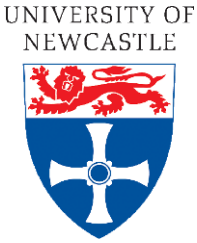

Defining Typical Regional Pleasure Craft Marinas in the EU for Use in Environmental Risk Assessment of Antifouling Products

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Go to www.circabc.europa.eu, log in, and locate to: EUROPA > European Commission > CIRCABC > env > Biocides TM Library > meeting_documents > technical_meetings > 2013 TM III

Aim of the document

The document is an attempt to define a 'typical' EU marina scenario to be used by the Member States (MSs) in the authorisation and the mutual recognition of the antifouling biocidal products for pleasure crafts. The study provides a large dataset of marina parameters from which a 'typical' EU marina can be defined and establish whether separate marina scenarios are required for the Baltic Sea Area, the Mediterranean Sea and the Atlantic Ocean. The parameters determined have been set to allow direct use in the exposure assessment software MAMPEC (Marine Antifoulant Model to Predict Environmental Concentrations).

The current document aims to refine the OECD PT21 Emission Scenario Document (ESD) and make it suitable for European marinas when determining the Predicted Environmental Concentration (PEC) in the risk assessment of the antifouling products under the Biocidal Products Regulation (Regulation EU 528/2012/EC).

Background of the TM discussions

This document and its previous versions were commissioned by CEPE. The original study was undertaken by Newcastle University with subsequent revisions prepared by International Paint Ltd on behalf of the CEPE Antifouling Working Group. Version 1 was discussed at TM IV 2012, TM I 2013, tabled for information at TM II 2013. Version 2 was discussed at the TM III 2013.

At TM III 2013 the MSs representatives agreed with the endorsement at this stage, and the addition of a cover note to further clarify the issues raised at the TM. As agreed, further bilateral consultation took place with two MSs (Denmark and Finland) to incorporate their comments into the version 3 of the document. The Commission (JRC) drafted this cover note in accordance with the TM discussions, and finalized the drafting via e-consultation with MSs and Industry representatives. The revised document including the cover note will be sent to the Competent Authority meeting in December 2013.

For further details on the TM discussions, please check the relevant minutes of the meeting available to the MSs CAs in the TM folder on CIRCABC, and available to the public on the JRC website:

http://ihcp.jrc.ec.europa.eu/our_activities/public-health/risk_assessment_of_Biocides/doc/minutes_tm/minutes

Agreements for the TM endorsement of the Draft EU regional marina scenarios

MSs welcomed the document as a first attempt to define key parameters (marina dimensions, maximum vessel occupancy and lengths, salinity, water temperature, pH and DOC) for the marinas in the Atlantic, Baltic and Mediterranean environments. This more extensive database represents a potential refinement over the simple default marina scenario outlined in the existing PT21 OECD ESD. MSs found it very useful especially for the MSs that do not have these data. This section aims to summarize the concerns of the MSs expressed at the TM.

It was highlighted that some of the MSs already have national scenarios (e.g. Sweden and Finland) and these have been successfully used to authorize biocidal products. Germany is currently working on a relevant project that may result in a national scenario for PT 21. Therefore, with this cover note, the TM wishes to express that, although the document is endorsed, MSs will still have the possibility to continue to use existing national scenarios for product authorisation, if considered more appropriate to address exiting national protection goals. Additionally, MS representatives highlighted the need to clearly specify the scenario(s) used for the PEC calculation in the first assessment report, in order to prevent uncertainty during the mutual recognition process. A suggestion was that the MS that makes the first product authorisation should run all available scenarios for the actual region, and there should be a requirement for authorisation that a preset minimum number of scenarios should pass the risk assessment.

According to the authors, the current parametrisation of the saltwater marina in the current PT21 OECD ESD was found to not accurately reflect the majority of marinas in Europe. The endorsed report is not intended to propose a new EU marina scenario, but presents a more updated data set for regions where there are no other appropriate regional scenarios available, other than the OECD ESD marina scenario. As highlighted above any future scenarios are not meant to replace the existing national scenarios where these existing scenarios are still considered appropriate. It should be noted that if MS choose not to develop their own scenarios and instead use the CEPE Baltic scenario as presented in the report (which is not a worst case scenario) to authorise products, unnecessarily potent (and harmful) products would appear on the market for use in the Baltic Sea. This concern could be valid also for other regions.

The meeting agreed that this report provides a collection of data that MSs can use for developing further national/regional scenarios. During the TM meetings, both the definition (borders, transition zones) as well as characteristics of the Baltic Sea were discussed at length, and consequently many of the revisions of the document focused on this region. Once MSs gather more experience with authorisation of PT 21 products, it may become necessary to further refine the current data set for their

specific regional sea conditions. MSs CAs are strongly advised to discuss at the Competent Authority meeting and decide on protection goals (marinas, surrounding areas of marinas) and the associated scenarios to be used well in advance of the PT 21 product authorisation stage.

Suggestions for further steps

During the TM discussions several elements were found necessary to be further developed:

- Defining the protection goals of marinas that MSs CAs mutually want to protect. This needs to be decided at the level of the Competent Authorities;

- The current document provides a collection of data that can be taken forward by MSs to develop further national scenarios more suitable to their regional conditions and their identified protection goals (marinas, surrounding areas of marinas). In the development of national scenarios it should be carefully considered which output they give and consequently which level of protection they provide;

- Industry representatives indicated their interest to collaborate with MSs CAs in further developing MAMPEC model to incorporate these (potential) national and regional scenarios to allow Member States to determine if existing models reflect their specific protection goals, or reflect their regional conditions. A similar experience of incorporating various scenarios to account for environmental variability at an EU level has already been performed with the FOCUS software tools for both surface water and groundwater. The details of how the results from the current OECD marina scenario, existing national scenarios and any future regional scenarios that may be developed should be used in product authorisation at EU level need to be formally developed. However the intention would be that a suite of scenarios should be developed that would facilitate mutual recognition wherever possible whilst also enabling individual MS protection goals to be retained;

- Develop a scenario for the Black Sea. This was considered necessary during the TM discussions, but Industry representatives informed they did not have the resources to add this into the document.

Contents

1. Introduction and Background

One of the critical risk assessment scenarios relevant to antifouling paints is the environmental exposure of marinas as a result of antifouling paints found on pleasure craft. Marinas provide safe moorings for yachts and services which cater for small to mid-size vessels.

The aim of this project is to define a 'typical' EU marina scenario and set of regional scenarios which most accurately represent the marinas sampled. The intention being that this provides a series of scenarios for Rapporteur Member States to use in the evaluation of antifouling paints as part of the requirements of the Biocidal Products Directive (BPD: 98/8/EC).

The current scenario defined in the OECD (Organization for Economic Co-Operation and Development) Environmental Scenario Document does not accurately reflect a typical European marina. As a consequence, the model has been criticized by both industry and the Member States of the EU on the basis that it cannot be used to accurately define Predicted Environmental Concentrations (PEC) of marinas across Europe. Whilst the OECD ESD scenarios are being used as part of the evaluation of the active ingredients, there is widespread concern that they are not representative of the marinas located in specific EU water bodies such as the Baltic.

The project aims to provide a robust data set of marina dimensions from which a 'typical' EU marina can be defined to validate the current OECD ESD and establish whether separate marina scenarios are required for each of main water bodies of the EU, the Baltic Sea, the Mediterranean Sea and the Atlantic Ocean. From these data a

more realistic marina scenario could be defined for the EU assessment and or a series of regionally relevant scenarios can be derived. As far as has been possible the parameters determined have been set to allow direct use in the risk assessment software MAMPEC 2.5 (Marine Antifoulant Model to Predict Environmental Concentrations).

2. Methods and Materials

There are two key data sets to defining the risk assessment scenario; the physical dimensions of the marina itself and the physico-chemical parameters of the water the floods the marinas. Publically available data sources were used throughout the project; dimensions of the marinas themselves were taken from analysis of satellite imagery and generic map data (using Google Maps and equivalent services). Depth details were taken from admiralty charts (or equivalent for that country) where available, or from literature / websites provided by the marina operator. Maximum size of vessel allowed in the marina and maximum occupancy values were also taken from literature / websites provided by the marina operator. Peer reviewed journals and reference books were used to define water physical chemical parameters where ever possible. A summary of data sources used are given in Table 1., with full details of each marina given in Appendix 1.

Table 1: A general description of the data sources used to define each parameter collected.

Marina length and width	*Length and width were measured using rulers in Google Earth's tools.*
Marina depth	The depth of marinas collected from the official websites of the marina or literature from the marina operator.
Width of the marina entrance	The width of entrances measured using rulers in Google Earth's tools or data from websites of the marinas, whichever was deemed to be most accurate.
Tidal difference	Tidal difference was predominantly found on the website *Admiralty EasyTide*, which provides a comprehensive tidal prediction service.
Salinity	Salinity values were taken from environmental management related websites or peer reviewed academic reports.
Average water temperature	Sea surface temperature (SST) was collected from marine weather websites and environmental research websites.
pH	Sea pH values were mainly taken from the ICES CIEM website, which is an organization that coordinates and promotes marine research in the North Atlantic.
The number of vessels moored in the marina	This was based on the maximum amount of vessels which can be moored in the marinas. The information was provided on official websites and berth booking websites. If the data was absent from these two sources, then the maximum occupancy was predicted by counting the number of berths present on the image displayed on Google Earth.
The maximum length of a vessel that the marina can accommodate	This information was normally presented on official websites and berth booking websites. When not available measurement of the largest vessel present in the marina image in Google Earth's was used.

Study Area

In total 181 marinas were measured from 21 European countries chosen on the basis that they had a coastline on either the Baltic Sea Area, Mediterranean, North Sea or the North Atlantic (Table 2).

Table 2: Breakdown of marina number by European country.

Country	*Marina numbers*	*Country*	*Marina numbers*	*Country*	*Marina numbers*
Norway	7	Latvia	3	Cyprus	5
Ireland	9	Lithuania	1	Slovenia	3
Netherlands	10	Poland	8	Malta	5
Belgium	8	Germany	10	Greece	10
France	10	Denmark	16	Italy	10
Portugal	10	Sweden	15	Spain	10
Estonia	10	Finland	9	England	10

From the compiled data set a further quality control step to confirm that the dimensions measured were accurate and that the marinas identified were considered appropriate for the analysis undertaken and the data updated accordingly where appropriate. Quality criteria used were:

- Marina Length and width dimensions reflected the average of the measured dimension
- Marina mouth measurement was taken at the correct point
- The marina was used predominantly for pleasure craft use (i.e. no fishing vessels, commercial harbours rejected)
- The marina was bounded on at least 3 sides by either a fixed wall or pontoon to best reflect the ‘enclosed’ marina type modelled in MAMPEC

A number of marinas reported in the project were rejected on the basis of the above criteria not being fulfilled. For example the Danish Marina Hvide Sande Nordhavn was excluded from the analysis as this was later discovered to be a harbour for small fishing vessels rather than pleasure craft. A target number of 10 representative marinas were taken from each country in the study. For those countries with short coastlines (or small pleasure craft market) as many marinas as possible were measured.

Following peer review at Technical Meeting IV 2012 of the Biocidal Products Directive, 5 Swedish marinas were rejected from the analysis as they were located in Lake Malaren, which borders the Baltic. These were:

Ålsta Road Marina

Bålsta Road marina

Ålsten Marina

Södertälje Gästhamn

Härnösand

To replace these, five further marinas located in the Stockholm Archipelago were added to the data set.

A full list of all the marinas used can be found in Appendix 1. Those marinas that were not used in the final analysis are marked in red font.

Marina Choice

Marinas were chosen on the basis that they were located on a coastline of the Atlantic

Ocean, North Sea, Baltic Sea Area and Mediterranean seas, and not inland waterways or lakes. In order to enable the correct level of discrimination between regions of each larger water body for the large Baltic Sea Area and Atlantic categories, specific subregions for the seas used were noted. The number of marinas in each regional sea is presented in Table 3 with the number of marinas found in each local water body are given in Table 4.

Table 3. Number of marinas identified in each regional sea and the main water body in which they are located

	Water Body		
Regional Sea	**Atlantic**	**Baltic Sea Area**	**Mediterranean**
Atlantic	11		
Baltic		38	
Baltic Transition		17	
English Channel	3		
Irish Sea	5		
Mediterranean			46
North Sea	28		
Grand Total	**47**	**55**	**46**

Marinas within the Baltic Sea area were further divided according to whether they were in either the 'transition zone' of the Baltic or the Baltic Sea. A hydrographic approach was adopted which is consistent with other approaches adopted elsewhere (Magnusson and Norén, 2012). The Baltic Sea and Baltic Transition areas are defined as being separated by the Darss sill, 18m deep which separates the Great Belt and the Arkona Basin, and the Drogden sill, 7m deep which separates the Sound from the Arkona basin. On this basis the Great Belt, the Sound, the Little Belt and the Kattegat form the Baltic Transition area in this report (Jakobsen, 1995) (Fig. 1).

Figure 1. Separation point between the Baltic Sea and the Baltic Transition area (red lines) as defined on the basis of the Darss sill separating the Arkona bay from the Great Belt and the Arkona basin from the Sound.

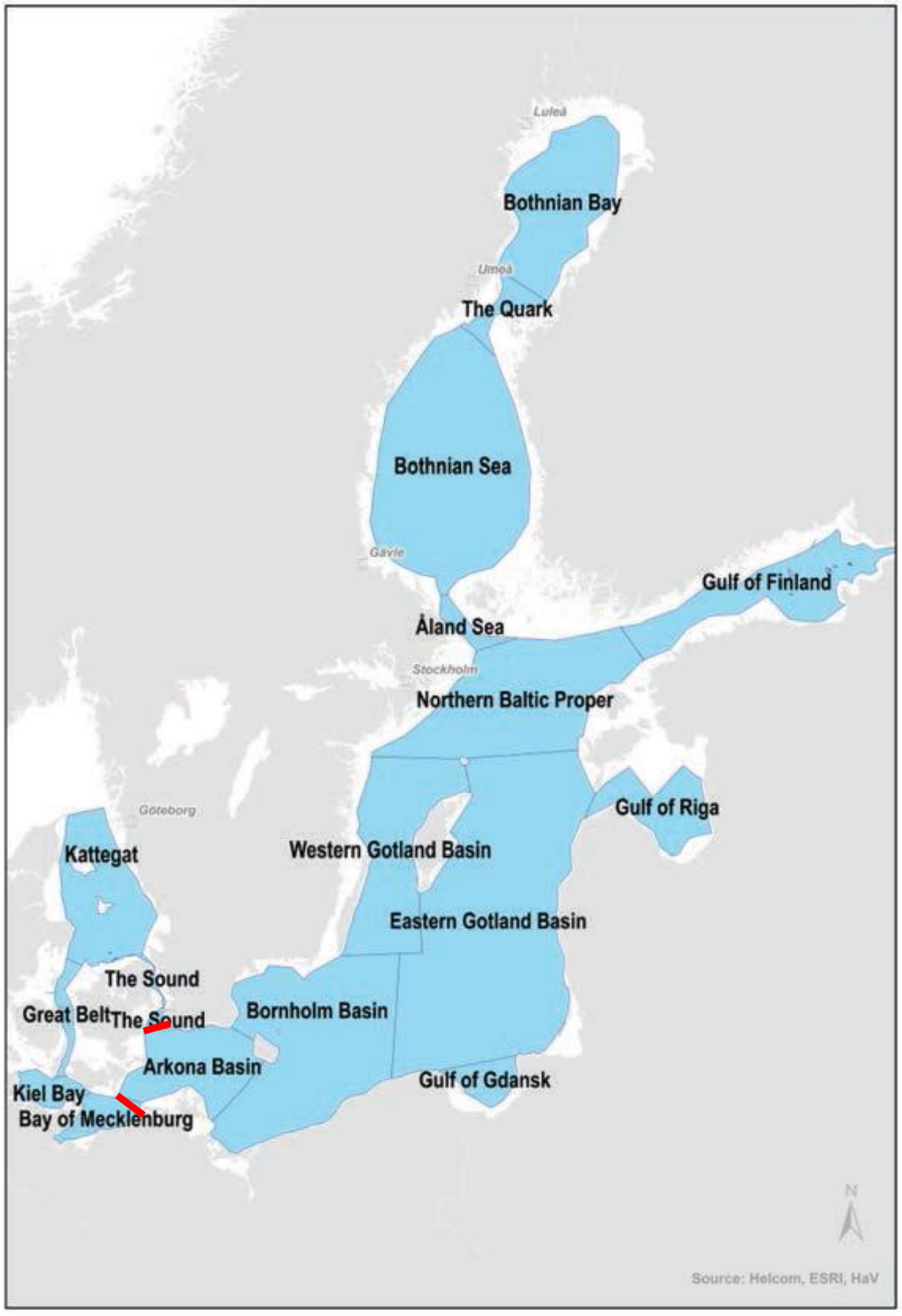


Table 4. Number of marinas found in each locality and the regional sea in which they are located

	Regional Sea						
Locality	**Atlantic**	**Baltic**	**Baltic Transition**	**English Channel**	**Irish Sea**	**Mediterranean**	**North Sea**
Aland Sea		1					
Arkona Basin		1					
Atlantic	11						
Bay of Mecklenburg			3				
Bornholm Basin		5					
Bothnian Sea		2					
Eastern Gotland Basin		3					
Elbe							1
English Channel				3			
Gdansk Bay		3					
Great Belt			3				
Gulf of Finland		7					
Gulf of Riga		6					
Ijsselmeer							1
Irish Sea					5		
Kattegat			4				
Kiel Bay			5				
Lauwersmeer							1
Mediterranean						46	
North Sea							22
Northern Baltic Proper		5					
Oslo Fjord							2
Roskilde Fjord			1				
Skagerrak							1
The Quark		4					
The Sound			1				
Western Gotland Basin		1					
Grand Total	**11**	**38**	**17**	**3**	**5**	**46**	**28**

To ensure that the maximum data set was available for each specific marina the following three websites were used:

1. Blue Flag (http://www.blueflag.org)
2. Marinas.com (http://marinas.com)
3. Portbooker.com (http://www.portbooker.com)

The Blue Flag is an eco-label awarded to over 3200 beaches and marinas in 37 countries across Europe, South Africa, Morocco, Tunisia, New Zealand, Canada and the Caribbean. It is owned and run by the independent non-profit organization Foundation for Environmental Education (FEE) and works towards sustainable development of beaches and marinas by applying strict criteria related to water quality, environmental education and information, environmental management, safety and other services (Blue Flag, 2008). The Blue Flag website provides data on a marina's depth and the number of vessels that can be moored in a marina. It also has links to the official websites of marinas, which display longitude and latitude so that the marinas' positions can be located on Google Earth.

