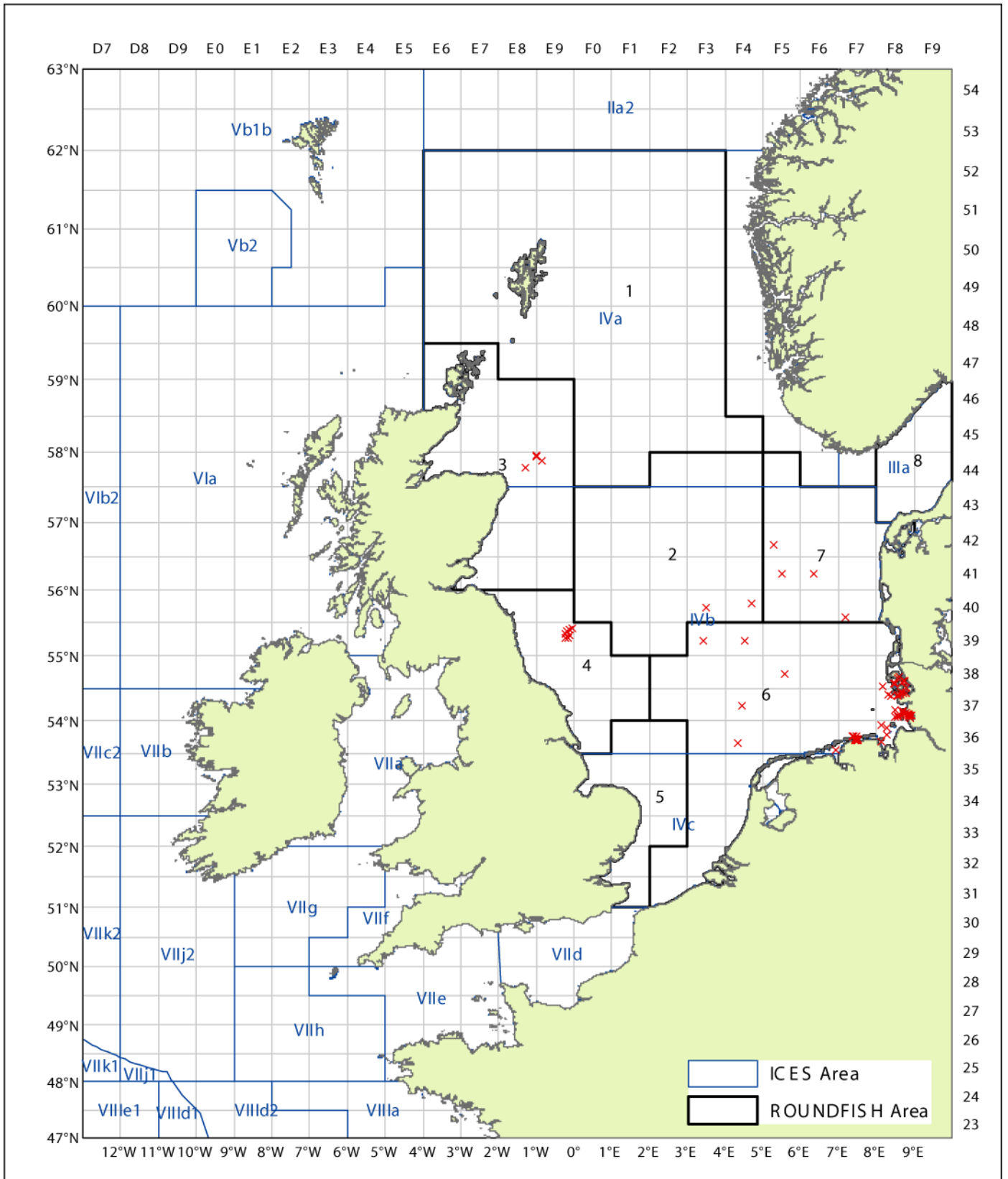


Method of Measurement

- Total length		male	504
- 1/2 cm below		female	592
min length	4.75 [cm]	undefined	245
max length	14.75 [cm]	total numbers of data	1341

Sprattus sprattus September

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

September

$$Tw [g] = a * L [cm]^b$$

a = 0.0046

b = 3.2214

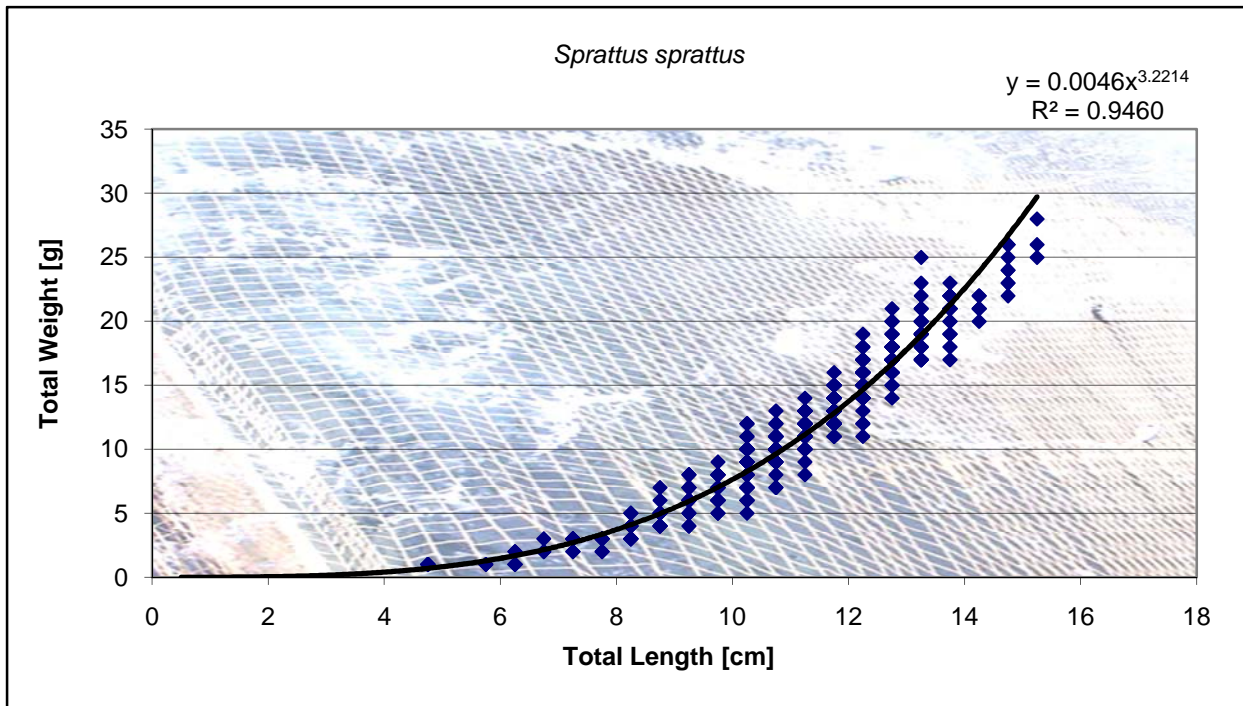
data collected

time period : 1996 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	348	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	348	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	348	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	42	306	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	48	42	70	-	152	36	-	-		-	-	-	-	-	-	-	-	-	

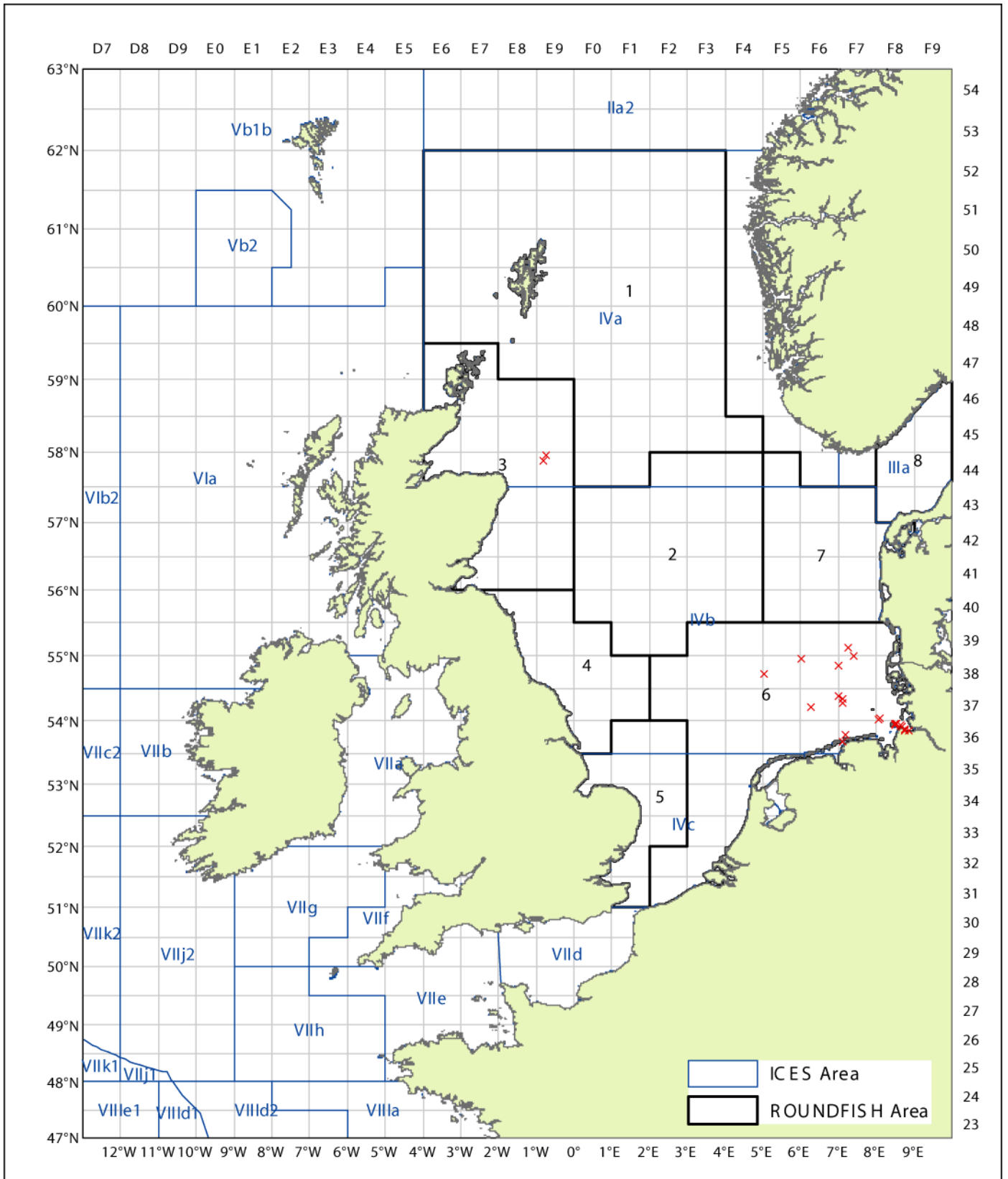


Method of Measurement

- Total length		male	106
- 1/2 cm below		female	109
min length	4.75 [cm]	undefined	133
max length	15.25 [cm]	total numbers of data	348

Sprattus sprattus Quarter 4

Geographical distribution of data used for calculating the length-weight relationship



Sprattus sprattus

Quarter: 4

$$TW [g] = a * L [cm]^b$$

a = 0.007

b = 3.0104

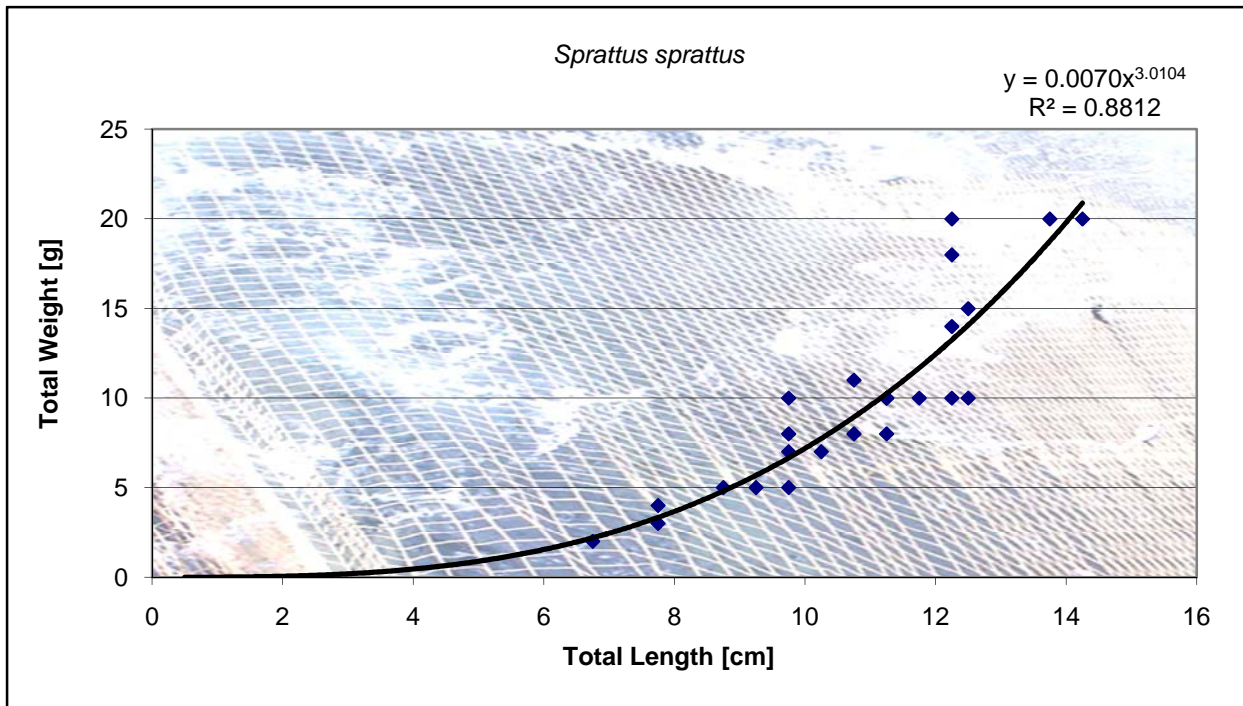
data collected

time period : 1995 - 2006

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	-	25																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	-	-	-	10	7	8											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	25	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	-	2	-	-	23	-	-	-						-	-	-	-	-	-	-	-	-

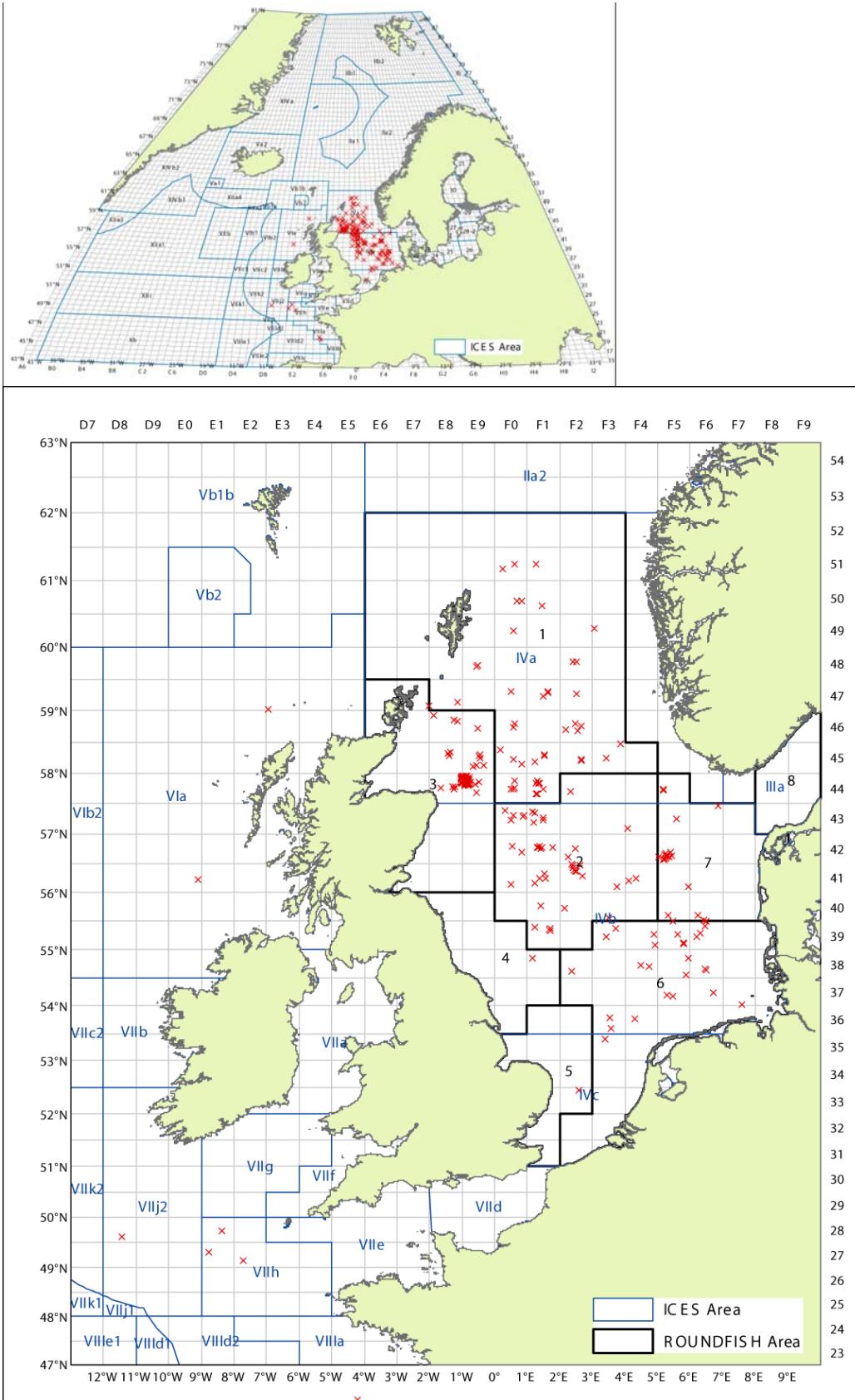


Method of Measurement

- Total length		male	-
- 1/2 cm below		female	-
min length	6.75 [cm]	undefined	25
max length	14.25 [cm]	total numbers of data	25

Squalus acanthias

Geographical distribution of data used for calculating the length-weight relationship



Squalus acanthias

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0023

b = 3.1289

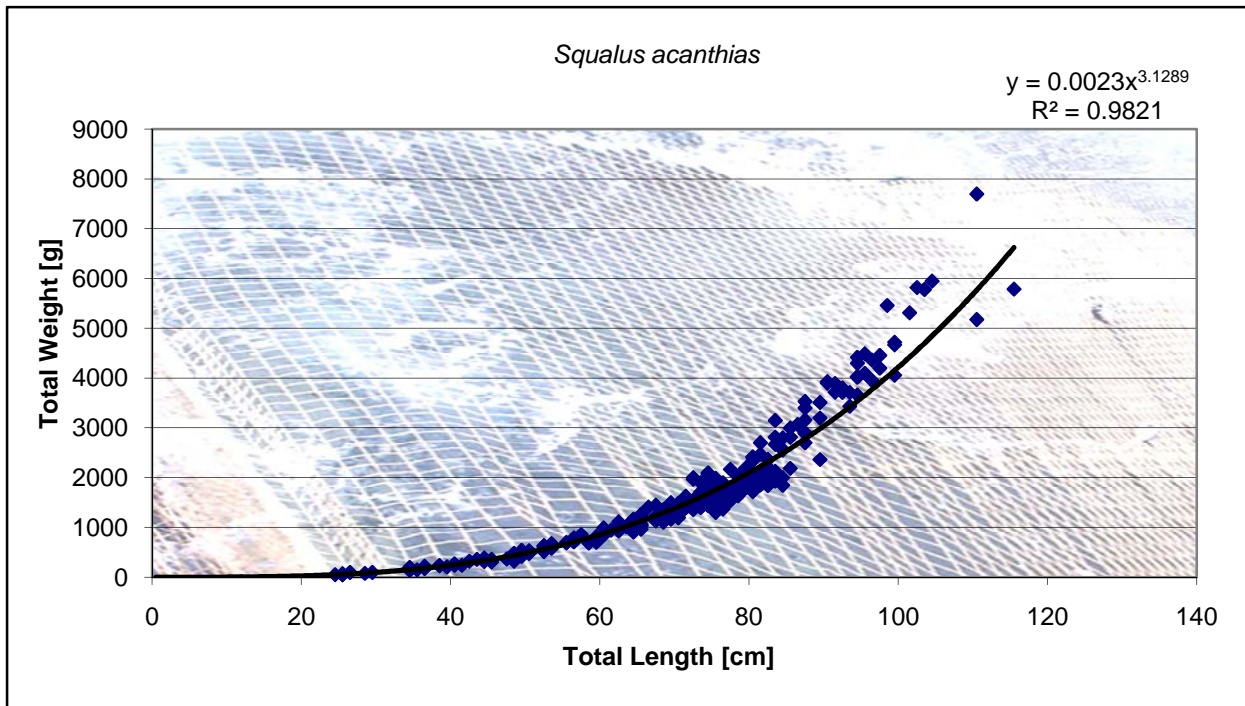
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
153	48	55	17																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
75	63	15	8	20	20	39	8	8	1	12	4								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	263	-	4	4	2	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	118	144	1	-	-	4	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	3	1	-	1	1	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
59	78	70	1	1	27	27	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	

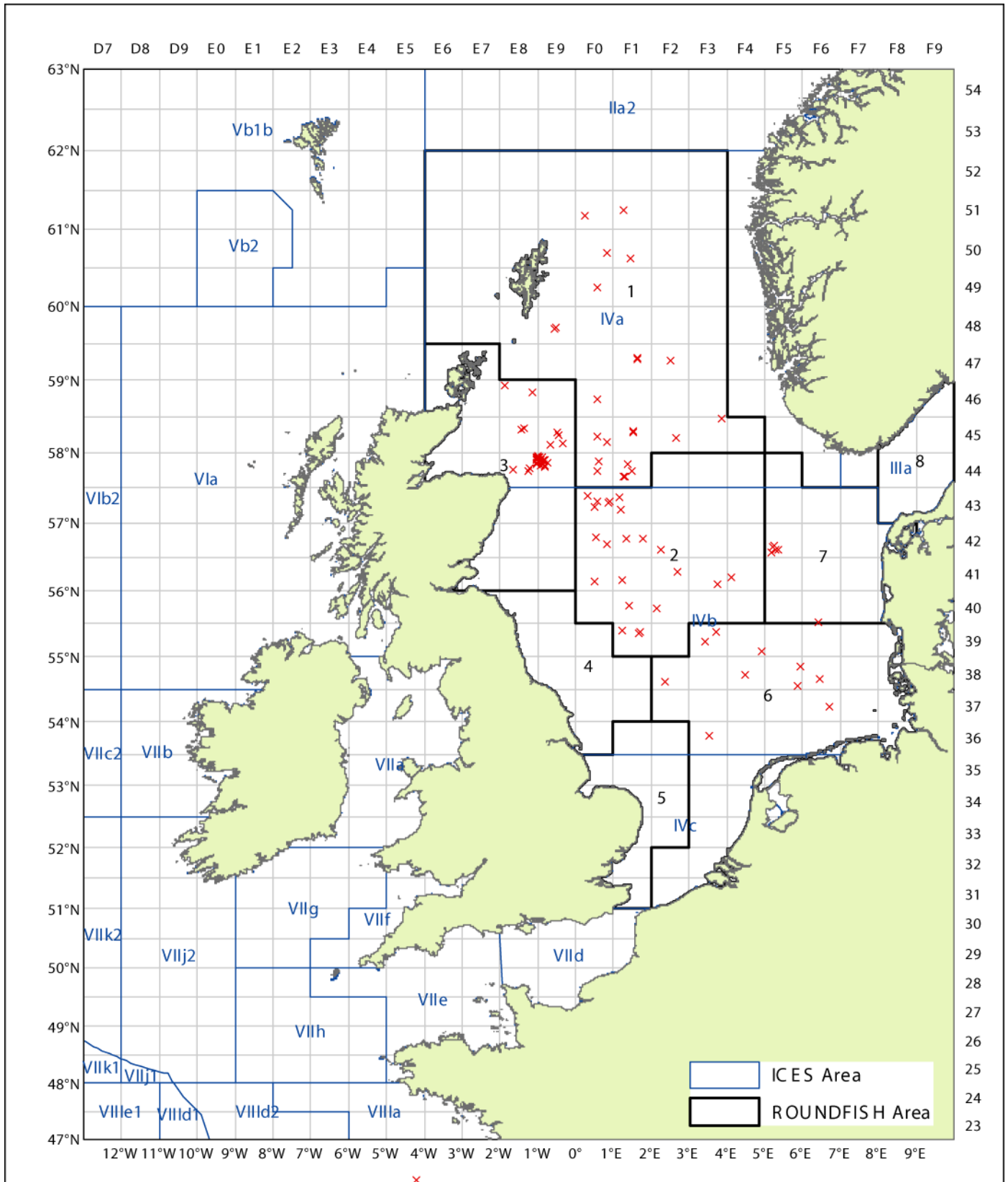


Method of Measurement

- Total length		male	127
- cm below		female	108
min length	24.5 [cm]	undefined	38
max length	115.5 [cm]	total numbers of data	273

Squalus acanthias ♀

Geographical distribution of data used for calculating the length-weight relationship



Squalus acanthias ♀

Quarter: 1 - 4

(female)

$$TW [g] = a * L [cm]^b$$

a = 0.0015

b = 3.2491

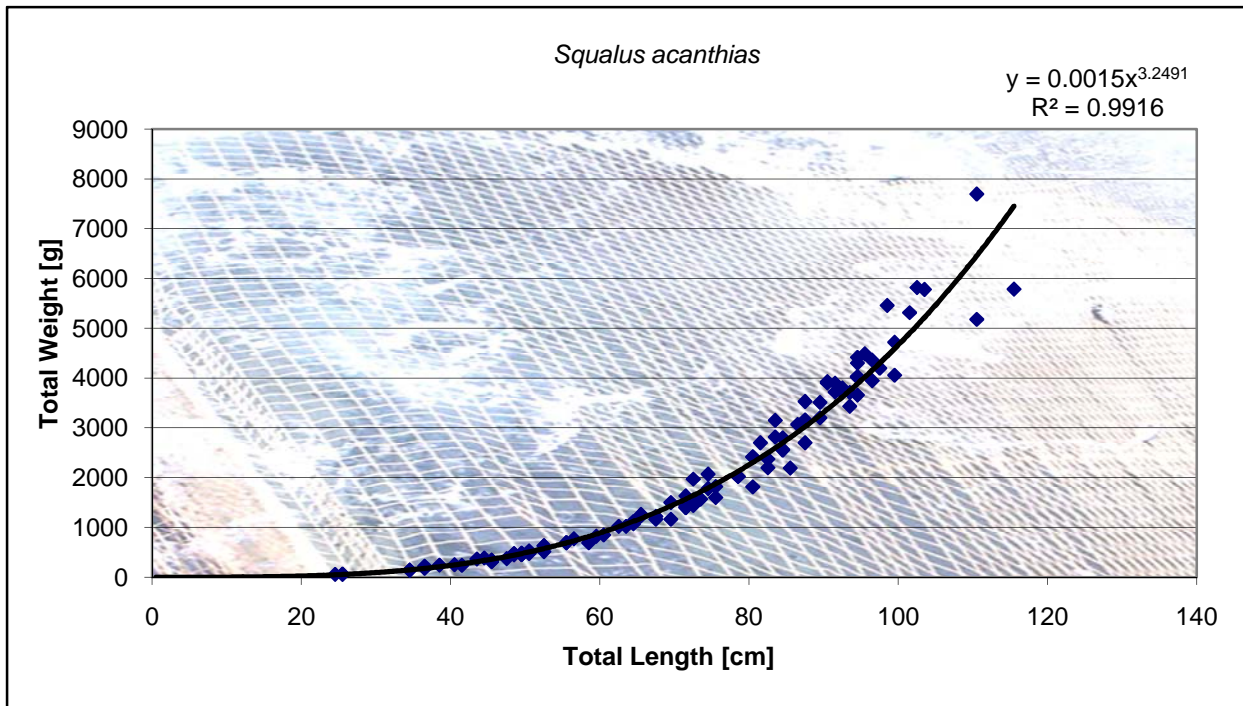
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
65	18	21	4																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
28	30	7	4	8	6	13	5	3	-	4	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	107	-	-	-	1	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	53	54	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	1	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
25	30	34	-	-	11	7	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

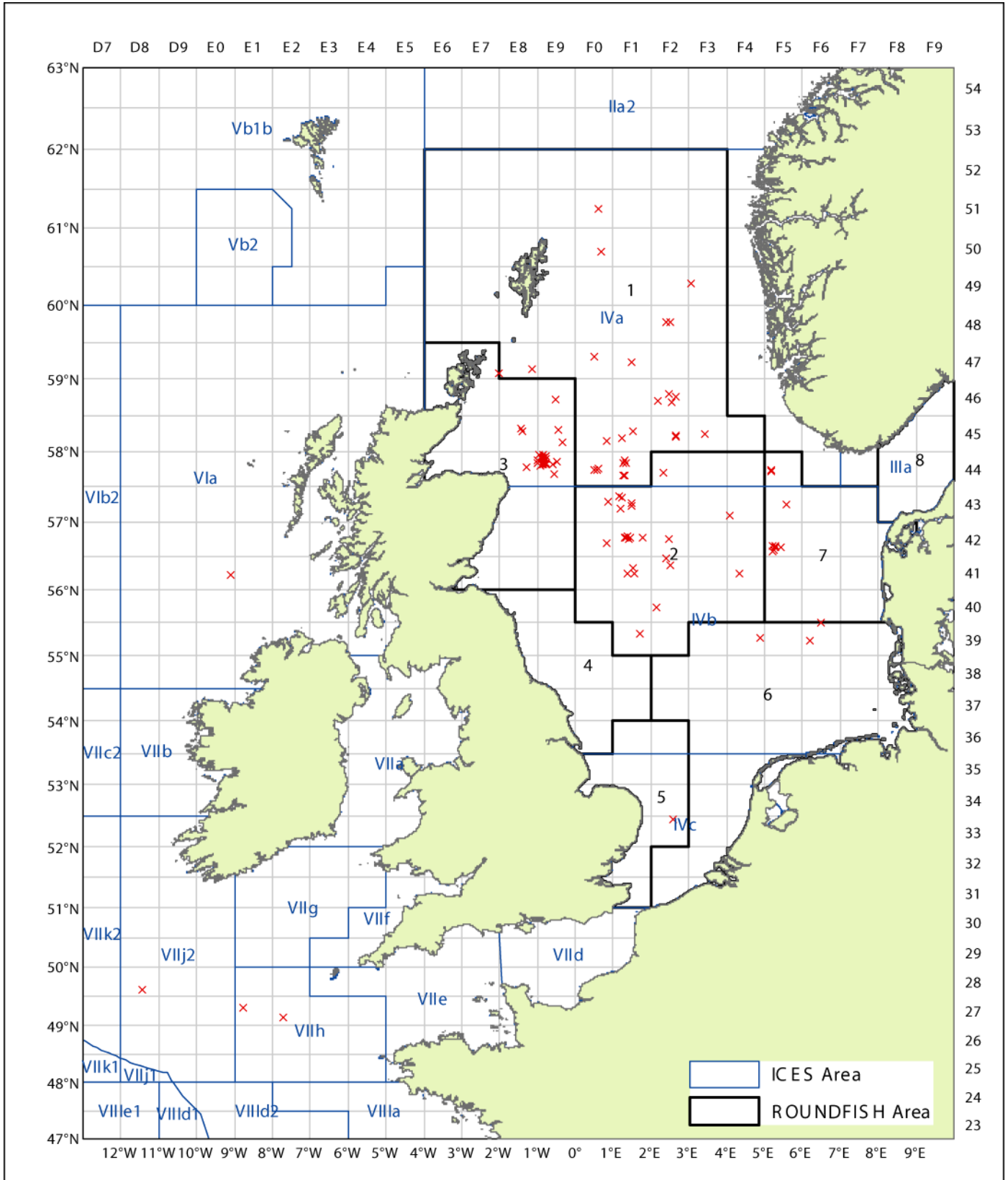


Method of Measurement

- Total length		male	-
- cm below		female	108
min length	24.5 [cm]	undefined	-
max length	115.5 [cm]	total numbers of data	108

Squalus acanthias ♂

Geographical distribution of data used for calculating the length-weight relationship



Squalus acanthias ♂

Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0041

b = 2.984

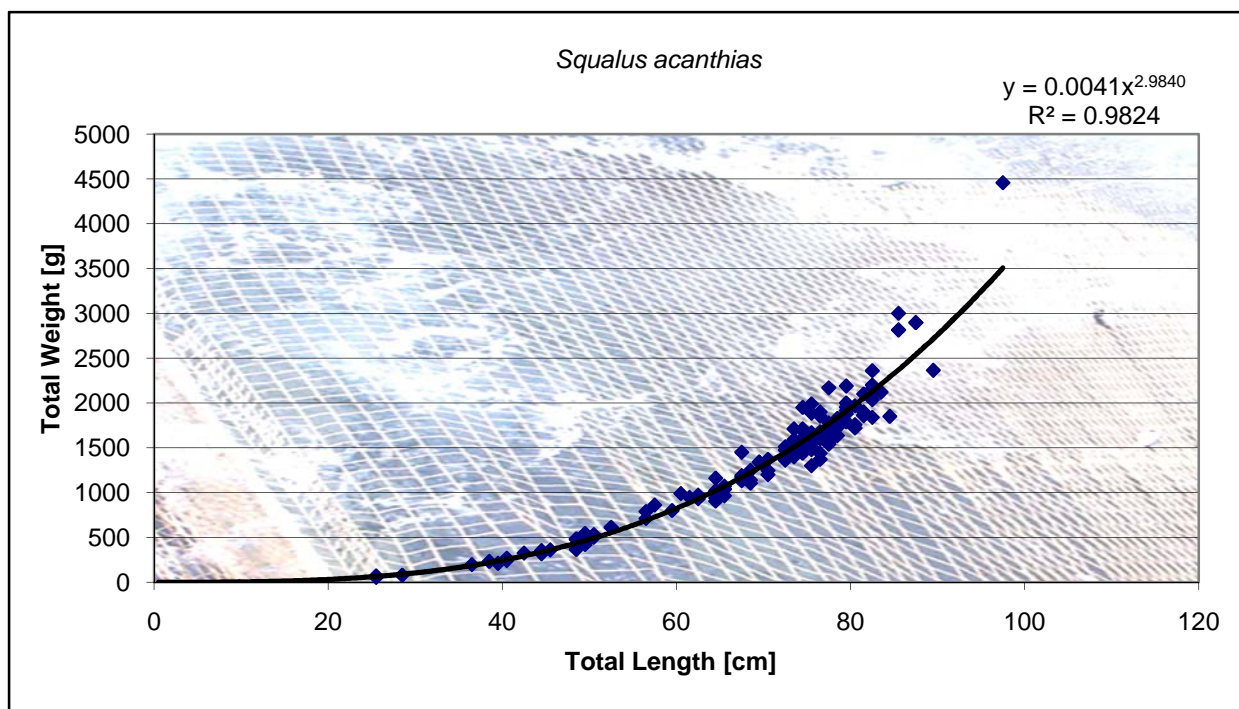
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
78	21	23	5																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
42	32	4	4	10	7	19	1	3	-	5	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	120	-	3	3	1	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	58	61	1	-	-	3	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	2	1	-	-	1	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
32	42	30	-	1	3	12	-	-						-	-	-	-	-	-	-	-	-