Marina.com displays photos of worldwide marinas at different angles. These images were cross-referenced with those in Google Earth to confirm the accuracy of measurements taken from Google image or predicted vessel occupancies (where necessary). The website also provides locations and contact details of marinas, along with local weather.

Portbooker.com is an online nautical guide with information on more than 8000 marinas. It includes an online mooring reservation system. The position, moorings,

draught max and length max of most marinas are provided.

Figure 2, 3 and 4 provide an example of measurements taken using the Google image.

Figure 2: The length of Penzance Marina (50° 7'5.46"N, 5°31'50.27"W).

Figure 3: The width of Penzance Marina (50° 7'5.46"N, 5°31'50.27"W)

Figure 4: The entrance width of Penzance Marina (50° 7'5.46"N, 5°31'50.27"W).

Tidal Difference

The tidal differences of the marinas (average height between mean low water and mean high water) was collected mainly using the following websites:

1. Admiralty EasyTide (http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/index.aspx)
2. BSH (http://www.bsh.de/en/index.jsp)

Admiralty EasyTide provides a comprehensive tidal prediction service for over 7000 ports worldwide. The website enables users to select the date of their prediction up to 50 years in the future and access tide predictions for 7 or 14 days at a time. BSH gives the times of high and low water displayed for 7 days at selected tide gauge locations for the German North Sea coast. The average tidal difference between minimum and maximum tide heights over 7 days was calculated for the nearest prediction reporting location provided on the website to the marina in question. the website given on the website to the marina in question. Tidal data was taken during the month of August.

Salinity

Whilst it is generally accepted that seawater salinity is typically of 35 parts per thousand grams (psu) of water (Environmental Protection Agency USA, 2008) coastal values and concentrations between discrete water bodies such as the Baltic and Mediterranean seas will vary in comparison with this typical value. Data for specific marinas is limited so values available from the adjacent area to the marina were used wherever possible.

Average Water Temperature

Sea surface temperature (SST) data was collected from marine weather and environmental research websites. Annual average SST was used in final analysis to avoid seasonal high and low values.

pH-value

Sea surface pH for marinas was collected from the International Council for the Exploration of the Sea (ICES) website (http://www.ices.dk/indexfla.asp). ICES coordinate and promote marine research in the North Atlantic, as well as the Baltic and North Seas. ICES provide a large amount of data collected from a wide range of research studies and historical data. Marina specific data were not available however pH values were recorded during the sampling as part of a research cruise (on board research vessels) or survey buoys are available. Data locations are listed in the reports on the ICES database and values that were closest to each marina were used.

Dissolved Organic Carbon Values

Dissolved Organic Carbon data was collated from peer reviewed journal data for the key coastal water bodies that were determined to be in closest proximity to the coastlines occupied by each marina. Collecting individual DOC data for each marina was beyond the scope of this study.

3. Data Analysis

Two multivariate techniques were applied to the data to determine how (if at all) individual marinas should be grouped together and to identify the key parameters that drive similarity between marinas separated out into a specific group. Cluster analysis was used to group marinas on the basis of their similarity to each other taking into account all the individual variables measured, whilst canonical discriminant analysis was used to identify which of the variables has the strongest effect on grouping the individual marinas within the groups. All data analysis was undertaken using IBM SPSS Version 21. Details of each method are given below.

Cluster Analysis

Hierarchical cluster analysis was used to determine how the marinas identified in the study can be grouped on the basis of the parameters measured. This approach makes no assumption regarding how many clusters there should be and works by creating gradually larger clusters of marinas on the basis of how similar each set of dimensions are to each other. This creates a hierarchy of clusters containing similar marinas.

Therefore, as one moves up the hierarchy the marinas become increasingly dissimilar. The analysis works by creating increasing large clusters of similar marinas. Once a marina has been assigned to a cluster it cannot be removed from it as the clustering continues. Eventually the method results in one large cluster containing all of the marinas.

These clusters are then displayed in a Dendogram (e.g. Figure 11) where each cluster is defined by a vertical line. How large the cluster is will depend upon how far up the dendogram you move. In the case of Figure 11 this means how far from left to right you move through the diagram. The closer to the left of the dendogram you are the smaller the cluster and hence the closer you are to defining individual marinas. The further you are to the right the larger the cluster and hence the closer you are to groping all marinas together.

Establishing how many clusters is appropriate was determined on the basis of defining the level at which the number of clusters made sense based on the characteristics of the marinas within the cluster. For example if all the marinas from the 'Atlantic' water body fall into a cluster and all the marinas from the 'Baltic Sea Area' water body fall in another cluster with the 'Mediterranean' water body marinas in a third, then it follows that there should be three clusters.

This method was employed to determine whether it made sense to group marinas on the basis of either their main water body (e.g. Atlantic etc), Regional Sea (e.g. Baltic Transition) or Locality (e.g. Gulf of Finland).

By using this approach the appropriate level at which to group the marinas was determined in order to define the typical parameters for a marina from that group.

Canonical Discriminant Analysis

Canonical analysis is a multivariate analysis procedure for assessing the relationship between multiple variables on the subject of interest, in this case a marina. Essentially canonical analysis allows us to investigate the relationship between *two sets* of variables and is effectively a sophisticated means of undertaking multiple regression.

Having used the cluster analysis to determine how many groups of marinas there should be, discriminant analysis allows us to explore the relationship between all marina parameters (the first set of variables: average water temperature, pH, salinity, tidal difference, number of vessels and volume) and the group in which the marina is found (the second set of variables: for example water body: Baltic Sea Area, Atlantic, and Mediterranean Sea). The results will help to confirm whether marinas can accurately be defined by the suggested grouping from the cluster analysis. The results of the analysis also allows the identification of those parameters that have the greatest effect on how the group is defined (e.g. whether Salinity has a greater effect on how marinas are grouped – clustered- than temperature).

4. Results

Tidal Difference

Data sources used for each marina location is provided in Appendix 5. The average tidal height for all marinas differs slightly from that for the OECD ESD which is 1.5. Table 4 gives an overview of the values determined from the data set and a break down by regional water body.

Table 4: Mean Tidal differences determined for each water body based upon corresponding values determined for marinas present within them

Water Body	*Average tidal Height (m)*	*Minimum Tidal Height (m*)*	*Maximum Tidal Height (m)*[$]
Atlantic	2.97(±1.17)	0.35(±0.83)	3.31(±1.33)
Mediterranean	0.53(±0.61)	0.21(±0.17)	0.74(±0.63)
Baltic Sea Area	0.20(±0.19)	0.04(±0.42)	0.32(±0.56)
EU Average	**1.21(±1.44)**	**0.21(±0.56)**	**1.51(±1.62)**

* height below mean sea water level. [$] height above chart datum

Salinity

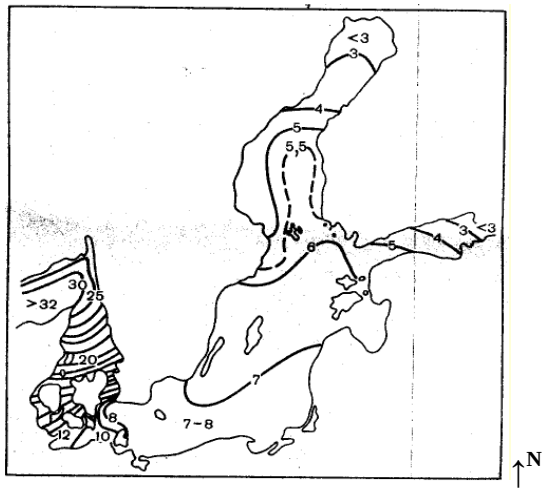
Local salinity values were chosen that were as close to each marina as possible. Full details of data sources are given in Appendix 5. Summary information for each particular region is provided below.

The Baltic Sea

The Baltic Sea is the second largest body of brackish water in the world (after the Black Sea) (Ministry of the Environment, 2008). Whilst waters of highest salinity will pass through the Danish straits there is still a significant mixing with the outflowing water diluting water entering the Baltic. This combined with significant freshwater inputs to the Baltic considerably reduces the salinity within the Baltic relative to oceanic levels. Salinity in the southern Baltic (i.e excluding the bay of Bothnia in the North) varies from < 7 psu in the Summer to < 6-8 psu in the Winter. The salinity steadily decreases towards the North and East. In the northern part of the Gulf of Bothnia the salinity levels are low enough to allow freshwater species to colonise this region (Figure 5). Marine species' biodiversity follows a decrease in Baltic Sea Salinity (Aladin et al., 2006). As the entrance to the Baltic Sea is shallow, it restricts

the exchange of water with the North Sea (Glasby and Szefer, 1998).The salinity gradient is paralleled by a temperature gradient. These two factors limit many species of animals and plants to a relatively narrow region of the Baltic.

Figure 5: Salinity (‰) in the Baltic Sea and in the zone of transition to the North Sea in August and average values for the year (lower figure)



Surface salinities in the Baltic. Hermanni Backer:
http://www.itameriportaali.fi/en/tietoa/veden_liikkeet/en_GB/hydrografia/

Poland (Bay of Gdansk)

The salinity of surface water of the Bay of Gdansk varies from 7.3‰ to 8.4‰, but is lower in the vicinity of the Vistula River 5.5‰-6.2‰ (Figure 6). Salinity is strongly influenced by the inflow of the Vistula River (Glasby and Szefer, 1997). Salinity values for Polish marinas were based on data from Glasby and Szefer 1997.

Figure 6: A map of the Vistula River in Poland.

West Estonia and Latvia (Gulf of Riga)

The salinity in the Gulf of Riga varies from 4 to 7 psu (in near-coastal areas it is 0-2 psu). West of the Estonian Islands and at the mouth of the Gulf of Finland, at a depth of 60–70 m (at approximately 8‰ water salinity), there is a sharp transition between the upper water layer of low salinity (5–7‰) and the bottom water layer of relatively high salinity. As this significantly affects the vertical mixing of water, several hydrological, chemical and biological processes in these layers differ. To account for this surface water salinities were used to

reflect the shallow depths observed in marinas.

Finland and Estonia (Gulf of Finland)

The waters of the Gulf of Finland are among the freshest in the Baltic Sea (Britannica Online Encyclopedia, 2008). The salinity of the brackish waters decreases from 6 ‰ in the Western part to 2 ‰ in the Eastern part of the gulf. Marinas Dirhami (59°12.68' N, 23°30.07' E), Lohusalu (59°24.15' N, 24°12.39' E), and Tallinn – Pirita (59°28.23' N, 24°49.10' E) in Estonia are located in the Gulf of Finland.

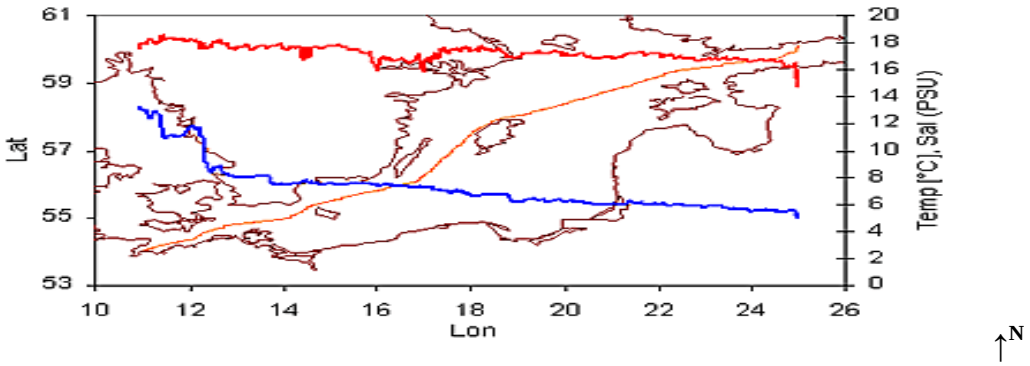
Finland and Sweden (Bothnian Bay)

Bothnian Bay in the Northern Baltic Sea is characterized by a stable north-south salinity gradient (0.4-3.3 psu) as a result of river runoff and the absence of tides (Busse and Snoeijs, 2002). Salinities higher than 5‰ can be occasionally recorded north of the Quark. For most parts of the area the surface salinity is 3‰-4‰.

Germany (The South Baltic Sea)

Germany's east coast lies on the Baltic Sea. Salinity data collected for the east coast marinas were taken from data for the sailing route of the vessel depicted by the orange line in Figure 7, which is the route of the commercial ferry travelling from Travemünde to Helsinki (Finnish Institute of Marine Research (Finnmaid 15 - 16 July 2008)). The closest measurement point to each marina was used.

Figure 7: Surface water temperature (red) and salinity (blue) along the route of the ferry Finnmaid (Travemünde - Helsinki). Data: Finnish Institute of Marine Research (Finnmaid 15 - 16 July 2008).



North Sea

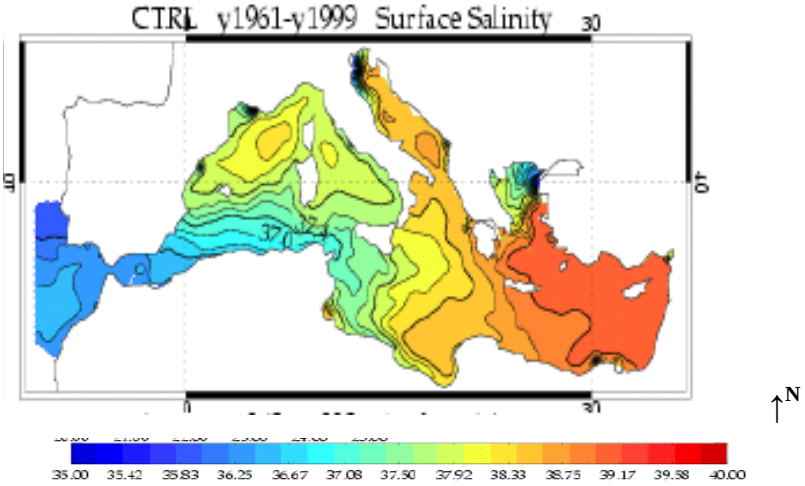
The North Sea lies between Norway, Denmark, Germany, the Netherlands, Belgium, France and the UK. It links up with the Atlantic Ocean to the north and also the south-west via the English Channel. The average temperature of the North Sea is 21°C and its tidal difference is between 0-8m. The North Sea's salinity is 34 à 35 g salts per litre of water (The Management Unit of the North Sea Mathematical Models, 2000). Most of the salinity data were collected from the ICES website, which provides pH value and sea water temperature at the same time. For the purposes of this study marinas located in the North Sea and English Channel have been categorised as 'Atlantic' marinas.

Mediterranean Sea

The Mediterranean Sea connects with the Atlantic Ocean through the Strait of Gibraltar, with the Black Sea through the Dardanelles, the Sea of Marmara, and the Bosporus, and with the Red Sea through the Suez Canal. Its chief divisions are the Tyrrhenian, Adriatic, Ionian, and Aegean seas. The sea is of higher salinity than the Atlantic. The salinity of marinas in the Mediterranean Sea were based on those

provided by Sevault *et al* (2004: Figure 8).

Figure 8: The regions of the Mediterranean Sea studied: surface salinity (F.Sevault, et al. 2004).



Summary data

As discussed above the salinity of European marine waters varies widely within water bodies and between them. Table 5 summarise the values determined for the marinas used in this study. For all of the marinas investigated average salinity was 25 PSU (range 2-39.52). Only those marinas located on the Atlantic had PSU values similar to that considered to be the norm for seawater (average PSU 30.68 as opposed to 35PSU), but even these differed from the OECD ESD value of 34PSU. Lower values would be expected given that the majority of marinas tend to be located in estuaries where there will be an effect of freshwater from the river discharging into the estuary.

Table 5: Details of salinity levels for each water body based upon corresponding values determined for marinas present within each of them.

Water Body	*Average Salinity (PSU)*	*Minimum Salinity (PSU)*	*Maximum Salinity (PSU)*
Atlantic	31.4	17.0	37.0
Baltic Sea Area	9.4	2.0	33.0
Mediterranean	37.8	36.3	39.52
EU Average	**25.2**	**2.0**	**39.52**

Average Water Temperature

Baltic Sea

In Winter, the temperature of the water surface in the central part of the Baltic Sea is 1°–2°C, while in bays and coastal areas covered with ice it is slightly below 0°C (water in the coastal areas freezes at –0.2° to –0.4°C). Maximum water temperatures can be measured in July–August, when the water temperature in the sea areas west of islands and at the mouth of the Gulf of Finland is 16°–17°C, and the water temperatures in the coastal sea of the Väinameri Sea and of the Gulf of Finland, which are both separated from deep seas, are 18°–19°C. The data shown in Figure 9 compares the central basins of the Baltic Sea in July 2005 with the mean value of 1990 – 2004, as well as with July of the previous year for the marinas in the east of Denmark, Germany, Sweden and Finland (Herbert Siegel and Monika Gerth, 2005)

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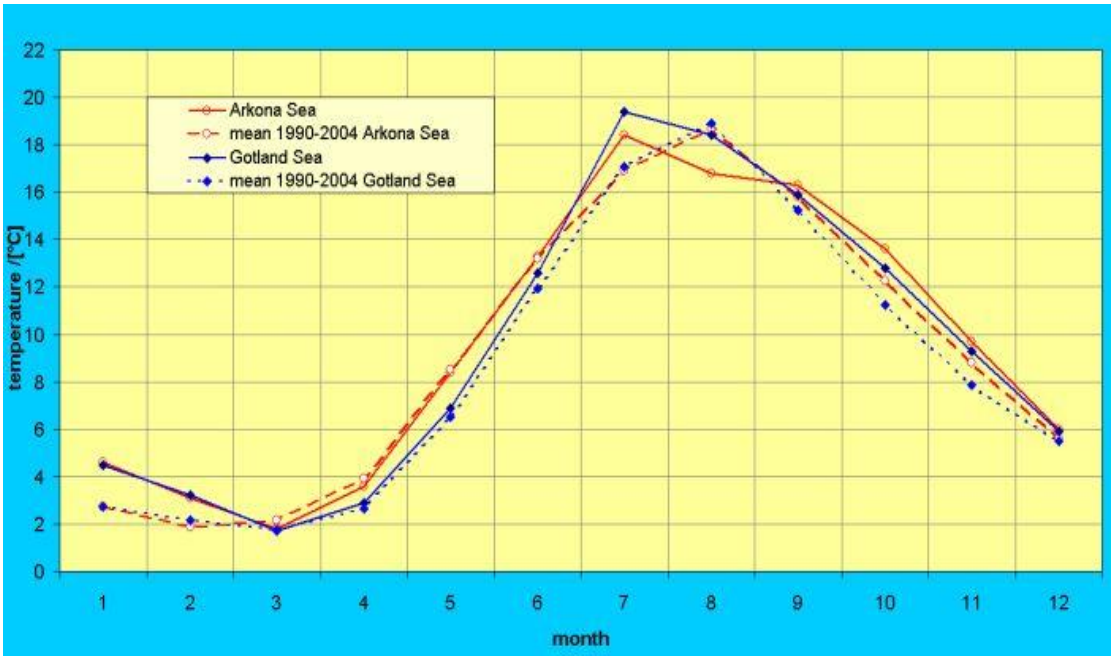
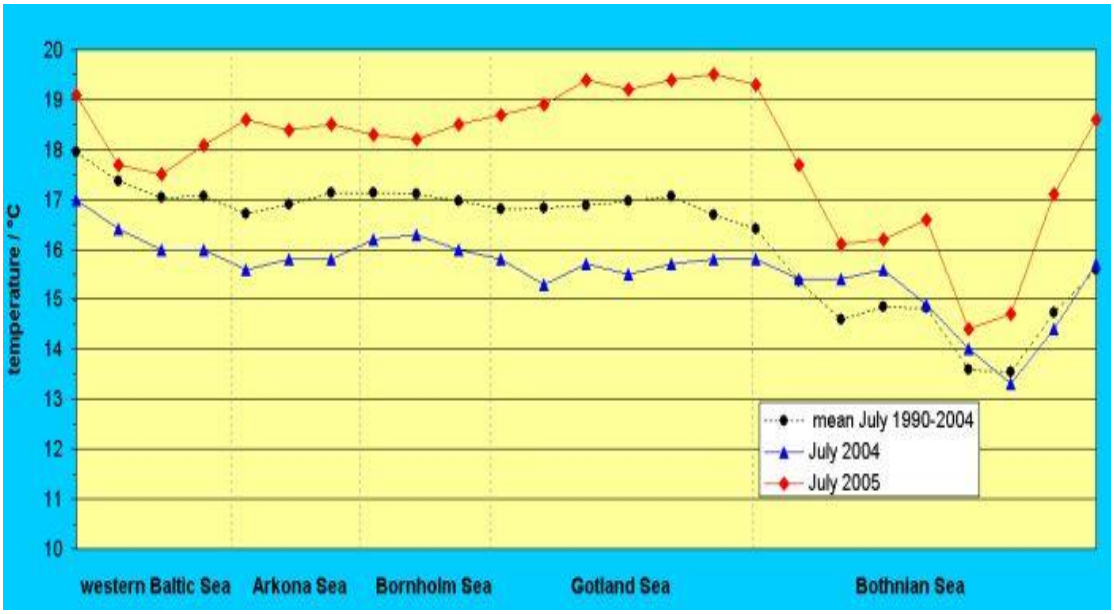
Figure 9: Temperature distribution along the transect through the central basins of the Baltic Sea in July 2005 in comparison with the mean value of 1990 – 2004 and July of the previous year.





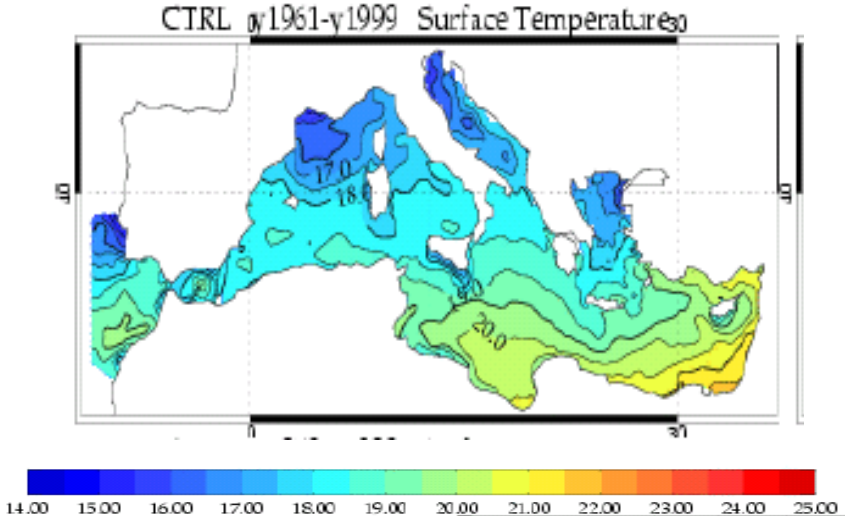
North Sea (Norway, Denmark, Germany, Netherlands, Belgium, France, Ireland)

The monthly mean temperature in January 2007 was 8.3 C, which was 1.7 C above the climatologically mean (rank 1 among the highest January mean since 1971). In June**,** the mean sea surface temperature rose to 13.2 °C and exceeded the climatologically mean by 1.2 C (rank 4) (MURSYS - North Sea and Baltic Sea - Report 1, 2007).

Mediterranean Sea (Cyprus, Greece, Italy, Malta, Spain, Slovenia, France)

Sea surface temperature is based on the annual mean value of 1961-1999 (Figure 10). However, according to the latest report, temperatures have increased by about 2.5℃ at the end of the 21st century over the entire basin (Sevault et al., 2004); hence, the data which were used may lack some accuracy in this regard.

Figure 10: The regions of the Mediterranean Sea studied: Sea temperature (F.Sevault, et al. 2004).



Summary Data

Average water temperatures vary widely throughout the year and as you traverse the EU water bodies from North to South. The waters of the Mediterranean reached a peak value of 33ºC for the data set obtained for those corresponding marinas, with the lowest winter temperature observed in the Baltic marinas (-1ºC). The EU average value for the data set was 15ºC (Table 6) which corresponds with the OECD EU Commercial harbour value but is lower than the assumed value for the OECD EU marina (20ºC). Both values are significantly higher than that recommended by the Technical Guidance Document (TGD, Part II, 2003).

Table 6: Details of water temperature for each water body based upon corresponding values determined for marinas present within each of them

Row Labels	*Average Water Temperature (°C)*	*Minimum Winter Temperature (°C)*	*Maximum Summer Temperature (°C)*
Atlantic	13.44 (±3.73)	9.00	23.00
Mediterranean	19.45(±2.51)	16.00	27.50
Baltic Sea Area	10.93(±1.51)	8.50	16.25
Grand Total	**14.38(±4.46)**	**8.50**	**27.50**

pH value

Local pH values for measurements taken as close to each marina as possible; full details of data sources and recorded values are given in Appendix 5. A summary of the values determined is listed in Table 7. The average pH value across all water bodies

(approximately 8) is in agreement with both the TGD (TGD, 2003) and the OECD ESD values for the marina.

Table 7: Average pH for each water body based upon corresponding values determined for marinas present within them

Row Labels	*Average of pH*	*Min of pH*	*Max of pH*
Atlantic	7.76 (±0.54)	6.5	8.44
Mediterranean	8.19(±0.28)	6.9	8.93
Baltic Sea Area	8.12(±0.39)	6.80	8.82
Grand Total	**8.03(±0.45)**	**6.5**	**8.93**

Dissolved Organic Carbon Values

Tables 8-11 provide summary data collected for key estuaries and water bodies relevant for the coast lines investigated in this report.

Table 8: Summary of DOC levels (ranges or averages) in Estuaries (Salinities >15%°) (from Abril et al., 2002)

Estuary	*DOC mg/L*
Scheldt	2.9-3.5
Rhine	1.8-2.4
Gironde	1.1-1.8
Thames	2.6
Elbe	3.1
Ems	5.1
Sado	3.6
Douro	1.9
Loire	2.4

Table 9: Summary of DOC levels in the North Sea and Atlantic (from Ferrari et al., 2000, Obernoster and Herdndl, 2000)

Study area	*DOC (Average (SD) or range) mg/l*	*Reference*
River Rhine Plume	6.5 (0.9)	Ferrari et al., 2000
Coastal N. Sea	4.4-9.9	Obernoster and Herdndl, 2000
Open ocean Atlantic	1.7 (0.9)	Ferrari et al., 2000
Atlantic Deep waters (>500m)	0.7	Ferrari et al., 2000

Table 10: Summary of DOC levels in the Baltic Sea (from Kulinski and Pempkowiak, 2008)

Baltic area	*DOC mg/L*	*Reference*
Gulf of Gdansk	4.2 - 4.6	Kulinski and Pempkowiak, 2008
S. Baltic	3.9-4.1	Kulinski and Pempkowiak, 2008
Gulf of Gdansk	6.2-7.7	Grzybowski and Pempkowiak, 2003
Gulf of Gdansk	5.8-6.2	Grzybowski, 2002
Gulf of Gdansk	5.3-6.5	Ferrari et al., 1996
S. Baltic	5.7	Ferrari et al., 1996
S. Baltic	3.2-6.2	Jurkowskis et al., 1976
S. Baltic	4.6-7.1	Pempkowiak, 1984
Gulf of Finland	4.35-5.28	Koivisto, S., 2003
Bothnian Bay	3.57-4.3	Koivisto, S., 2003
Gulf of Riga	6-8	TM e-consultation 2013
Latvian Coast	2.8-4.6	TM e-consultation 2013

Table 11 Summary of DOC levels in the Mediterranean Sea (from Doval et al., 1999 and Obernoster and Herdndl, 2000)

Study area	*Depth (m)*	*DOC range mg/l or mean (SD)*	*Reference*
Rhone River Tonge		4.0 (2.2)	Ferrari et al., 2000
NW Mediterranean-coastal	Surface water (5 yrs survey)	1-2.4	Cauwet et al., 1997
Gulf of Lyon deep and blue waters		1.6 (0.5) and 1.1 (0.4)	Ferrari et al., 2000
NW Mediterranean- open Sea	Deep water (5 yrs survey)	0.5-0.7	Cauwet et al., 1997
NW Mediterranean -open Sea	0-100	0.6-1.14	Doval et al., 1999
NW Mediterranean- open Sea	200-2000	0.5-0.8	Doval et al., 1999
N. Adriatic	0-200	0.9-1.8	Obernoster and Herdndl, 2000

For the purpose of this report data taken from the North Sea and Atlantic (both estuarine and open sea data) were pooled to define the typical DOC value for 'Atlantic' marinas. Table 12 provides a summary of the average values recorded for each set of marinas.

Table 12: Average Dissolved Organic Carbon values determined for each marina data set.

Marina Set	*Average DOC (mg/l)*	*Standard Deviation*
Baltic Sea Area marinas	4.8	1.0
Atlantic marinas	3.19	1.95
Mediterranean marinas	1.50	1.17

Given the very general nature of these data and the fact that very few of the measurements were in close proximity to individual marinas the average DOC values were excluded from the Canonical analysis. They are still relevant for use as part of

the scenarios defined in absence of more specific data for the individual marinas.

Marina Dimensions

The list of Marinas studied is given in Appendix 1. Marina dimensions were entered directly into SPSS to allow the Canonical Analysis. Summary statistics of the entire data are given in Table 13.

Table 13: Average marina dimensions for all marinas sampled in the study (n = 148)

Marina Dimensions	*Mean*	*Min*	*Max*	*Standard Deviation*
Length	398	56	1250	217
Width	207	34	809	121
Depth	5	1.2	18	3
Entrance Width	79	6	600	75
Tidal Difference	1.18	0	5.00	1.44
Maximum Occupancy	392	10	2588	396
Maximum Vessel Length	35	5	120	24

Cluster Analysis

The Cluster function in SPSS 19 was used to agglomerate the marinas from the bottom up, i.e. looking to group marinas in increasingly large clusters as the analysis proceeds. Proximity measures based upon the following parameters were used to define the clusters:

- Marina Length

- Marina Width
- Marina Depth
- Entrance Width
- Tidal Difference
- Maximum Vessel Occupancy
- Maximum Vessel Length
- Salinity
- Average Water Temperature
- pH

The squared Euclidean distance (the square of the difference between two values) was used to determine the separation of marinas in the cluster analysis and the data were standardised to 'z' scores with a mean value of 0 and a standard deviation of 1. This was done to prevent the different scales from having a disproportionate effect on the clustering; e.g. marina length (min 56m, max 1250) and pH (min 6.5, max8.9) in effect giving equal value to all of the parameters in terms of the importance each has on clustering.

SPSS was used to draw a dendrogram in order to determine the number of clusters that is reasonable for the data set (Figure 11). The dendrogram is a graphical summary of the cluster analysis. Marinas are listed along the left vertical axis. The horizontal axis shows the distance between clusters when they are joined. Full details of the SPSS input files and Results (including the average linkage values within

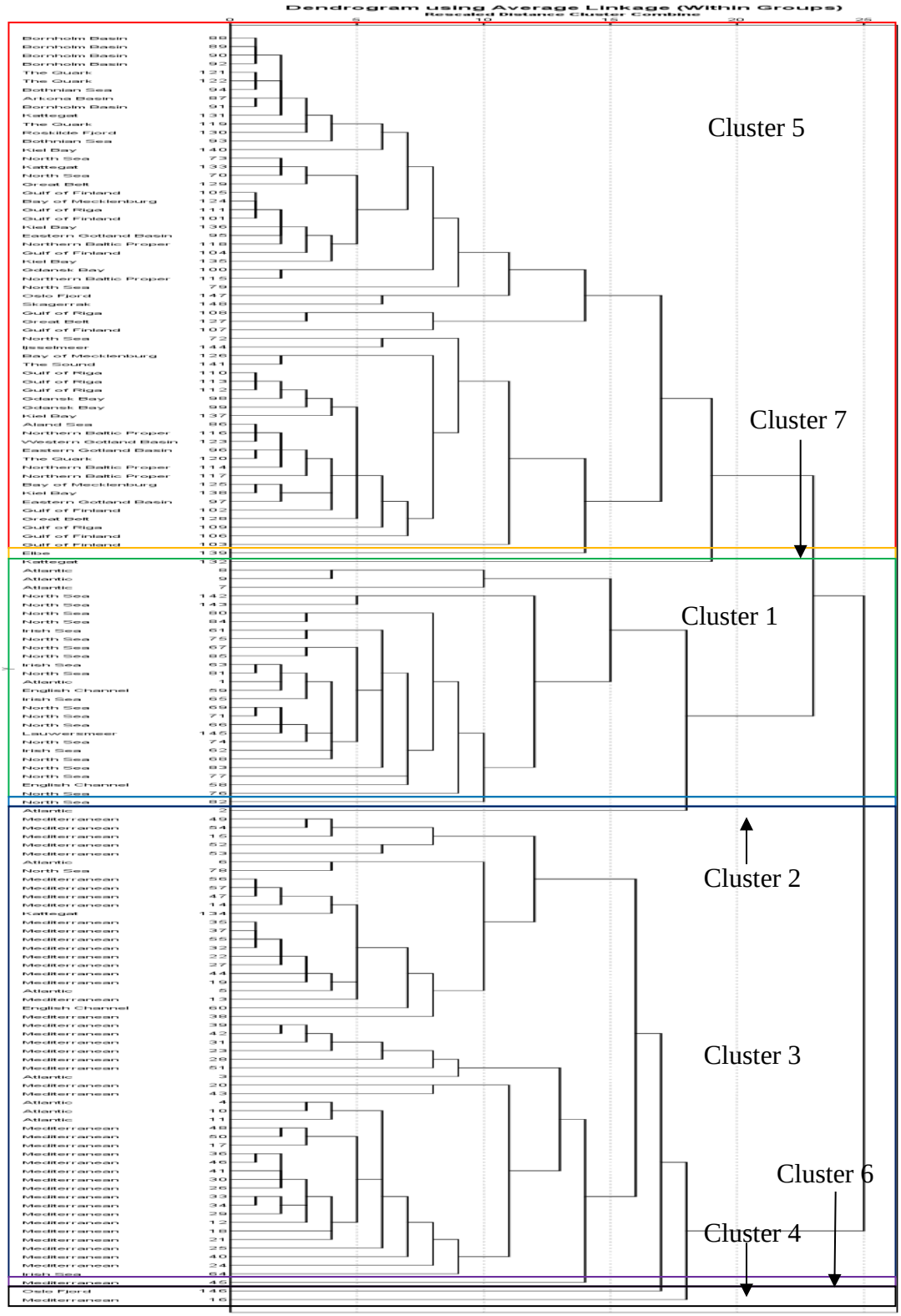
groups) is given in appendix 5. The dendrogram is broken down into sections in appendix 8 so that labels and details are easier to read.