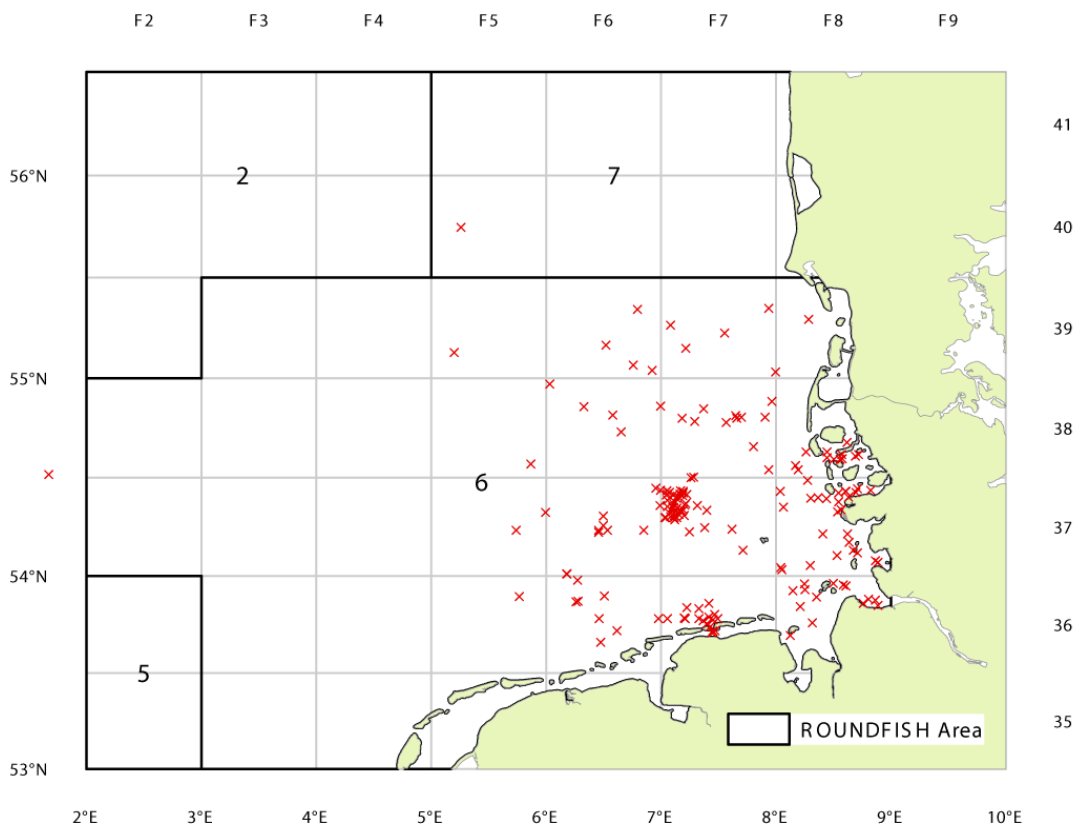
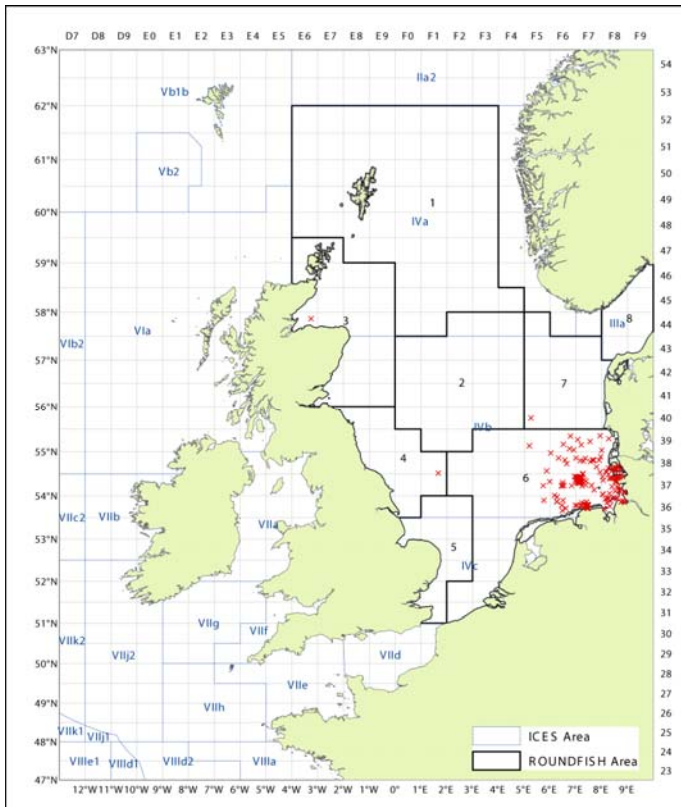


Method of Measurement

- Total length		male	127
- cm below		female	-
min length	25.5 [cm]	undefined	-
max length	97.5 [cm]	total numbers of data	127

Syngnathus rostellatus

Geographical distribution of data used for calculating the length-weight relationship



Syngnathus rostellatus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.00015

b = 3.40846

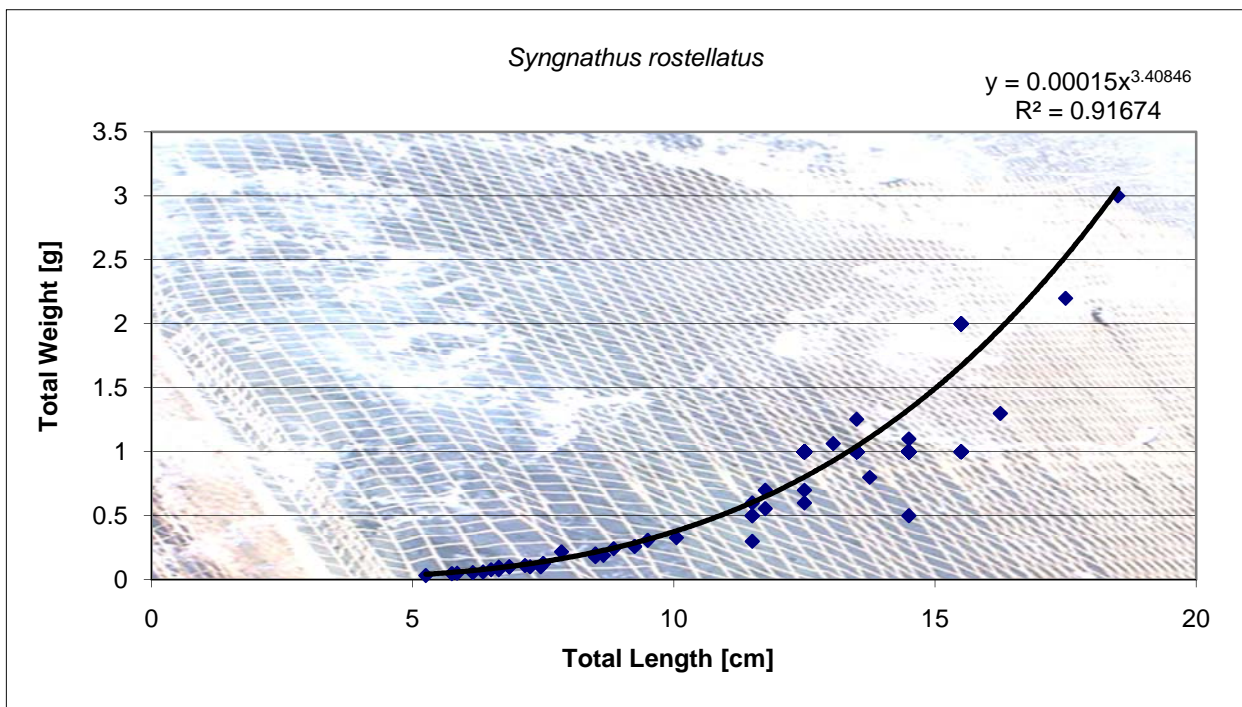
data collected

time period : 2000 - 2011

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
66	29	68	21																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
58	7	1	6	23	-	8	28	32	4	6	11								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	184	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	1	183	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
-	-	1	1	-	181	1	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

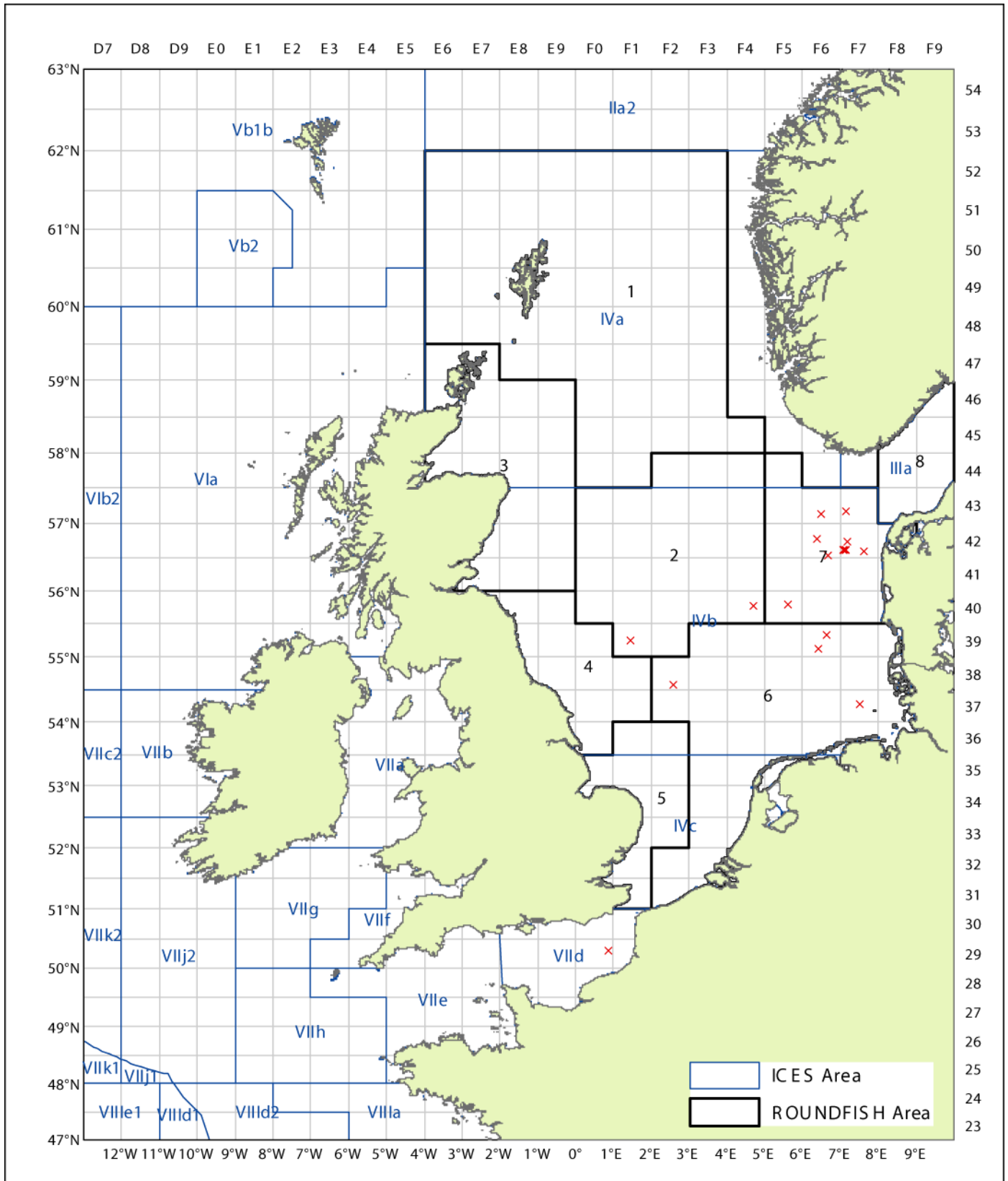


Method of Measurement

- Total length		male	-
- cm below, 1/2 cm below, mm below		female	-
min length	5.25 [cm]	undefined	184
max length	18.5 [cm]	total numbers of data	184

Trachinus draco

Geographical distribution of data used for calculating the length-weight relationship



Trachinus draco

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0061

b = 3.0482

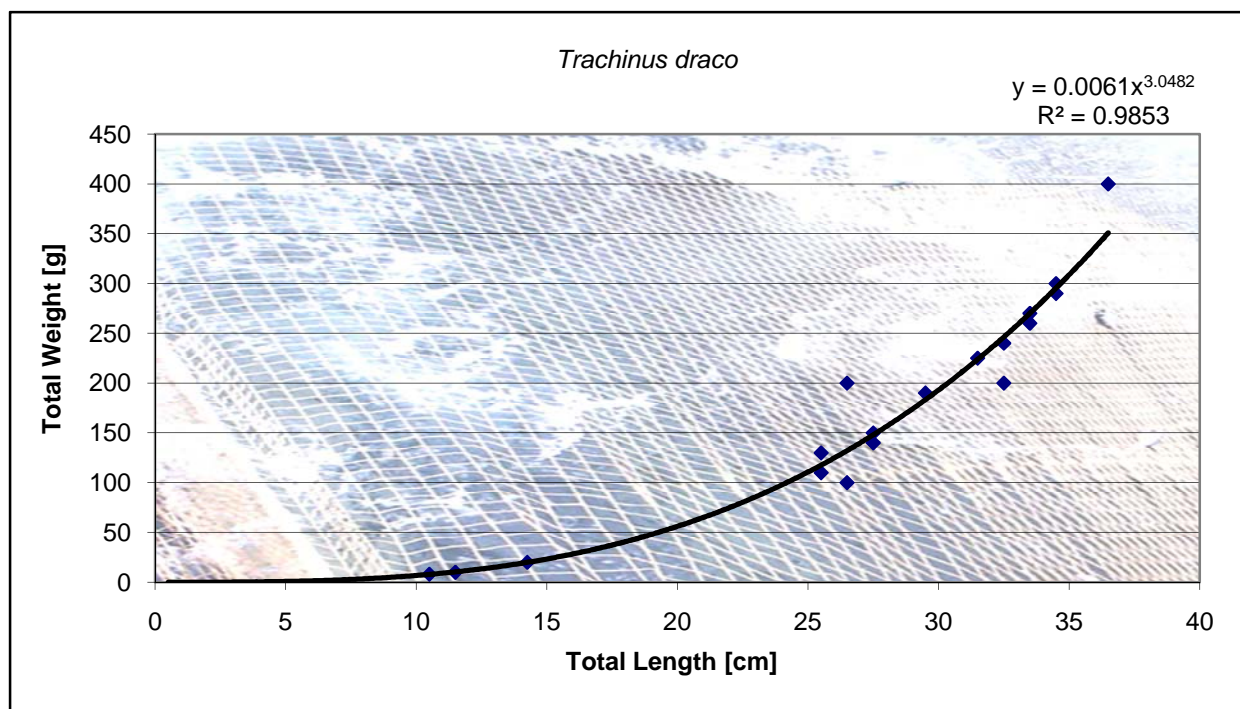
data collected

time period : 1961 - 2005

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
11	2	3	2																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
6	5	-	-	-	2	1	1	1	-	-	2								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	17	-	-	1	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	1	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	2	-	-	-	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	-
- cm below		female	-
min length	10.5 [cm]	undefined	18
max length	36.5 [cm]	total numbers of data	18

Trachurus trachurus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0112

b = 2.8824

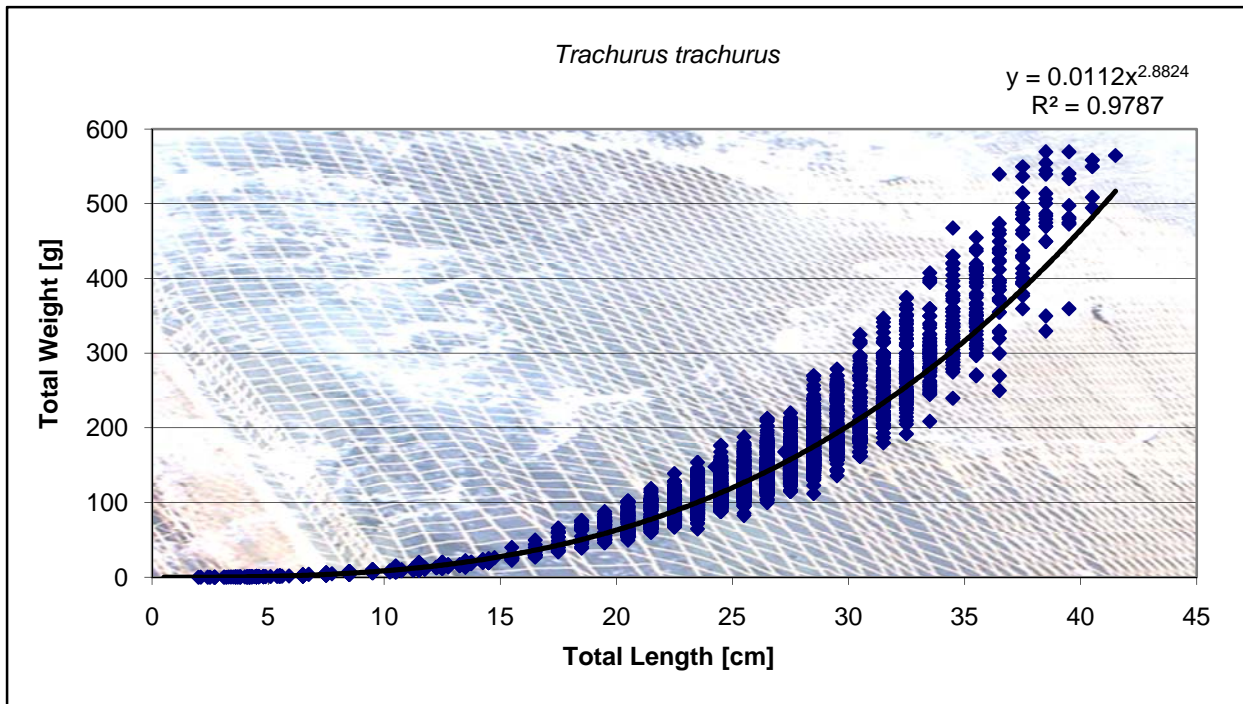
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
769	2031	977	38																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
173	166	430	1981	37	13	525	397	55	1	15	22								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1406	-	159	1865	385	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	285	1115	6	-	-	159	-	-	292	23	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	271	1279	-	325	7	34	19	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
156	136	122	41	7	811	133	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-	-



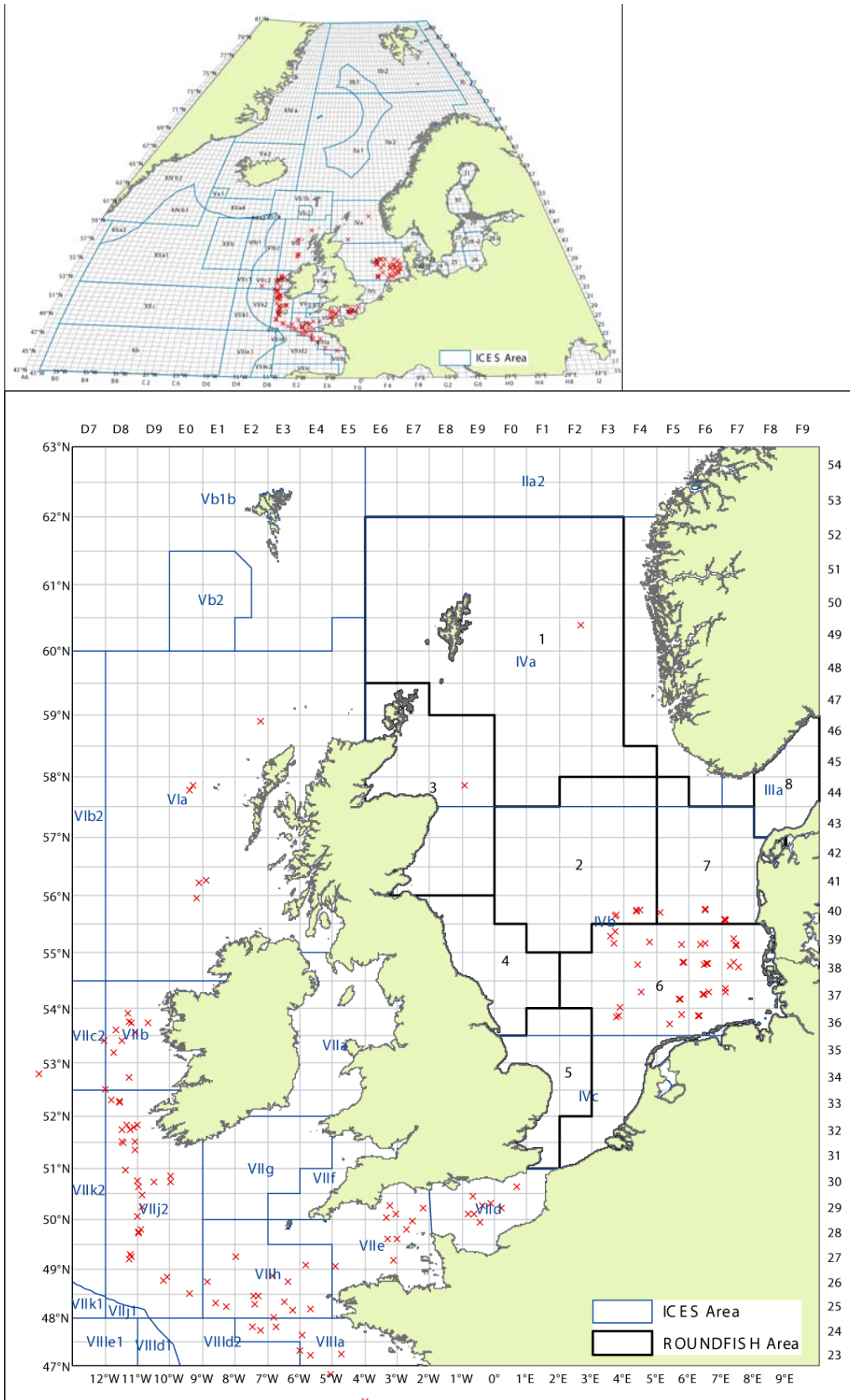
Method of Measurement

- Total length		male	1410
- cm below		female	1363
min length	2.5 [cm]	undefined	1042
max length	41.5 [cm]	total numbers of data	3815

Trachurus trachurus



Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus



Quarter: 1 - 4

(female)

$$Tw [g] = a * L [cm]^b$$

a = 0.0177

b = 2.7566

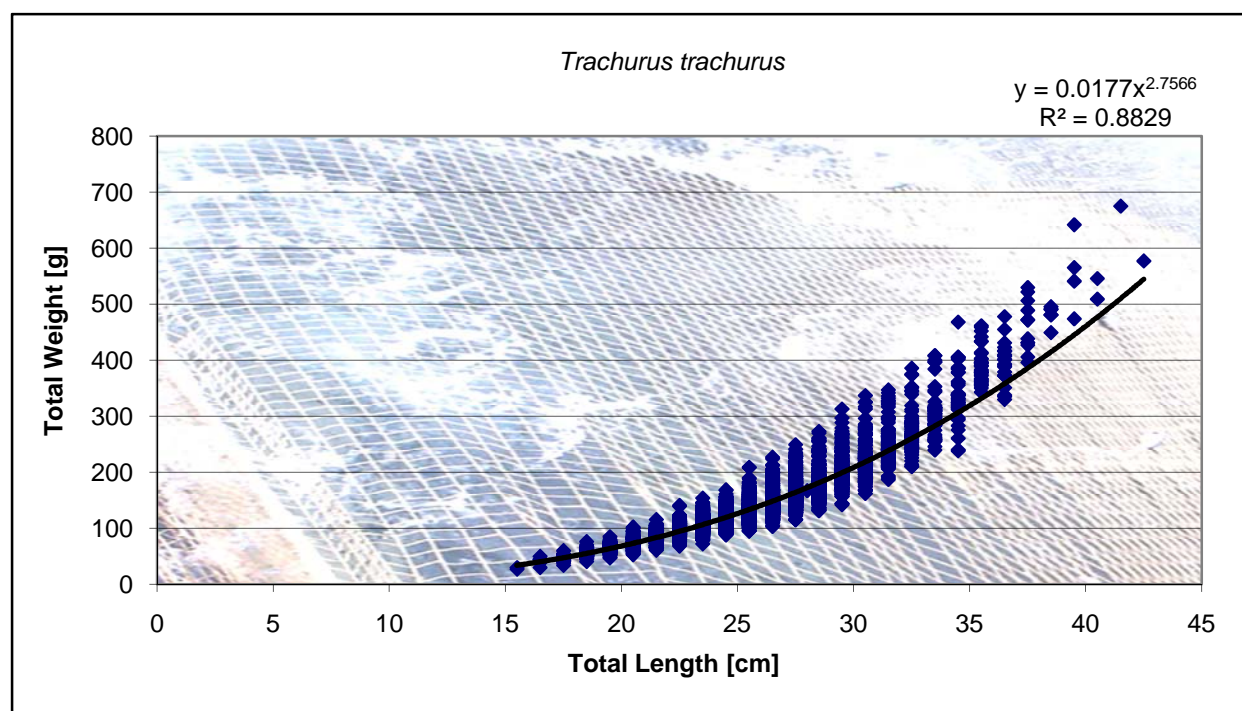
data collected

time period : 1998 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																					
1	2	3	4																		
1496	1162	285	2150																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
221	936	339	904	-	258	172	113	-	1406	706	38										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	543	-	336	3818	396	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	3	540	-	-	-	336	-	-	566	64	744	719	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
-	566	1159	-	396	-	-	-	-	-	-	-	-	-	-							
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9					1A	1B	1C	1D	1E	1F	2G	2H	2J
2	36	1	-	-	468	36	-	-					-	-	-	-	-	-	-	-	-

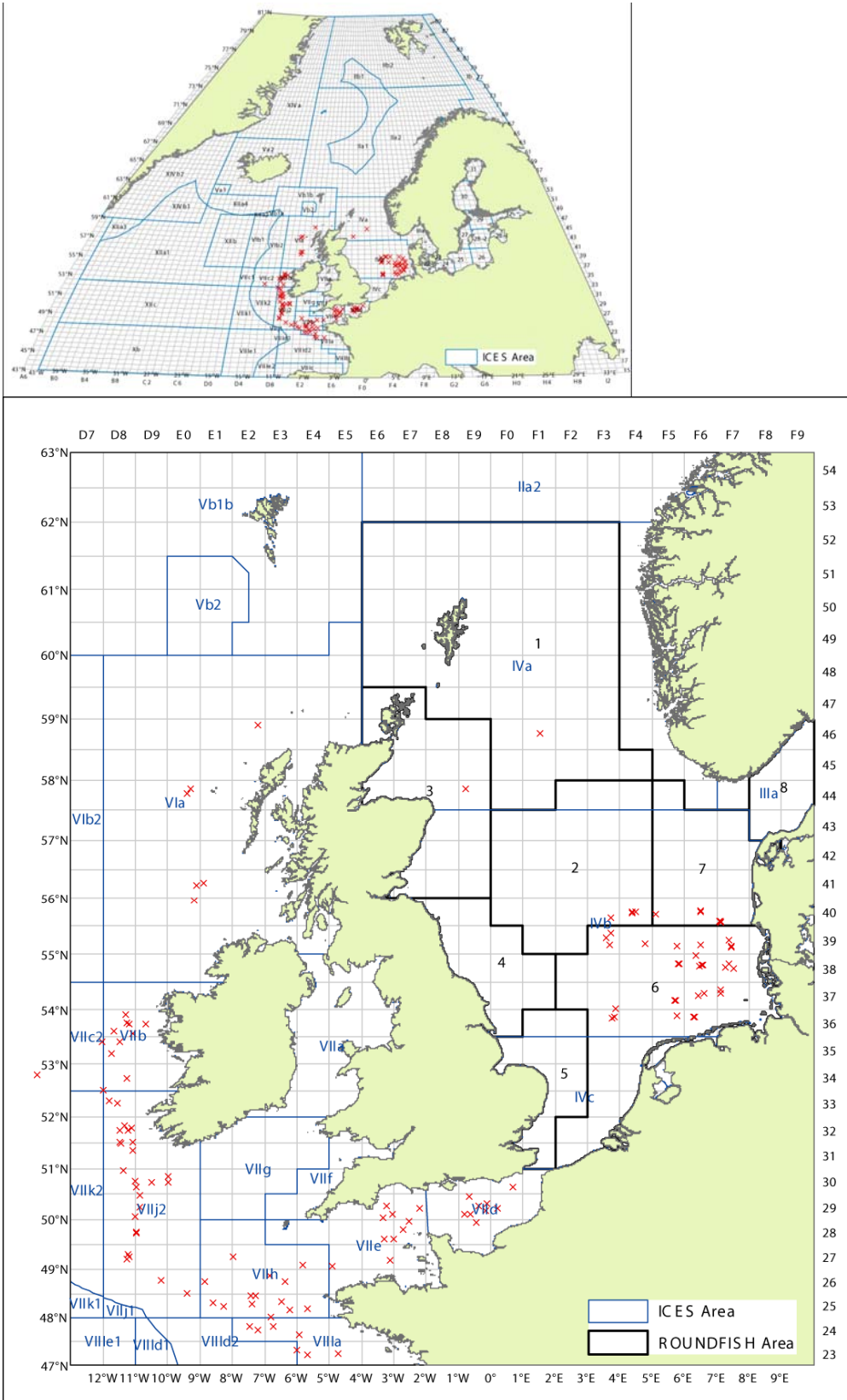


Method of Measurement

- Total length		male	-
- cm below		female	5093
min length	15.5 [cm]	undefined	-
max length	42.5 [cm]	total numbers of data	5093

Trachurus trachurus ♂

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus ♂

Quarter: 1 - 4

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0166

b = 2.7736

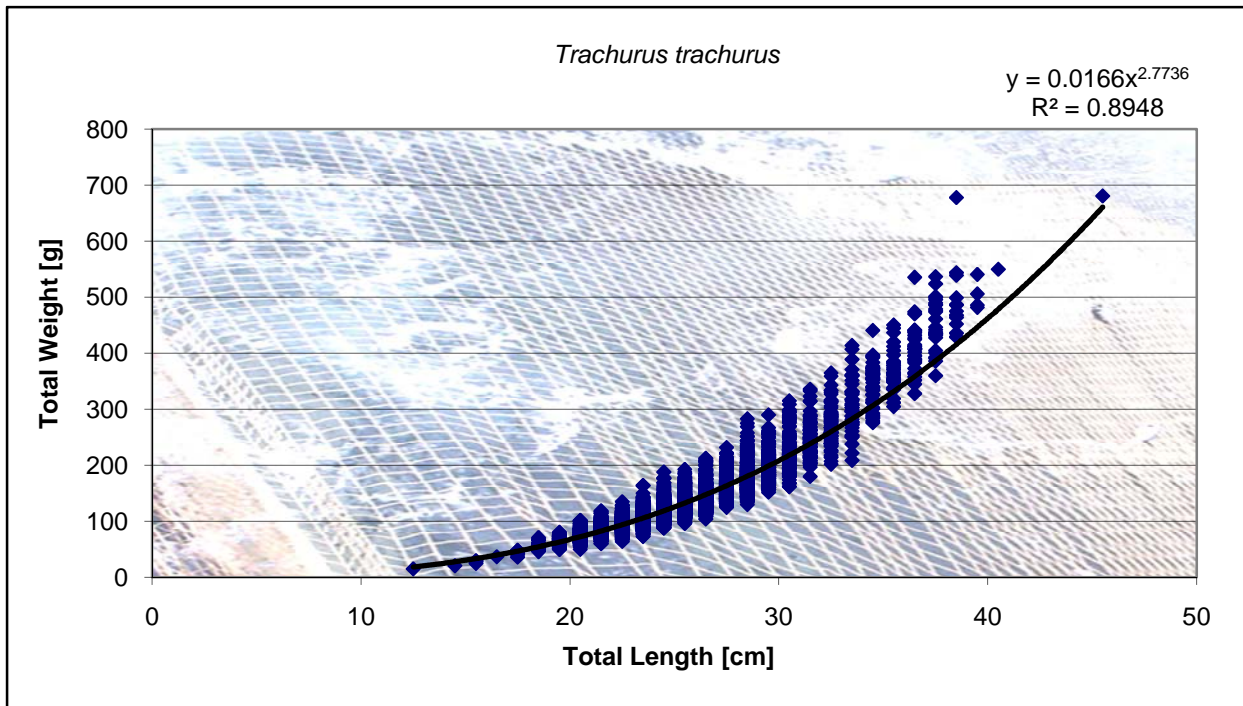
data collected

time period : 2002 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
1557	1073	283	1798																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
272	925	360	927	-	146	184	99	-	1213	511	74								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	429	-	417	3534	331	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2	427	-	-	-	417	-	-	481	93	574	651	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	530	1205	-	331	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
1	32	1	-	-	356	39	-	-		-	-	-	-	-	-	-	-	-	

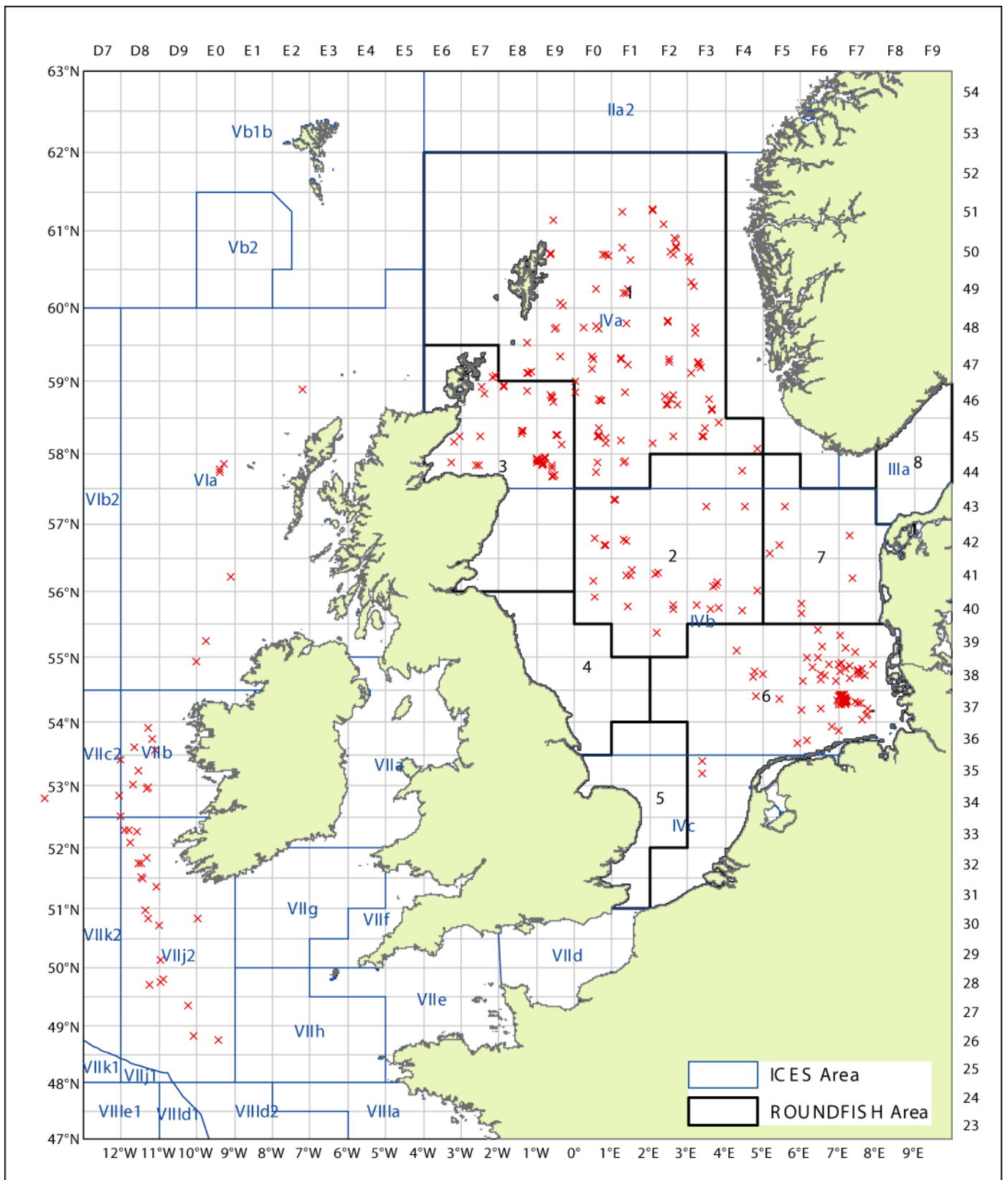


Method of Measurement

- Total length		male	4711
- cm below		female	-
min length	12.5 [cm]	undefined	-
max length	45.5 [cm]	total numbers of data	4711