The core aim to the study is to determine if marinas naturally group together based upon their location in a given water body. Intuitively it is expected that marinas from the Atlantic, Mediterranean and Baltic Sea Area water bodies will be more different to each other than those found within each water body group. However, it is also reasonable to expect that there will be sub grouping within these water bodies, particularly in those regions with extremes of variation across one or more parameters. In this study the Baltic Sea Area and Atlantic regions have been identified as perhaps being the most significantly diverse in terms of the water properties of the regional sea (i.e. salinity, pH, and in the case of the Atlantic region tidal height). To determine if the clusters identified in the dendogram (Figure 11) matched the expectation that marinas found within a regional sea will group together, the marinas were grouped into 7 clusters to match the number of regional seas (i.e. there are 7 regional seas) identified based upon their similarity scores. Table 14 gives the results of the grouping and groups are drawn onto the dendogram.

Table 14: The number of marinas found in each of 7 clusters defined on the basis of the similarity coefficients between marinas found in each cluster.

		Cluster							Total
		1	2	3	4	5	6	7	
Sea Code 2 Name	Atlantic	4	1	6	0	0	0	0	11
	Baltic	0	0	0	0	38	0	0	38
	Baltic Transition	0	0	1	0	15	1	0	17
	English Channel	2	0	1	0	0	0	0	3
	Irish Sea	4	0	1	0	0	0	0	5
	Mediterranean	0	0	45	1	0	0	0	46
	North Sea	18	0	1	0	8	0	1	28
Total		28	1	55	1	61	1	1	148

Figure 11: Dendrogram of marinas found in the Atlantic, Mediterranean and Baltic Sea Area. Cluster membership assigned using squared Euclidean distances. Marinas are identified by their Locality within each 'Regional Sea'. Case numbers linked to each marina in the analysis are given at the end of each cluster arm. Results of dividing the marinas into 7 clusters to match the number of 'regional seas' are given by the overlaid boxes



The resulting review of the cluster analysis suggests that there are three natural clusters given that 4 of the marinas occupy 4 individual clusters. The four marinas in clusters 2,4,6 and 7 were:

- Marina Rubicon in Lanzarote (ES2)

- Porto de Setúbal (ES10)

- Herbern marina (NO1)

- Jyllinge Marina (Danish Authority – MST – Model marina: DK11)

Marina codes are given for each one and correspond to the marinas listed in Appendix 1 and 5. The remaining marinas group together in reasonable clusters, i.e. cluster three contains predominantly Mediterranean marinas, Cluster 1 contains those from regional seas that discharge join the North Atlantic and those in Cluster 5 are predominantly from the Baltic Sea Area. Interestingly the marinas of the 'Baltic Proper region and the Baltic Transition region do not form two discrete groups within the dendogram. Whilst they are all present in cluster 5 (the red box in Figure 11) they do not separate out into two discrete groups within the cluster.

Therefore on the basis of the similarity of each marina's parameters to each other marina the data set can be divided into three clusters: The Atlantic, Baltic Sea Area and Mediterranean.

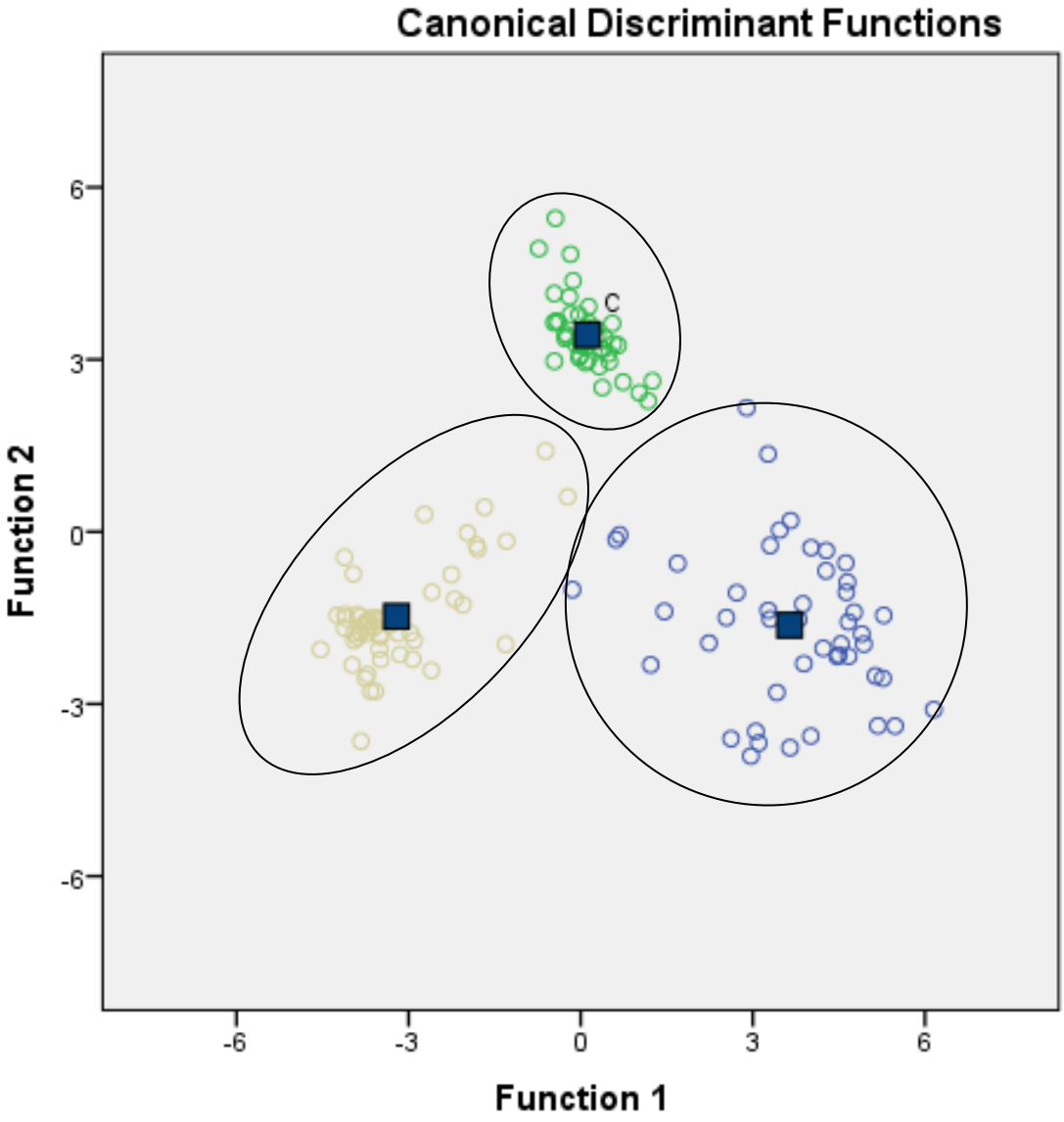
Canonical Analysis

Given that the cluster analysis showed that the marinas most reasonably group into three large clusters as opposed to 7 smaller ones based upon their regional sea

location the canonical analysis was used to determine which of the marina parameters measured were likely to have had the greatest influence on how the marinas were grouped. Whist the Canonical Discrimination Analysis (CDA) and cluster results are not directly related – cluster analysis looks at the absolute similarity of the marinas with *each other* based on their dimensions whereas the CDA looks at the relationship of measured parameters on the distribution of the marinas within the chosen water bodies, irrespective of their similarity to each other – it can provide valuable information on the relative importance of the parameters measured on determining which group a marina should go in. This in turn can help to inform why the marinas in the cluster analysis are organised the way they are.

The Canonical analysis calculated two canonical functions that accounted for all of the variance in the data set. Plotting each marina along these two functions showed that they aggregate in three clusters (Figure 12) showing that marinas from the Baltic Sea Area, Mediterranean and Atlantic water bodies form separate groups with closer associations with each other than those in any other group. As one would expect the Atlantic group is most variable whilst those within the Baltic Sea Area and Mediterranean are more tightly clustered.

Figure 12: Ordination plot of marinas along the two Canonical discriminant functions. Mediterranean green circles, Atlantic – blue circles, Baltic Sea Area – beige circles. Blue squares are the group centroid for each water body



The fit of the marinas to each of the groups is also very good. 95.7% of marinas from the Atlantic water body were in the Atlantic group, whilst all those from the Mediterranean water body were in the Mediterranean group. 96.4% of those marinas identified in the Baltic Sea Area were placed in Baltic Sea Area group. Table 15 lists the individual results

Table 15: The number of marinas found in each of 7 clusters defined on the basis of the similarity coefficients between marinas found in each cluster.

			Predicted Group Membership			
		Water Body	1	2	3	Total
Original	Count	Atlantic	45	1	1	47
		Mediterranean	0	46	0	46
		Baltic Sea Area	0	2	53	55
	%	Atlantic	95.7	2.1	2.1	100.0
		Mediterranean	.0	100.0	.0	100.0
		Baltic Sea Area	.0	3.6	96.4	100.0

The predicted group membership results show the number (or proportion) of marinas that have been placed in the three groups relative to the Water Body group that they were assigned to; i.e. it checks to see if the marinas that were pre-assigned to that Water Body are actually grouped with other marinas in that Water Body. If there was no relationship between water body and marina then you would expect the marinas to be randomly distributed and hence no grouping. Table 15 shows that 95.7% of the marinas in the Atlantic region were 'correctly classified', that is assigned to a predicted group with other marinas from the Atlantic sample. Only two of the Atlantic marinas were more similar to those in the second and third groups than the first. These results confirm that the marinas from each water body are genuinely different to marinas from other water bodies as in all cases 95% of the marinas or greater from each Water Body are assigned to the same group in the Canonical analysis.

As noted previously the Canonical analysis distributes the marinas along two axes

(the canonical functions; Figure 12) based on the relative affect of each of the marina parameters measured (length, width etc). Of the two functions, Function 1 accounts for the greatest amount of variance in the data set (60.3%, see eigenvalue Table in Appendix 4, Canonical analysis section) indicting that parameters found within that function have the greatest effect on distributing the marinas into groups.

Within these two functions Tide is the dominant positive variable accounting for the distribution of the marinas along Function 1 (canonical coefficient of 0.847 and Structure Matrix correlation of 0.728, appendix 4). For Function 2 the dominant positive variable is Salinity (0.678 and 0.668 for canonical coefficient and structure matrix correlation respectively, appendix 4). The dominant variables with negative coefficients were pH (-0.171 and -0.123 canonical coefficient and structure matrix correlation respectively, appendix 4) for Function 1 and Tide for Function 2 (-0.596 and -0.427 canonical coefficient and structure matrix correlation respectively, appendix 4)

The distribution of marinas on the ordination clearly reflects this (Figure 12) as Baltic Sea Area marinas (with lower tidal heights) are found to the far left of the plot (along the Function 1 axis) and those from the Atlantic area (with higher tidal heights) are found to the right. As expected there is a much larger spread of Atlantic marinas along Function 1 relative to the Baltic Sea Area and Mediterranean groups, reflecting the wider variation of tide heights found in these marinas (Atlantic 0.4-5m, Baltic Sea Area 0-1m, Mediterranean 0.1-1.1m). For Function 2 the marinas also follow the principle variable, Salinity, where Mediterranean marinas (typically having higher salinities) are at the top with the Baltic Sea Area and Atlantic marinas lower down the

axis (typically having low tidal heights) are found at the bottom of this axis. Again the spread of the data along this axis reflects the variability in each group with the Atlantic and Baltic Sea Areas having the broadest spread (Atlantic 17-37psu, Mediterranean 36-39psu, Baltic Sea Area 2-33psu). This also explains the categorisation of 2 Baltic Sea Area marinas in the Mediterranean group given that the Baltic Sea Area and Mediterranean seas have very low tidal heights you would expect similarities between some of the marinas due to the dominance of Tidal Difference in Function 1. The same can also be said for those Atlantic Marinas (n= 4) which occur in either the Mediterranean or Baltic groups. Tidal height is very variable across the Atlantic category (which includes the North Sea and English Channel) so it is to be expected that there would be some overlap with the two low tidal height groups.

Both the Mediterranean and Atlantic groups form groups which show reasonable associations. The Mediterranean group is tightly clustered with a few outliers, whereas the Atlantic group is more widely distributed but there is no real trend or separation of marinas within the group. In the case of the Baltic Sea Area there is the suggestion of a smaller sub set within the group that is separated from the more tightly clustered group to the left of axis 1. Marinas outside of this tight group appear to form a trend increasing as you move along both function 1 and 2. This suggests that for those marinas there is a steady increase in tide height and salinity. The likely explanation for this separation is the difference between those marinas in the Baltic Sea Area group which are in either the Baltic Transition region or Baltic region of the group.

Representative Marina Dimensions

According to the results of the Cluster analysis and the Canonical Analysis the marinas can effectively be grouped into three regions, Atlantic, Baltic Sea Area and Mediterranean on the basis that marinas within a group are more similar to each other than marinas of other groups. The cluster analysis takes into account the similarity of marinas to each other based on all the variables within the data set. Reviewing the assortment of the marinas in each of the three main groups of clusters it is clear that the marinas separate out according to the Water Body to which they belong (i.e. Mediterranean marinas are always found in group 3, and the Baltic Sea Area marinas are always found in group 5. The Atlantic marinas are predominantly found in group 1with some present in both group 3 and 5 which reflects the varied nature of those marinas in terms of their location (e.g., Irish Sea, English Channel etc). Reviewing the clustering of the marinas within Group 5 (those predominantly from the Baltic Sea Area) it is apparent that marinas from the Baltic proper and those from the Baltic transition zone are not separated into different clusters as you would expect. This suggests that marinas from that region are generally similar to each other when you look at all the parameters together.

The Canonical analysis also supports the clustering of the marinas into three groups, reflecting the Mediterranean, Baltic Sea Area and Atlantic water bodies, however, it further identifies the key parameters measured that accounts for the difference between the marinas. The analysis shows that the marinas are separated out on the basis of their tidal height, pH and Salinity. It also shows an apparent trend in the Baltic Sea Area showing that some marinas are separate from the core group of marinas and distributed along the axes according to increasing tide height and salinity.

Whilst individual marinas are not identified in the canonical ordination plot the likely explanation is that these are the marinas from the Baltic Transition area. Therefore it is not unreasonable to suggest that these marinas could be managed as two separate marina scenarios within the Baltic Sea Area Group.

One likely explanation why the cluster analysis does not separate out the marinas in the different regions of the Baltic Sea Area is that the similarity in terms of the marina dimensions over rides any underlying differences based upon the hydrology of the marina; i.e. the cluster analysis shows that the marinas in each of the groups of the cluster analysis are of similar dimensions but not necessarily similar hydrology.

The average marina parameters for each Water Body are given in Table 16. For reference the average parameter values for all marinas (effectively a typical EU marina) and the OECD ESD marina are also included. The average parameters of the Baltic Sea and Baltic Transition regions are also included.

5. Discussion

With respect to defining a set of standard parameters for use in risk assessments of antifoulings there are options that should be considered. The intent of this study was to determine if a typical EU marina could be defined. To some extent this can be achieved if the hydrological measurements for salinity, tidal height, pH and water temperature are excluded. Marinas found in each water body have similar characteristics in terms of the dimensions according to the cluster analysis. Therefore marinas can effectively be grouped on the basis of which water body they are located

in: The Baltic Sea Area, the Mediterranean or the ‘Atlantic’ (which includes the North Sea, English Channel and Irish Sea).

The dominant parameters which account for differences amongst all the marinas are tidal height, salinity and pH. The remaining parameters have much weaker associations with the canonical functions derived from the data and therefore play a far smaller role in defining which group a marina belongs to. Within the three groups identified by the canonical analysis only Baltic Sea Area shows any suggestion of there being subdivisions within the group. Based on the distribution along the axes in the knowledge that the key parameters are tidal height and salinity it is reasonable to assume that it is those marinas based in the transitional zone of the Baltic Sea which are separating from the main group. The areas within the Baltic Transition zone for use in this study included the Bay of Mecklenburg, The Great Belt, the Kattegat, Kiel bay, Roskilde Fjord and the Sound. Based on this the Baltic Sea Area water body has been broken down into two sub regions for consideration as distinct marina scenarios.

Further analysis of the marina dimensions reveals that there is very little difference in surface area per boat value between the Atlantic, Mediterranean, Baltic, and Baltic Transition regions suggesting that irrespective of where the marina is located, marinas are designed according to similar rules governing how many vessels you can safely accommodate whilst accounting for practical requirements such as providing room for manoeuvre. This is largely down to the fact that there will be regulations (or codes of practice) dictating maximum occupancy rates for marinas and minimum space for individual vessels. The typical minimum space allowed for a yacht berth is at least 1.5 times the length of the berth (or length of vessel; International Council of Marine

Industry Associations, 2006). This is clearly supported by the data set used here where the average values were all comparable to each other: 246 and 233, 227m2/boat (for the Baltic, Atlantic, and Mediterranean marinas respectively). The only exception to this was for the Baltic Transition marinas which have a lower surface area to boat ratio of 139 m2/boat. Whether this is as a result of the sample of marinas used, or a genuine trend for marinas in that region is not clear.

This report provides a base data set to define the typical marina scenario dimensions for an Atlantic, Baltic Sea Area (or Baltic and Baltic Transition zone) and Mediterranean marina scenario for use in EU risk assessment. Given the size of the data sets provided for each Water Body (approx 50 marinas for each sea) the typical marinas defined can be considered to be representative of marinas found in each of the regions and can be adopted by Members State countries that have a coastline on the particular water body of interest.

The dimensions defined can be used directly in the MAMPEC 2.5 risk assessment software for the purpose of product authorisation of antifouling paints. Guidance provided within the OECD ESD and decisions made as part of the Technical Meetings of the Biocidal Products Directive should also be taken into account when interpreting the results from such evaluations. It is important to acknowledge that protection goals will vary and that currently authorisation of active substances focuses on the risk assessment of the water body immediately outside of the marina or harbour as opposed to within the harbour.

Table 16: Parameter mean values of Atlantic, Baltic, and Mediterranean Sea and all marinas used in analysis. For comparison the OECD Environmental Scenario Document marina has been included..

Regional Mean Value/ Parameters All values ± Standard Deviation except OECD Marina	Unit	OECD Marina*	All Marinas	Atlantic	Baltic Sea Area	Mediterranean	Baltic Sea	Baltic Transition
Marina Length	m	141.5	398±217	436±241	294±171	483±196	275±164	339±183
Marina Width	m	141.5	207±121	215±145	162±101	254±98	148±97	192±105
Marina Depth	m	4	5±3.0	5±3.7	4±1.9	6±2.8	4±2.2	4±1.3
Entrance Width	m	100	79±75	68±53	79±101	91±56	79±77	80±143
Tidal Difference	m	1.5	1.2±1.4	3±0.9	0.2±0.18	0.4±0.25	0.12±0.05	0.4±0.25
Maximum Vessel Occupancy	--	276	392±396	403±356	259±294	540±486	165±151	469±414
Maximum vessel length	m	50	35±24	32±22	28±22	47±24	27±21	32±26
Salinity	PSU	34	25±13	31±5.7	9.4±6.7	38±0.9	6±2.1	17±8.3
Average water temp	^{o}C	20	14±4.5	13±3.7	11±1.5	19±2.5	11±1.5	12±1.3
pH		8	8±0.5	8±0.5	8±0.4	8±0.3	8±0.4	8±0.3
DOC[$]	mg/l	2	--	3.2±1.9	5.2±1.1	1.5±1.2	5.4±1.1	5.4±1.1
Marina Surface Area	m^2	20022	82,386.00	93,740.00	47,628.00	122,682.00	40,700.	65,088
Surface Area per boat	m^2	73	210	233	184	227	247	139
Marina volume	m^3	80089	411,930	468,700	190,512	736,092	162,800	260,352
Volume per boat	m^3	290	1,050	1,163	735	1,363	987	555

* number of vessels moored amended to 276 as per TM meeting guidance
[$] Average values taken from references and not from canonical analysis due to lack of marina specific data

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7. Appendices

Appendix 1: Marina list.

Those entries in red were excluded from the analysis.

	Marina	Address	Phone	Fax	E-mail	Website
BE1	Royal North Sea Yacht Club	Montgomerykaai 1, Oostende, 8400	0032 (0)59-50.59.12	0032 (0)59-51.32.70	robert@rnsyc.be	http://www.rnsyc.be/ostend/
BE2	Royal Belgian Sailing Club Zeebrugge	Isabellalaan 1, B-8380 Zeebrugge	(+32) 54 49 03	(+32) 54 49 03	zeebrugge@rbsc.be	www.zeebruggeport.be
BE3	Mercator Marina	W. Churchillkaai, Oostende, West-Vlaanderen	0032 0)59 70 57 62	0032 0)59 70 57 65	Info@mercatormarina.be	http://www.mercatormarina.be/dok/defaulteng.html
BE4	VVW Westhoek Sparrbekken Basin Marina	IJzer 55, Nieuwpoort, 8620	0473 56 27 16		www.westhoek@telenet.be	http://www.vvw-westhoek.be/
BE5	WSKLuM	Halve Maanstraat, 2 b , Nieuwpoort, B-8620	0032(0)58/23.36.41	0032(0)58/23.98.45	info@wsklum.be	http://www.vvw-westhoek.be/
BE6	De Vrije Noordzeezeilers	De Vrije Noordzeezeilers De Smet de Naeyerlaan 1 8370, Blankenberge	(+32) 50 42 52 92	(+32) 50 42 61 38	vnz@skynet.be	www.vnzblankenberge.be
BE7	Koninklijke Yacht Club Nieuwpoort	Kromme Hoek, 8620 Nieuwpoort, West-Vlaanderen	058 / 23.44.13	058 / 24.03.59	info@kycn.be	http://www.kycn.be
BE8	Blankenberge Marina	Wenduinsesteenweg 3-4, Blankenberge, B-8370, Belgium	0032 (0)50 41 75 36	0032 (0)50 41 76 37	info@wwblankenberge.be	http://www.vvwblankenberge.be/welkom.html
CY1	Larnaca Marina	Larnaca Cyprus	35704653110	35704624110	larnaca.marina@cybnet.com.cy	http://www.loviisa.fi/index.php?cid=loviisa&mid=178
CY2	Saint Raphael Marina / Sheraton Marina	St Raphael Marina, Amathus Avenue, PO Box 51933, Limasol, 3509 Cyprus	357-25-321 100 /	357-25-329 208	marina@raphael.com.cy	www.raphael.com.cy

	Marina	Address	Phone	Fax	E-mail	Website
CY3	Delta Marina	Yeni Turizm Limanı içi - North Cyprus Kyrenia Mersin 10 Turkey	90 392 815 54 91	90 392 815 82 12	gemdelta@analiz.net	http://www.delta-marina.com/
CY4	Port Cyprium Marina	Port Cyprium Marina, Kucuk Erenkoy, Northern Cyprus	90 533 848 60 22	90 392 824 4244	altan@port-cyprium-marina.com	http://www.port-cyprium-marina.com/index.html
CY5	Paphos					
DE1	Nordsee-Marina	Nordsee-Yachting GmbH, Am Seedeich 57, 27572 Bremerhaven	49 (0) 471 7 75 55	49 (0) 471 7 75 57	info@nordsee-yachting.de	http://www.marina-bremerhaven.de/
DE10	Binnenhafen Marina	On the Baltic Sea Inland Port, Feldscheide, Schleswig-Holstein				
DE11	Binnenhafen Marina 2					
DE2	Ancora Marina	An der Wiek 7-15 , 23730 Neustadt in Holstein	49 (0) 4561/5171-0	49 / 4561/ 5171-66	info@ancora-marina.com	www.ancora-marina.com
DE3	Kuhlungsborn	Touristik-Service-Kuhlungsborn Gmbh(TSK), Osteealle 19, 18225 Osteebad Kuhlungsborn	(03 82 92)8 49-0	(0 3 82 92)8 49-30	info@kuehlungsborn.de	www.kuehlungsborn.de
DE4	Hamburger Yachthafen	Deichstr. 19, 22880 Wedel	04103 - 4438	04103 - 16366		http://www.hamburger-yachthafen.de/
DE5	Amrum-Hafen Marina	On the North Sea, Wittdun, Schleswig-Holstein				
DE6	Maasholm Marina	On the Schlei River Maasholm, Schleswig-Holstein	04642-6021	04642-6064	Info@maasholm.de	www.maasholm.de
DE7	Yachthafen Laboe Marina	In the Kieler Förde on the Baltic Coast Laboe, Schleswig-Holstein	04343/ 427556	04343/427559	hafenmeister(at)laboe.de	www.laboe.de
DE8	Cuxhaven Yacht Club	On the Elbe River, Cuxhaven, Lower	49 (0) 4721 34111			

	Marina	Address	Phone	Fax	E-mail	Website
	Marina	Saxony				
DE9	Hafen Orth GmbH	Am Hafen / Orth 23769 Fehmarn	49 (0) 4372 - 1056 / 49 (0) 174 - 67 64 167	49 (0) 4372 - 1056	info@hafen-orth.de	http://www.hafen-orth.de/
DK1	Ærøskøbing Havn	Ærøskøbing Havn 7, , Ærø 5970 &AEl	+45 62 52 12 53	+45 62 52 21 53	havnen@arrekommune.dk	www.aeroe.dk/havne
DK10	Skagen Havn	Havnevagtvej 30, Skagen, 9990 Skagen Denmark	+45 98 44 69 11	+45 98 44 54 45	lystbaadehavn@skagen.dk	http://www.skagen-havn.dk/
DK11 (MST)	Jyllinge	Strandpromenaden 6, Jyllinge, 4040 Jyllinge	+45 46 78 93 48			jyllingehavn.dk/
DK12	Boderne Havn					http://www.bodernehavn.dk/
DK13	Nørrekås Lystbådehavn					
DK14	Rønne, Marina					
DK15	Hasle Marina 2					http://www.sejlnet.dk/havneguide/hasle-havn
DK16	Svaneke, havn					
DK2	Asaa Havn	Havnegade 50, DK-9340 Asaa	(+45) 9885 1668			http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=804
DK3	Augustenborg Yacht Harbor	Landgel 6, Augustenborg, South Jutland 6440	+45 7447.1562	+45 7447.1617	info@augustenborg-yachthavn.dk	http://www.augustenborg-yachthavn.dk
DK4	Bandholm Havn	Birketvej 1, Bandholm, 4941 Bandholm Denm	4554788089	4554788458		
DK5	Bogense Havn og Marina	Sejlerkajen 13, 5400 Bogense	(45) 6481.2115	(45)6481.2157	havn@nordfynskommune.dk	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=582

	Marina	Address	Phone	Fax	E-mail	Website
DK6	Hvide Sande Nordhavn	Nordhavnskaj, Hvide Sande, 6960 Hvide Sande	+45 97 31 16 33	+45 96 59 18 22	hvidesandehavn@hvshavn.dk	http://www.hvidesande.dk/havn/
DK7	Brejning Lystbådehavn	Brejning Strand 104, Brejning, 7080 Børkop	75 86 23 52 / 20 13 65 40			http://www.brejninghavn.dk/
DK8	Gedser Lystbådehavn	Vestre Strand 1, Gedser, Falster 4874 Gedser	+45 54 17 92 45	54 14 91 86	gk@guldborgsund.dk	
DK9	Havnsø Havn	Havnepladsen, Havnsø, 4591 F&oslash	+45 59 26 93 81	51 21 30 64		
EE1	Haapsalu-Grand Holm Marina		372 565 2887		valdo.kivi@grandholmmarina.ee	www.grandholmmarina.ee
EE10	Tallinn - Pirita		372 639 8980		sadam@piritatop.ee	http://www.kjk.ee
EE2	Dirhami		372 479 7221	372 5623 4523	info@portdirham.ee	http://www.portdirham.ee/
EE3	Kihnu	EE3607 Kihnu, Pärnumaa	372 446 9932	372 44 69901	kihnu@saarteliinid.ee	http://www.saarteliinid.ee
EE4	Kuressaare		372 453 3450	372 453 35 40	jahisadam@kuressaare.ee	
EE5	Lohusalu		372 677 1640		lohusalu@grupp.ee	
EE6	Nasva	EE3300 Saaremaa, Nasva	372 454 4044	372 45 55 257	nasvahotel@tt.ee	http://www.saaremaa.ee/nasvahotel/
EE7	Orissaare	Desconocida	372 454 5698		andre.kuntsel@hot.ee	http://www.orissaare.ee
EE8	Pärnu		372 447 1740		sadam@transcom.ee	http://www.transcom.ee
EE9	Roomassaare		372 455 5930		roomassaare@saarteliinid.ee	http://www.saarteliinid.ee
EI1	Dun Laoghaire Marinas	Dun Laoghaire Marinas Harbour Road Dun Laoghaire	353 (0) 1 2020040	353 (0) 1 2020043	info@dlmarina.com	www.dlmarina.com

	Marina	Address	Phone	Fax	E-mail	Website
EI10	Crosshaven Boatyard Marina	Crosshaven Boatyard Marina Crosshaven	353 (0) 21 483 1161	353 (0) 21 483 1603	cby@eircom.net	www.crosshavenboatyard.com
EI2	Howth Yacht Club & Marina	Howth Yacht Club & Marina Harbour Rd, Howth	353 (0) 1 839 2777	353 (0) 1 839 2430	marina@hyc.ie	www.hyc.ie
EI3	Lough Swilly Marina	Lough Swilly Marina Marina Office,Fahan	353 (0) 74 9360008	353 (0) 74 9360008	loughswillymarina@eircom.net	www.irelandnorthwest.ie
EI4	Malahide Marina	Malahide Marina Malahide	353 (0) 1 845 4129	353 (0) 1 845 4255	info@malahidemarina.net	www.malahidemarina.net
EI5	Poolbeg Marina•	Poolbeg Marina• a Pigeon House Road Dublin	353 (0) 1 668 9983	353 (0) 1 668 7177	info@poolbegmarina.ie	www.poolbegmarina.ie
EI6	Royal Cork Y.C. & Marina	Royal Cork Y.C. & Marina Crosshaven	353 (0) 21 483 1023	353 (0) 21 483 1586	office@royalcork.com	www.royalcork.com
EI7	Castlepark marina	Castlepark marina Kinsale. Co Cork. Ireland	(+353) 021 477 49 59	(+353) 021 477 49 58	kharbour@iol.ie	http://www.castleparkmarina.com
EI8	Kilrush Marina	Kilrush Marina Kilrush County Clare Ireland	65-9052072	65-9051692	kcm@shannon-dev.ie	www.kilrushcreekmarina.ie
ES1	Gran Canaria-Puerto Deportivo de las Palmas		34928214464	34928232378	marina@palmasport.es	www.palmasport.es
ES10	Valencia Yacht Port		34961199663	34963670049		www.valenciayachtport.com
ES2	Lanzarote-Marina Rubicon		34928519012	34928519035	info@marinarubicon.com	www.marinarubicon.com
ES3	Vigo-Marina Davila Sport		34986244612	34986206809	marina@davilasport.es	www.davilasport.com

	Marina	Address	Phone	Fax	E-mail	Website
ES4	Estepona-Marina de Estepona		34952801495	34952796840	estepona@eppa.es	www.puertosdeandalucia.com
ES5	Marbella-Jose Banus Marina	Club de mar de Puerto Banús, Muelle de Honor s/n 29660 Marbella	34952909800	34952810899	terrecontrol@puertojosebanus.com	www.puertobanus.com
ES6	Almunecar-Puerto del Este		34958640801	34956790109	marinaeste@marinasmediterraneo.com	www.marinasmediterraneo.com
ES7	Almerimar-Almerimar Marina		34950607755	34950497353	info@marina-almerimar.com	www.marina-almerimar.com
ES8	Portals(Mallorca)-Puerto Portals		34971171100	34971171117	puertoportals@oninet.es	www.puertoportals.com
ES9	Valencia-Real Club Nautico		34963679011	34963677737	directivos@rcnauticovalencia.com	www.rcnauticovalencia.com
FI1	Loviisa Laicasilta Marina	Town of Loviisa, Mannerheiminkatu 4, PL 77, 07901 LOVIISA	358 (0)19 555 445	358(0)40 740 7308		http://www.loviisa.fi/index.php?cid=loviisa&mid=178
FI2	Vaasa Hietasaari Marina	Vaasa				
FI3	Vaasa Kalarannanpuisto					
FI4	Aminne Yacht Harbour					
FI5	Aminne Marina					
FI6	Herttoniemen Marina	Helsinki				
FI7	Uutela Marina	Uutela				
FI8	Mikonkari Marina	Raahe				
FI9	Reila Marina	Reila				

	Marina	Address	Phone	Fax	E-mail	Website
FI10	Uittamo Marina	Koivisto Model (SYKE)				
FR1	Marseille-old port		33(0)491556664	33(0)491334103		
FR10	St Jean Cap Ferrat-St Jean Cap Ferrat		33(0)493764545	33(0)493764546	contact@port.saint.jean.com	www.port-saint-jean.com
FR2	ST Tropez-old port and new port		33(0)494566870	33(0)494973102	capitainerie@portsainttropez.com	http://www.port-de-saint-tropez.com
FR3	Mandelieu-Port la Napoule		33(0)492977777	33(0)4929977878	portlanapoule@portlanapoule.com	www.portlanapoule.fr
FR4	Cannes-old port		33(0)492987000	33(0)492987001	pordecannes-plaisance@cote-azur.cci.fr	www.riviera-ports.com
FR5	Villefranche-port de villefranche		33(0)493017805	33(0)493769233	port.villefranche@cote-azur.cci.fr	ww.riviera-ports.com
FR6	Beaulieu-Beaulieu sur mer		33(0)493011049	33(0)493011412	info@portbeaulieu.com	www.portbeaulieu
FR7	cap d'ail-port of cap d'ail		33(0)493782846	33(0)493419829	directeur@portdedail.com	
FR8	Menton-port de garavan		33(0)493287800	33(0)493354801		
FR9	Cogolin-Cogolin Marina		33(0)494560731	33(0)494562675	marines.de.coglin@wanadoo.fr	www.marines-de-cogolin.com
GR1	Lefkas-Lefkas Marina		30(0)2645026645	30(0)2645026642	lefkas@medmarinas.com	www.medmarinas.com
GR10	Kos-Kos Marina		30(0)2242057500	30(0)224220877	info@kosmarina.gr	www.kosmarina.gr
GR2	Attica-Alimos Marina		30(0)2109880000	30(0)2109880001	marinaalimou@etasa.gr	www.alimos-marina.gr
GR3	Attica-Flisvos Marina		30(0)2109871000	30(0)2109871060	info@flisvosmarina.com	www.flisvosmarina.com
GR4	Piraeus-Zea Marina		30(0)2104559000	30(0)2104559031	zea@medmarinas.com	www.medmarinas.com

	Marina	Address	Phone	Fax	E-mail	Website
GR5	Athens-Vouliagmeni Marina		30(0)2108960012	30(0)2108960415		www.vouliagmeni-marina.gr
GR6	Lavrio-Olymic Marina		30(0)2292063700	30(0)292022569	olympicmarine@internet.gr	www.olympicmarine.com
GR7	Samos-Samos Marina		30(0)2109968136	30(0)2109931379	info@samos-marina.com	www.samos-marina.com
GR8	Crete-Agios Nikolaos		30(0)2841082384	30(0)2841082386	depman@otenet.gr	www.marinaofagiosnikolaos.gr
GR9	Sithonia-Porto Carras		30(0)2375077000	30(0)2375072126	info@portocarras.com	www.portocarras.com
IT1	Degli aregai-Marina degli aregai		39(0)183667453	39(0)183650246	ufficio@imperiamare.it	www.imperiamare.it
IT10	Marina di Porto San Giorgio		39(0)734675263	39(0)734675263	info@marinaportosangiorgio.it	www.marinaportosangiorgio.it
IT2	Santa Margherita Ligure		39(0)185287029	39(0)185284717		
IT3	Chiavari-Marina Chiavari		39(0)185364081	39(0)185316287	info@marinachiavari.tigullio.it	www.marinachiavaritigullio.it
IT4	Lavagna-Porto Turistico		39(0)185321732	39(0)185376308	info@portodilavagna.com	www.portodilavagna.com
IT5	La Spezia-Porto Lotti		39(0)187532200	39(0)187532245	ufficioporto@portolotti.it	www.portolotti.it
IT6	Elba-Portoferraio		39(0)565914121	39(0)565945355		
IT7	Santo Stefano-Porto del Valle (Porto Santo Stefano)		39(0)564810845	39(0)564815063	portodomiziano@ticscali.it	
IT8	Capri-Marina Grande		39(0)818378950	39(0)818375318	chierchiaturistica@libero.it	
IT9	Palermo (Sicily)-Marina Villa Igiea		39(0)91364123	39(0)91364225	info@marinavillaigiea.com	www.marinavillaigiea.com