Trachurus trachurus Quarter 1

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

Quarter: 1

$$Tw [g] = a * L [cm]^b$$

a = 0.0072

b = 3.0172

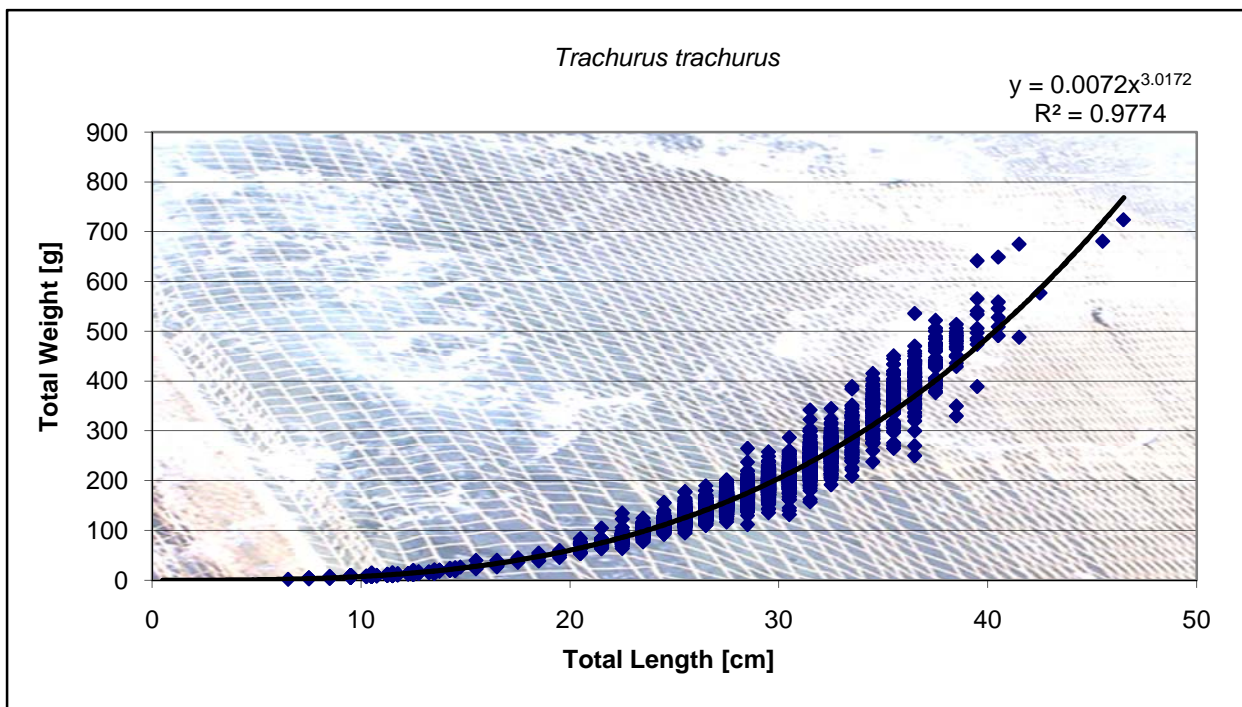
data collected

time period : 1994 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																											
1	2	3	4																								
3388	-	-	-																								
Month																											
1	2	3	4	5	6	7	8	9	10	11	12																
330	2289	769	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
Subarea																											
1	2	3	4	5	6	7	8	9	10	12	14																
-	-	-	341	-	460	2587	-	-	-	-	-	-	-	-	-	-	-	-									
Division																											
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F								
-	-	-	-	-	-	-	183	158	-	-	-	460	-	-	860	314	-	-	-								
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B													
-	-	1413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea											NAFO																
1	2	3	4	5	6	7	8	9										1A	1B	1C	1D	1E	1F	2G	2H	2J	
114	55	68	-	-	96	8	-	-										-	-	-	-	-	-	-	-	-	-

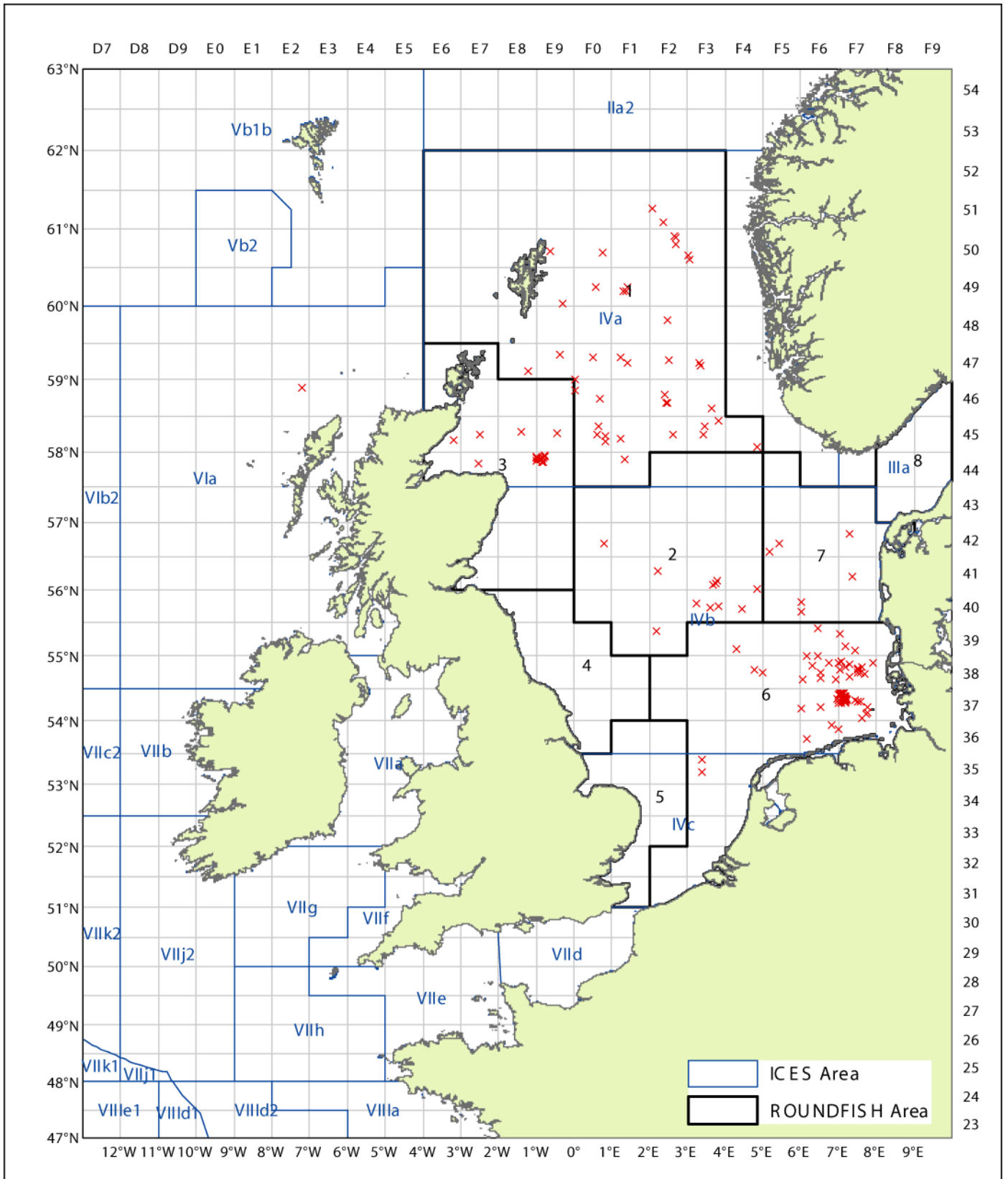


Method of Measurement

- Total length		male	973
- cm below		female	891
min length	6.5 [cm]	undefined	1523
max length	46.5 [cm]	total numbers of data	3388

Trachurus trachurus January

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

January

$$Tw [g] = a * L [cm]^b$$

a = 0.0073

b = 3.0281

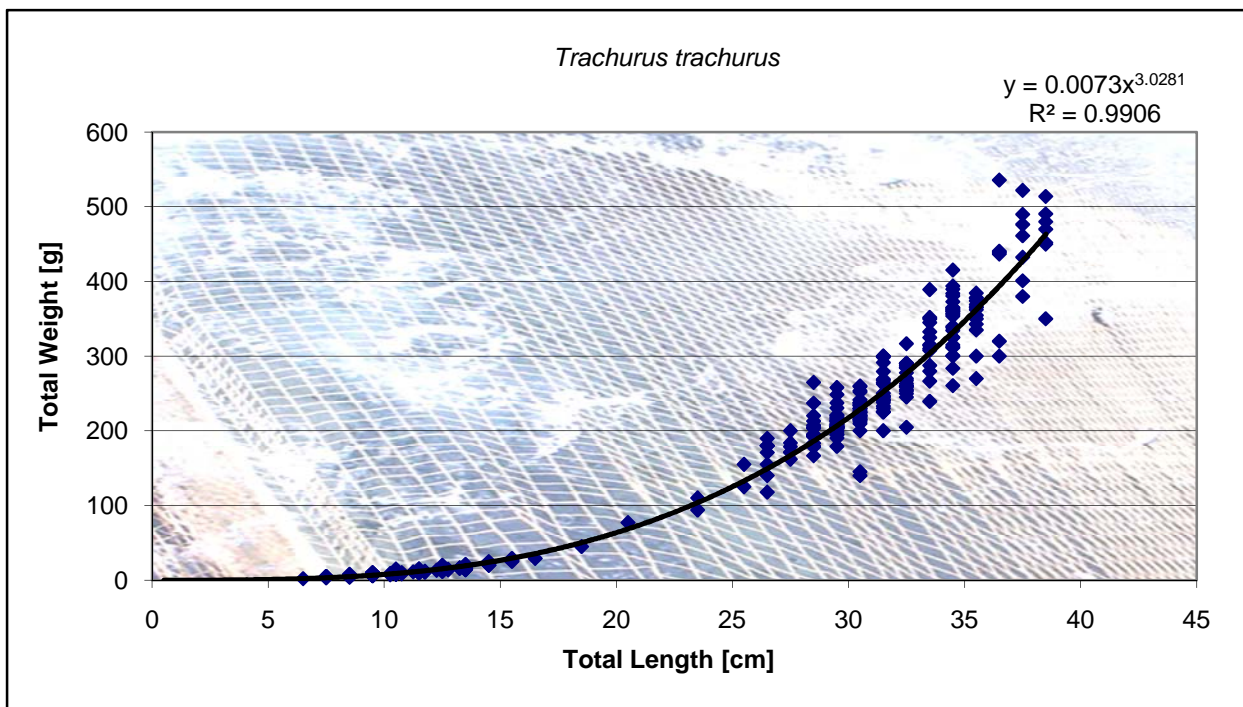
data collected

time period : 1994 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																					
1	2	3	4																		
330	-	-	-																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	173	-	157	-	-	-	-	-	-	-	-	-	-	-	-	-			
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	68	105	-	-	-	157	-	-	-	-	-	-	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9				1A	1B	1C	1D	1E	1F	2G	2H	2J	
44	10	23	-	-	89	7	-	-				-	-	-	-	-	-	-	-	-	-

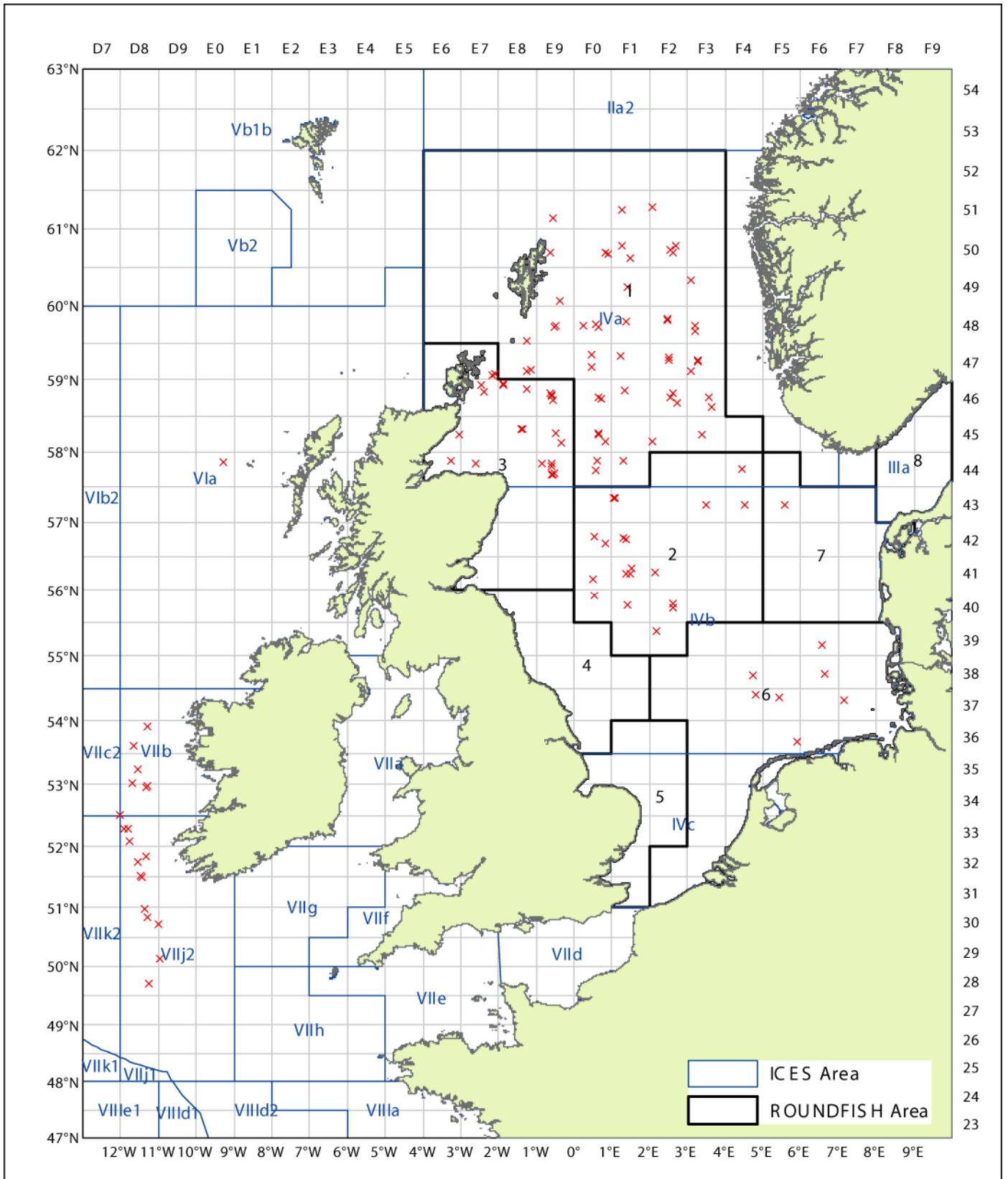


Method of Measurement

- Total length		male	108
- cm below		female	37
		undefined	185
min length	6.5 [cm]		
max length	38.5 [cm]		
		total numbers of data	330

Trachurus trachurus February

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

February

$$Tw [g] = a * L [cm]^b$$

a = 0.0065

b = 3.0504

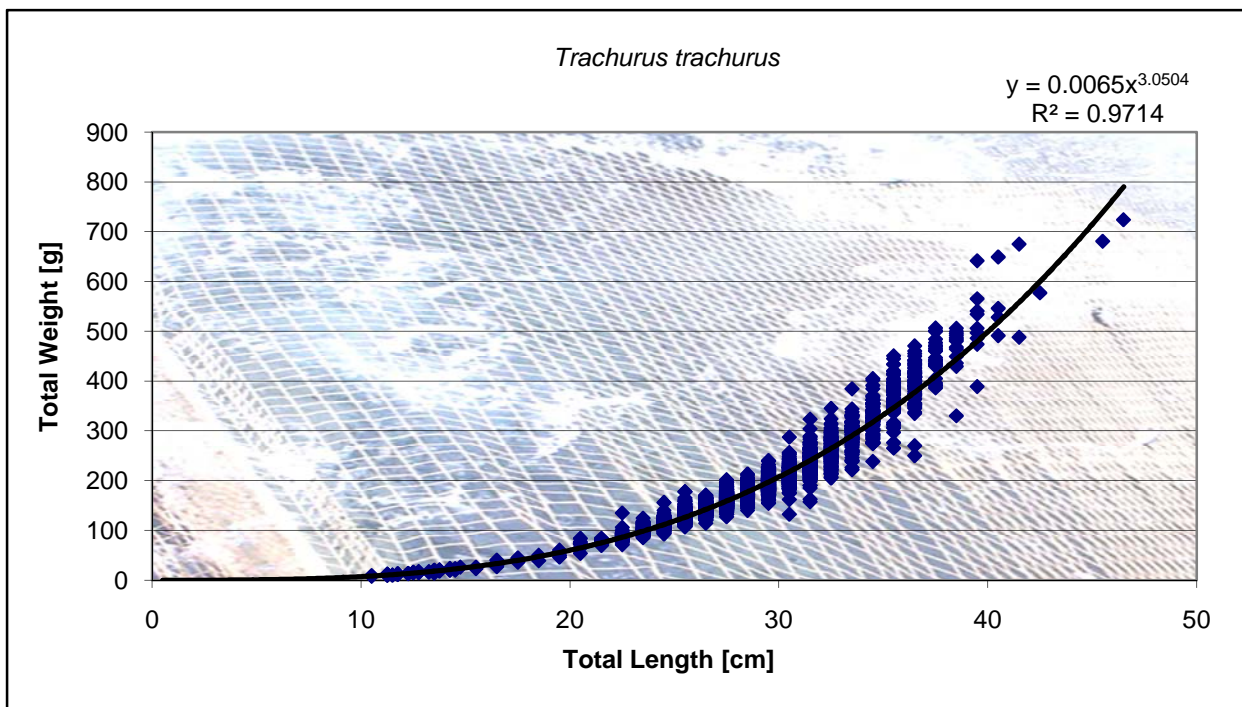
data collected

time period : 1995 - 2008

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
2289	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	2289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	166	-	144	1979	-	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	113	53	-	-	-	144	-	-	474	291	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	1214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
68	45	45	-	-	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-

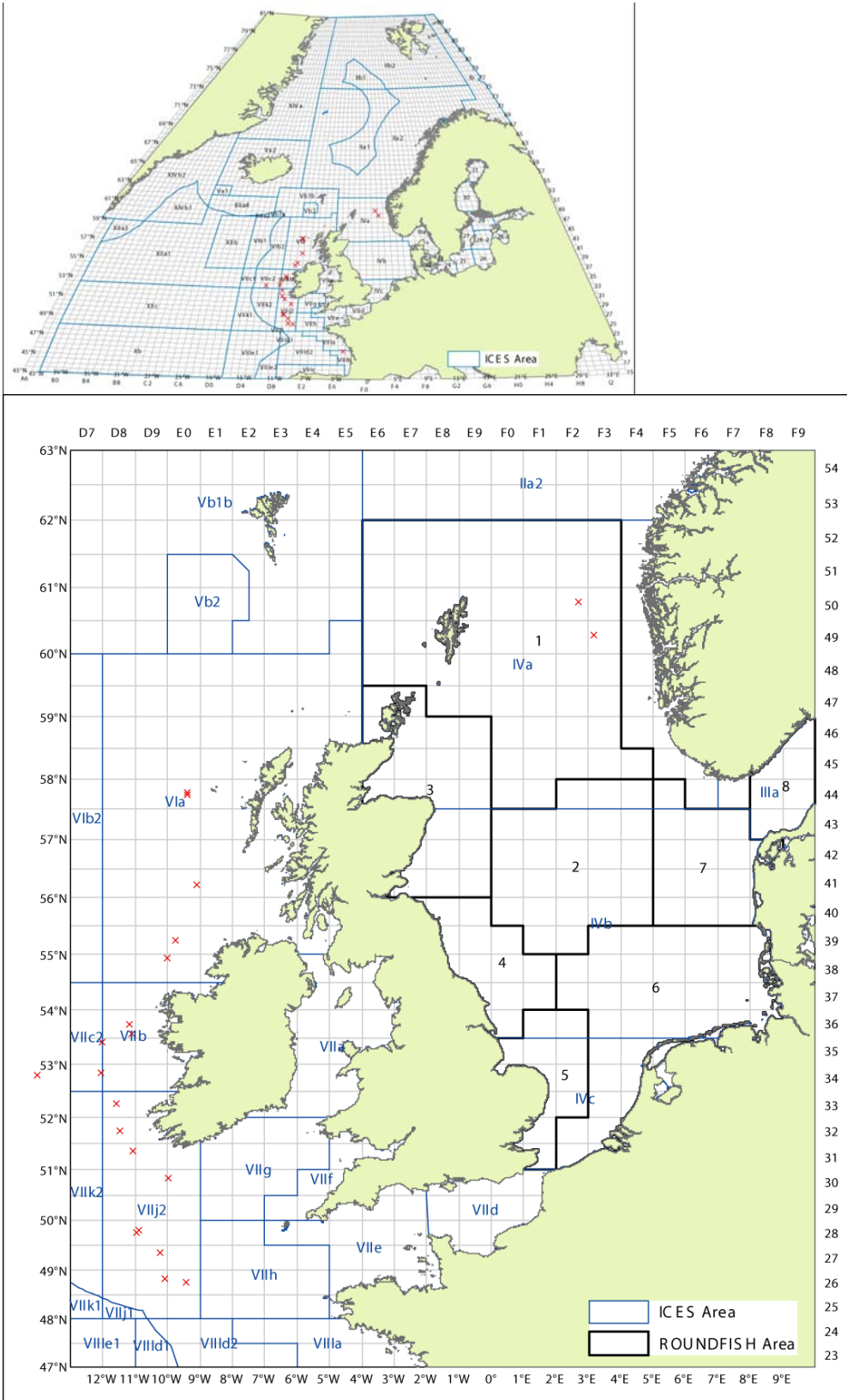


Method of Measurement

- Total length		male	504
- cm below		female	514
min length	10.5 [cm]	undefined	1270
max length	46.5 [cm]	total numbers of data	2289

Trachurus trachurus March

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

March

$$Tw [g] = a * L [cm]^b$$

a = 0.0073

b = 2.9946

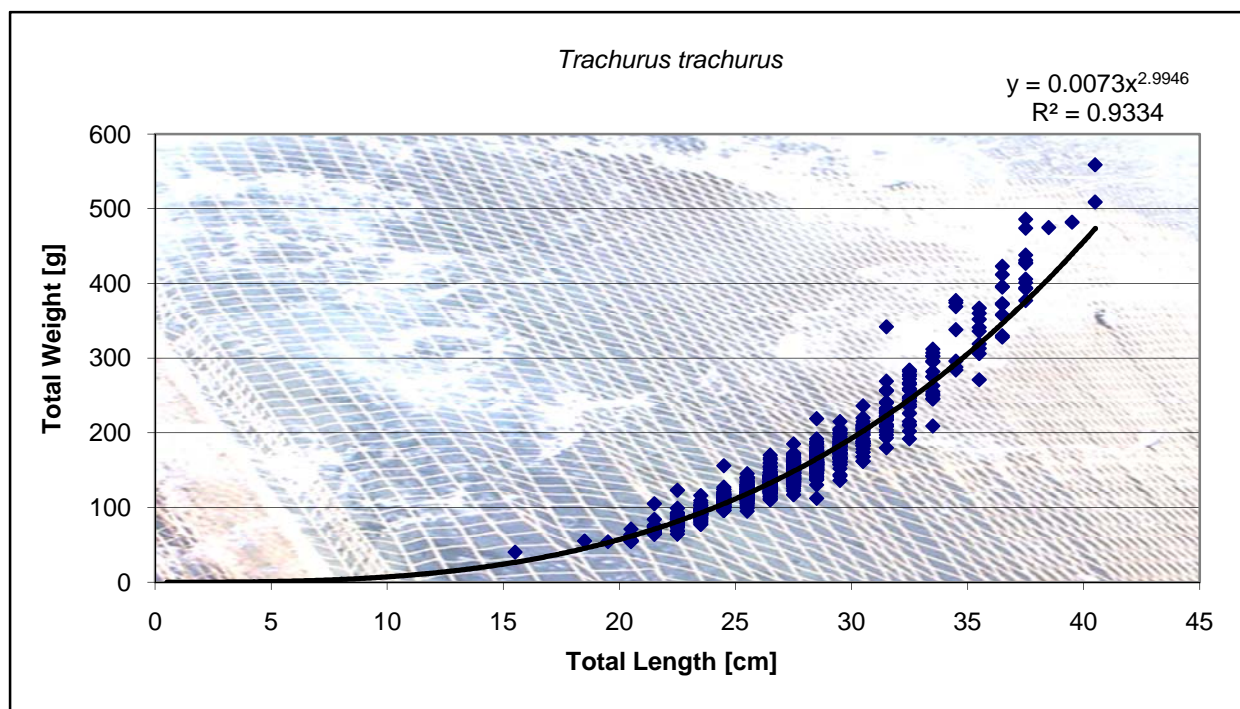
data collected

time period : 1994 - 2007

data source : research vessel, commercial trawler

numbers of data:

Quarter																			
1	2	3	4																
769	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	769	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	2	-	159	608	-	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	2	-	-	-	-	159	-	-	386	23	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

min length 15.5 [cm]
max length 40.5 [cm]

male 361
female 340
undefined 68
total numbers of data 769

Trachurus trachurus

Quarter: 2

$$Tw [g] = a * L [cm]^b$$

a = 0.0068

b = 3.0168

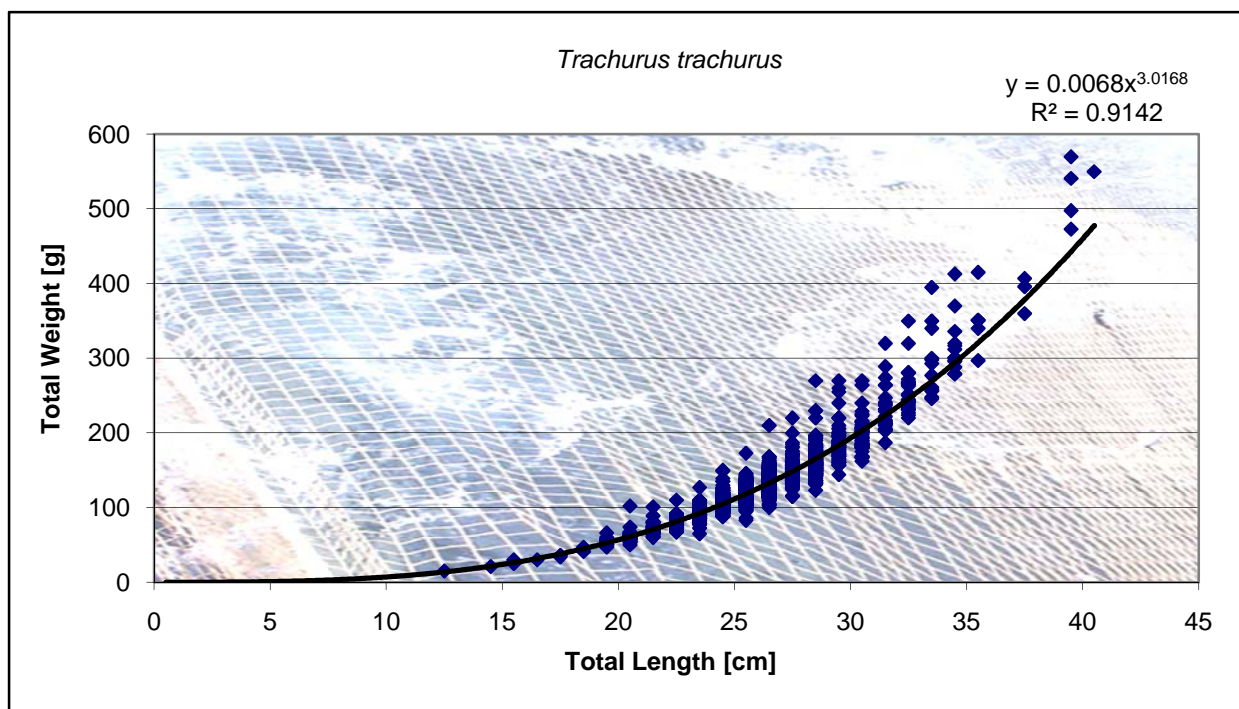
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	2030	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	1981	36	13	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	49	-	-	1596	385	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	4	45	-	-	-	-	-	-	245	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	271	1080	-	325	7	34	19	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	1	3	1	-	42	2	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

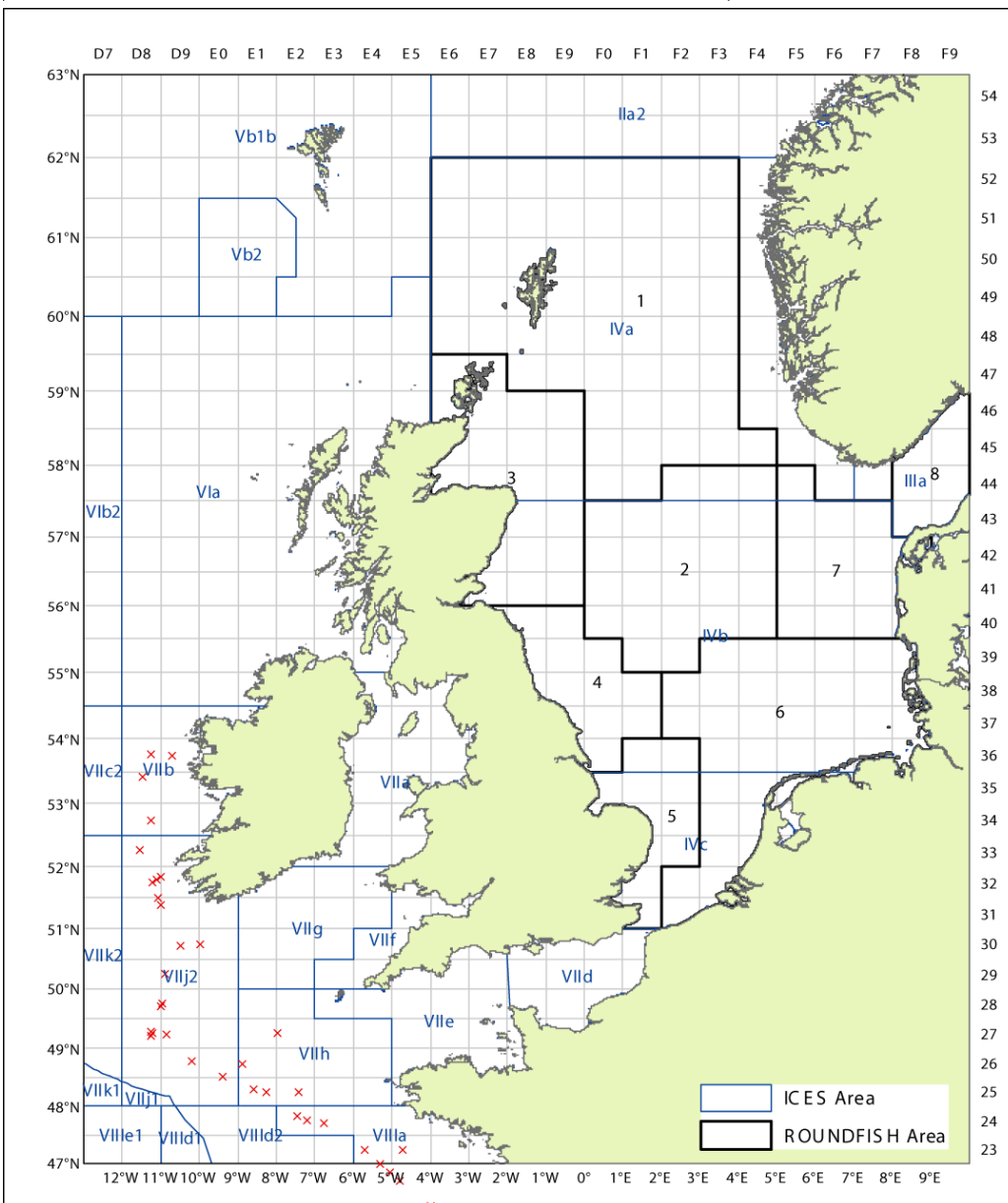
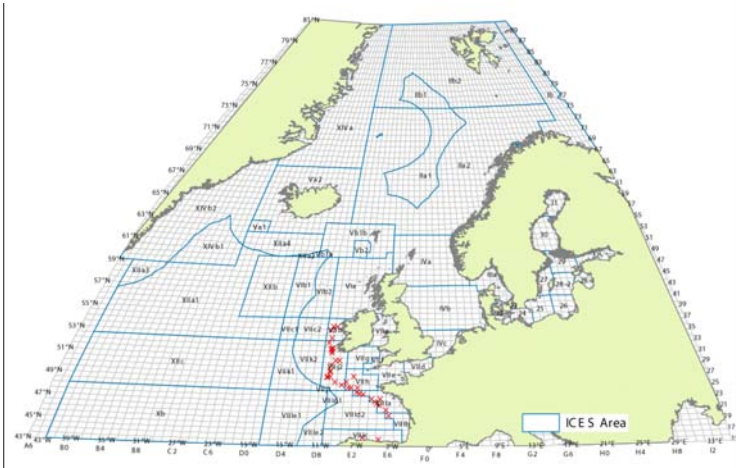
min length 12.5 [cm]
max length 40.5 [cm]

male 930
female 906
undefined 194

total numbers of data 2030

Trachurus trachurus April

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

April

$$Tw [g] = a * L [cm]^b$$

a = 0.0082

b = 2.9564

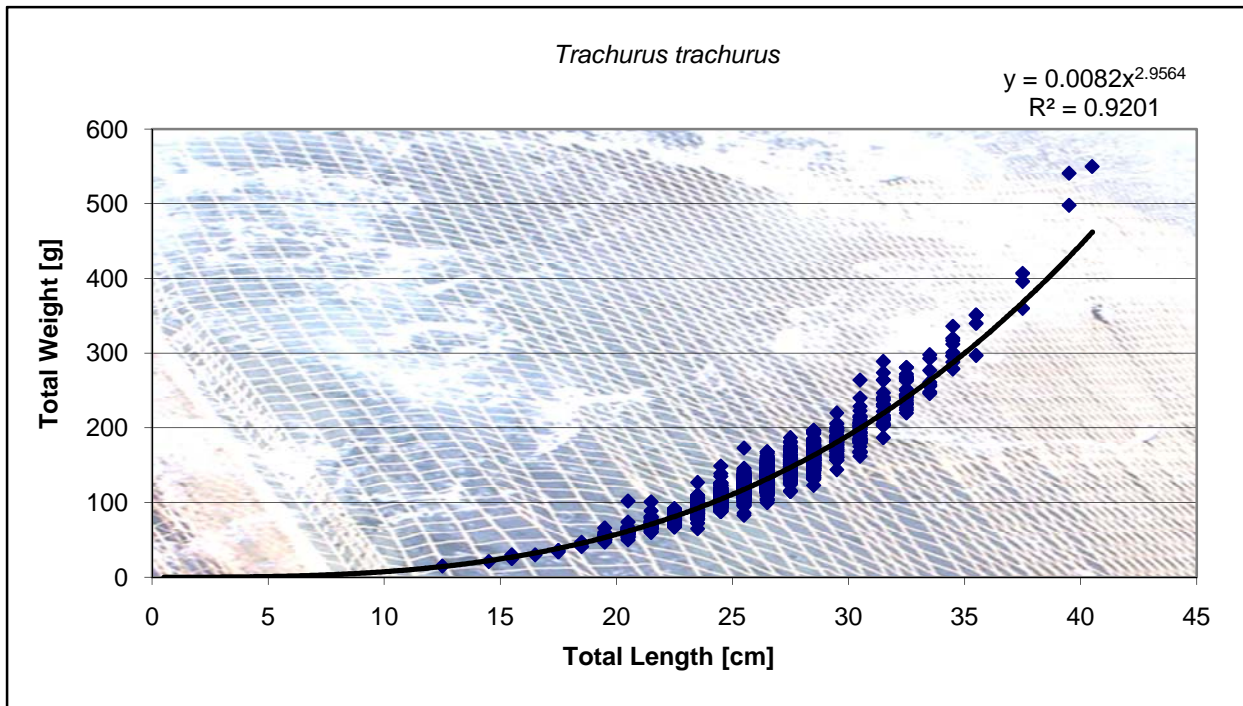
data collected

time period : 1998 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	1981	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	1981	-	-	-	-	-	-	-	-	-							
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	-	-	-	1596	385	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	271	1080	-	325	7	34	19	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