	Marina	Address	Phone	Fax	E-mail	Website
LT1	Klaipeda marina		061 12511/ 64594			
LV1	Pāvilosta Marina	Ostmalas iela 1, Pāvilosta, Liepājas rajons, LV-3466	371 3498581	371 3498582	e-mail: pavilosta@west-coast.lv	
LV2	Ventspils Yacht harbour (Marina)	Ventspils Free Port Authority, 19 Jana Str., Ventspils LV-3601	371 29421049	371 63620153	jahtklubs@fix.lv	www.portofventspils.lv
LV3	Jurmala		371 7752408		peteris@ldc.lv	www.latviancoast.lv
MT1	Grand Harbour Marina	The Capitanerie Vittoriosa Wharf Vittoriosa BRG 1721	35621800700	35621800900	info@ghm.com.mt	www.ghm.com.mt
MT2	Portomaso Marina	St. Julians PTM01	35621387803	35621389655	info@portomasomarina.com	www.portomasomarina.com
MT3	Manoel Island Marina	(Pierre Balzan), Manoel Island, Gzira GZR03	35621338589	35621341714	info@manoelislandmarina.com	www.manoelislandmarina.com
MT4	Msida Marina	Ta'Xbiex Msd 11, Malta	35621235711	35621235713		www.mma.gov.mt
MT5	Mgarr Marina	Gozo, Mgarr, GSM 104 MT	(+356) 21 558 856	(+356) 21 562 672		http://www.mma.gov.mt/yacting_mgarr_marina.htm
NL1	Compagnieshaven	Enkhuizen, Noord-Holland	+31(0)228313353	+31(0)228321083		http://www.compagnieshaven.nl/
NL10	Jachthaven Lauersoog	Jachthaven Oostmahorn, Oostmahorn 31	(+31) 0 505 01 01 76	(+31) 0 505 01 01 77	administratie@noordergat.nl	http://www.noordergat.nl/
NL2	Jachthaven Waterkant	Sasdijk 2x , RN Dinteloord, 4671	+31 167 522553			http://www.waterkantbv.nl/
NL3	Jachthaven Brouwershaven	Nieuwe Jachthaven 12, 4318 AR, Brouwershaven	0031-111-691330	0031-111-692022	havenkantoor@wvbrouwershaven.nl	www.wvbrouwershaven.nl
NL4	Jachthaven Neptunus	Handelskade West 12 , 9934AA Delfzijl	(+31) 0 596 61 50 04		zvneptunus@kzrvneptunus.nl	http://www.kzrvneptunus.nl/zv/

	Marina	Address	Phone	Fax	E-mail	Website
NL5	Waddenhaven Vlieland	Saint run-up port vlieland - Havenweg 28 - 8899 Ltd vlieland	(+31) 0 562 45 17 29	(+31) 0 562 45 34 29	haven.vlieland@hetnet.nl	http://www.waddenhavenvlieland.nl/
NL6	Scharendijke Jachthaven	Jachthaven Scharendijke, Haven Kloosternol 1, 4322 AK, Scharendijke	(+31) 11 167 12 64	(+31) 11 167 20 38	hvk.sch@zeelandnet.nl	www.wvscharendijke.nl
NL7	Stellendam	Marina Stellendam , Deltahaven 61, 3251 LC Stellendam	01 87 49 37 69	01 87 49 38 07	info@marinastellendam.nl	www.marinastellendam.nl
NL8	Jachthaven Michiel de Ruijterhaven	Jachthaven Michiel de Ruijterhaven, De Ruijterplein 1, 4381 BZ, Vlissingen	(+31) 0 174 387 272	(+31) 0 174 383 963	info@montparnasse.nl	www.montparnasse.nl
NL9	Jachthaven Oostmahorn	Jachthaven Oostmahorn, Oostmahorn 31, 9133 DT Anjum.	(+31) 0 519 32 14 45	(+31) 0 519 32 13 45	jachthavenoostmahorn@hetnet.nl	http://www.oostmahorn.com/jachthaven.htm
NO1	Herbern Marina	Stranden 30 Aker Brygge 0250 OSLO Norway	47 22 83 19 90	47 22 83 19 70	post@herbern.no	www.herbern.no
NO2	Frognerkilens Båtforening	Frognerkilens Båtforening av 1860, Postboks 186, Lilleaker 0216 Oslo	47 22 55 20 96	47 22 50 95 19		www.fb1860.no
NO3	Stavanger Marina	Forretningsadresse: Tømmerodden 1 4085 HUNDVÅG Postadresse: Postboks 6 4085 HUNDVÅG	51 86 03 85	51 86 04 80	llarusso@online.no	www.stavangermarina.no
NO4	Vadhusleira	GRater Oslo, Oslo Fjord				
NO5	Hjellestad Marina	Hjellestad Marina Postboks 1 Hjellestad 5259	55 99 14 00	55 99 19 00	h.marina@online.no	www.hjellestadmarina.no
NO6	Stavern					
NO7	Tananger Marina	Noruega Sur				

	Marina	Address	Phone	Fax	E-mail	Website
PL1	Gdynia	ZarzÄ…d Morskiego Portu Gdynia SpóÅ‚ka Akcyjna ul. Rotterdamska 9 81-337	48 58 627 40 46	48 58 620 31 91	marketing@port.gdynia.pl	www.marinagdynia.pl/index.htm
PL2	Hel					
PL3	Jastarnia		058 675 20 13	058 675 2097	promocja@jastarnial.pl	
PL4	Marina Gdansk	ul. Szafarnia, 80-755 Gdańsk	48 58 301-33-78		rafal.grad@mosir.gda.pl	www.mosir.gda.pl
PL5	Puck	84-100 Puck ul. Lipowa 2	48 58 673 29 51	48 58 673 26 10	moksir-puck@home.pl	http://moksir-puck.home.pl/eng/accom.html
PL6	Sopot					
PL7	Władysławowo	WÅ, adysÅ, awowo, polonia	48-91 46-23-414	48-91 46-23-414	info@maritime.com.pl	
PL8	Kuźnica					
PT1	Cascais-Marina de Cascais		351214824800	351214824899	info@marinacascais.pt	www.marinacascais.pt
PT10	Marina Porto Atlantico	Marina Porto Atlantico, Molhe Norte de Leixoes 4450-718 Leca da Palmeira, Portugal	351 229 964 895	351 229 966 636	info@marinaportoatlantico.net	http://www.marinaportoatlantico.net/
PT2	Azores-Horta Marina		351292208300	351292208315	portohorta@mail.telepac.pt	www.portohorta.com
PT3	Portimao-Portimao Marina		351282400680	351282400681	marinaportimao@mail.telepac.pt	www.marina-portimao.com.pt
PT4	Algarve-Marina de Vilamoura		351289310560	351289310580	info@marina-vilamoura.com	www.marina-vilamoura.com
PT5	Marina de Lagos	Edifício da Administração Marina de Lagos 8600-780 Lagos Portugal	351282-770-210	351282-770-219	marina@marlagos.pt	www.marlagos.pt

	Marina	Address	Phone	Fax	E-mail	Website
PT6	Porto de Lisboa - Doca de Recreio do Bom Sucesso	APL - Administracao do Porto de Lisboa, S.A.Rua da Junqueira, 94,1349-026 Lisboa, Portugal	351 21 361 10 00	351	geral@portodelisboa.pt	http://www.portodelisboa.pt/portal/page/portal/PORTAL_PORTO_LISBOA_ING/NAUTICA_RECREIO
PT7	Porto de Recreio de Sesimbra		351	351		http://www.naval-sesimbra.pt/work/marina00.htm
PT8	Porto de Setúbal - Doca de Recreio		351 265 542000	351 265 230992	geral@portodesetubal.pt	http://www.portodesetubal.pt/pt_doca_recreio.htm
PT9	Marina de Viana do Castelo	INSTITUTO PORTUÁRIO E DOS TRANSPORTES MARÍTIMOS (DELEGAÇÃO DOS PORTOS DO NORTE) PORTO COMERCIAL DE VIANA DO CASTELO 4900-056 DARQUE	351 258 359500	351 258 359535	ipn@ipnorte.pt	http://www.ipnorte.pt/p/portorecreio.htm
SE1	Aalsta Road Marina	Kungsaengen				
SE10	Morarna Road Marina					http://marinas.com/view/marina/9034_Morarna_Road_Marina_Oesterhaninge__Sweden
SE11	Graeddoe Marina					http://marinas.com/view/marina/10164_Graeddoe_Marina__Sweden
SE12	Marsaettra Marina					http://marinas.com/view/marina/9025_Marsaettra_Marina_Skaergaardsstad__Sweden
SE13	Erikso Yacht Harbour					http://marinas.com/view/marina/10601_Erikso_Yacht_Harbour_Vaxholm_Uppland_Sweden
SE14	Fisksatra Baatklubb Marina					http://marinas.com/view/marina/10605_Fisksatra_Baatklubb_Marina__Sweden

	Marina	Address	Phone	Fax	E-mail	Website
SE15	Kemi West Coast Marina (Gunneby)					
SE2	Aalsten Smaabaatshamn Marina	Aalsten (city)				
SE3	Limhamns Småbåtshamn	Småbåtshamnen i Limhamn, Vågbrytarevägen, 216 12 Limhamn	46 40 15 20 24	46 40 15 18 95	info@smabatshamnen.nu	http://www.smabatshamnen.nu/english.htm#Diesel
SE4	Södertälje Gästhamn	Södertälje	46 (0)8 550 64 712	46 (0)8 550 61 403	info@sghc.net	http://gasthamn.se/engelska.htm
SE5	Baalsta Road Marina	Haabo				
SE6	Härnösand	Härnösand kommun, 871 80 Härnösand, Swden	0611 20211/070609		kommun@harmosand.se	
SE7	Arkösund		0125 200 36		info@arkosund.com	
SE8	Kalmar		0480 451450		kalmar.hamn@kommun.kalmar.se	www.kalmar.se
SE9 (kemi)	Bullando					
SI1	Marina Izola	Porting Marina Izola, Tomaziceva 10,, Izola	(+386) 5 66 25 406	(+386) 566 25 400	fiorenzo.lupieri@marinaizola.com	http://www.marinaizola.com/
SI2	Marina Portoroz	MARINA PORTOROSE d.d., Cesta solinarjev 8, SI - 6320 Portorož	(+386) 0567 61100	(+386) 567 61210	reception@marinap.si	http://www.marinap.si/elements/frames.html
SI3	Marina Koper d.o.o.	Kopališko nabrežje 5 6000 Koper	(+386) 5 662 61 00	(+386) 5662 61 61	info@marina-koper.si	www.marina-koper.si
UK1	Penzance	Isles of Scilly Ferries 362009	(+44) 01 736 36 45 3		neil.clark@penwinth.gov.u	www.penzance.co.uk/harbour/index.htm?hom…
UK10	Aberystwyth Marina	Aberystwyth Marina, Trefechan, Aberystwyth, Ceredigion, Wales,	(+44) 01 970 61 14	(+44) 01 970 62 41	abermarina@aol.com	www.abermarina.co.uk

	Marina	Address	Phone	Fax	E-mail	Website
		SY23 1AS	22	22		
UK2	Mevagissey	East Quay, St Austell Cornwall PL 26 6Qu, T. 843305	(+44) 07 977 20 33 9		meva.garbour@talk21.com	www.mevagisseyharbour.co.uk
UK3	Newhaven Marina	The Yacht Harbour, Fort Road, Newhaven, East Sussex BN9 9BY	(+44) 01 273 51 38 81	(+44) 01 273 51 04 93	john.stirling@newhavenmarina.co.uk	www.seacontainers.com
UK4	Ramsgate	The Harbour Office, Military Road, Ramsgale, Kent CT11 9LQ	(+44) 01 843 57 70 00	(+44) 01 843 29 09 06	ramsgatemarina@thanet.gov.uk	www.portoframsgate.co.uk/portoframsgate
UK5	Bradwell Marina	Waterside Bradwell on Sea Essex CM0 7RB	(+44) 01 621 77 63 91	(+44) 01 621 77 63 93	roy@bradwellmarina.com	www.bradwellmarina.com
UK6	Royal Norfolk & Suffolk Yacht Club	Royal Norfolk & Suffolk Yacht Club Royal Plain ,NR33 OAQ, Lowestoft	(+44) 01 502 56 67 26		marina@rnsyc.org.uk	www.rnsyc.org.uk/marina.htm
UK7	Sunderland	Sunderland Marina, Sunderland Marina, Sunderland, Tyne and Wear, England, SR6 0PW	(+44) 01 91 51 447 21	(+44) 01 91 51 418 47	mac.info@marineactivitiescentre.co.uk	www.marineactivitiescentre.co.uk/marina
UK8	Blyth Marina	South Harbour Blyth Northumberland NE24 3PB	(+44) 1 670 35 36 36		steward@rnyc.org.uk	www.rnyc.org.uk
UK9	Amble Marina	Amble Marina, Amble Marina, Amble, Northumberland, England, NE65 0YP	(+44) 01 66 571 21 68	(+44) 01 66 571 33 63	booking@portbooker.com	www.amble.co.uk

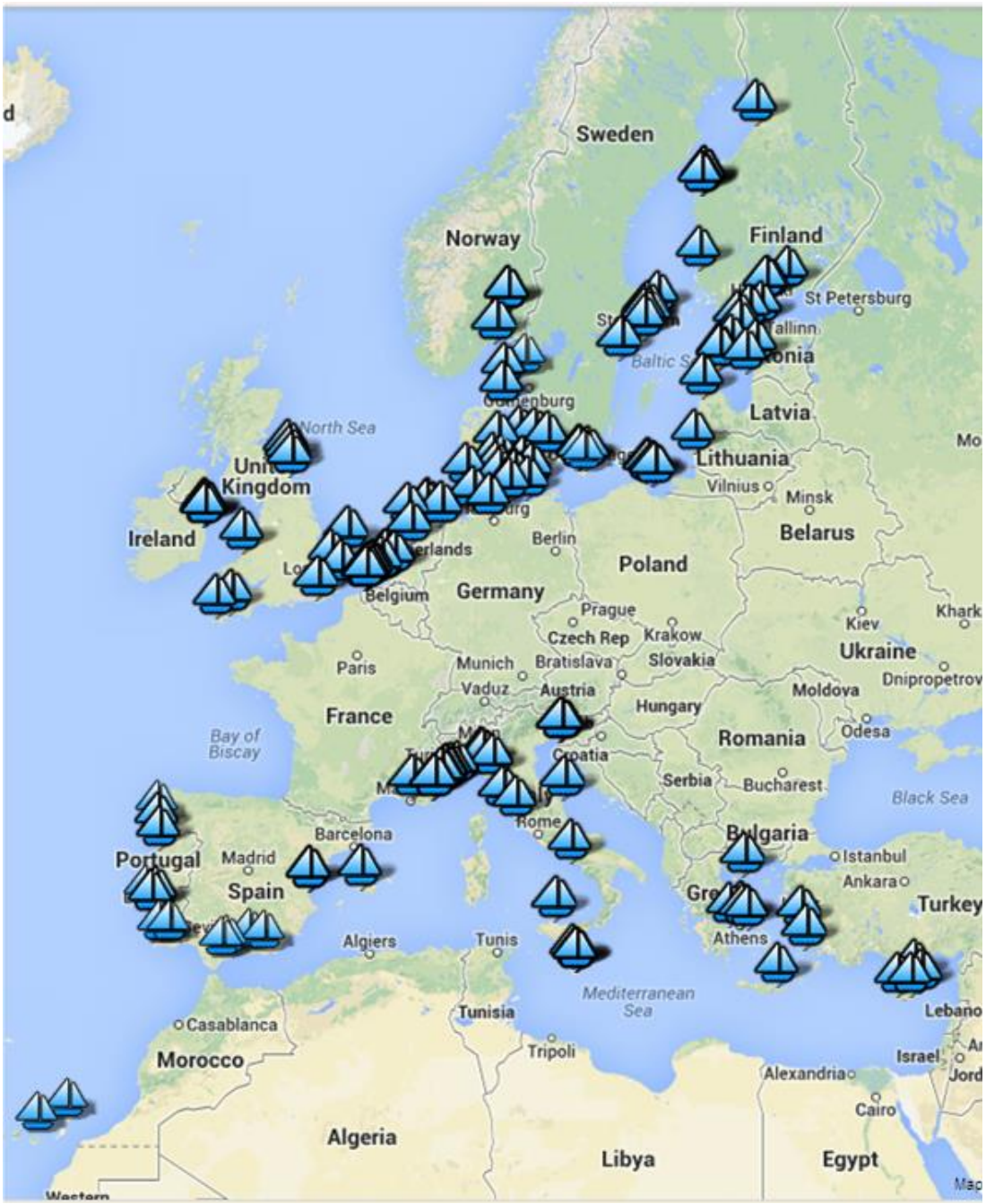
Appendix 2: Study Area

Google map can be accessed at:

CEPE Marinas 2013:

http://maps.google.com/maps/ms?ie=UTF&msa=0&msid=209602565572107148287.0004e3d1c5728b2f964bf

Not all locations will be listed due to scale of image.



Appendix 3. SPSS model inputs

Cluster Analysis

Output Created		14-Aug-2013 16:33:50
Comments		
Input	Data	M:\Marinas\marinas 2013c.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	148
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		PROXIMITIES MarinaLength MarinaWidth MarinaDepth EntranceWidth TidalDifference MaximumVesselOccupancy MaxVesselLength SalinityPSU Averagewatertemp pH /MATRIX OUT('C:\Users\thomasoj\AppData\Local\Temp\spss5924\spssclus.tmp') /VIEW=CASE /MEASURE=SEUCLID /PRINT NONE /ID=SeaCode4Name /STANDARDIZE=VARIABLE Z.

Resources	Processor Time	00 00:00:00.015
	Elapsed Time	00 00:00:00.033
	Workspace Bytes	103760
Files Saved	Matrix File	C:\Users\thomasoj\AppData\Local\Temp\spss5924\spssclus.tmp

Canonical Analysis

Output Created		10-Feb-2012 16:04:32
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	147
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing in the analysis phase.
	Cases Used	In the analysis phase, cases with no user- or system-missing values for any predictor variable are used. Cases with user-, system-missing, or out-of-range values for the grouping variable are always excluded.
Syntax		DISCRIMINANT /GROUPS=Sea_Code(1 3) /VARIABLES=MarinaLengthm MarinaWidthm MarinaDepthm_A EntranceWidthm TidalDifferencem

	Thenumberofvesselsmooredinthemarina Maximumlengthofvesselthatthemarinacana ccommodatem SalinityPSU AveragewatertempC pH /ANALYSIS ALL /PRIORS EQUAL /STATISTICS=MEAN STDDEV CORR TABLE /PLOT=COMBINED /PLOT=CASES /CLASSIFY=NONMISSING POOLED.

Appendix 4: Analysis results (SPSS output)

Cluster Analysis

Case Processing Summary[a]

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent
148	100.0%	0	.0%	148	100.0%

Average Linkage (Within Groups)

Agglomeration Schedule

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	88	89	.177	0	0	4
2	35	37	.189	0	0	10
3	121	122	.229	0	0	7
4	88	90	.349	1	0	16
5	36	46	.398	0	0	25
6	86	116	.403	0	0	17
7	94	121	.447	0	3	27
8	110	113	.457	0	0	15
9	56	57	.544	0	0	23
10	35	55	.548	2	0	21

11	105	124	.553	0	0	13
12	33	34	.578	0	0	30
13	105	111	.634	11	0	18
14	69	71	.678	0	0	34
15	110	112	.699	8	0	46
16	88	92	.703	4	0	27
17	86	123	.727	6	0	28
18	101	105	.743	0	13	26
19	125	138	.769	0	0	44
20	96	120	.822	0	0	28
21	32	35	.847	0	10	29
22	63	81	.887	0	0	45
23	47	56	.913	0	9	38
24	87	91	.915	0	0	36
25	36	41	.984	5	0	35
26	101	136	1.023	18	0	47
27	88	94	1.081	16	7	36
28	86	96	1.132	17	20	42
29	22	32	1.148	0	21	40
30	29	33	1.165	0	12	52
31	95	118	1.188	0	0	47
32	39	42	1.206	0	0	57
33	73	133	1.229	0	0	41
34	66	69	1.236	0	14	51

35	30	36	1.264	0	25	48
36	87	88	1.313	24	27	43
37	1	59	1.372	0	0	45
38	14	47	1.387	0	23	76
39	48	50	1.391	0	0	64
40	22	27	1.421	29	0	55
41	70	73	1.426	0	33	54
42	86	114	1.436	28	0	67
43	87	131	1.519	36	0	53
44	97	125	1.546	0	19	74
45	1	63	1.569	37	22	60
46	98	110	1.603	0	15	61
47	95	101	1.605	31	26	58
48	26	30	1.699	0	35	68
49	100	115	1.723	0	0	114
50	126	141	1.740	0	0	117
51	66	145	1.751	34	0	66
52	12	29	1.777	0	30	68
53	87	119	1.821	43	0	70
54	70	129	1.893	41	0	93
55	22	44	1.898	40	0	69
56	61	75	1.916	0	0	104
57	31	39	1.923	0	32	79
58	95	104	1.971	47	0	73

59	108	127	2.103	0	0	118
60	1	65	2.110	45	0	72
61	98	99	2.150	46	0	77
62	49	54	2.161	0	0	81
63	4	10	2.164	0	0	83
64	17	48	2.201	0	39	91
65	67	85	2.231	0	0	92
66	66	74	2.232	51	0	72
67	86	117	2.277	42	0	84
68	12	26	2.338	52	48	75
69	19	22	2.349	0	55	82
70	87	130	2.448	53	0	85
71	80	84	2.526	0	0	116
72	1	66	2.584	60	66	78
73	95	135	2.613	58	0	93
74	97	102	2.681	44	0	84
75	12	18	2.688	68	0	86
76	14	134	2.690	38	0	96
77	98	137	2.707	61	0	89
78	1	62	2.816	72	0	88
79	23	31	2.854	0	57	97
80	8	9	2.884	0	0	127
81	15	49	2.888	0	62	121
82	5	19	2.896	0	69	90

83	4	11	3.018	63	0	100
84	86	97	3.082	67	74	89
85	87	93	3.099	70	0	98
86	12	21	3.114	75	0	91
87	6	78	3.307	0	0	129
88	1	68	3.311	78	0	92
89	86	98	3.492	84	77	95
90	5	13	3.511	82	0	96
91	12	17	3.541	86	64	100
92	1	67	3.774	88	65	99
93	70	95	3.855	54	73	109
94	142	143	3.889	0	0	133
95	86	128	3.945	89	0	103
96	5	14	4.074	90	76	107
97	23	28	4.185	79	0	113
98	87	140	4.186	85	0	109
99	1	83	4.190	92	0	104
100	4	12	4.211	83	91	106
101	52	53	4.214	0	0	121
102	72	144	4.303	0	0	125
103	86	109	4.464	95	0	110
104	1	61	4.606	99	56	108
105	147	148	4.621	0	0	131
106	4	25	4.796	100	0	111

107	5	60	5.020	96	0	119
108	1	77	5.063	104	0	112
109	70	87	5.098	93	98	114
110	86	106	5.213	103	0	117
111	4	40	5.361	106	0	115
112	1	58	5.545	108	0	116
113	23	51	5.731	97	0	126
114	70	100	5.903	109	49	124
115	4	24	6.007	111	0	123
116	1	80	6.054	112	71	122
117	86	126	6.192	110	50	125
118	107	108	6.211	0	59	136
119	5	38	6.243	107	0	129
120	20	43	6.244	0	0	130
121	15	52	6.384	81	101	134
122	1	76	6.645	116	0	128
123	4	64	6.841	115	0	130
124	70	79	7.102	114	0	131
125	72	86	7.250	102	117	132
126	3	23	7.267	0	113	135
127	7	8	7.390	0	80	139
128	1	82	7.655	122	0	133
129	5	6	8.104	119	87	134
130	4	20	8.374	123	120	135

131	70	147	8.560	124	105	136
132	72	103	8.676	125	0	137
133	1	142	9.023	128	94	139
134	5	15	9.622	129	121	140
135	3	4	9.861	126	130	138
136	70	107	10.685	131	118	141
137	72	139	10.865	132	0	141
138	3	45	11.213	135	0	140
139	1	7	11.668	133	127	143
140	3	5	12.272	138	134	142
141	70	72	12.885	136	137	145
142	3	146	13.359	140	0	144
143	1	2	14.291	139	0	146
144	3	16	14.442	142	0	147
145	70	132	14.632	141	0	146
146	1	70	17.640	143	145	147
147	1	3	20.000	146	144	0

Marina Cluster Membership and Case identity listed according to marina locality reference

Case	7 Clusters	Case	7 Clusters
1:Atlantic	1	40:Mediterranean	3
2:Atlantic	2	41:Mediterranean	3
3:Atlantic	3	42:Mediterranean	3
4:Atlantic	3	43:Mediterranean	3
5:Atlantic	3	44:Mediterranean	3
6:Atlantic	3	45:Mediterranean	3
7:Atlantic	1	46:Mediterranean	3
8:Atlantic	1	47:Mediterranean	3
9:Atlantic	1	48:Mediterranean	3
10:Atlantic	3	49:Mediterranean	3
11:Atlantic	3	50:Mediterranean	3
12:Mediterranean	3	51:Mediterranean	3
13:Mediterranean	3	52:Mediterranean	3
14:Mediterranean	3	53:Mediterranean	3
15:Mediterranean	3	54:Mediterranean	3
16:Mediterranean	4	55:Mediterranean	3
17:Mediterranean	3	56:Mediterranean	3
18:Mediterranean	3	57:Mediterranean	3
19:Mediterranean	3	58:English Channel	1
20:Mediterranean	3	59:English Channel	1
21:Mediterranean	3	60:English Channel	3
22:Mediterranean	3	61:Irish Sea	1

23:Mediterranean	3	62:Irish Sea	1
24:Mediterranean	3	63:Irish Sea	1
25:Mediterranean	3	64:Irish Sea	3
26:Mediterranean	3	65:Irish Sea	1
27:Mediterranean	3	66:North Sea	1
28:Mediterranean	3	67:North Sea	1
29:Mediterranean	3	68:North Sea	1
30:Mediterranean	3	69:North Sea	1
31:Mediterranean	3	70:North Sea	5
32:Mediterranean	3	71:North Sea	1
33:Mediterranean	3	72:North Sea	5
34:Mediterranean	3	73:North Sea	5
35:Mediterranean	3	74:North Sea	1
36:Mediterranean	3	75:North Sea	1
37:Mediterranean	3	76:North Sea	1
38:Mediterranean	3	77:North Sea	1
39:Mediterranean	3	78:North Sea	3
		79:North Sea	5

Case	7 Clusters	Case	7 Clusters
80:North Sea	1	119:The Quark	5
81:North Sea	1	120:The Quark	5
82:North Sea	1	121:The Quark	5
83:North Sea	1	122:The Quark	5
84:North Sea	1	123:Western Gotland Basin	5
85:North Sea	1	124:Bay of Mecklenburg	5
86:Aland Sea	5	125:Bay of Mecklenburg	5
87:Arkona Basin	5	126:Bay of Mecklenburg	5
88:Bornholm Basin	5	127:Great Belt	5
89:Bornholm Basin	5	128:Great Belt	5
90:Bornholm Basin	5	129:Great Belt	5
91:Bornholm Basin	5	130:Roskilde Fjord	5
92:Bornholm Basin	5	131:Kattegat	5
93:Bothnian Sea	5	132:Kattegat	6
94:Bothnian Sea	5	133:Kattegat	5
95:Eastern Gotland Basin	5	134:Kattegat	3
96:Eastern Gotland Basin	5	135:Kiel Bay	5
97:Eastern Gotland Basin	5	136:Kiel Bay	5
98:Gdansk Bay	5	137:Kiel Bay	5
99:Gdansk Bay	5	138:Kiel Bay	5
100:Gdansk Bay	5	139:Elbe	5
101:Gulf of Finland	5	140:Kiel Bay	5
102:Gulf of Finland	5	141:The Sound	5

Case	7 Clusters	Case	7 Clusters
103:Gulf of Finland	5	142:North Sea	1
104:Gulf of Finland	5	143:North Sea	1
105:Gulf of Finland	5	144:Ijsselmeer	5
106:Gulf of Finland	5	145:Lauwersmeer	1
107:Gulf of Finland	5	146:Oslo Fjord	7
108:Gulf of Riga	5	147:Oslo Fjord	5
109:Gulf of Riga	5	148:Skagerrak	5
110:Gulf of Riga	5		
111:Gulf of Riga	5		
112:Gulf of Riga	5		
113:Gulf of Riga	5		
114:Northern Baltic Proper	5		
115:Northern Baltic Proper	5		
116:Northern Baltic Proper	5		
117:Northern Baltic Proper	5		
118:Northern Baltic Proper	5		

Summary of Canonical Discriminant Functions

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	8.213[a]	60.3	60.3	.944
2	5.411[a]	39.7	100.0	.919

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	.017	573.052	20	.000
2	.156	261.057	9	.000

Standardized Canonical Discriminant Function Coefficients

	Function	
	1	2
Marina Length	.208	-.039
Marina Width	.169	-.128
Marina Depth	.205	-.206
Entrance Width	-.130	-.003
Tidal Difference	.847	-.596
Maximum Vessel Occupancy	-.045	.028
Max Vessel Length	.054	.027
Salinity PSU	.522	.678
Average water temp	-.060	.538
pH	-.171	.305

Structure Matrix

	Function	
	1	2
Tidal Difference	.728*	-.427
pH	-.123*	.120
Salinity PSU	.615	.668*
Average water temp	.149	.546*
Max Vessel Length	.030	.143*
Marina Depth	.071	.123*
Marina Length	.104	.118*
Marina Width	.069	.115*
Maximum Vessel Occupancy	.058	.111*
Entrance Width	-.021	.046*

Functions at Group Centroids

	Function	
Sea_Code 1	1	2
1	3.642	-1.629
2	.118	3.427
3	-3.210	-1.474

Classification Statistics

Classification Processing Summary

Processed		148
Excluded	Missing or out-of-range group codes	0
	At least one missing discriminating variable	0
Used in Output		148

Prior Probabilities for Groups

Sea_Code 1	Prior	Cases Used in Analysis	
		Unweighted	Weighted
1	.333	47	47.000
2	.333	46	46.000
3	.333	55	55.000
Total	1.000	148	148.000

Appendix 5: Raw Data

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
	ES1	Gran Canaria- Puerto Deportivo de las Palmas	645.00	300.00	8.00	55.00	2.20	1000.00	50.00	37.00	23.00	8.43
2	ES2	Lanzarote-Marina Rubicon	525.00	327.00	7.00	52.00	2.50	500.00	45.00	36.80	20.50	8.44
3	ES3	Vigo-Marina Davila Sport	288.00	215.00	15.00	60.00	3.20	180.00	80.00	35.83	18.00	8.22
4	PT1	Cascais-Marina de Cascais	448.95	251.25	7.00	63.25	2.80	650.00	45.00	36.00	18.00	7.96
5	PT10	Marina Porto Atlantico	1036.08	809.27	3.50	238.49	2.90	240.00	30.00	35.82	14.00	8.25
6	PT3	Portimao-Portimao Marina	663.62	236.01	4.00	60.75	2.70	620.00	30.00	36.25	19.00	6.63
7	PT4	Algarve-Marina de Vilamoura	520.00	480.00	4.00	80.00	3.00	1000.00	50.00	36.25	18.50	6.63
8	PT5	Marina de Lagos	977.22	185.87	3.00	106.01	2.80	462.00	30.00	36.25	19.00	6.63
9	PT7	Porto de Recreio de Sesimbra	366.25	181.30	6.90	59.41	2.80	250.00	15.00	36.00	17.00	7.96
10	PT8	Porto de Setúbal - Doca de Recreio	364.98	111.54	15.00	51.44	3.00	150.00	20.00	36.00	17.00	7.96
11	PT9	Marina de Viana do Castelo	433.86	102.56	3.00	29.82	2.90	163.00	20.00	35.75	13.50	8.25
12	CY1	Larnaca Marina	418.93	301.19	5.00	119.48	0.40	350.00	40.00	39.21	24.25	6.90
13	CY2	Saint Raphael Marina / Sheraton Marina	206.26	198.73	5.00	65.10	0.30	237.00	30.00	39.23	24.55	7.50
14	CY3	Delta Marina	285.00	316.53	5.00	155.49	0.40	50.00	25.00	39.28	25.70	8.18

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
15	CY5	Paphos	509.47	227.37	4.00	174.53	0.30	25.00	15.00	39.15	27.50	8.27
16	ES10	Valencia Yacht Port	775.29	218.87	8.00	114.68	0.20	176.00	120.00	37.00	20.75	8.50
17	ES4	Estepona-Marina de Estepona	510.00	309.00	4.50	72.00	0.90	440.00	25.00	36.25	19.00	8.93
18	ES5	Marbella-Jose Banus Marina	560.00	240.00	4.50	104.00	0.60	450.00	50.00	36.25	22.00	8.19
19	ES6	Almunecar-Puerto del Este	290.00	137.00	6.50	41.00	0.60	227.00	30.00	36.67	22.50	8.19
20	ES7	Almerimar-Almerimar Marina	593.00	422.00	3.00	78.00	0.30	1100.00	60.00	36.67	21.50	8.50
21	ES8	Portals(Mallorca)-Puerto Portals	487.00	309.00	3.00	79.00	0.10	375.00	25.00	36.67	25.50	8.20
22	ES9	Valencia-Real Club Nautico	538.41	258.54	5.00	73.32	0.20	1300.00	60.00	37.00	20.75	8.50
23	FR1	Marseille-old port	866.00	307.00	6.80	75.00	0.20	2588.00	100.00	36.67	18.00	8.45
24	FR10	St Jean Cap Ferrat-St Jean Cap Ferrat	352.00	182.00	4.00	35.00	0.30	511.00	28.00	37.84	18.20	8.40
25	FR2	ST Tropez-old port and new port	300.00	133.00	6.00	50.00	0.20	285.00	20.00	37.40	16.00	8.13
26	FR3	Mandelieu-Port la Napoule	492.00	259.00	7.00	89.00	0.30	960.00	52.00	37.52	18.50	8.18
27	FR4	Cannes-old port	375.00	338.00	5.00	104.00	0.30	650.00	65.00	37.60	18.20	8.15
28	FR5	Villefranche-port de villefranche	326.00	142.00	4.00	28.00	0.30	520.00	33.00	37.80	18.00	8.35
29	FR6	Beaulieu-Beaulieu sur mer	410.00	225.00	4.50	66.00	0.30	743.00	42.00	37.82	17.80	8.30
30	FR7	cap d'ail-port of cap d'ail	285.00	146.00	12.00	69.00	0.20	253.00	65.00	37.92	17.65	8.08