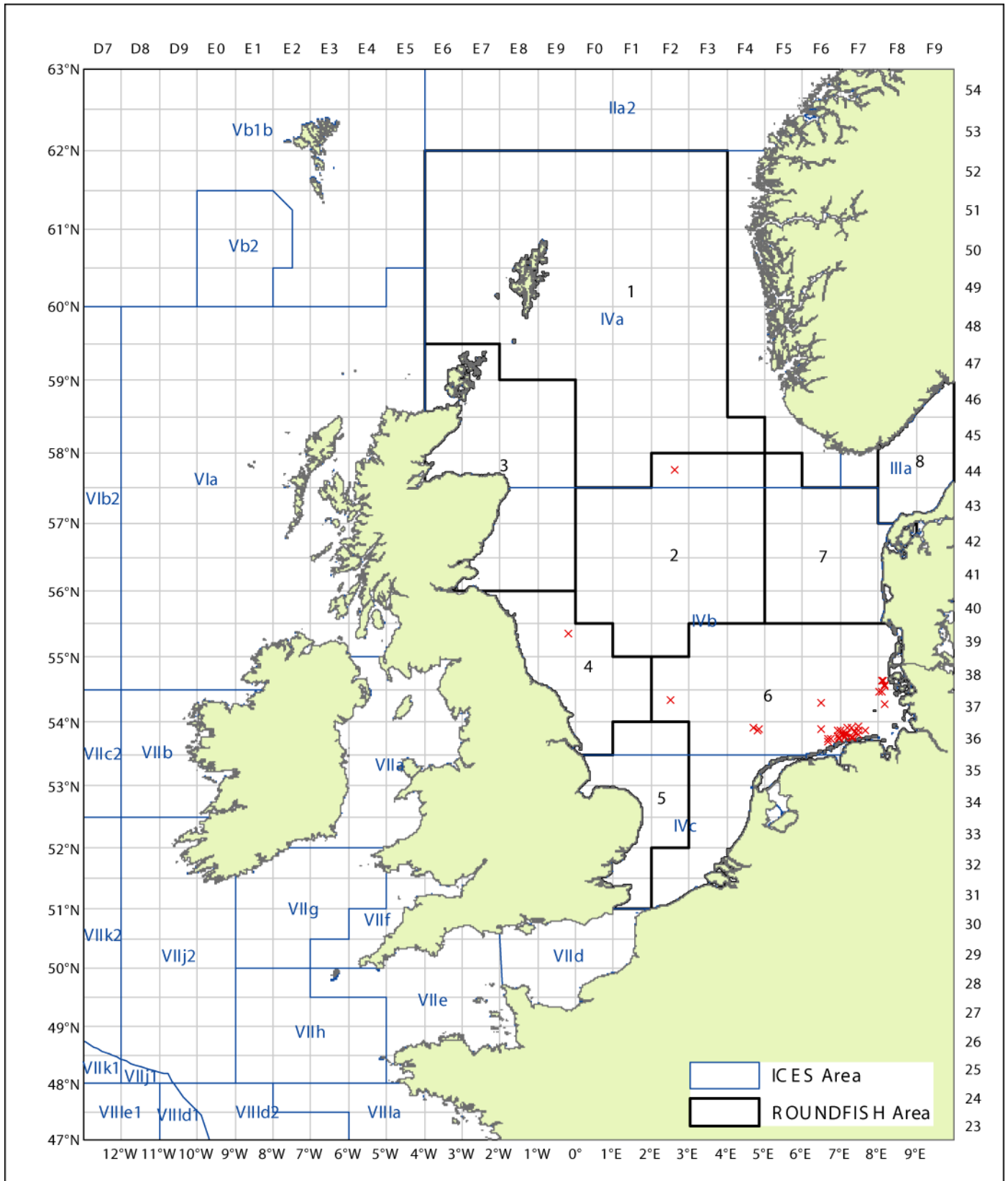


Method of Measurement

- Total length		male	930
- cm below		female	906
min length	12.5 [cm]	undefined	145
max length	40.5 [cm]	total numbers of data	1981

Trachurus trachurus May

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

May

$$Tw [g] = a * L [cm]^b$$

a = 0.0099

b = 2.9721

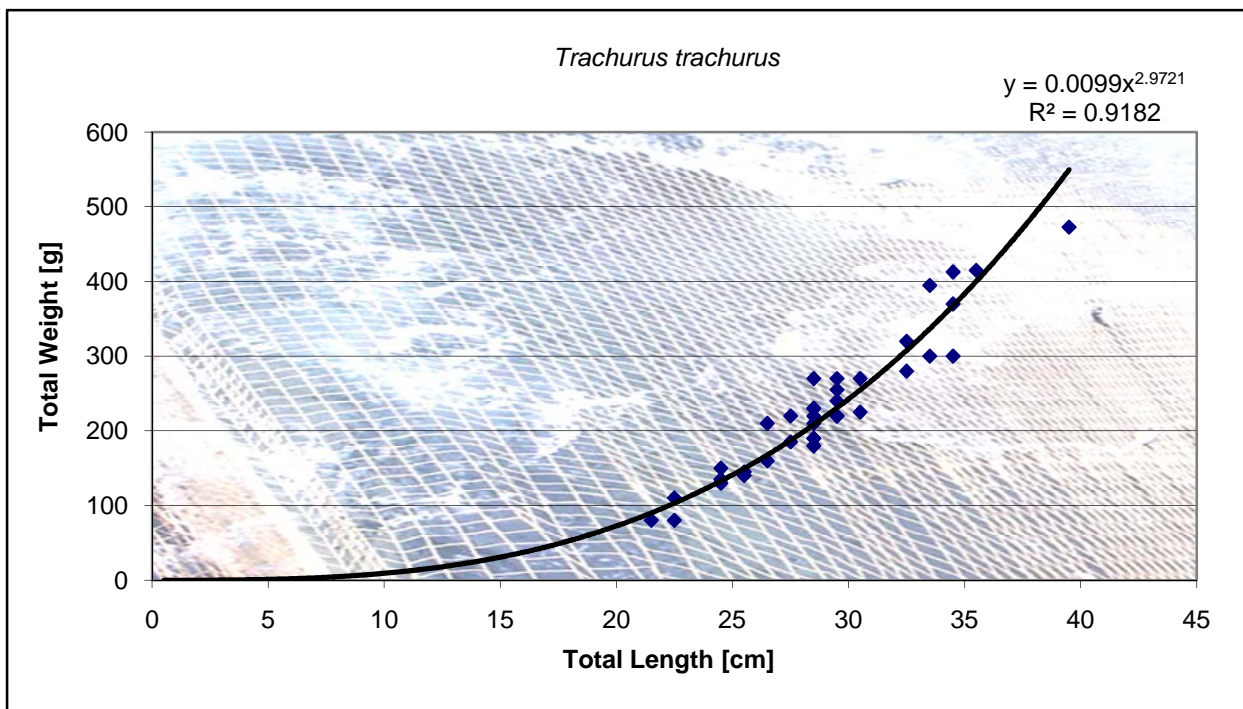
data collected

time period : 1994 - 2005

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	37	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	37	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	37	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	1	36	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	1	-	1	-	35	-	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

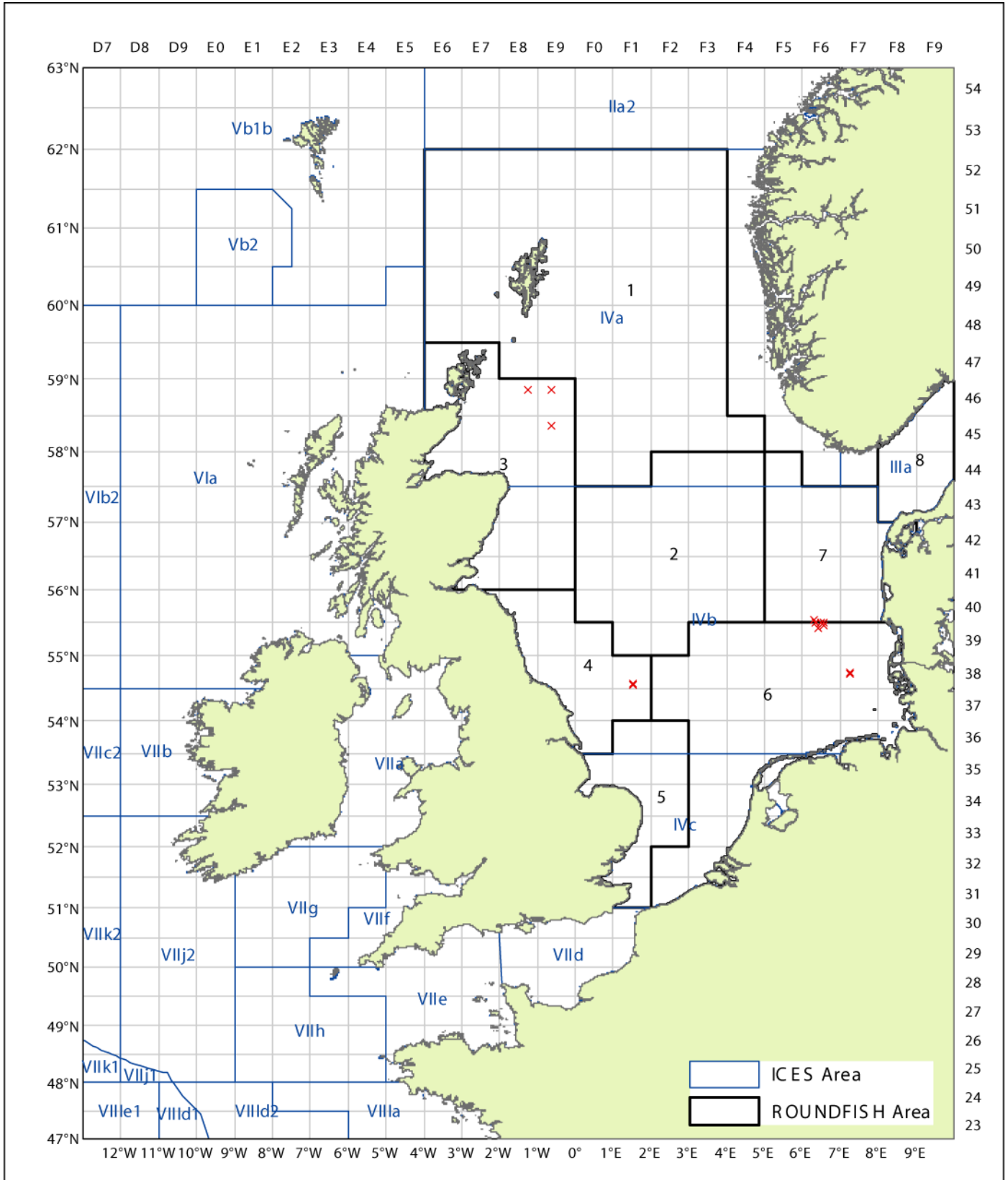


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	21.5 [cm]	undefined	37
max length	39.5 [cm]	total numbers of data	37

Trachurus trachurus June

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

June

$$Tw [g] = a * L [cm]^b$$

a = 0.0021

b = 3.4271

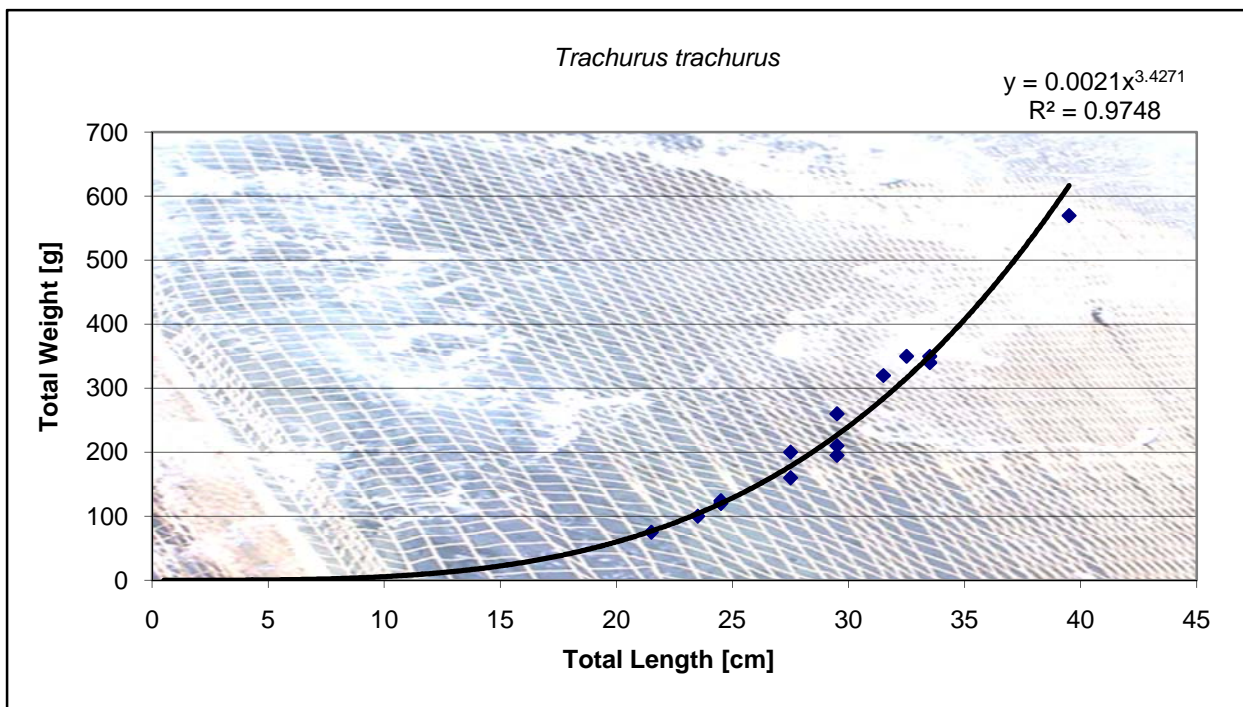
data collected

time period : 1994 - 2005

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	14	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	14	-	-	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	14	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	3	11	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	-	3	-	-	9	2	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

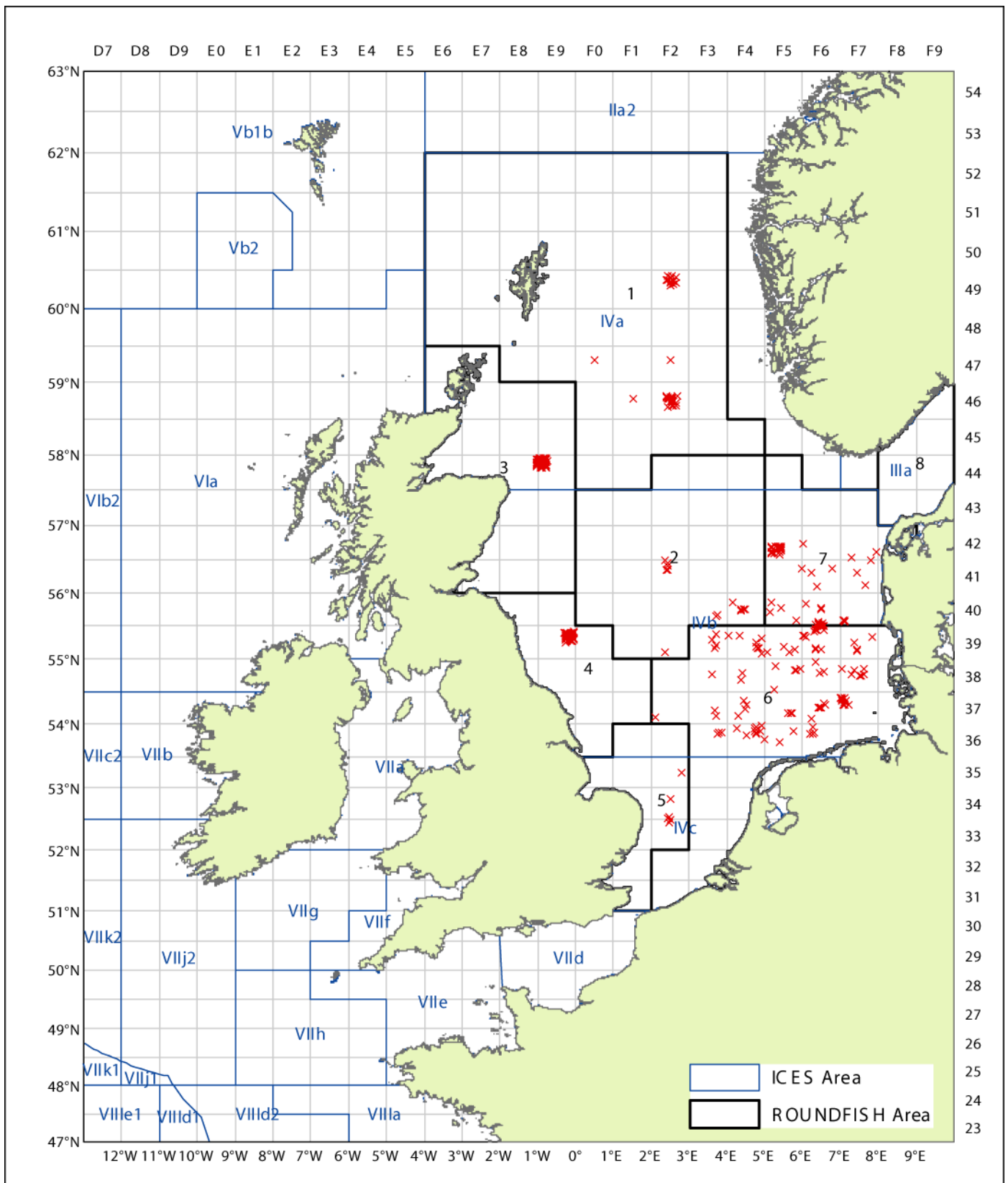


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	21.5 [cm]	undefined	14
max length	39.5 [cm]	total numbers of data	14

Trachurus trachurus Quarter 3

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

Quarter: 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0125

b = 2.9076

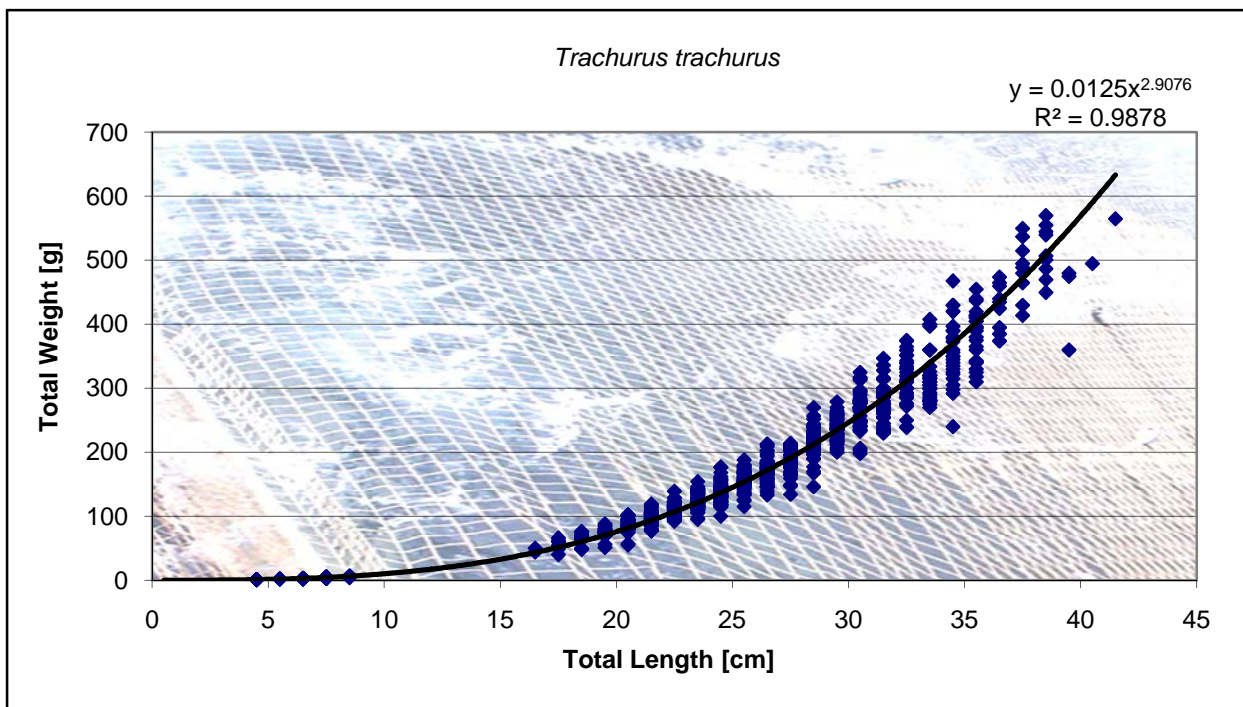
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	886	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	498	367	21	-	-	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	886	-	-	-	-	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	98	782	6	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
42	77	50	40	7	547	123	-	-						-	-	-	-	-	-	-	-	-

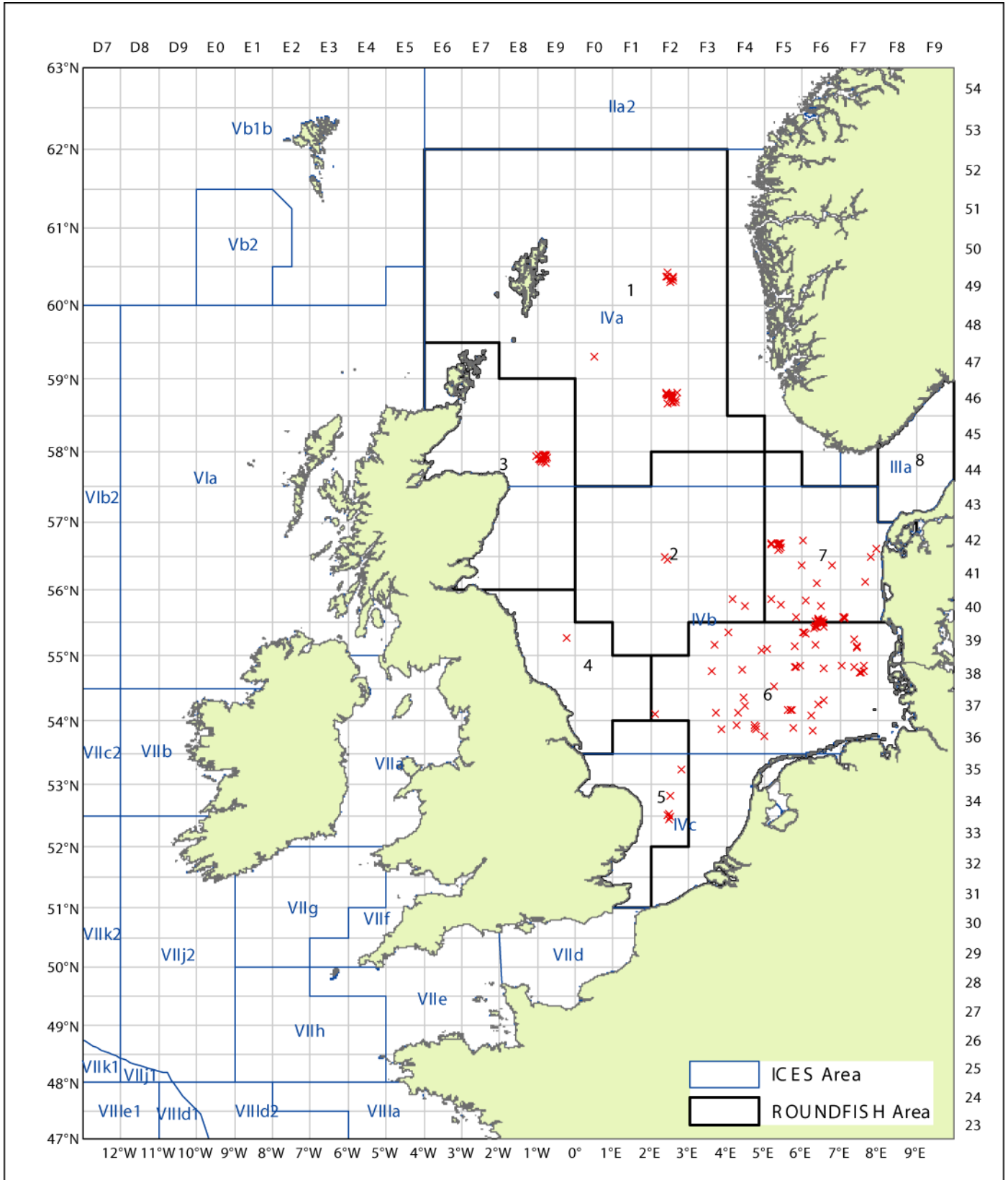


Method of Measurement

- Total length		male	283
- cm below		female	285
min length	4.5 [cm]	undefined	318
max length	41.5 [cm]	total numbers of data	886

Trachurus trachurus July

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

July

$$Tw [g] = a * L [cm]^b$$

a = 0.0165

b = 2.8229

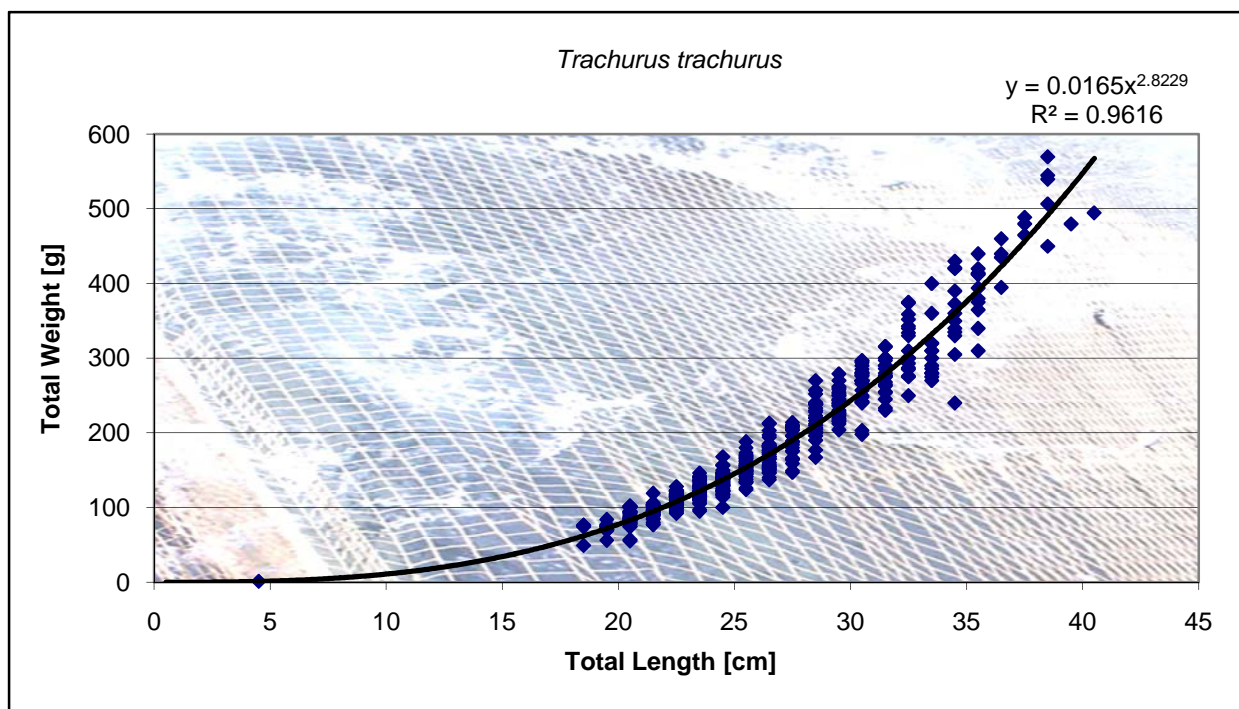
data collected

time period : 1994 - 2006

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
-	-	491	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
-	-	-	-	-	-	491	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	491	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	45	440	6	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
27	20	17	1	7	335	84	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

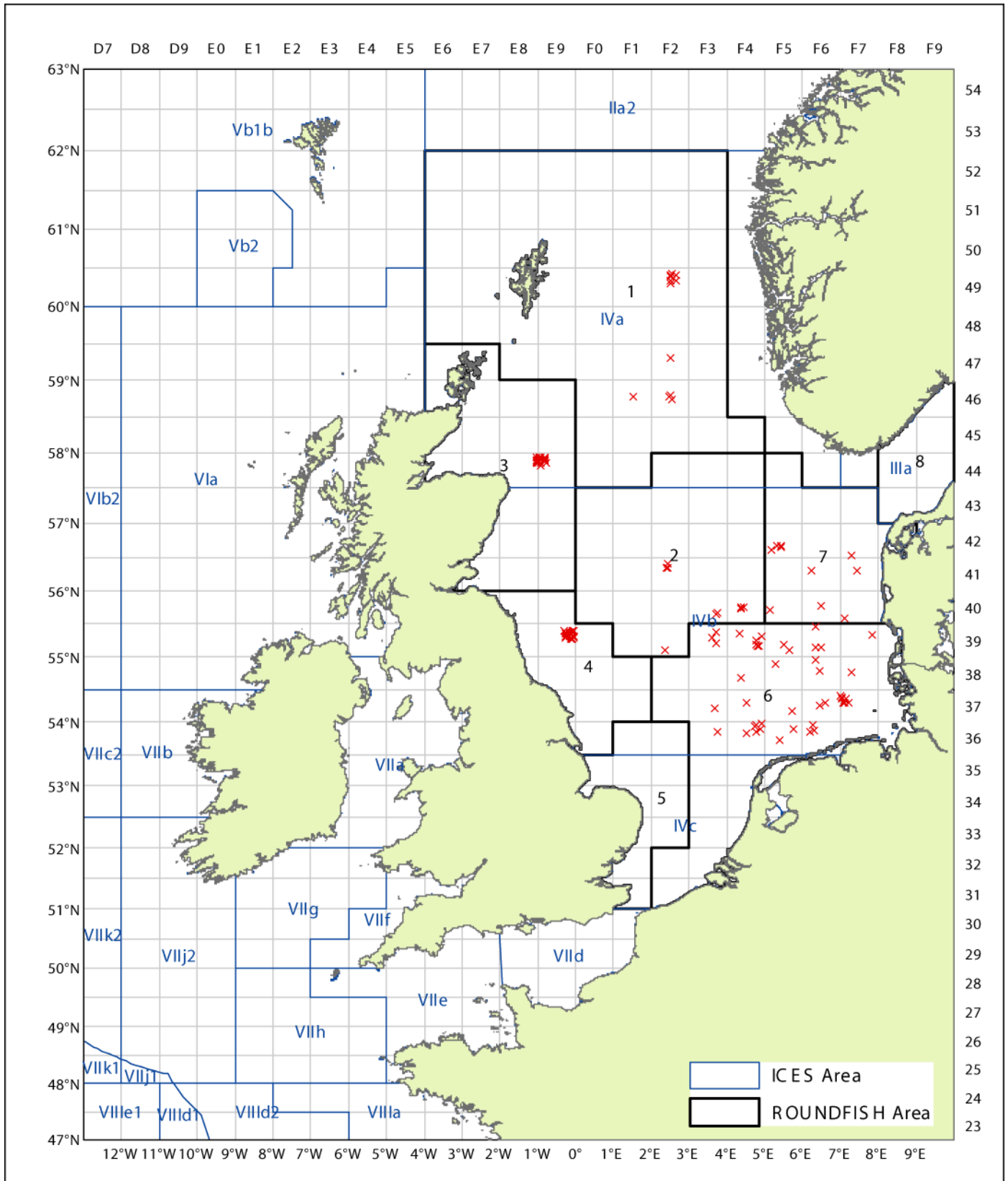


Method of Measurement

- Total length		male	184
- cm below		female	172
min length	4.5 [cm]	undefined	135
max length	40.5 [cm]	total numbers of data	491

Trachurus trachurus August

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

August

$$Tw [g] = a * L [cm]^b$$

a = 0.0118

b = 2.9306

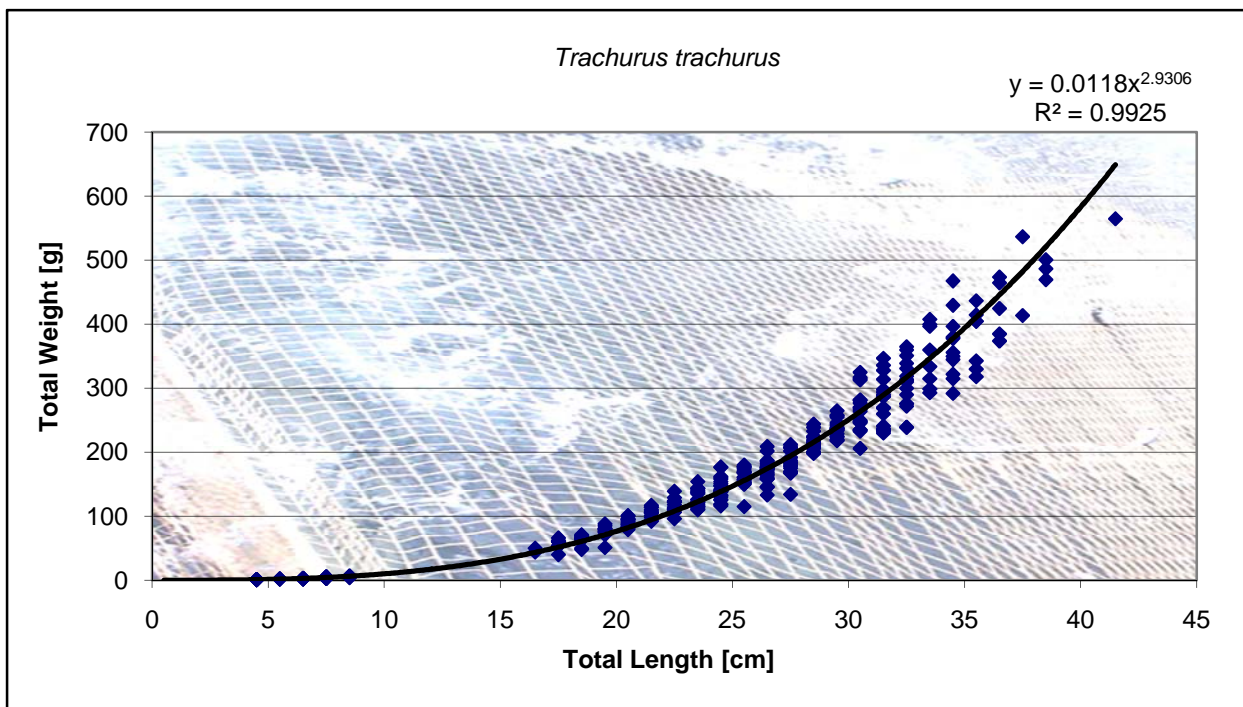
data collected

time period : 1995 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	350	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	350	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	350	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	38	312	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
14	56	19	22	-	207	32	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	99
- cm below		female	113
min length	4.5 [cm]	undefined	138
max length	41.5 [cm]	total numbers of data	350

Trachurus trachurus

September

$$Tw [g] = a * L [cm]^b$$

a = 0.0112

b = 2.9286

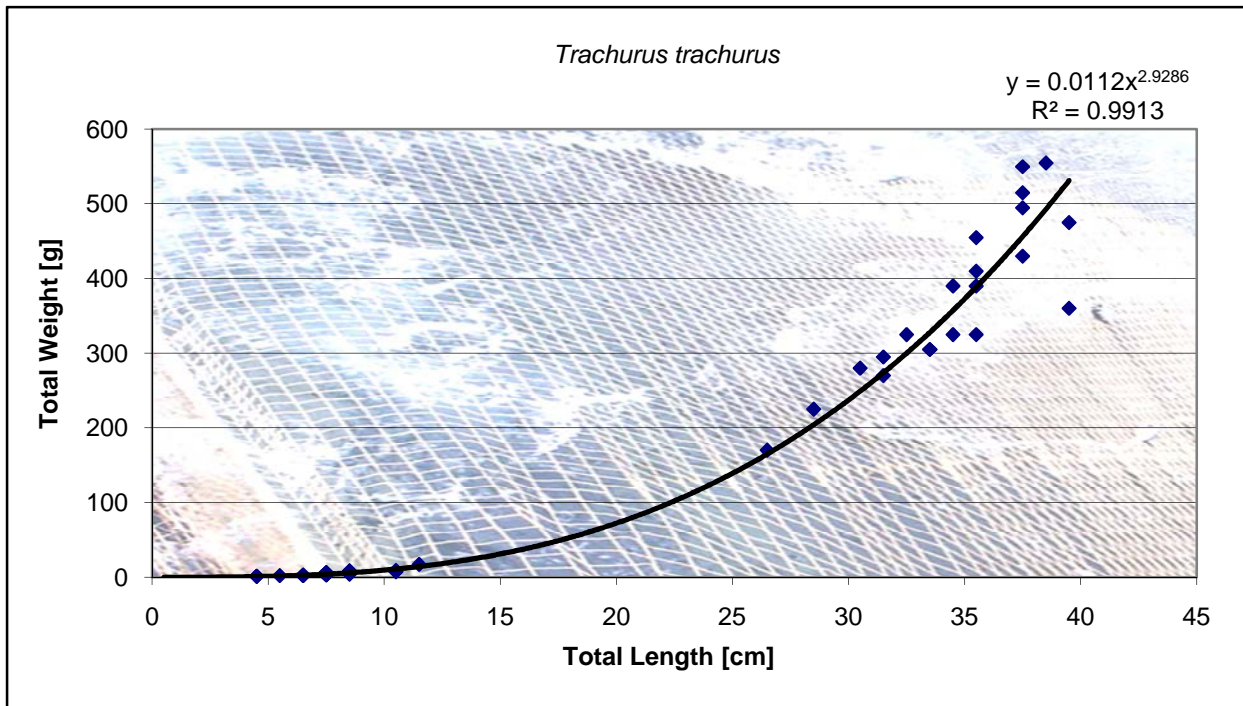
data collected

time period : 1997 - 2006

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	56	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	56	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	56	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	8	48	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
-	-	8	12	-	35	1	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

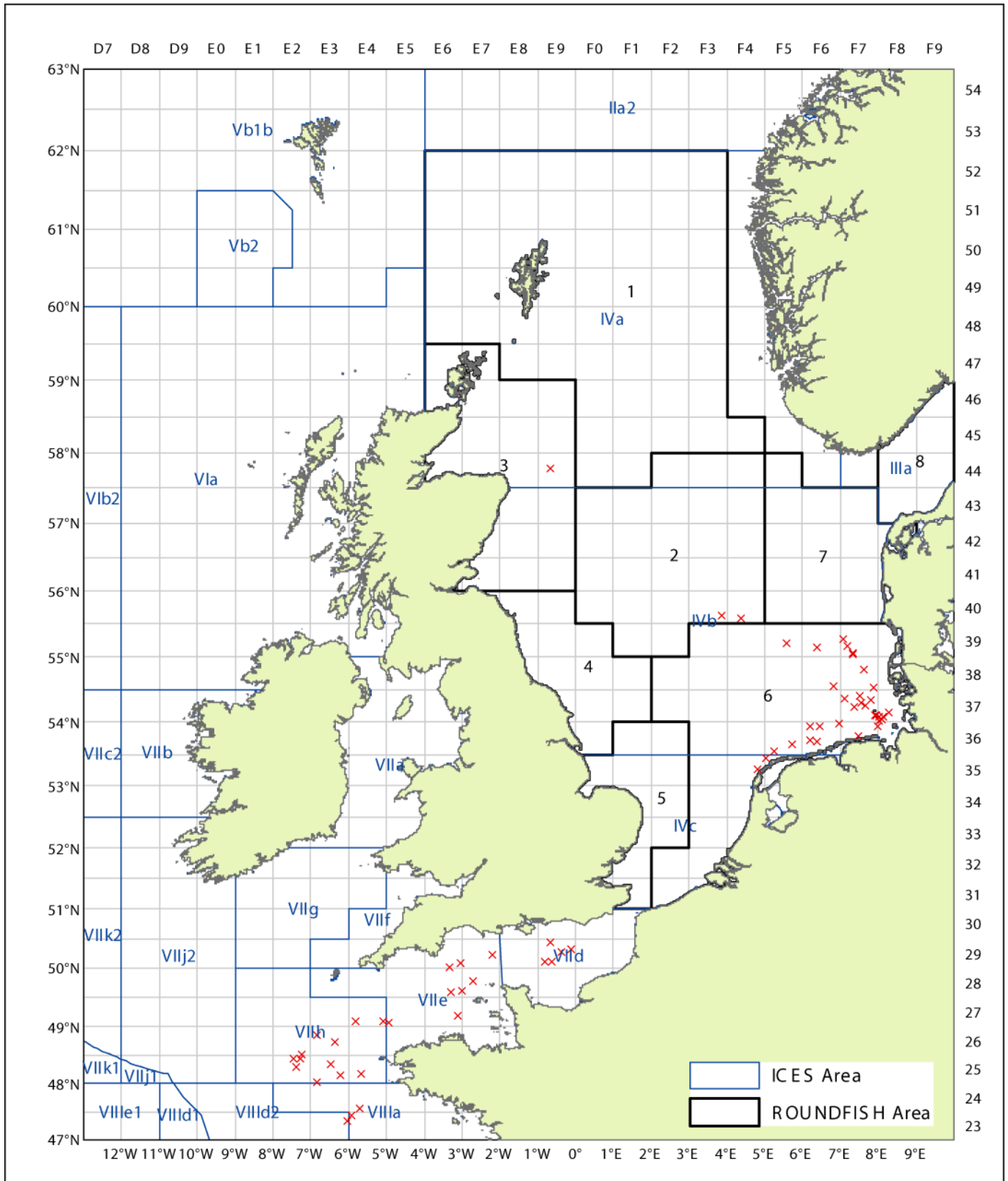


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	4.5 [cm]	undefined	56
max length	39.5 [cm]	total numbers of data	56

Trachurus trachurus Quarter 4

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

Quarter: 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0079

b = 3.0199

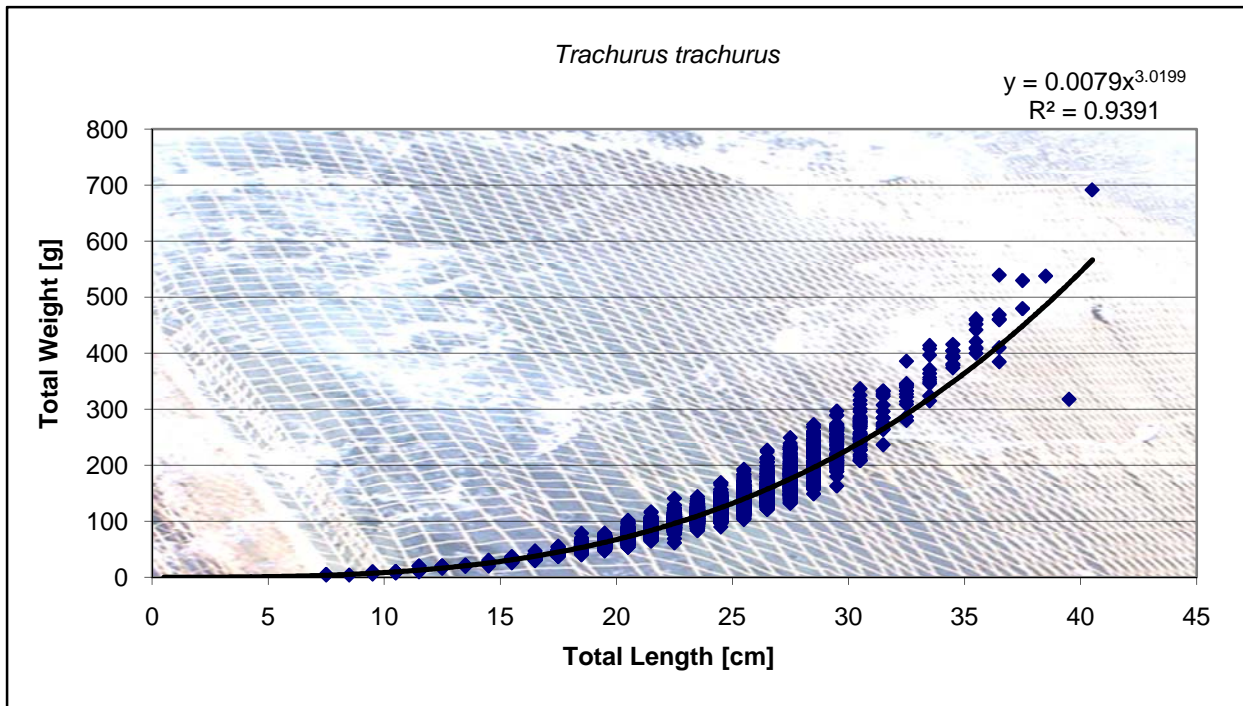
data collected

time period : 1994 - 2006

data source : commercial trawler, research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	4711																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	3447	928	336								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	38	-	-	4303	370	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	38	-	-	-	-	-	-	-	-	1325	1469	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	1509	-	-	370	-	-	-	-	-	-	-	-	-	-					
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	3	1	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	1378
- cm below		female	1550
min length	7.5 [cm]	undefined	1783
max length	40.5 [cm]	total numbers of data	4711

Trachurus trachurus

October

$$Tw [g] = a * L [cm]^b$$

a = 0.0067

b = 3.0818

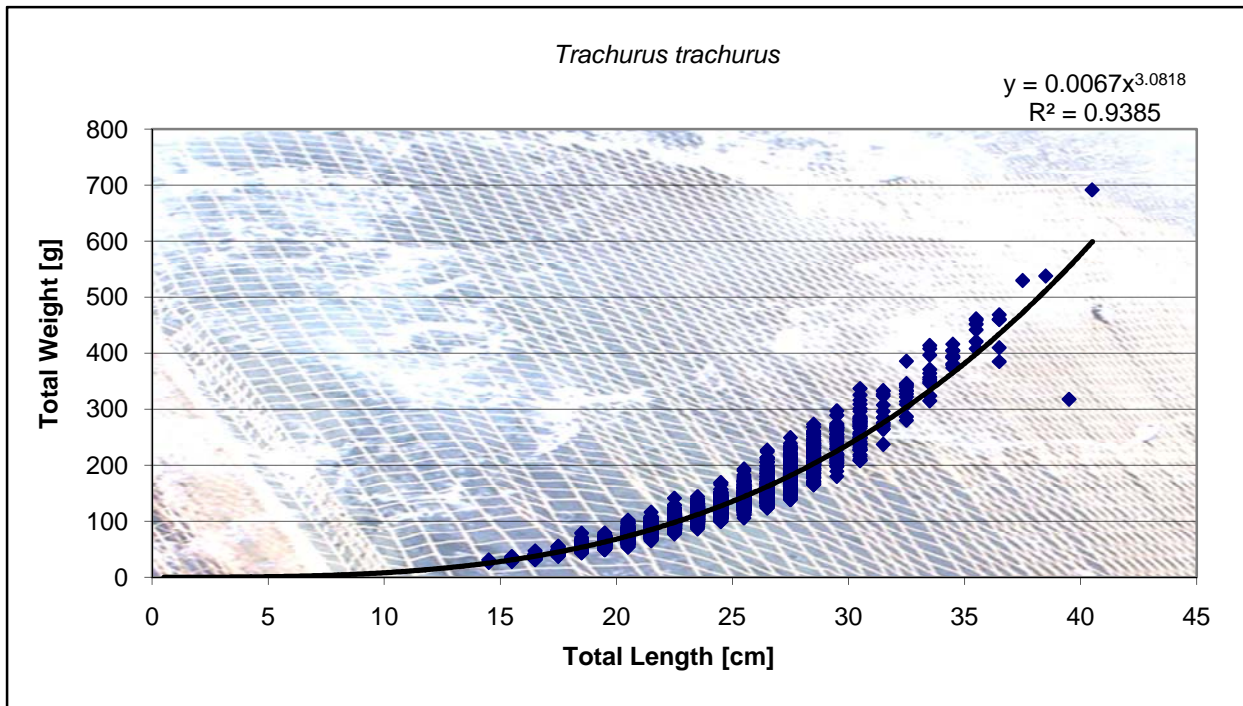
data collected

time period : 2001 - 2005

data source : commercial trawler, research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	-	3447																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	-	-	3447	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	1	-	-	3446	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1325	1469	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	652	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

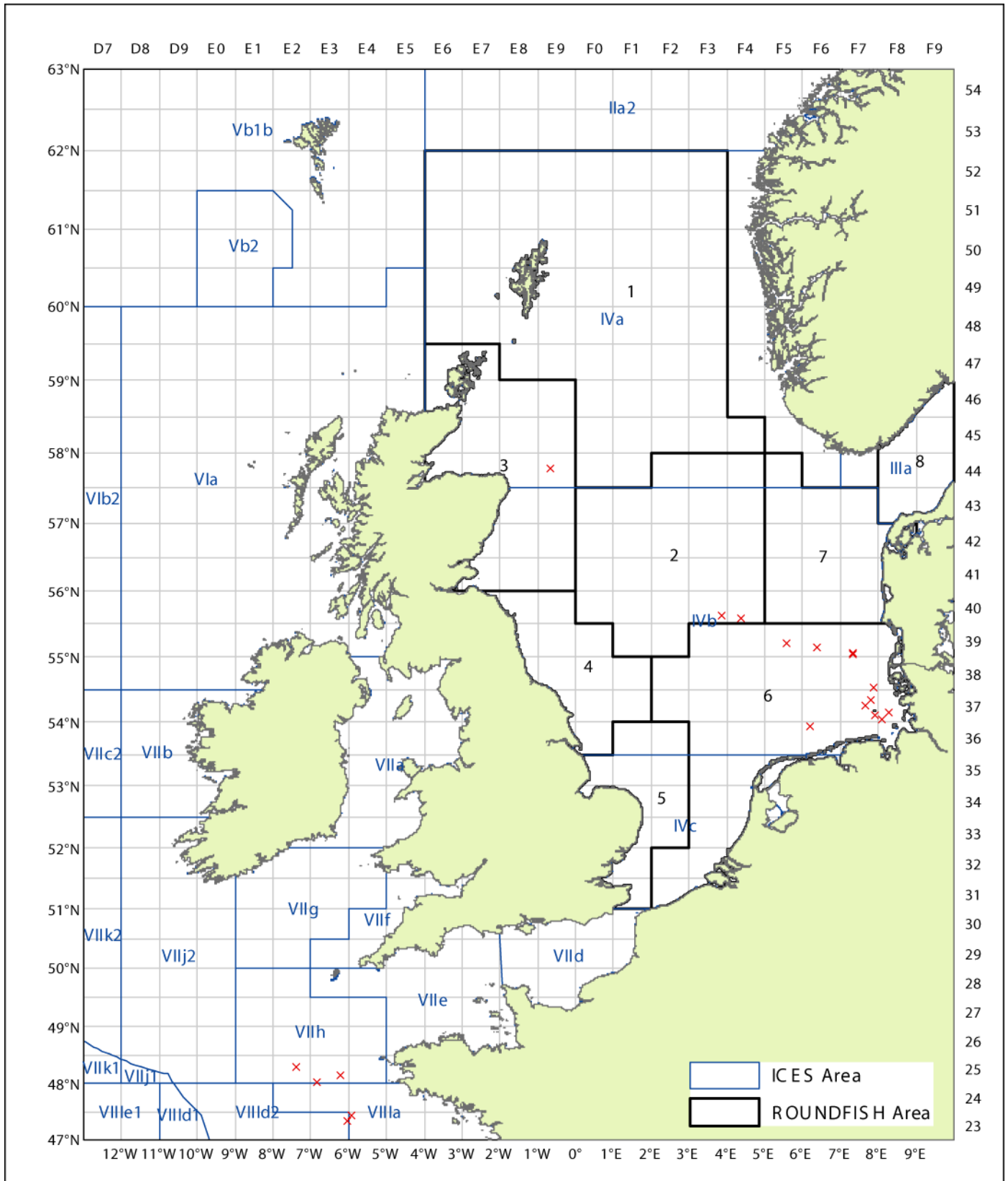


Method of Measurement

- Total length		male	1055
- cm below		female	1182
min length	14.5 [cm]	undefined	1210
max length	40.5 [cm]	total numbers of data	3447

Trachurus trachurus November

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

November

$$Tw [g] = a * L [cm]^b$$

a = 0.0137

b = 2.8256

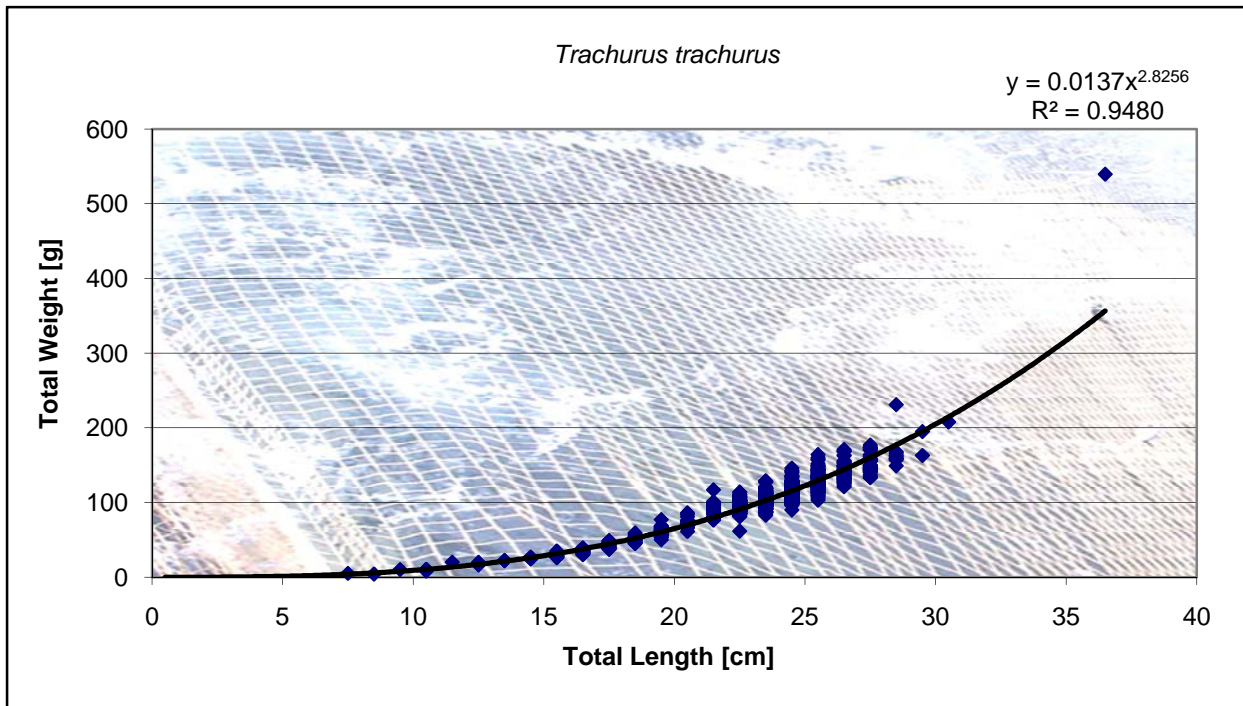
data collected

time period : 1994 - 2006

data source : commercial trawler, research vessel

numbers of data:

Quarter																						
1	2	3	4																			
-	-	-	928																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	-	-	-	-	-	-	-	-	-	928	-											
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	15	-	-	685	228	-	-	-	-											
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	685	-	-	228	-	-	-	-	-	-	-	-	-	-								
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
-	3	1	-	-	11	-	-	-						-	-	-	-	-	-	-	-	-

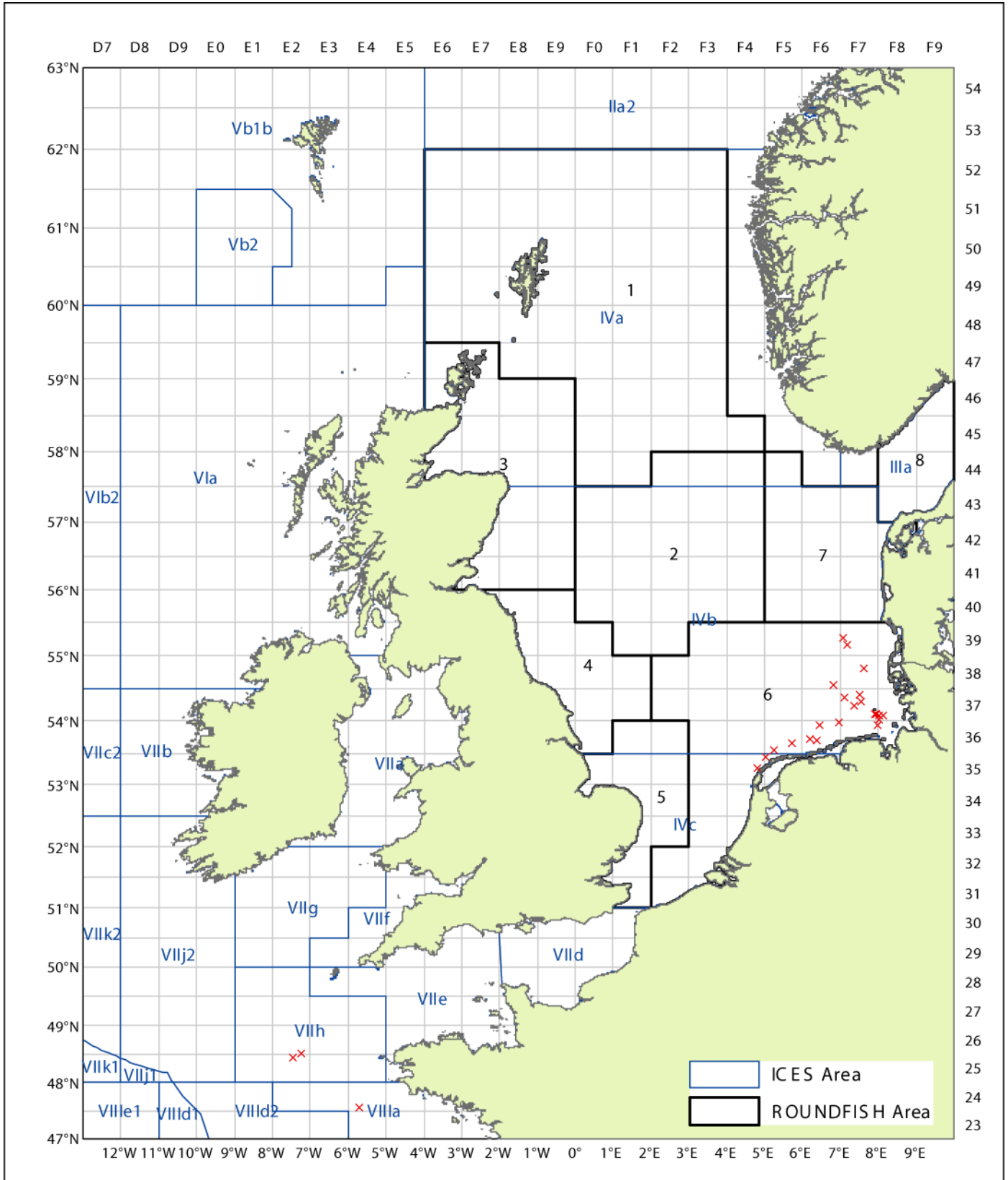


Method of Measurement

- Total length		male	249
- cm below		female	330
min length	7.5 [cm]	undefined	349
max length	36.5 [cm]	total numbers of data	928

Trachurus trachurus December

Geographical distribution of data used for calculating the length-weight relationship



Trachurus trachurus

December

$$Tw [g] = a * L [cm]^b$$

a = 0.0086

b = 2.9778

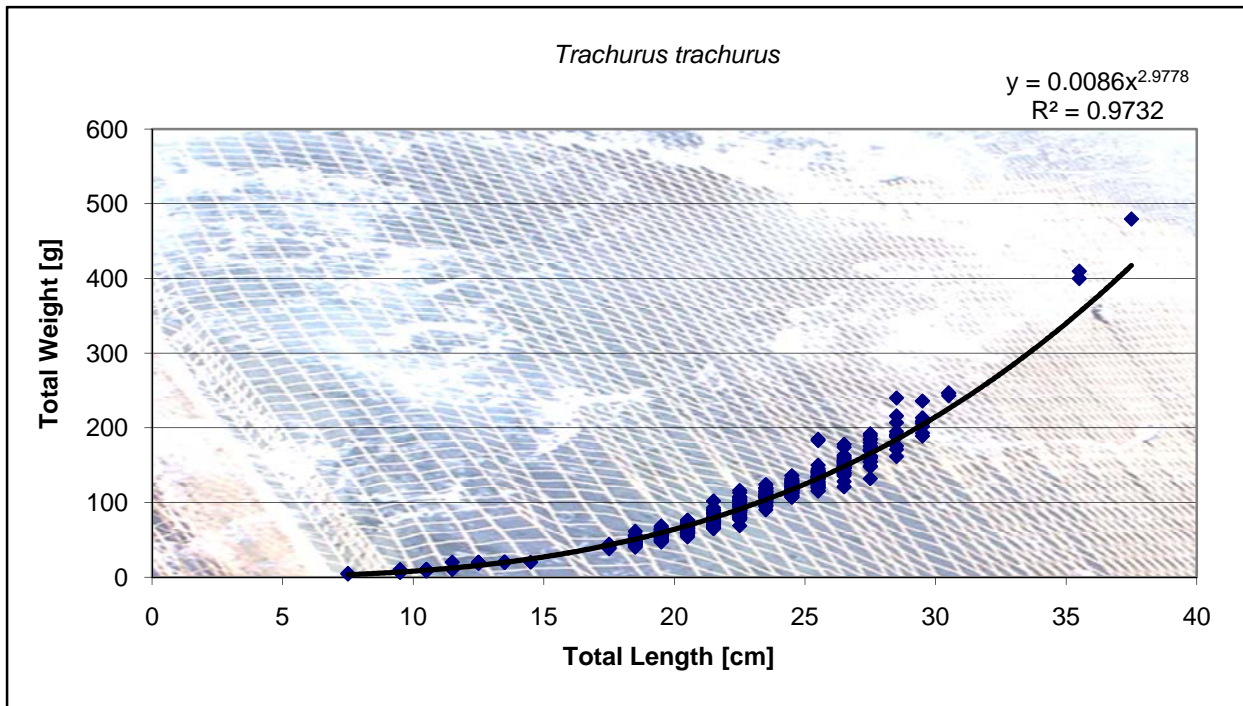
data collected

time period : 1994 - 2006

data source : research vessel, commercial trawler

numbers of data:

Quarter																					
1	2	3	4																		
-	-	-	336																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
-	-	-	-	-	-	-	-	-	-	-	336										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	22	-	-	172	142	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
-	172	-	-	142	-	-	-	-	-	-	-	-	-	-							
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9				1A	1B	1C	1D	1E	1F	2G	2H	2J	
-	-	-	-	-	22	-	-	-				-	-	-	-	-	-	-	-	-	-

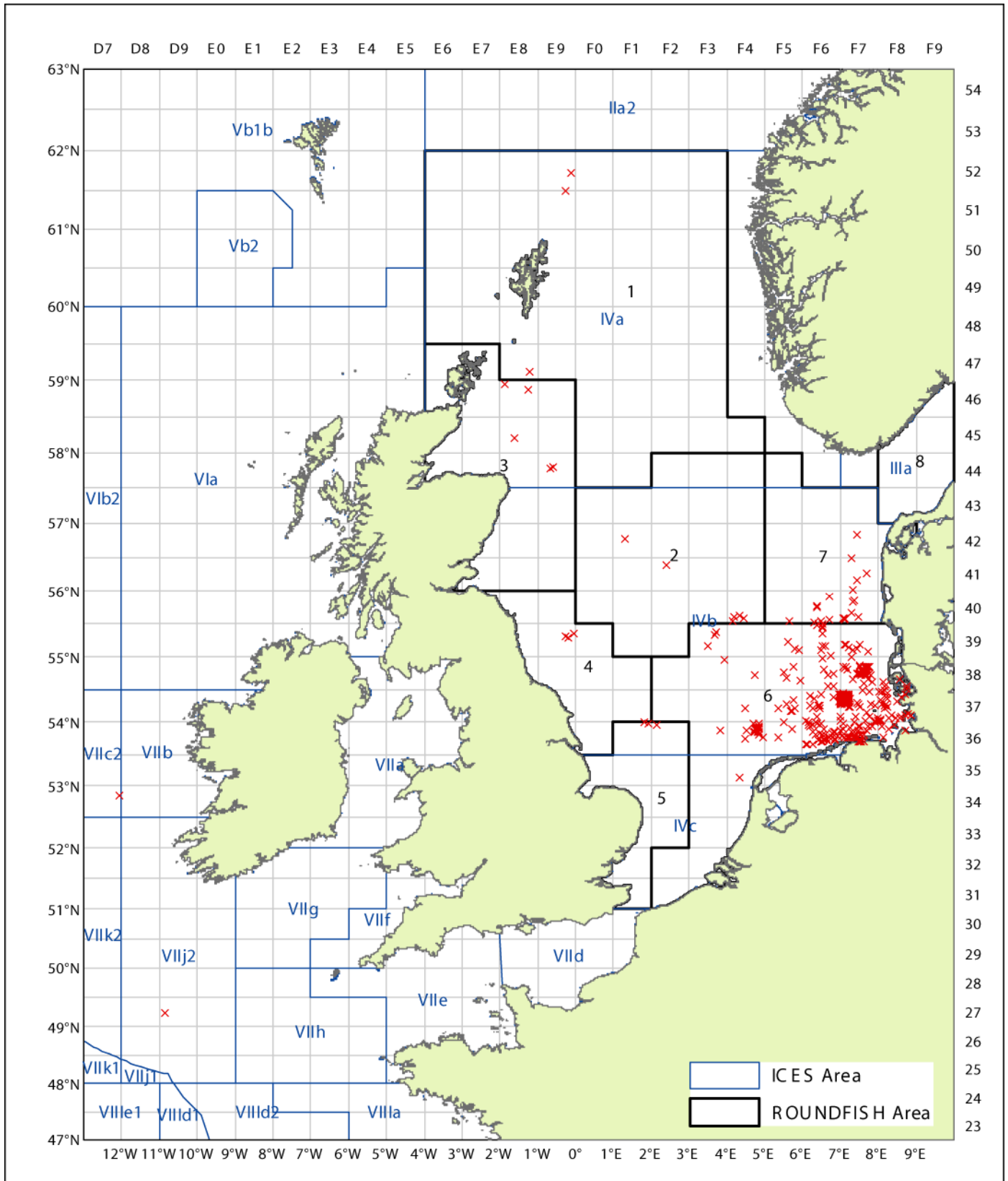


Method of Measurement

- Total length		male	74
- cm below		female	38
min length	7.5 [cm]	undefined	224
max length	37.5 [cm]	total numbers of data	336

Trigla lucerna

Geographical distribution of data used for calculating the length-weight relationship



Trigla lucerna

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0151

b = 2.8814

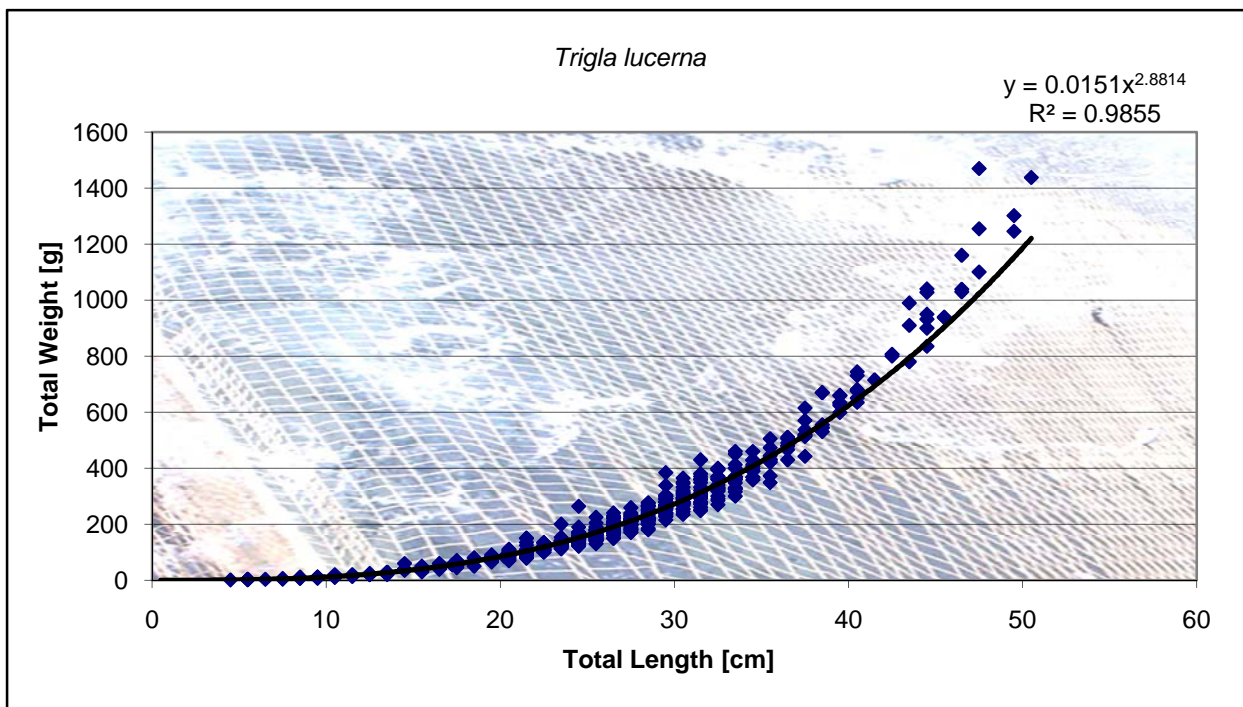
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																											
1	2	3	4																								
18	90	326	71																								
Month																											
1	2	3	4	5	6	7	8	9	10	11	12																
6	9	3	2	69	19	64	228	34	12	26	33																
Subarea																											
1	2	3	4	5	6	7	8	9	10	12	14																
-	-	-	502	-	-	2	1	-	-	-	-																
Division																											
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F								
-	-	-	-	-	-	-	8	494	-	-	-	-	-	-	-	1	-	-	-								
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B													
-	-	1	-	-	-	1	-	-	-	-	-	-	-	-													
Roundfisharea											NAFO																
1	2	3	4	5	6	7	8	9										1A	1B	1C	1D	1E	1F	2G	2H	2J	
3	4	6	4	2	461	22	-	-										-	-	-	-	-	-	-	-	-	-

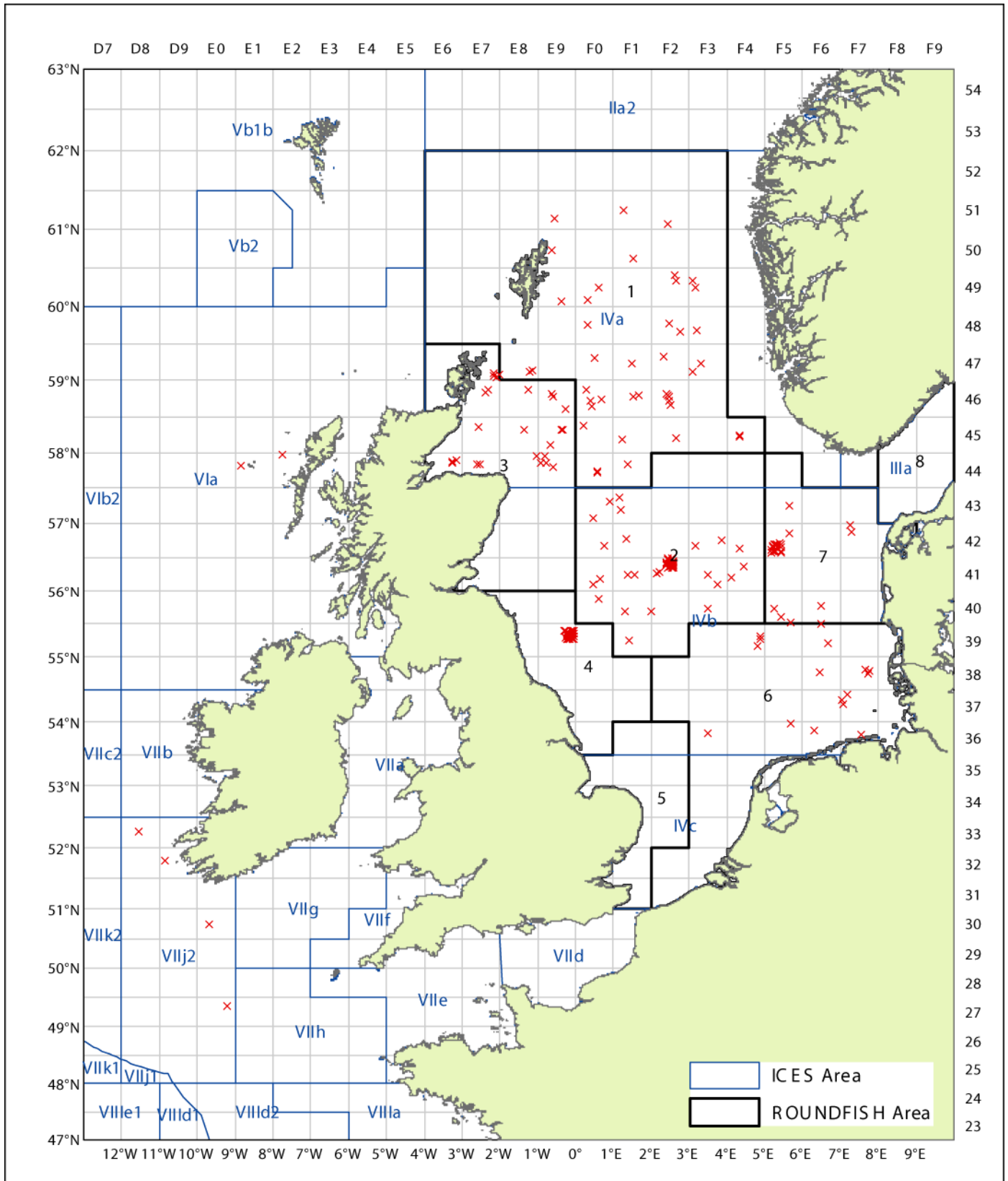


Method of Measurement

- Total length		male	-
- cm below		female	1
min length	4.5 [cm]	undefined	504
max length	50.5 [cm]	total numbers of data	505

Trisopterus esmarki

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki

Quarter: 1 - 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0045

b = 3.1484

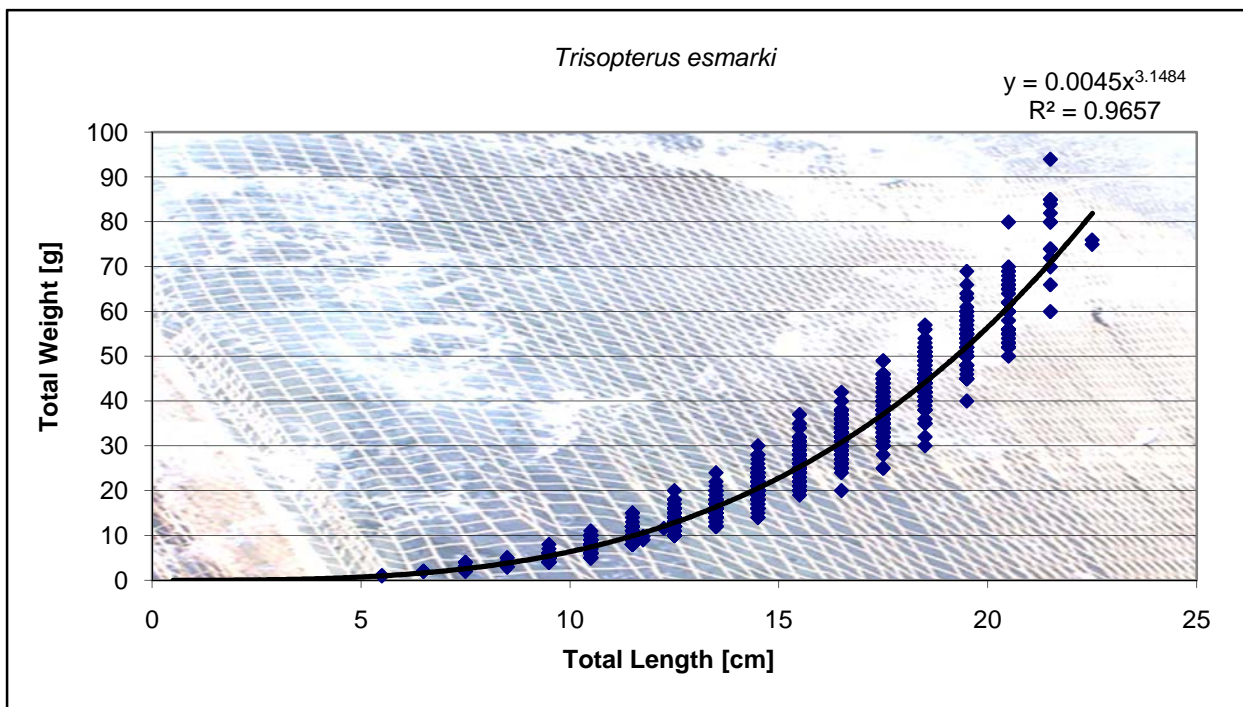
data collected

time period : 1995 - 2008

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
775	7	269	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
423	346	6	1	2	4	136	130	3	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	1	-	1044	-	2	4	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	1	-	-	-	-	-	729	315	-	-	-	2	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	4	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
455	163	349	32	-	17	28	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length
- cm below

min length
max length

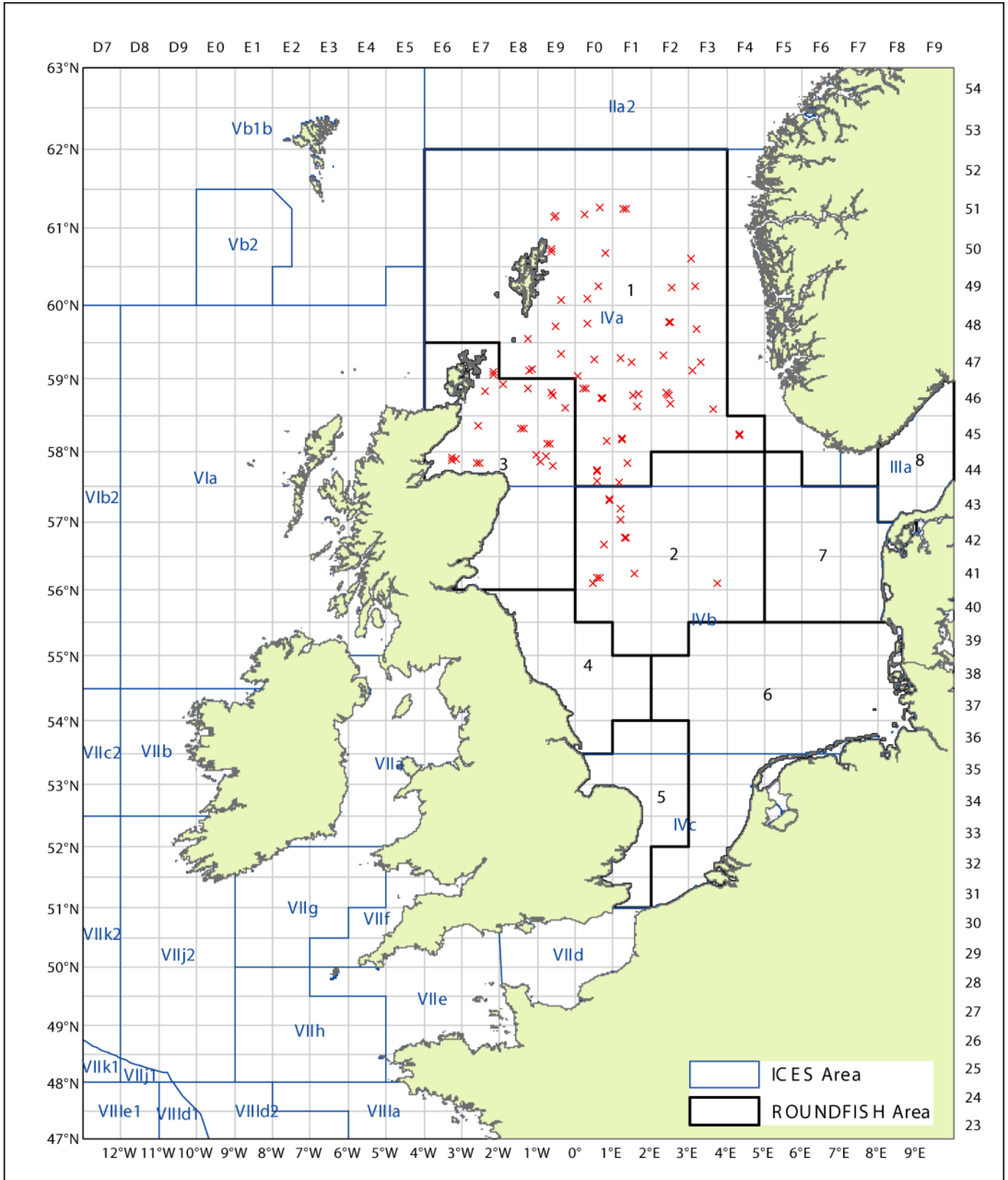
5.5 [cm]
22.5 [cm]

male 361
female 432
undefined 258

total numbers of data 1051

Trisopterus esmarki ♀

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki



Quarter: 1 ; 3

(female)

$$TW [g] = a * L [cm]^b$$

a = 0.0039

b = 3.2015

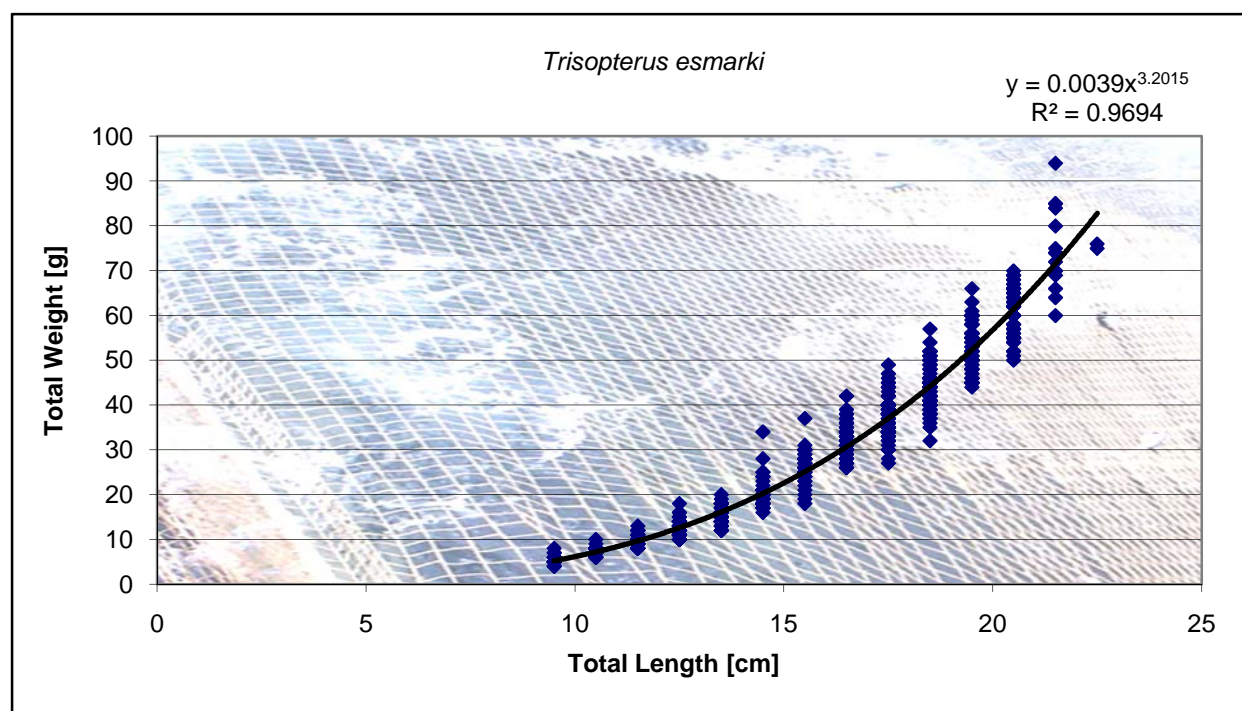
data collected

time period : 2004 - 2009

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
613	-	59	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
313	300	-	-	-	-	17	42	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	672	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	504	168	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
336	137	199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length		male	-
- cm below		female	672
min length	9.5 [cm]	undefined	-
max length	22.5 [cm]	total numbers of data	672

Trisopterus esmarki ♂

Quarter: 1 ; 3

(male)

$$Tw [g] = a * L [cm]^b$$

a = 0.0069

b = 2.9786

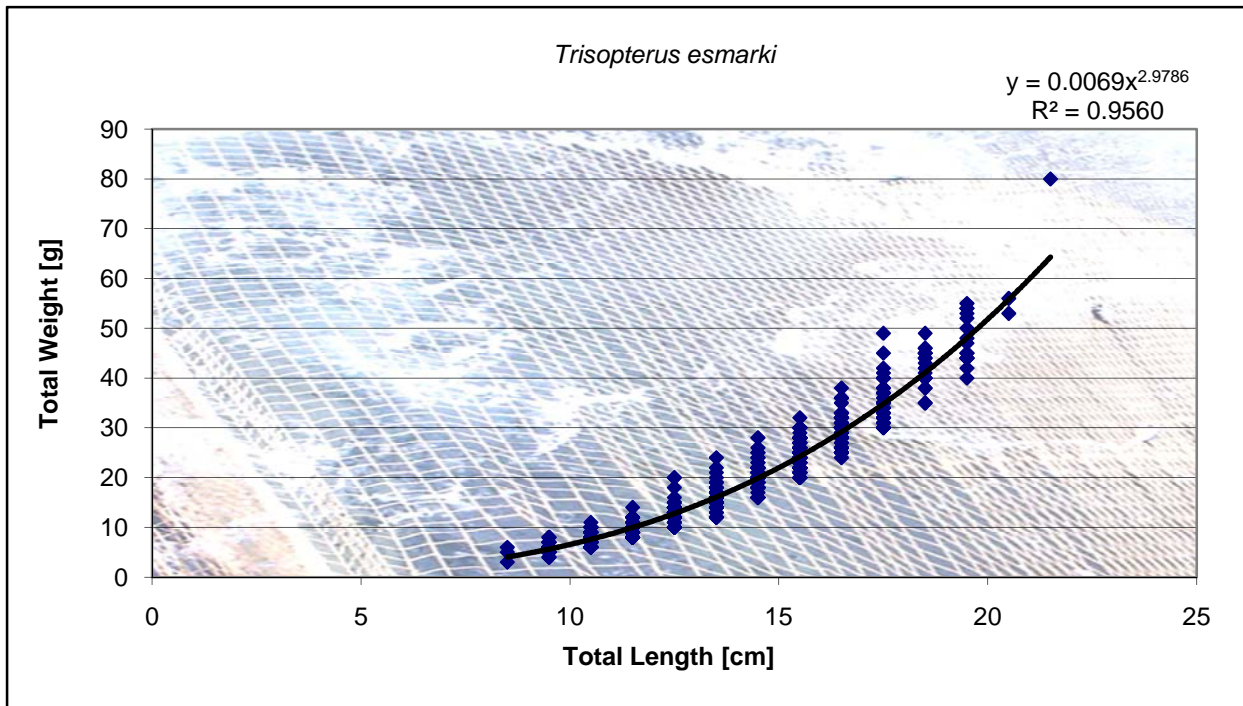
data collected

time period : 1999 - 2009

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
526	-	24	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
265	261	-	-	-	-	3	21	-	-	-	-									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	550	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	418	132	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
262	91	196	-	-	1	-	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		

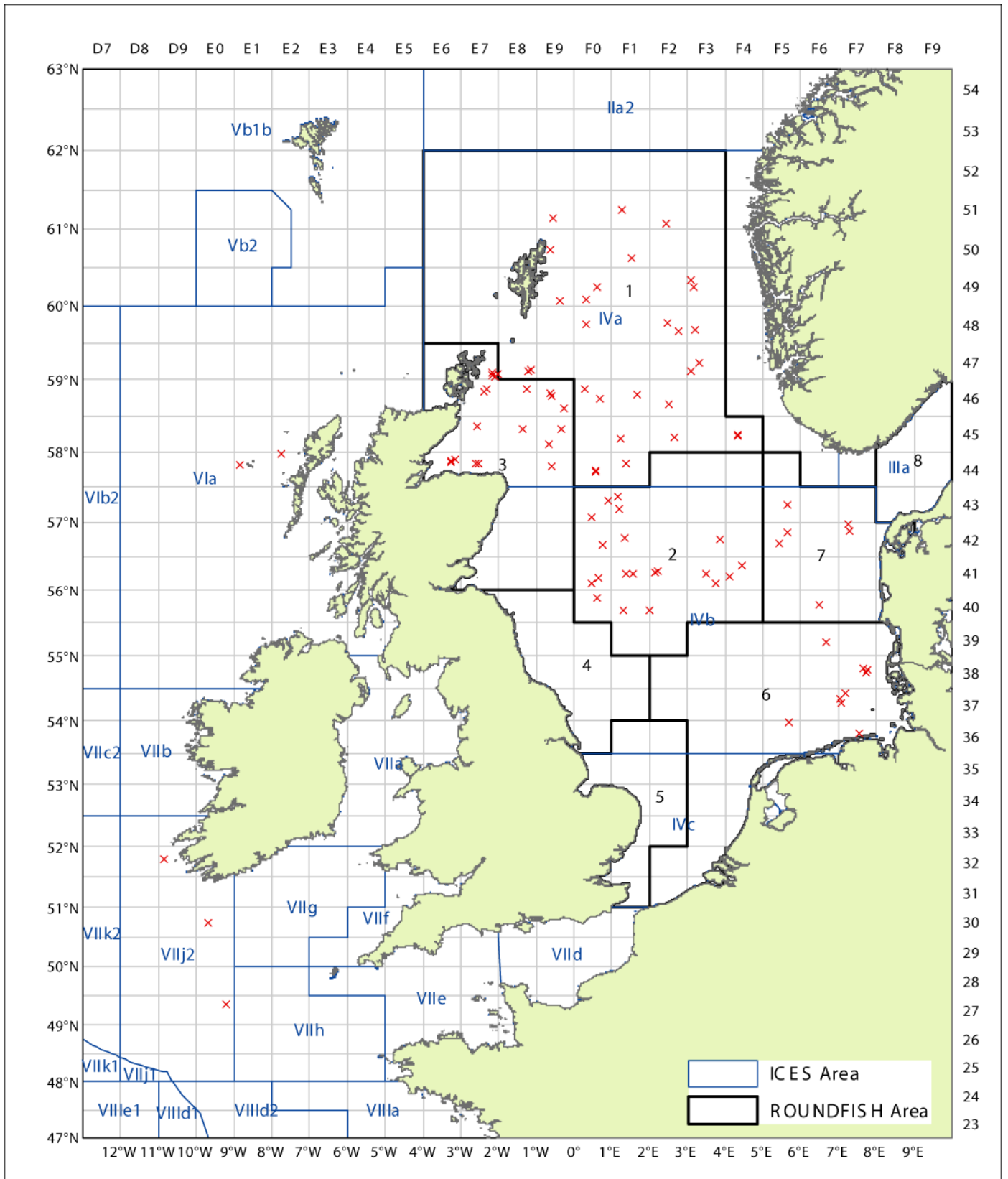


Method of Measurement

- Total length		male	550
- cm below		female	-
		undefined	-
min length	8.5 [cm]		
max length	21.5 [cm]		
		total numbers of data	550

Trisopterus esmarki Quarter 1

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki

Quarter: 1

$$TW [g] = a * L [cm]^b$$

a = 0.0047

b = 3.1254

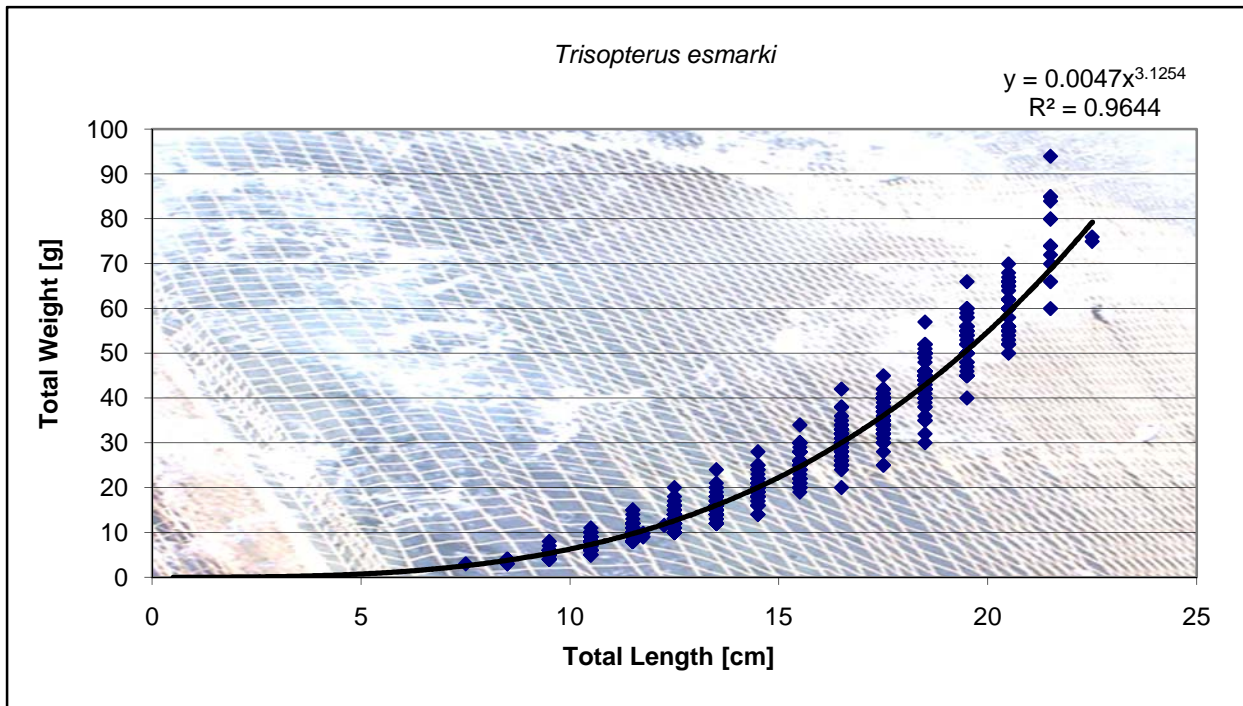
data collected

time period : 1995 - 2008

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
775	-	-	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
423	346	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	1	-	769	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-			
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	1	-	-	-	-	-	535	234	-	-	-	2	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
324	140	288	-	-	10	7	-	-						-	-	-	-	-	-	-	-	-

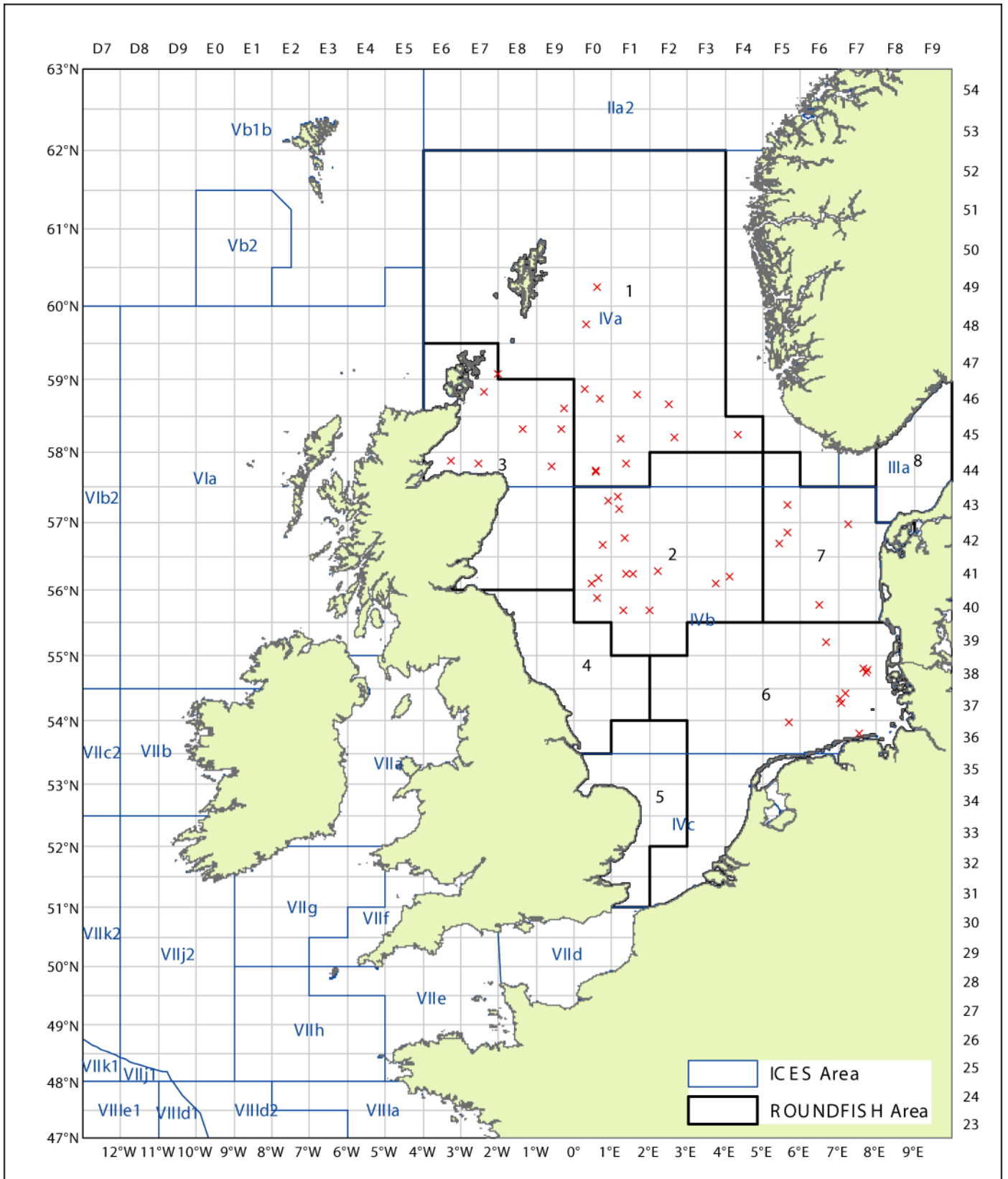


Method of Measurement

- Total length		male	337
- cm below		female	373
min length	7.5 [cm]	undefined	65
max length	22.5 [cm]	total numbers of data	775

Trisopterus esmarki January

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki

January

$$Tw [g] = a * L [cm]^b$$

a = 0.0057

b = 3.0558

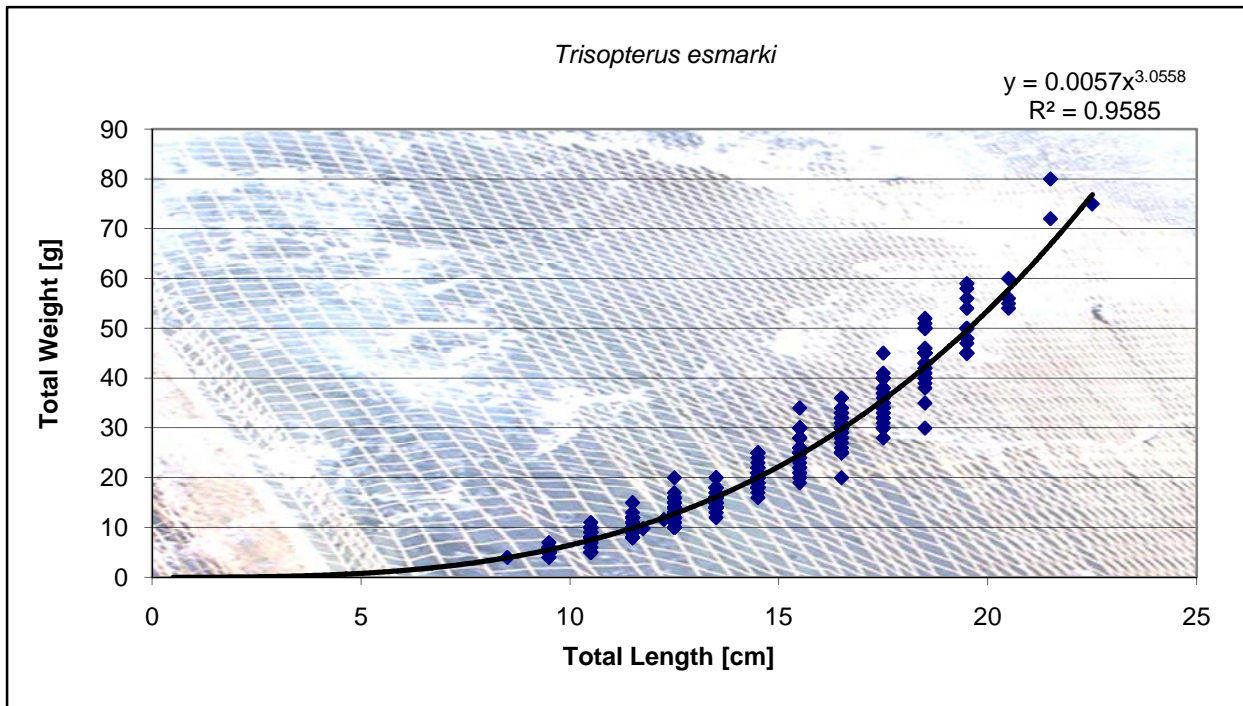
data collected

time period : 1995 - 2008

data source : research vessel

numbers of data:

Quarter																							
1	2	3	4																				
423	-	-	-																				
Month																							
1	2	3	4	5	6	7	8	9	10	11	12												
423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Subarea																							
1	2	3	4	5	6	7	8	9	10	12	14												
-	-	-	423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Division																							
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F				
-	-	-	-	-	-	-	195	228	-	-	-	-	-	-	-	-	-	-	-				
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Roundfisharea										NAFO													
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J	
171	135	101	-	-	10	6	-	-						-	-	-	-	-	-	-	-	-	-

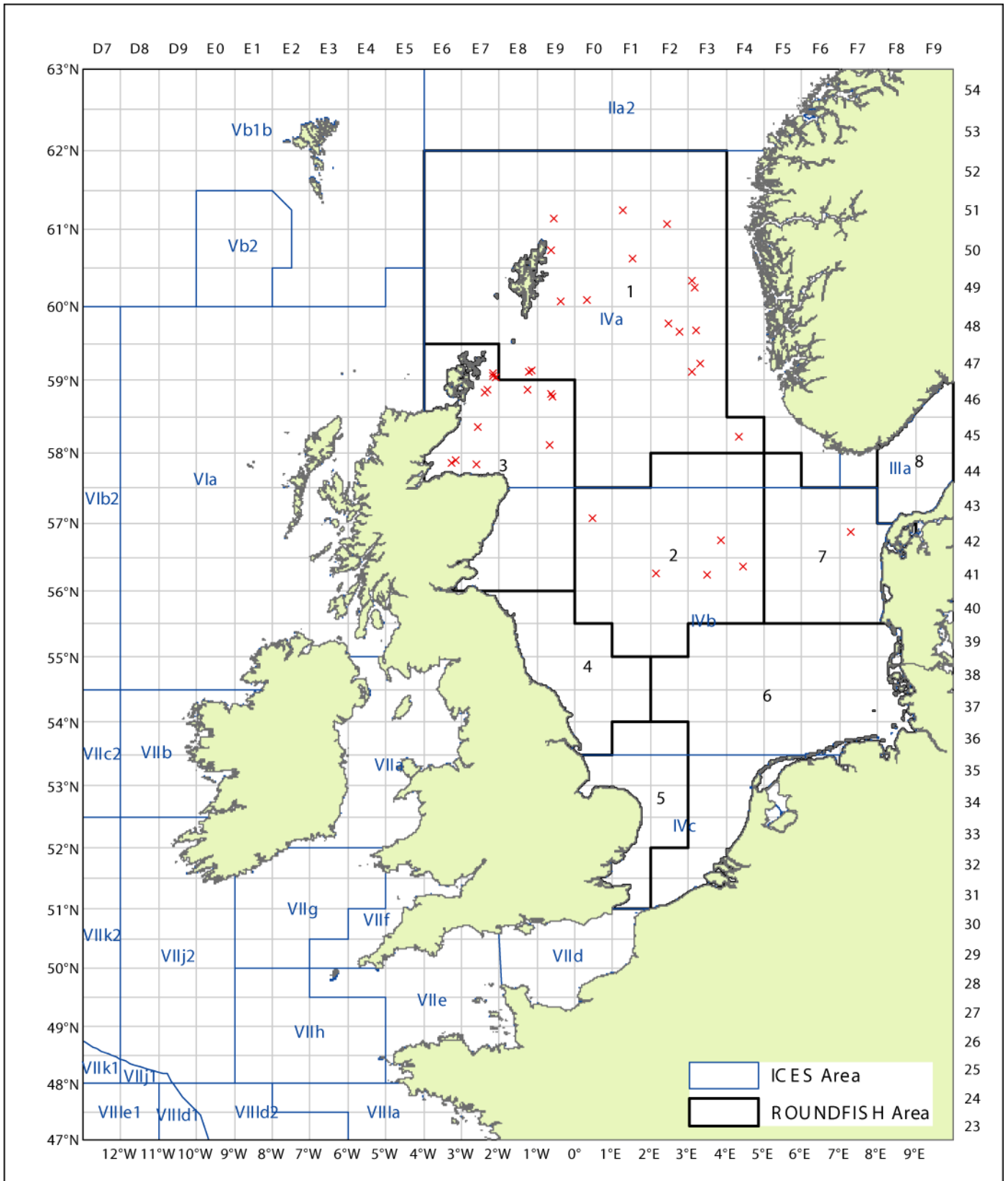


Method of Measurement

- Total length		male	193
- cm below		female	196
min length	8.5 [cm]	undefined	34
max length	22.5 [cm]	total numbers of data	423

Trisopterus esmarki February

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki

Februrary

$$Tw [g] = a * L [cm]^b$$

a = 0.0039

b = 3.1935

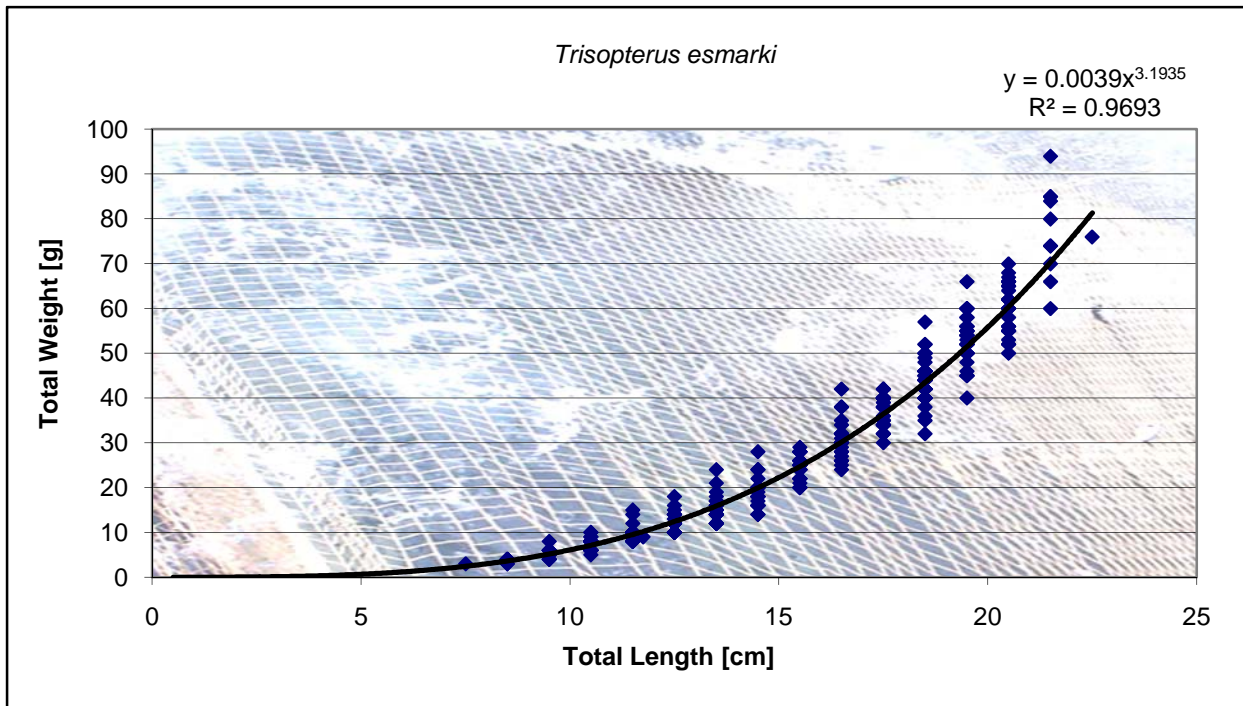
data collected

time period : 1999 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
346	-	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	340	6	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
153	5	187	-	-	-	1	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

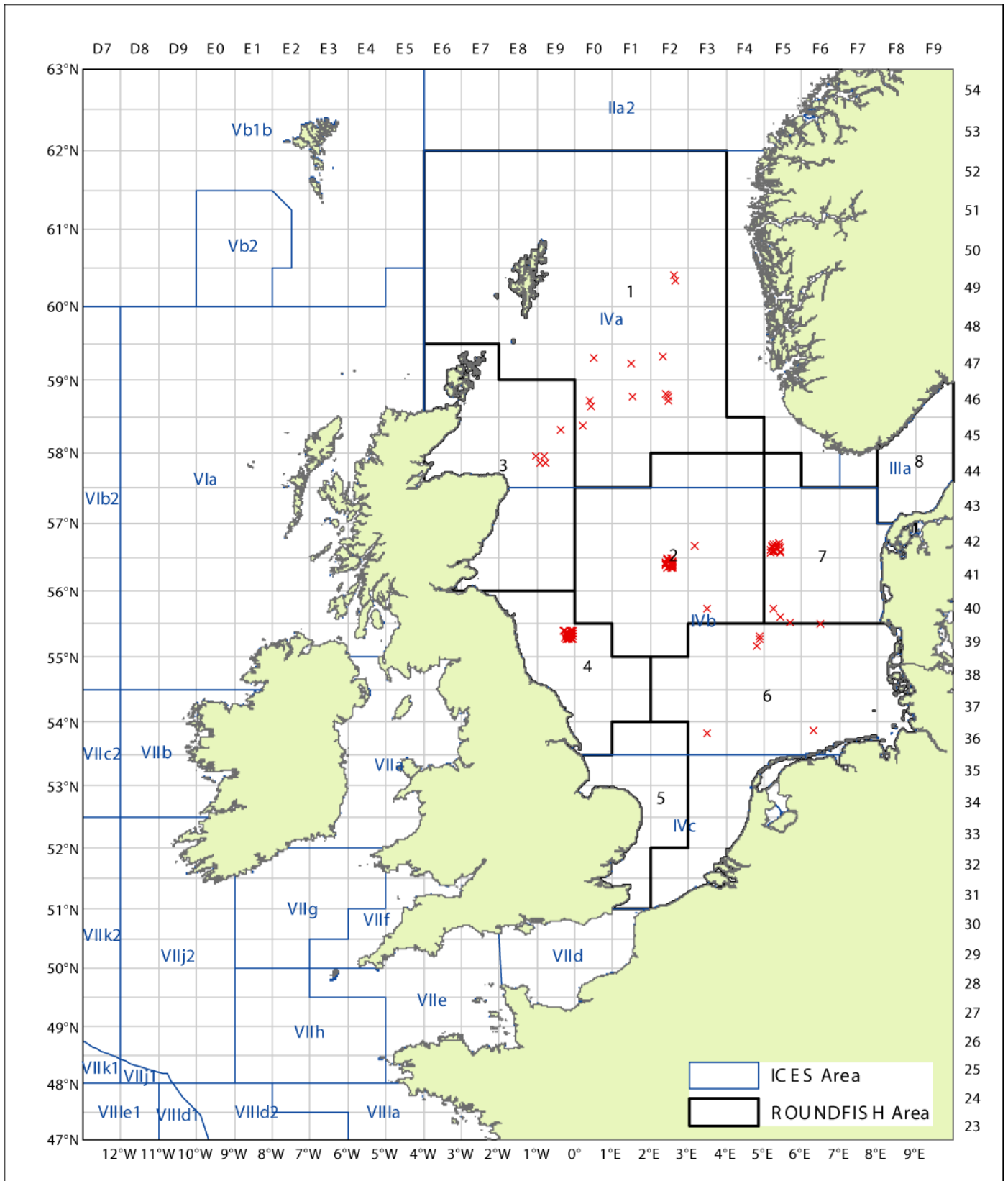


Method of Measurement

- Total length		male	144
- cm below		female	177
min length	7.5 [cm]	undefined	25
max length	22.5 [cm]	total numbers of data	346

Trisopterus esmarki Quarter 3

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki

Quarter: 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0048

b = 3.1515

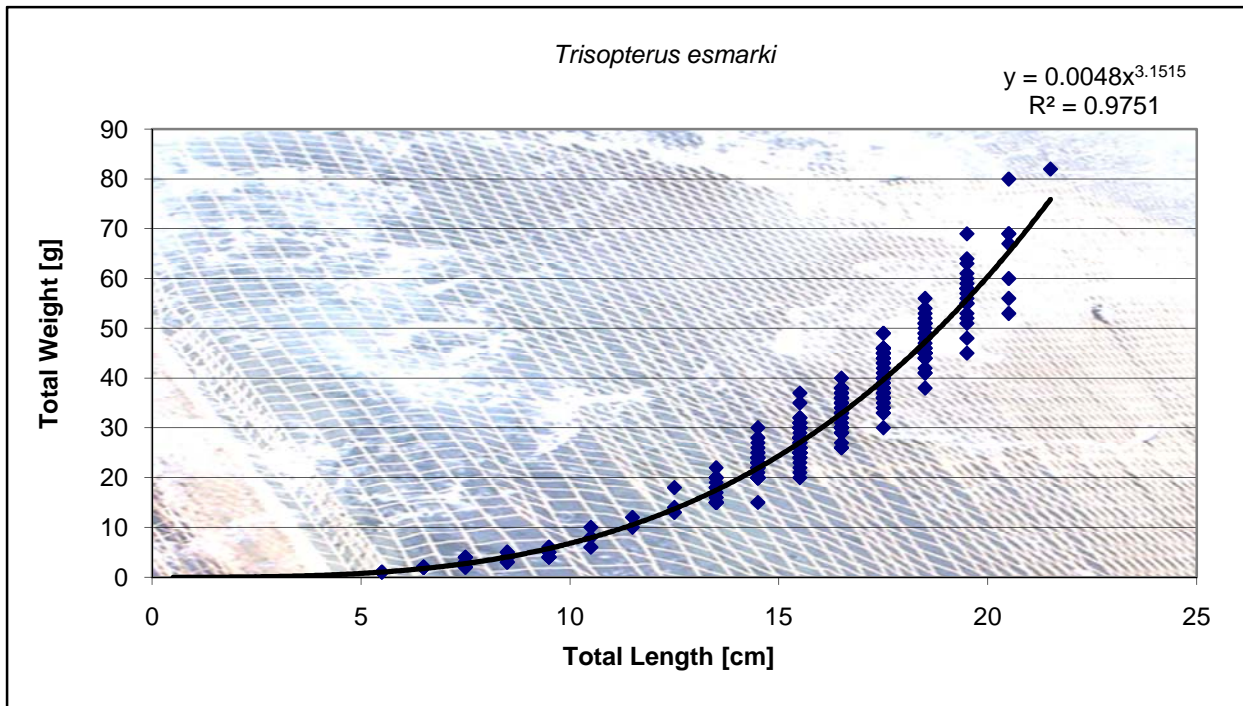
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	269	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	136	130	3	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	269	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	193	76	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
131	20	60	32	-	6	20	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

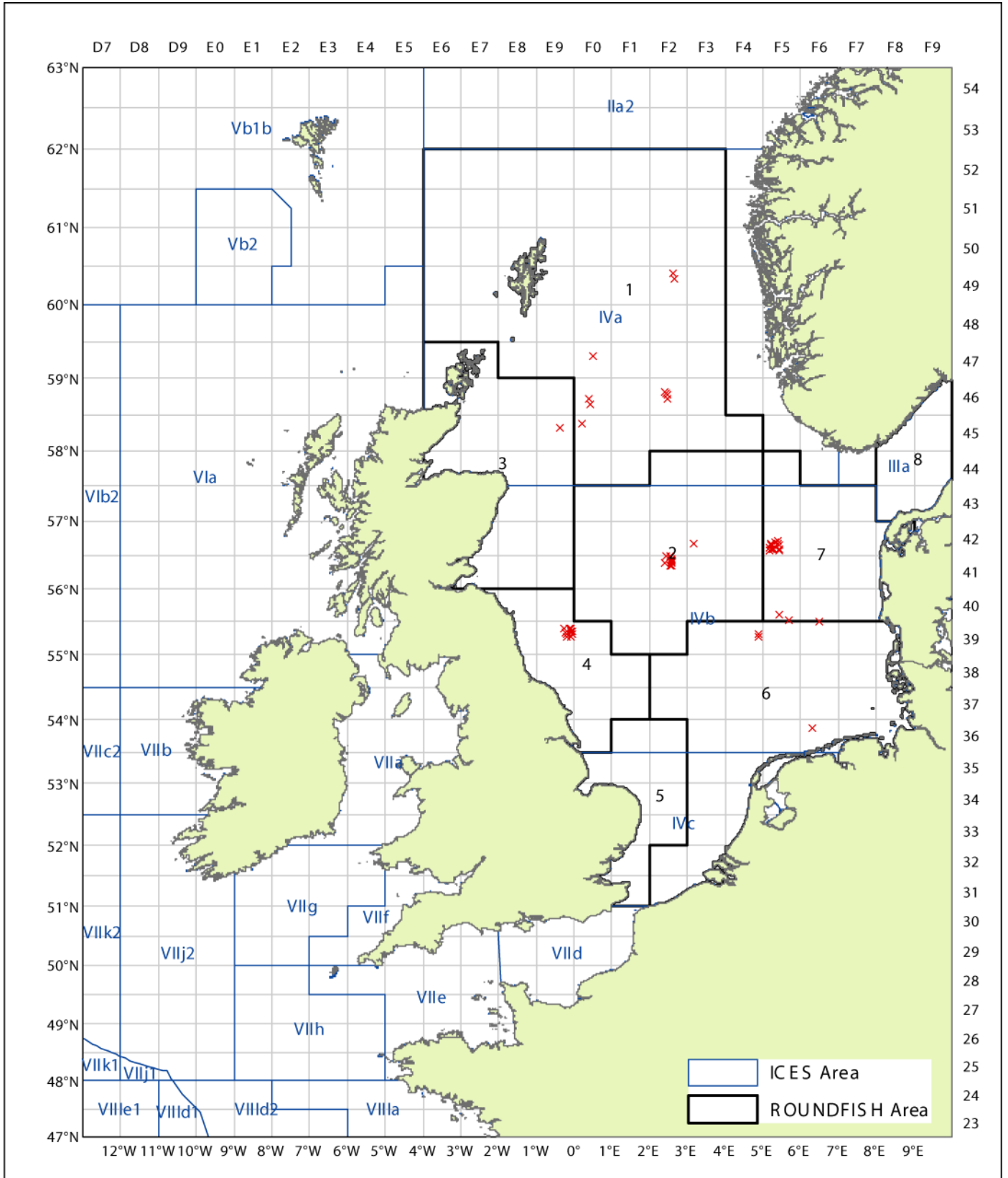


Method of Measurement

- Total length		male	24
- cm below		female	59
min length	5.5 [cm]	undefined	186
max length	21.5 [cm]	total numbers of data	269

Trisopterus esmarki July

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki

July

$$Tw [g] = a * L [cm]^b$$

a = 0.0043

b = 3.1932

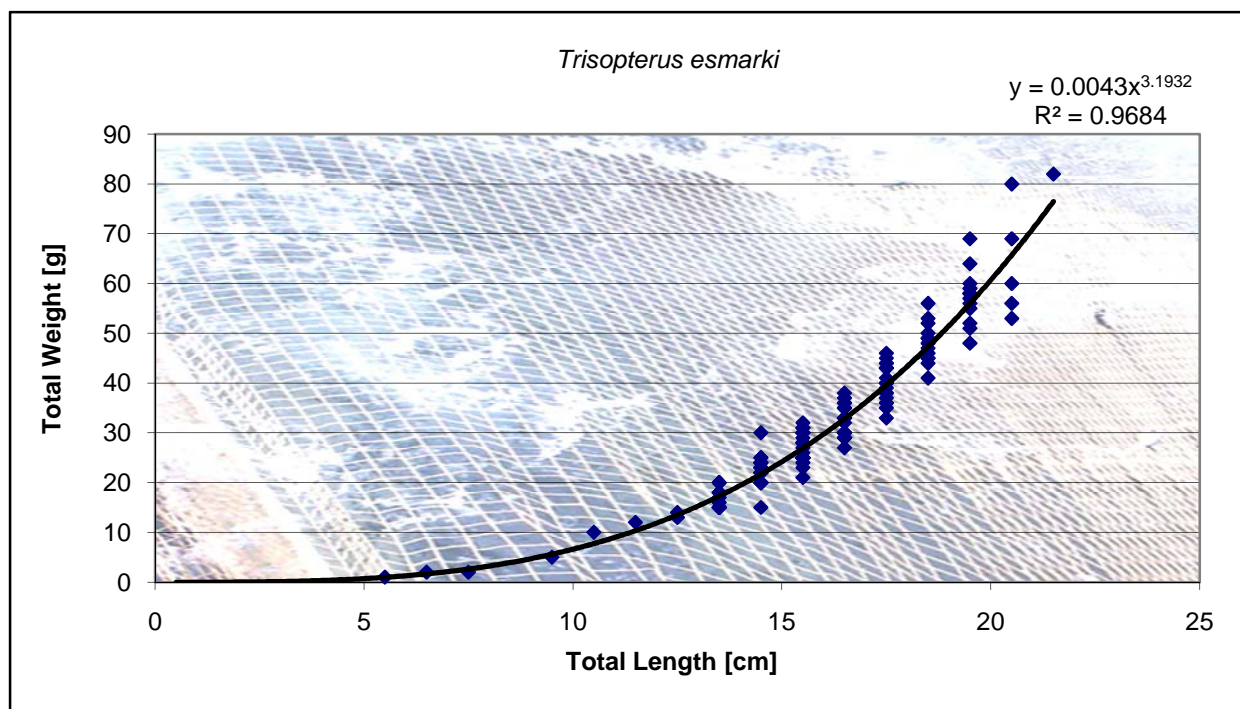
data collected

time period : 1995 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	136	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	136	-	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	136	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	94	42	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
81	11	13	11	-	4	16	-	-		-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length
- cm below

min length
max length

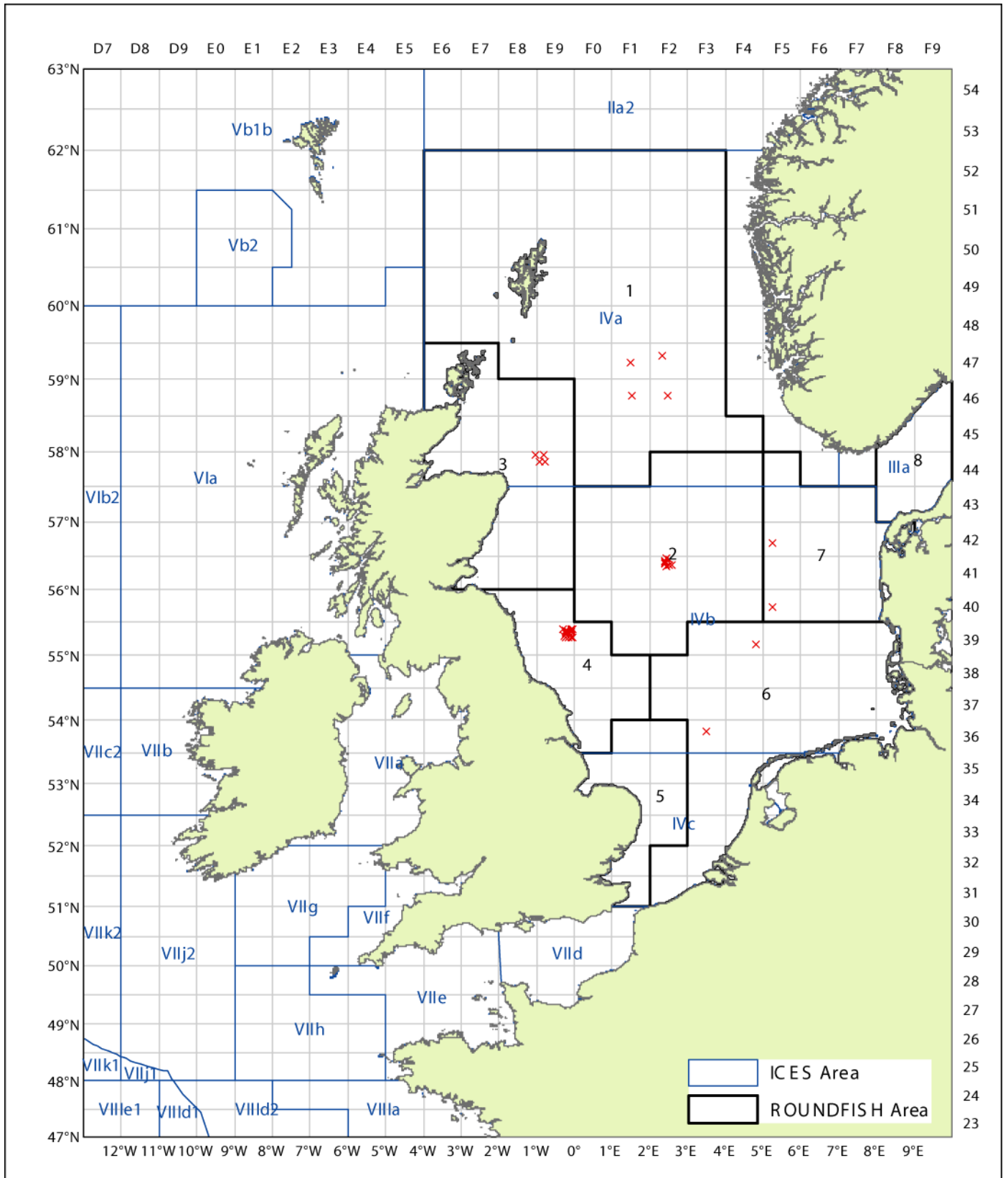
5.5 [cm]
21.5 [cm]

male 3
female 17
undefined 116

total numbers of data 136

Trisopterus esmarki August

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus esmarki

August

$$Tw [g] = a * L [cm]^b$$

a = 0.005

b = 3.1365

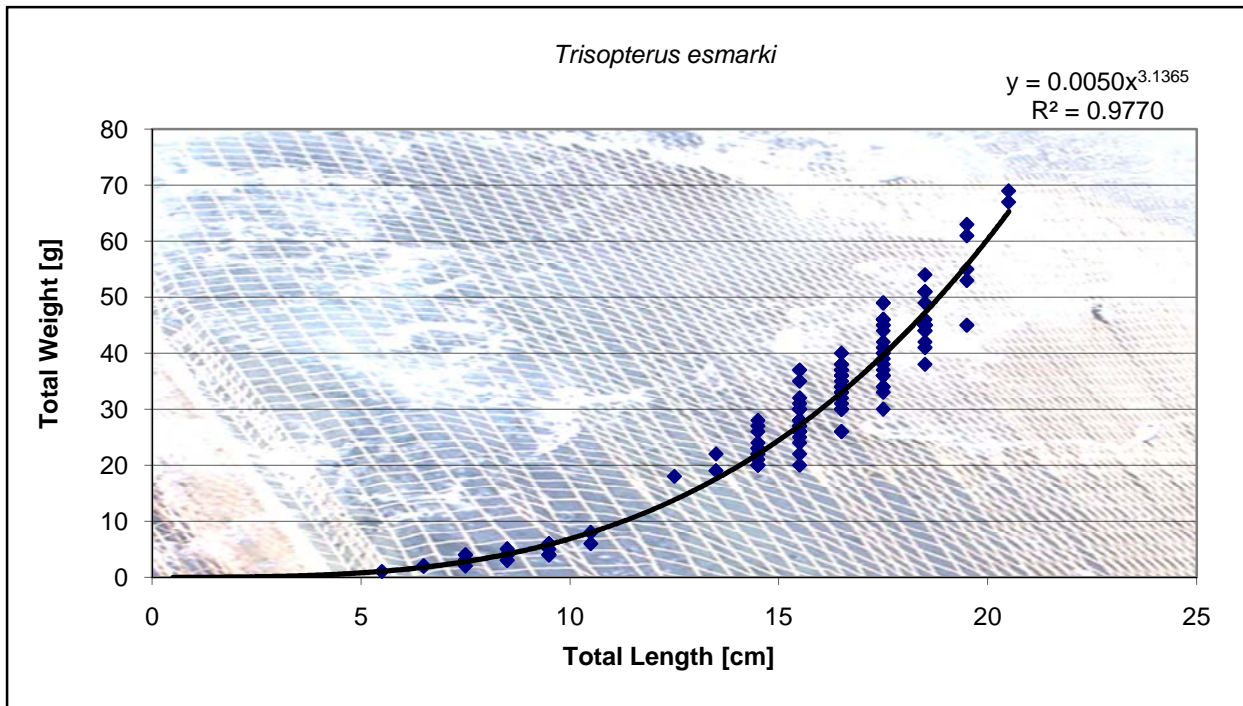
data collected

time period : 1999 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	130	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	-	130	-	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	130	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	99	31	-	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9		1A	1B	1C	1D	1E	1F	2G	2H	2J	
50	8	47	20	-	2	3	-	-		-	-	-	-	-	-	-	-	-	



Method of Measurement

- Total length		male	21
- cm below		female	42
min length	5.5 [cm]	undefined	67
max length	20.5 [cm]	total numbers of data	130

Trisopterus luscus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0102

b = 3.0277

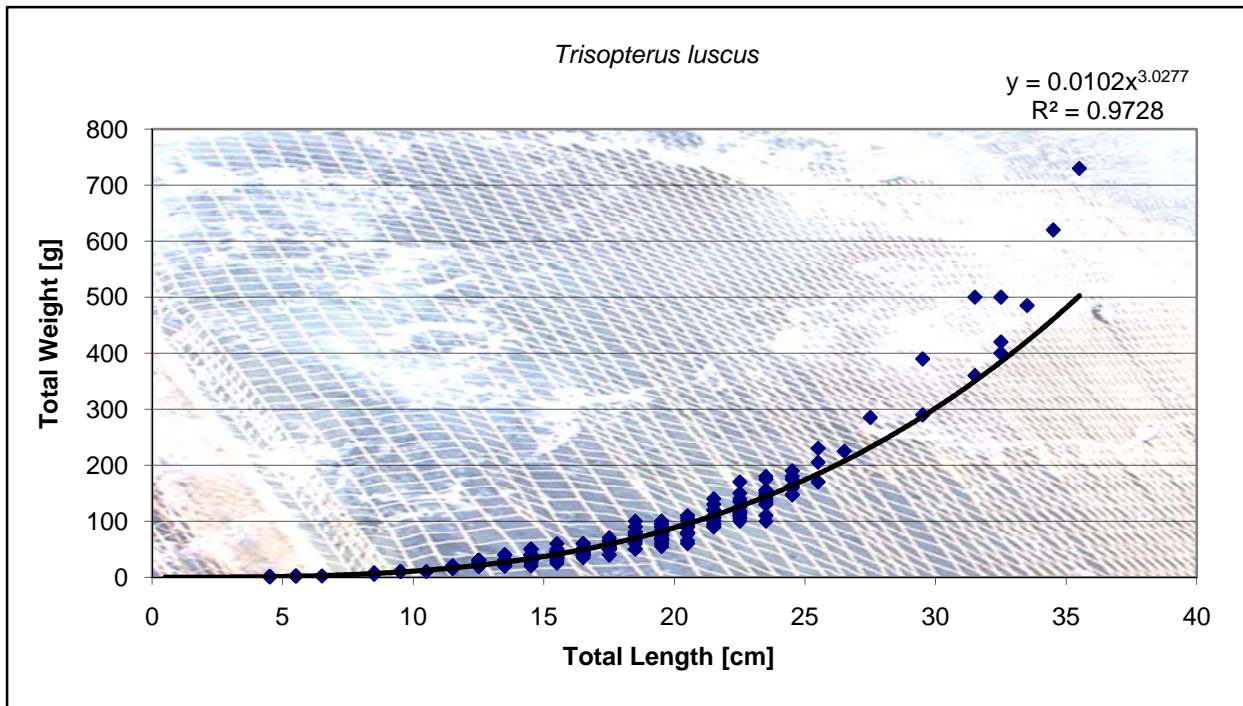
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
78	79	35	64																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
62	16	-	9	52	18	14	20	1	3	30	31										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	252	-	-	2	2	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	9	237	6	-	-	-	-	-	-	-	-	1	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
-	-	1	-	-	2	-	-	-	-	-	-	-	-	-							
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9				1A	1B	1C	1D	1E	1F	2G	2H	2J	
1	43	9	8	6	181	4	-	-				-	-	-	-	-	-	-	-	-	-

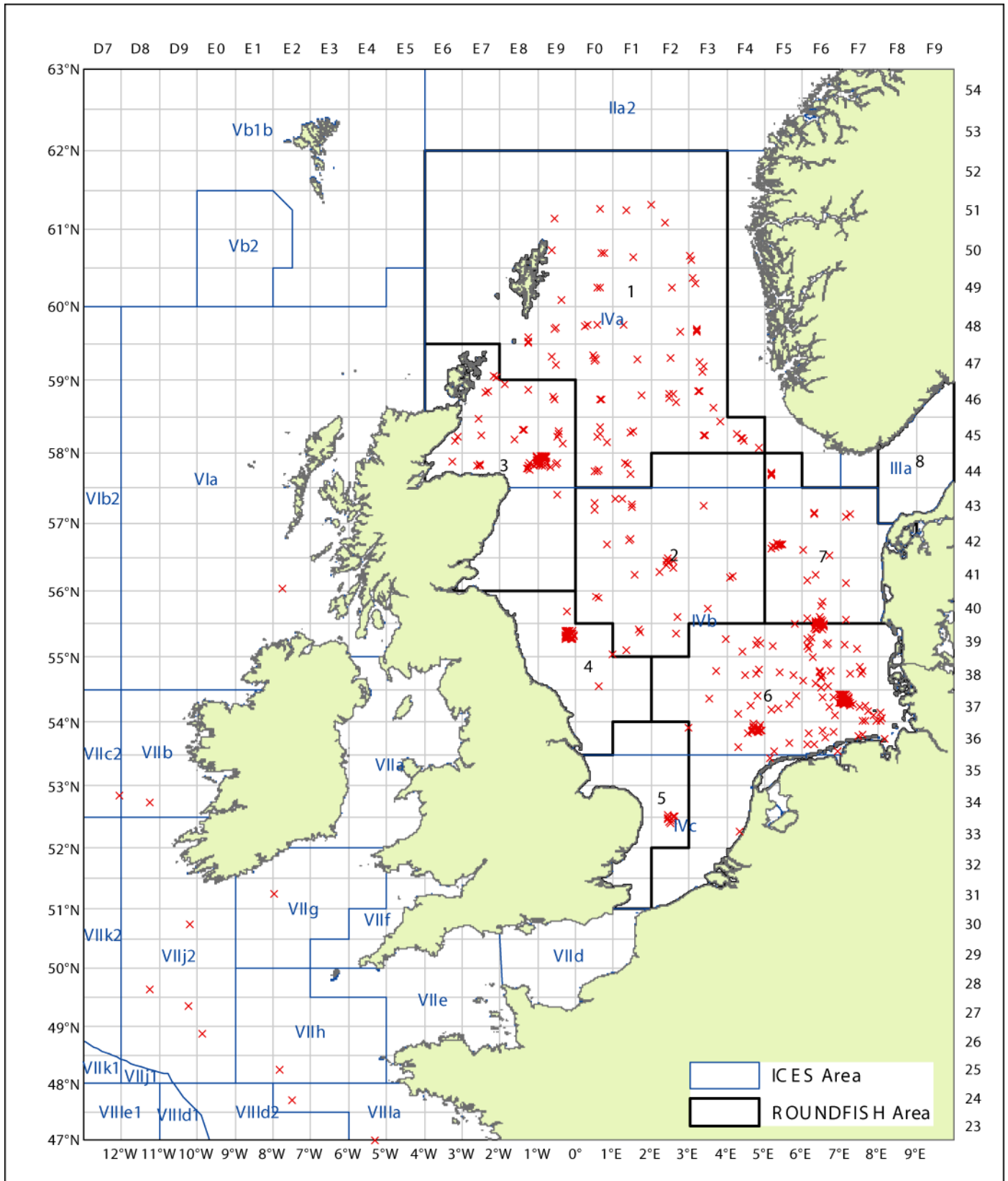


Method of Measurement

- Total length		male	30
- cm below		female	24
min length	4.5 [cm]	undefined	202
max length	35.5 [cm]	total numbers of data	256

Trisopterus minutes

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus minutus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.004

b = 3.275

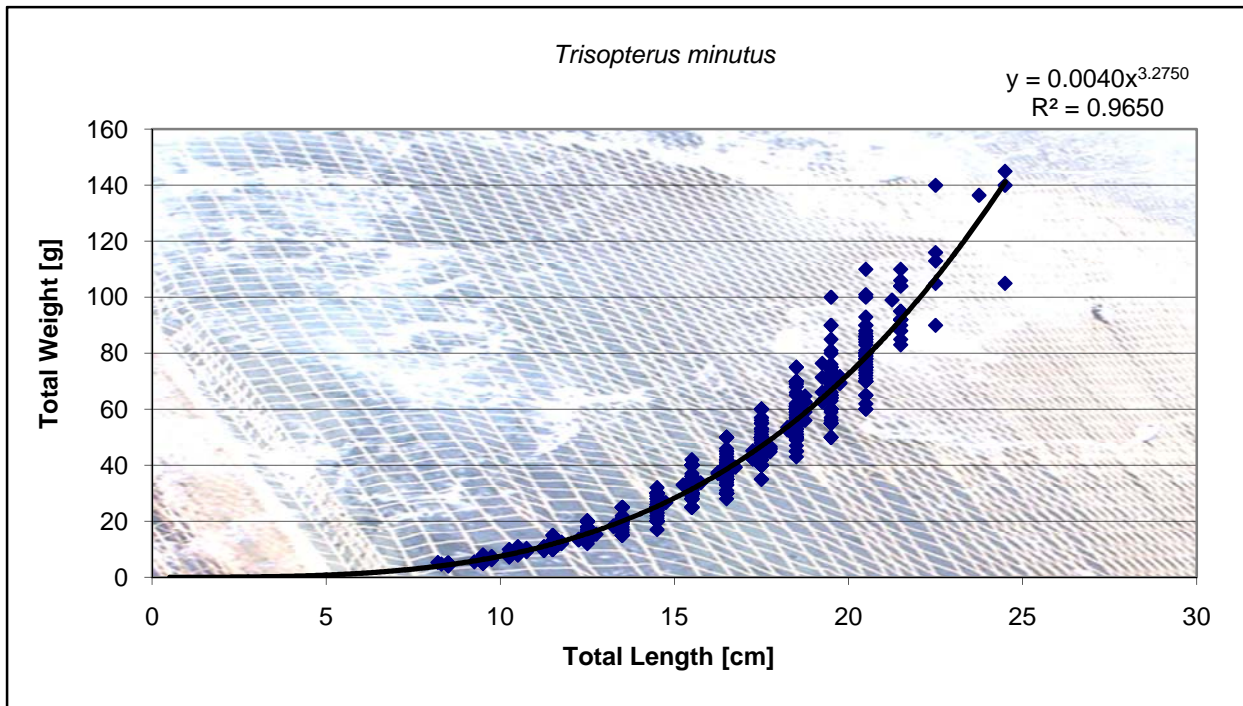
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
385	119	166	27																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
111	260	14	7	69	43	90	71	5	2	12	13										
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	686	-	1	8	2	-	-	-	-										
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	357	319	10	-	-	1	-	-	1	1	-	-	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
1	-	5	-	1	-	-	1	-	-	-	-	-	-	-							
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9					1A	1B	1C	1D	1E	1F	2G	2H	2J
195	35	162	34	10	173	77	-	-					-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	25
- cm below		female	31
min length	8.5 [cm]	undefined	641
max length	24.5 [cm]	total numbers of data	697

Trisopterus minutus

Quarter: 1

$$Tw [g] = a * L [cm]^b$$

a = 0.0032

b = 3.3595

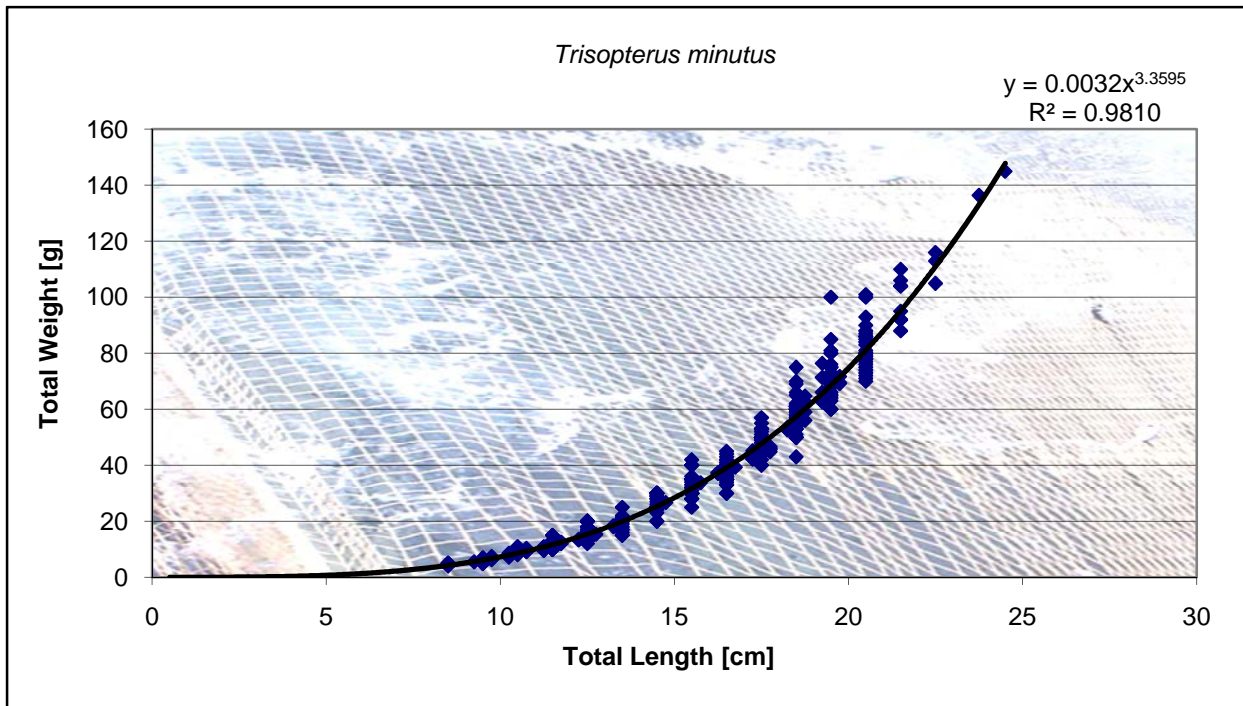
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																					
1	2	3	4																		
385	-	-	-																		
Month																					
1	2	3	4	5	6	7	8	9	10	11	12										
111	260	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Subarea																					
1	2	3	4	5	6	7	8	9	10	12	14										
-	-	-	378	-	1	5	1	-	-	-	-	-	-	-	-	-	-	-			
Division																					
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F		
-	-	-	-	-	-	-	309	67	2	-	-	1	-	-	-	1	-	-	-		
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B							
1	-	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Roundfisharea											NAFO										
1	2	3	4	5	6	7	8	9				1A	1B	1C	1D	1E	1F	2G	2H	2J	
189	18	118	-	-	41	12	-	-				-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	-
- cm below		female	-
min length	8.5 [cm]	undefined	385
max length	24.5 [cm]	total numbers of data	385

Trisopterus minutus

January

$$Tw [g] = a * L [cm]^b$$

a = 0.0029

b = 3.3963

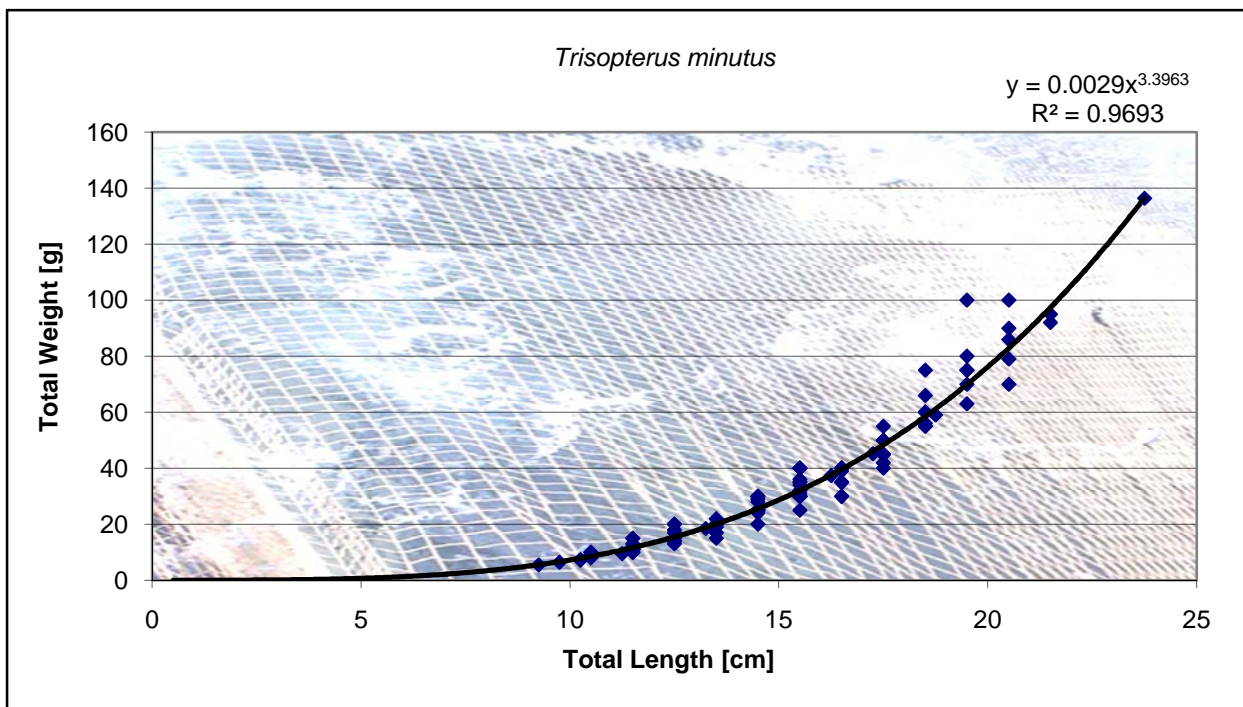
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
111	-	-	-																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
111	-	-	-	-	-	-	-	-	-	-	-	-								
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	111	-	-	-	-	-	-	-	-	-								
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	66	43	2	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
26	6	38	-	-	32	9	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

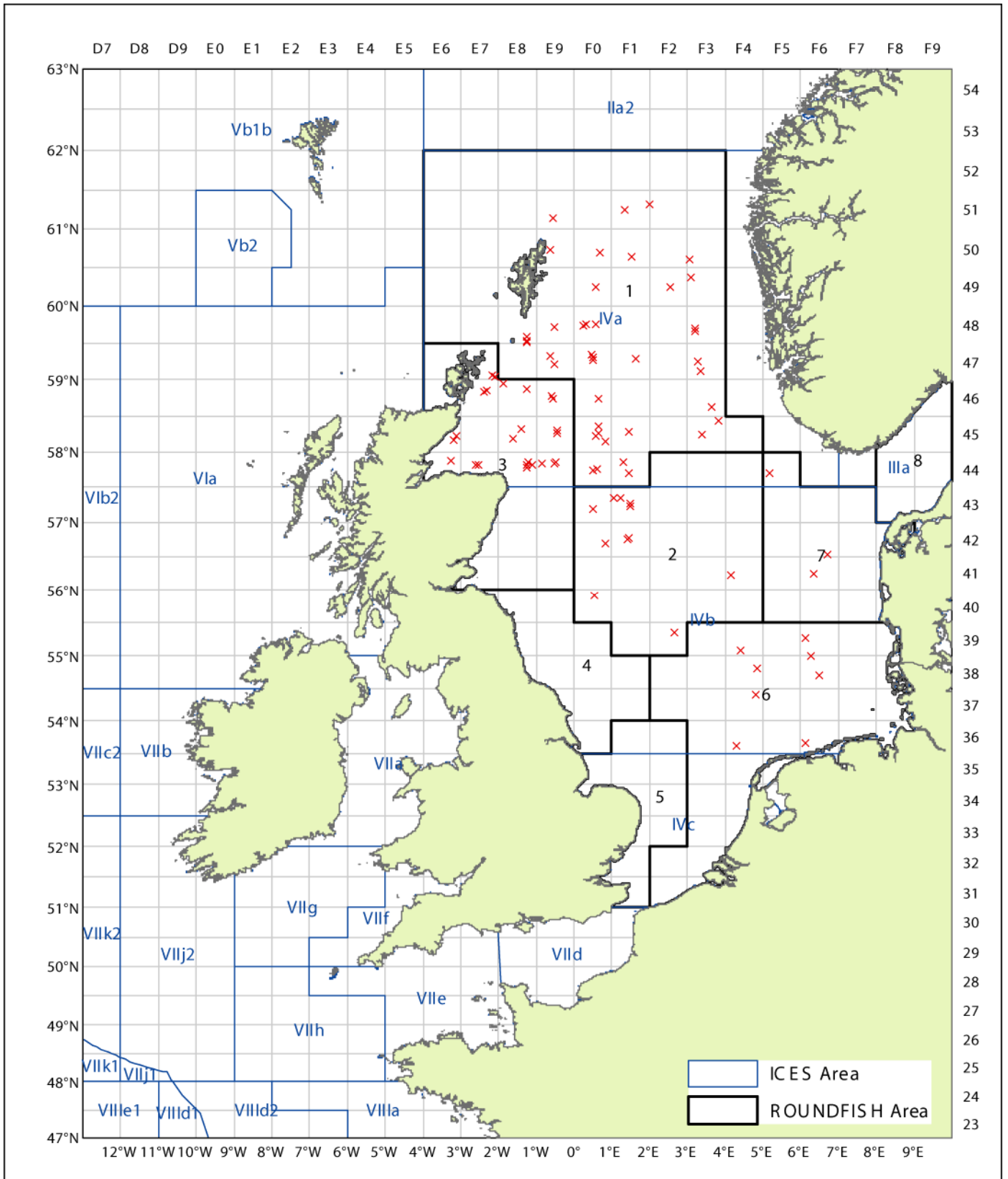


Method of Measurement

- Total length		male	-
- 1/2 cm below, cm below		female	-
min length	9.25 [cm]	undefined	111
max length	23.75 [cm]	total numbers of data	111

Trisopterus minutus February

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus minutus

February

$$TW [g] = a * L [cm]^b$$

a = 0.0031

b = 3.3628

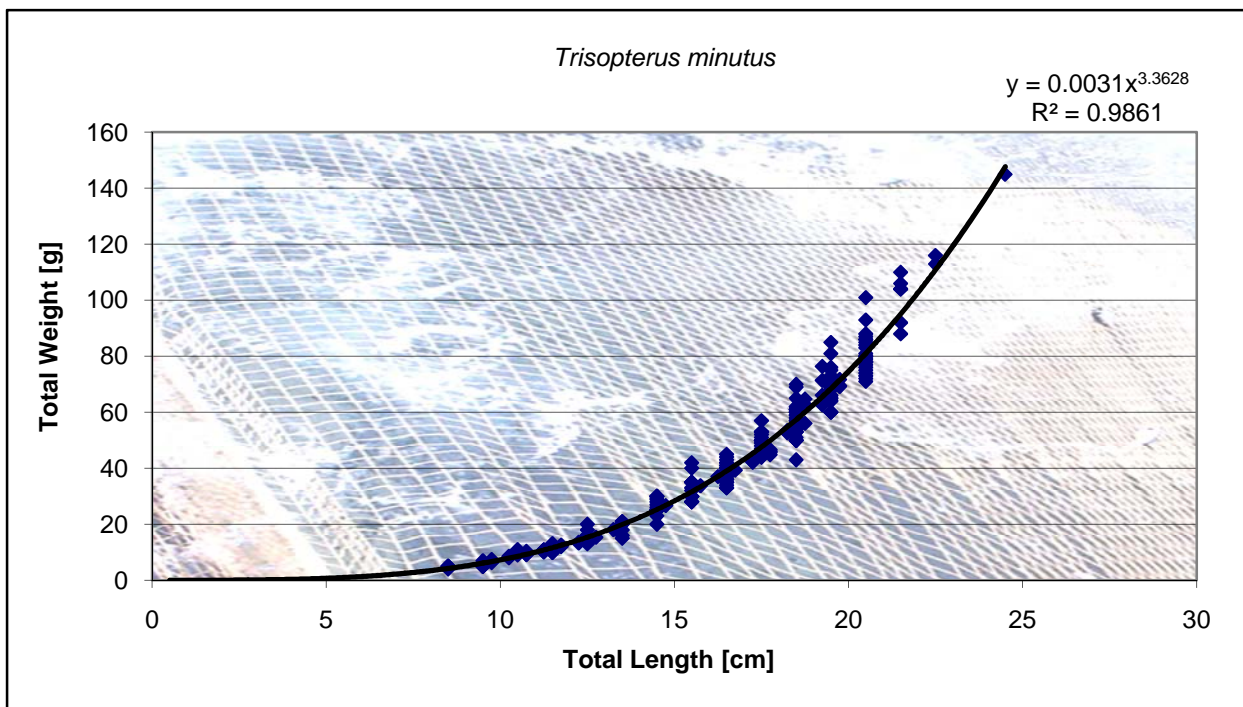
data collected

time period : 1994 - 2008

data source : research vessel

numbers of data:

Quarter																						
1	2	3	4																			
260	-	-	-																			
Month																						
1	2	3	4	5	6	7	8	9	10	11	12											
-	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Subarea																						
1	2	3	4	5	6	7	8	9	10	12	14											
-	-	-	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Division																						
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F			
-	-	-	-	-	-	-	237	23	-	-	-	-	-	-	-	-	-	-	-			
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B								
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Roundfisharea										NAFO												
1	2	3	4	5	6	7	8	9						1A	1B	1C	1D	1E	1F	2G	2H	2J
159	12	77	-	-	9	3	-	-						-	-	-	-	-	-	-	-	-

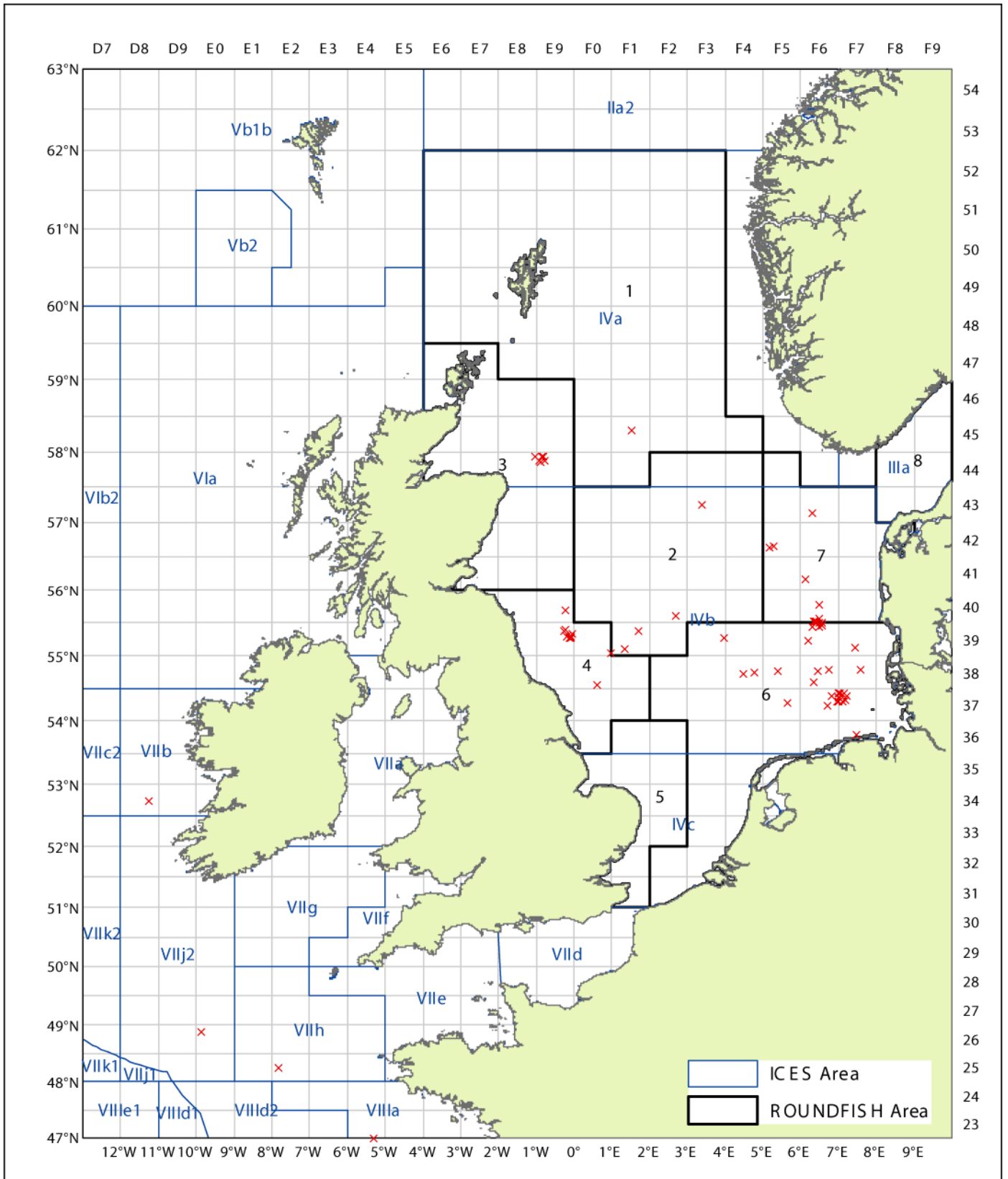


Method of Measurement

- Total length		male	-
- cm below		female	-
min length	8.5 [cm]	undefined	260
max length	24.5 [cm]	total numbers of data	260

Trisopterus minutus Quarter 2

Geographical distribution of data used for calculating the length-weight relationship



Trisopterus minutus

Quarter: 2

$$TW [g] = a * L [cm]^b$$

a = 0.0082

b = 3.0006

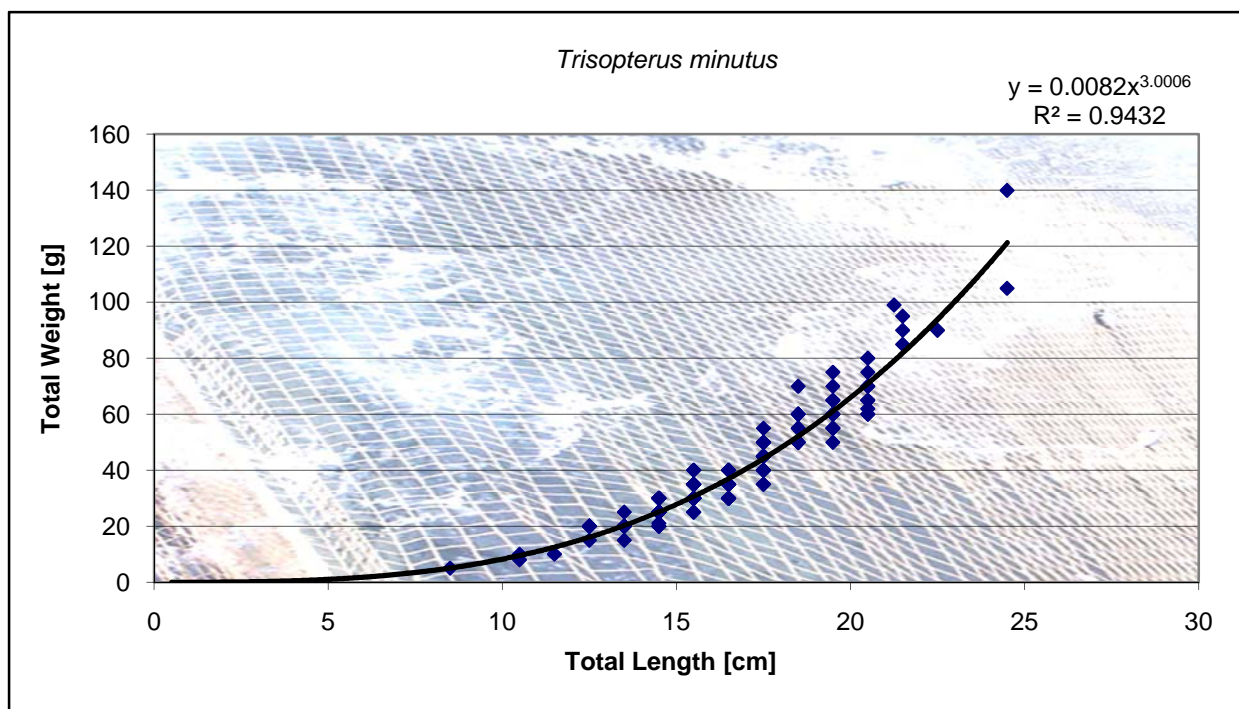
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	119	-	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	7	69	43	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	115	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	8	107	-	-	-	-	-	-	1	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Roundfisharea									NAFO										
1	2	3	4	5	6	7	8	9	1A	1B	1C	1D	1E	1F	2G	2H	2J		
2	9	6	11	-	43	44	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length
- cm below

min length
max length

8.5 [cm]
24.5 [cm]

male 25
female 31
undefined 63

total numbers of data 119

Trisopterus minutus

Quarter: 3

$$Tw [g] = a * L [cm]^b$$

a = 0.0072

b = 3.0566

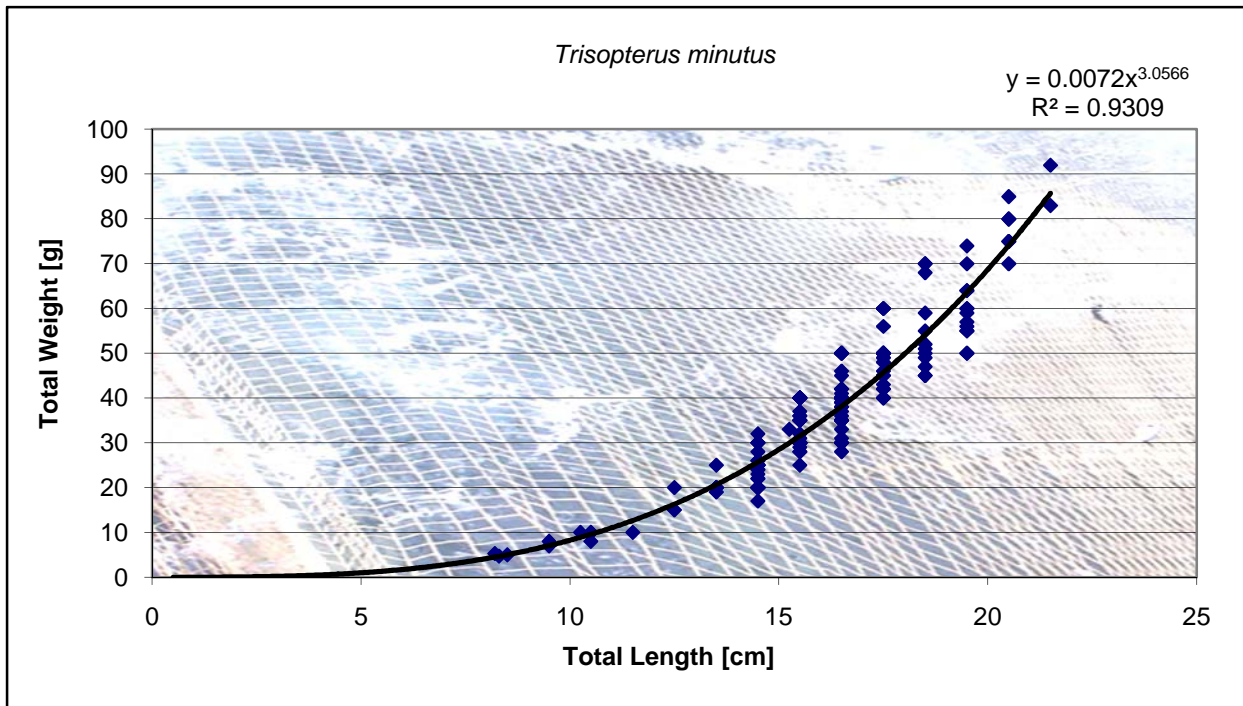
data collected

time period : 1994 - 2007

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
-	-	166	-																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
-	-	-	-	-	-	90	71	5	-	-	-								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	166	-	-	-	-	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	40	118	8	-	-	-	-	-	-	-	-	-	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
4	8	35	23	10	65	21	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Method of Measurement

- Total length		male	-
- cm below		female	-
min length	8.5 [cm]	undefined	166
max length	21.5 [cm]	total numbers of data	166

Zeus faber

Quarter: 1 - 4

$$TW [g] = a * L [cm]^b$$

a = 0.0134

b = 3.0526

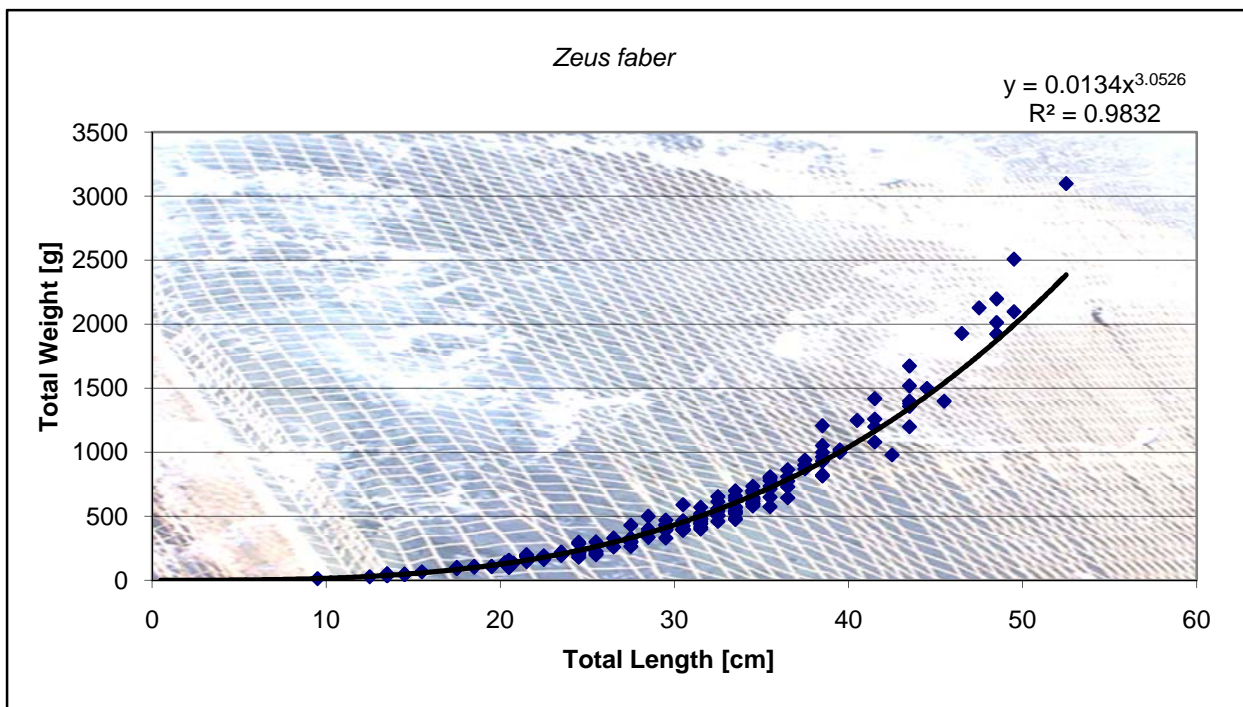
data collected

time period : 1962 - 2008

data source : research vessel

numbers of data:

Quarter																			
1	2	3	4																
117	41	19	7																
Month																			
1	2	3	4	5	6	7	8	9	10	11	12								
25	33	59	35	3	3	9	10	-	-	6	1								
Subarea																			
1	2	3	4	5	6	7	8	9	10	12	14								
-	-	-	86	-	41	46	11	-	-	-	-								
Division																			
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F
-	-	-	-	-	-	-	63	22	1	-	-	41	-	-	5	-	-	2	-
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B					
-	4	35	-	9	1	-	1	-	-	-	-	-	-	-					
Roundfisharea										NAFO									
1	2	3	4	5	6	7	8	9											
23	6	45	1	-	7	4	-	-	1A	1B	1C	1D	1E	1F	2G	2H	2J		
									-	-	-	-	-	-	-	-	-	-	

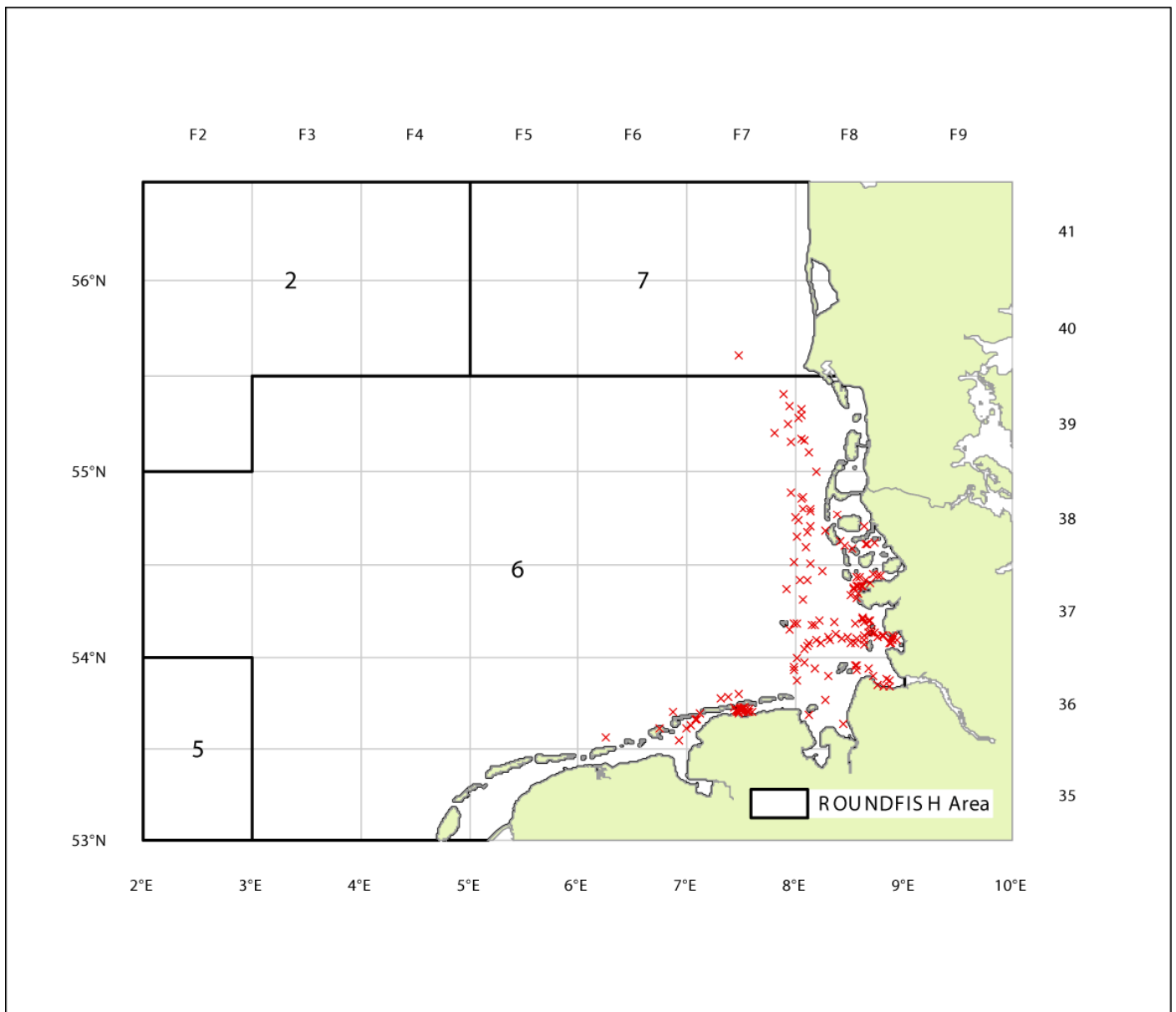


Method of Measurement

- Total length		male	41
- cm below		female	-
min length	9.5 [cm]	undefined	143
max length	52.5 [cm]	total numbers of data	184

Zoarces viviparus

Geographical distribution of data used for calculating the length-weight relationship



Zoarces viviparus

Quarter: 1 - 4

$$Tw [g] = a * L [cm]^b$$

a = 0.0047

b = 3.0241

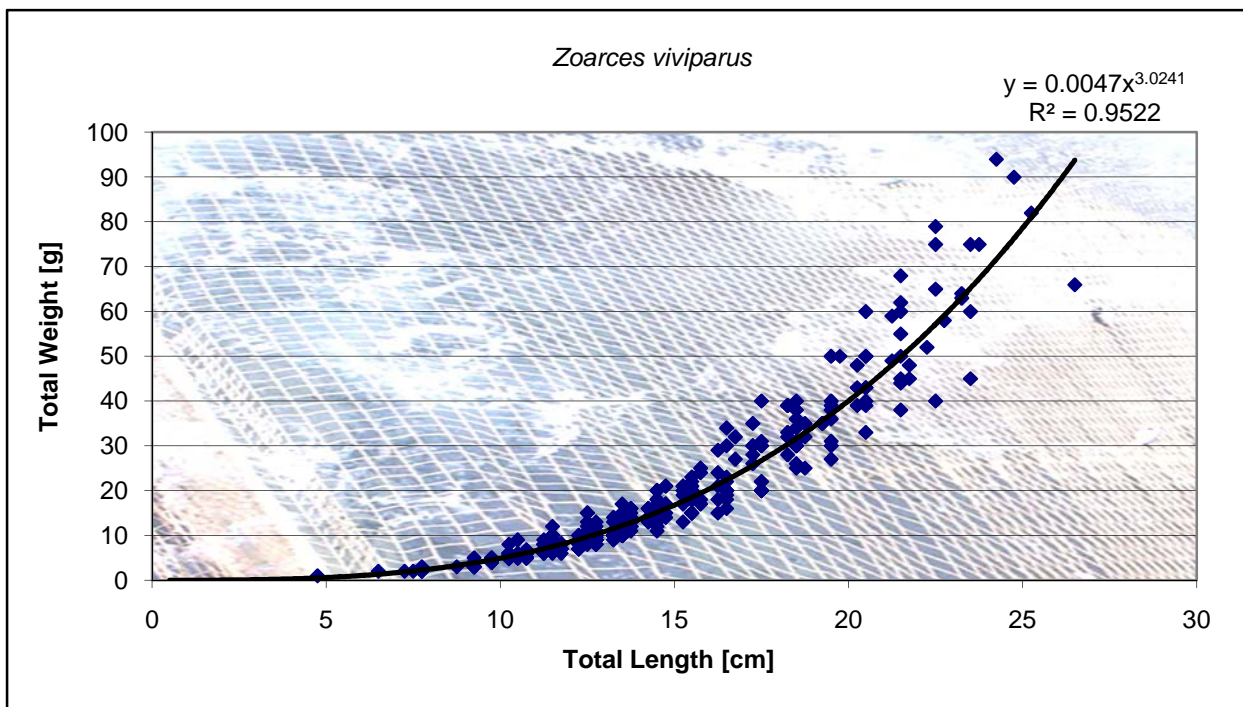
data collected

time period : 1990 - 2007

data source : research vessel

numbers of data:

Quarter																				
1	2	3	4																	
67	101	120	33																	
Month																				
1	2	3	4	5	6	7	8	9	10	11	12									
45	12	10	31	52	18	23	34	63	17	12	4									
Subarea																				
1	2	3	4	5	6	7	8	9	10	12	14									
-	-	-	321	-	-	-	-	-	-	-	-									
Division																				
1	2A	2B	3A	3B	3C	3D	4A	4B	4C	5A	5B	6A	6B	7A	7B	7C	7D	7E	7F	
-	-	-	-	-	-	-	-	321	-	-	-	-	-	-	-	-	-	-	-	
7G	7H	7J	7K	8A	8B	8C	8D	8E	9A	9B	10	12	14A	14B						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Roundfisharea										NAFO										
1	2	3	4	5	6	7	8	9												
-	-	-	-	-	320	1	-	-												
										1A	1B	1C	1D	1E	1F	2G	2H	2J		
										-	-	-	-	-	-	-	-	-		



Method of Measurement

- Total length		male	-
- 1/2 cm below, cm below		female	-
min length	4.75 [cm]	undefined	321
max length	26.5 [cm]	total numbers of data	321

Bibliografische Information:
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