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
31	FR8	Menton-port de garavan	533.00	170.00	5.00	54.00	0.20	800.00	40.00	37.92	17.65	8.10
32	FR9	Cogolin-Cogolin Marina	792.00	514.00	6.00	83.00	0.20	1556.00	30.00	37.40	19.00	8.17
33	GR10	Kos-Kos Marina	263.00	126.00	6.00	40.00	0.70	250.00	50.00	39.52	18.50	8.26
34	GR2	Attica-Alimos Marina	626.00	452.00	5.00	77.00	0.10	900.00	40.00	39.17	18.00	8.32
35	GR3	Attica-Flisvos Marina	639.00	463.00	9.00	97.00	0.10	247.00	90.00	39.17	18.00	8.32
36	GR5	Athens-Vouliagmeni Marina	198.00	185.00	8.00	53.00	0.10	113.00	45.00	38.96	18.00	8.32
37	GR6	Lavrio-Olymic Marina	451.00	389.00	4.30	59.00	0.10	680.00	45.00	39.00	18.50	8.32
38	GR7	Samos-Samos Marina	293.00	165.00	3.70	43.00	0.70	280.00	25.00	39.40	19.00	8.26
39	GR8	Crete-Agios Nikolaos	309.00	125.00	8.00	33.00	0.70	225.00	50.00	39.52	19.00	8.17
40	GR9	Sithonia-Porto Carras	530.00	350.00	5.50	75.00	0.70	315.00	55.00	37.50	17.00	8.33
41	IT1	Degli aregai-Marina degli aregai	622.00	259.00	8.00	259.00	0.30	974.00	40.00	37.92	18.00	8.10
42	IT10	Marina di Porto San Giorgio	401.19	284.40	4.50	58.67	0.40	800.00	50.00	38.75	18.00	8.33
43	IT2	Santa Margherita Ligure	373.00	274.00	10.00	155.00	0.30	300.00	60.00	37.60	18.50	8.13
44	IT3	Chiavari-Marina Chiavari	271.00	252.00	5.00	42.00	0.30	460.00	25.00	37.60	18.50	8.14
45	IT4	Lavagna-Porto Turistico	855.00	233.00	5.00	59.00	0.30	1560.00	50.00	37.42	18.50	8.14
46	IT5	La Spezia-Porto Lotti	382.00	222.00	8.00	53.00	0.30	548.00	60.00	37.42	18.75	8.16
47	IT6	Elba-Portoferraio	255.00	177.00	10.00	124.00	0.30	150.00	70.00	37.92	18.00	8.16

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
48	IT7	Santo Stefano-Porto del Valle (Porto Santo Stefano)	454.00	395.00	10.00	118.00	0.30	100.00	25.00	37.50	18.50	8.28
49	IT8	Capri-Marina Grande	654.00	220.00	10.00	110.00	0.40	300.00	50.00	37.40	19.00	8.15
50	IT9	Palermo (Sicily)-Marina Villa Igiea	398.34	306.94	4.50	92.91	0.40	400.00	60.00	37.60	18.50	8.17
51	MT1	Grand Harbour Marina	858.99	198.79	18.00	261.16	0.40	193.00	100.00	38.33	20.00	8.00
52	MT3	Manoel Island Marina	727.02	261.86	5.00	227.22	0.40	150.00	90.00	38.00	19.80	8.00
53	MT4	Msida Marina	883.22	129.16	10.00	162.65	0.40	700.00	18.00	37.92	19.70	8.00
54	MT5	Mgarr Marina	503.86	270.63	5.00	84.29	0.40	208.00	15.00	38.00	20.00	8.09
55	SI1	Marina Izola	696.57	319.77	3.50	90.07	1.10	650.00	30.00	37.00	17.50	8.21
56	SI2	Marina Portoroz	503.15	185.44	4.50	23.91	1.10	640.00	24.00	37.50	17.50	8.17
57	SI3	Marina Koper d.o.o.	149.43	85.55	3.50	52.50	1.10	85.00	18.00	37.00	17.00	8.24
58	GB1	Penzance	248.98	227.17	10.67	74.97	3.70	250.00	10.67	35.40	13.00	8.13
59	GB2	Mevagissey	340.22	189.56	4.00	45.21	3.80	250.00	15.00	35.20	12.80	8.20
60	GB3	Newhaven Marina	337.32	138.31	4.00	225.00	5.00	120.00	12.00	34.90	12.50	7.90
61	EI1	Dun Laoghaire Marinas	650.41	263.50	10.50	150.71	3.30	800.00	30.00	35.20	10.00	8.19
62	EI2	Howth Yacht Club & Marina	330.00	270.00	5.00	102.00	3.60	350.00	20.00	35.00	9.80	8.19
63	EI4	Malahide Marina	337.34	165.08	2.40	40.00	3.70	370.00	70.00	34.90	9.50	8.19

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
64	EI5	Poolbeg Marina•	217.74	73.00	2.40	15.00	3.40	100.00	20.00	35.00	9.80	8.19
65	GB10	Aberystwyth Marina	189.47	164.24	7.00	35.24	3.20	160.00	20.00	35.30	12.00	8.19
66	BE1	Royal North Sea Yacht Club	87.55	85.82	2.50	21.53	3.96	100.00	5.00	34.20	18.20	6.50
67	BE2	Royal Belgian Sailing Club Zeebrugge	676.56	92.54	13.50	108.85	3.59	180.00	18.00	31.90	18.50	8.02
68	BE3	Mercator Marina	429.64	111.95	4.00	17.84	3.80	225.00	45.00	32.00	11.50	6.50
69	BE4	VVW Westhoek Sparrbekken Basin Marina	440.97	188.51	2.00	28.00	4.15	200.00	6.00	34.40	18.00	7.42
70	BE5	WSKLuM	522.40	260.43	2.00	50.20	3.96	1000.00	30.00	34.50	11.50	7.42
71	BE6	De Vrije Noordzeezeilers	279.75	98.58	2.50	35.75	3.79	300.00	15.00	32.80	11.50	8.02
72	BE7	Koninklijke Yacht Club Nieuwpoort	399.15	134.71	3.00	24.50	3.96	350.00	20.00	34.60	11.50	7.42
73	BE8	Blankenberge Marina	419.62	241.17	2.50	56.32	3.79	900.00	15.00	32.80	11.50	8.02
74	DE5	Amrum-Hafen Marina	219.39	80.93	2.20	80.93	2.90	53.00	40.00	27.20	10.00	8.18
75	DE8	Cuxhaven Yacht Club Marina	353.61	141.95	3.17	58.42	3.50	148.00	30.00	19.00	11.00	8.13
76	GB4	Ramsgate	447.51	448.61	3.00	91.67	3.70	315.00	30.00	24.05	12.30	7.70
77	GB5	Bradwell Marina	247.22	159.92	4.00	45.20	3.90	300.00	15.25	22.45	12.00	7.70
78	GB6	Royal Norfolk & Suffolk Yacht Club	151.17	90.00	2.50	14.71	1.50	100.00	30.00	22.30	12.00	7.80

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
79	GB7	Sunderland	274.87	139.90	3.00	63.94	3.60	114.00	13.00	22.27	11.00	7.87
80	GB8	Blyth Marina	497.08	241.09	0.00	88.55	3.50	100.00	16.00	22.00	10.00	7.69
81	GB9	Amble Marina	209.64	127.30	2.40	27.00	3.40	250.00	20.00	22.00	10.00	7.20
82	NL10	Jachthaven Lauersoog	969.43	198.31	2.80	89.43	2.90	400.00	30.00	29.00	12.95	8.05
83	NL4	Jachthaven Neptunus	371.61	126.96	3.50	65.77	3.60	170.00	60.00	29.00	12.50	7.88
84	NL5	Waddenhaven Vlieland	318.71	97.88	2.50	18.10	2.30	250.00	30.00	26.00	11.00	8.09
85	NL8	Jachthaven Michiel de Ruijterhaven	195.22	54.63	9.00	22.81	4.40	100.00	50.00	31.00	11.72	7.80
86	SE11	Gräddö Marina	283.00	155.00	4.00	150.00	0.10	400.00	30.00	6.00	10.00	8.30
87	DK8	Gedser Lystbådehavn	256.41	100.00	3.40	47.12	0.20	45.00	25.00	15.00	10.38	7.75
88	DK12	Boderne Havn	56.00	87.00	1.25	13.00	0.30	85.00	10.00	7.60	11.00	7.90
89	DK13	Nørrekås Lystbådehavn	70.00	51.00	2.25	6.00	0.10	150.00	20.00	7.60	11.00	7.90
90	DK14	Rønne, Marina	192.00	127.00	2.00	67.00	0.10	101.00	20.00	7.60	11.00	7.90
91	DK15	Hasle Marina 2	121.00	65.00	1.20	26.00	0.10	115.00	10.00	7.60	11.00	7.90
92	DK16	Svaneke, havn	71.00	55.00	3.50	9.00	0.10	45.00	30.00	7.60	11.00	7.90
93	FI8	Mikonkari Marina	116.33	34.32	3.58	93.70	0.15	29.00	15.00	2.00	8.50	6.80
94	FI9	Reila Marina	121.54	34.50	3.58	48.20	0.14	45.00	15.00	4.00	10.50	7.70

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
95	LT1	Klaipeda marina	228.41	50.42	5.00	27.39	0.10	100.00	30.00	6.09	9.45	8.48
96	LV2	Ventspils Yacht harbour (Marina)	320.87	205.96	5.00	63.76	0.10	500.00	20.00	6.92	11.81	8.28
97	PL7	Władysławowo	466.01	378.15	5.00	58.48	0.10	420.00	20.00	7.08	10.61	8.54
98	PL2	Hel	482.41	265.60	5.00	70.78	0.10	60.00	20.00	7.13	10.53	8.82
99	PL3	Jastarnia	423.22	271.02	5.00	72.40	0.10	60.00	20.00	7.04	10.18	8.02
100	PL5	Puck	175.40	82.37	13.00	45.52	0.10	33.00	20.00	8.40	10.50	8.02
101	EE10	Tallinn - Pirita	886.48	390.35	2.80	58.10	0.10	310.00	50.00	6.16	10.00	7.86
102	EE2	Dirhami	252.00	201.00	4.20	201.00	0.10	10.00	110.00	6.66	10.03	8.56
103	EE5	Lohusalu	174.73	69.99	2.20	37.57	0.10	10.00	20.00	6.13	10.00	8.46
104	FI1	Loviisa Laicasilta Marina	216.25	105.31	2.50	31.00	0.21	55.00	10.00	4.00	12.47	8.50
105	FI10	Uittamo Marina Koivisto model (SYKE)	420.00	140.00	2.20	420.00	0.00	226.00	20.00	4.60	10.00	8.00
106	FI6	Herttoniemen Marina	328.08	309.15	3.00	83.77	0.16	190.00	30.00	4.00	16.25	8.70
107	FI7	Uutela Marina	263.03	117.88	3.58	27.92	0.16	190.00	12.00	5.00	16.25	8.70
108	EE1	Haapsalu-Grand Holm Marina	200.00	150.00	2.00	22.07	0.10	70.00	24.00	6.00	10.00	8.25
109	EE3	Kihnu	368.68	100.00	3.50	239.84	0.10	20.00	35.00	5.50	10.50	8.70
110	EE4	Kuressaare	459.00	143.83	2.50	89.49	0.10	132.00	30.00	5.90	10.00	8.32

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
111	EE7	Orissaare	411.29	163.46	2.30	75.83	0.10	18.00	20.00	7.00	10.00	8.45
112	EE8	Pärnu	121.07	59.89	5.00	42.55	0.10	90.00	100.00	5.50	11.00	8.24
113	EE9	Roomassaare	529.22	147.84	3.00	35.18	0.10	70.00	30.00	6.00	10.00	8.30
114	SE10	Morarna Road Marina	339.00	82.00	6.00	30.00	0.10	270.00	15.00	7.00	10.00	8.30
115	SE12	Marsattra Marina	220.00	166.00	3.00	118.00	0.10	342.00	30.00	6.00	10.00	8.30
116	SE13	Erikso Yacht Harbour	152.00	191.00	4.00	125.00	0.10	150.00	10.00	6.00	10.00	8.30
117	SE14	Fisksatra Baatklubb Marina	193.00	108.00	10.00	68.00	0.10	200.00	20.00	6.00	10.00	8.30
118	SE9 (kemi)	Kemi-Bullando	350.00	400.00	3.00	140.00	0.10	376.00	30.00	6.10	10.00	8.30
119	FI2	Vaasa Hietasaari Marina	356.86	180.08	5.00	98.57	0.20	500.00	30.00	3.50	9.40	8.30
120	FI3	Vaasa Kalarannanpuisto	334.85	98.11	5.00	76.39	0.20	200.00	30.00	3.50	9.40	7.80
121	FI4	Aminne Yacht Harbour	94.33	80.30	3.58	29.04	0.20	32.00	10.00	4.00	10.65	7.50
122	FI5	Aminne Marina	131.99	82.03	3.58	14.00	0.20	120.00	15.00	4.00	9.50	7.50
123	SE7	Arkösund	252.30	186.68	5.00	136.31	0.10	500.00	30.00	4.00	11.75	8.51
124	DE10	Binnenhafen Marina 1	137.50	100.00	3.00	20.00	0.30	115.00	15.00	8.00	10.75	8.28
125	DE2	Ancora Marina	530.71	433.36	3.69	99.76	0.30	1400.00	35.00	14.00	10.75	8.25
126	DE3	Kuhlungsborn	338.70	293.31	5.00	43.80	0.30	400.00	30.00	8.00	10.70	8.29

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
127	DK4	Bandholm Havn	80.47	62.99	5.00	32.27	0.30	50.00	120.00	20.00	11.40	8.05
128	DK5	Bogense Havn og Marina	415.54	291.07	3.50	19.44	0.30	760.00	55.00	23.00	10.00	8.04
129	DK9	Havnsø Havn	278.49	180.48	2.75	39.22	0.20	250.00	18.00	25.00	10.58	8.04
130	DK1	Ærøskøbing Havn	178.00	100.00	3.00	15.35	0.50	350.00	15.00	20.00	12.50	7.68
131	DK10	Skagen Havn	150.00	125.00	7.00	15.00	0.30	183.00	50.00	33.00	11.25	8.20
132	DK11 (MST)	Jyllinge	262.00	112.00	1.80	12.00	1.00	400.00	10.00	14.50	12.50	7.00
133	DK2	Asaa Havn (Kattegatt)	223.10	107.72	2.00	17.88	1.00	175.00	30.00	30.00	11.10	8.20
134	SE15	Kemi West Coast Marina (Gunneby)	700.00	200.00	3.00	600.00	0.23	1288.00	30.00	20.30	13.50	8.00
135	DE11	Binnenhafen Marina 2	200.00	187.50	3.00	20.00	0.30	366.00	15.00	8.00	10.75	8.28
136	DE6	Maasholm Marina	368.63	246.48	3.69	38.06	0.30	450.00	25.00	16.00	10.75	8.27
137	DE7	Yachthafen Laboe Marina	534.48	201.43	3.69	59.07	0.30	285.00	20.00	15.00	10.75	7.73
138	DE9	Hafen Orth GmbH	560.68	52.77	3.00	20.38	0.30	150.00	18.50	3.00	15.00	8.08
139	DK3	Augustenborg Yacht Harbor	228.63	225.17	3.00	225.17	0.50	260.00	20.00	21.00	13.00	7.68
140	DE4	Hamburger Yachthafen	591.87	450.91	3.69	73.48	3.90	1950.00	15.00	17.00	21.50	7.70
141	SE3	Limhamns Småbåtshamn	570.65	347.81	5.00	77.12	0.10	1088.00	30.00	8.00	11.10	8.15
142	NL3	Jachthaven Brouwershaven	422.10	144.89	8.00	12.26	2.70	435.00	100.00	31.00	12.17	8.00

	Country_ Code	Marina	Marina Length	Marina Width	Marina Depth	Entrance Width	Tidal Difference	Maximum Vessel Occupancy	Max Vessel Length	Salinity PSU	Average water temp	pH
143	NL6	Scharendijke Jachthaven	401.34	151.95	3.00	30.06	2.70	850.00	100.00	30.00	12.42	8.00
144	NL1	Compagnieshaven	574.68	449.86	2.80	90.81	2.00	670.00	50.00	21.00	10.00	8.09
145	NL9	Jachthaven Oostmahorn	245.84	212.35	2.50	42.90	2.90	450.00	30.00	28.00	12.95	8.05
146	NO1	Herbern Marina	180.04	153.67	12.00	67.69	0.40	300.00	50.00	35.20	9.00	7.00
147	NO2	Frognerkilens Båtforening	1250.36	550.16	9.00	244.01	0.40	800.00	40.00	35.20	9.00	7.00
148	NO6	Stavern	378.49	174.69	10.50	63.25	0.40	300.00	5.00	35.60	9.20	7.00

Appendix 6: Marina Codes

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
1	ES1	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
2	ES2	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
3	ES3	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
4	PT1	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
5	PT10	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
6	PT3	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
7	PT4	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
8	PT5	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
9	PT7	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
10	PT8	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
11	PT9	1.00	Atlantic	1	Atlantic	1	Atlantic	1	Atlantic
12	CY1	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
13	CY2	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
14	CY3	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
15	CY5	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
16	ES10	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
17	ES4	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
18	ES5	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
19	ES6	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
20	ES7	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
21	ES8	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
22	ES9	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
23	FR1	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
24	FR10	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
25	FR2	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
26	FR3	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
27	FR4	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
28	FR5	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
29	FR6	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
30	FR7	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
31	FR8	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
32	FR9	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
33	GR10	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
34	GR2	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
35	GR3	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
36	GR5	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
37	GR6	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
38	GR7	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
39	GR8	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
40	GR9	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
41	IT1	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
42	IT10	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
43	IT2	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
44	IT3	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
45	IT4	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
46	IT5	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
47	IT6	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
48	IT7	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
49	IT8	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
50	IT9	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
51	MT1	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
52	MT3	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
53	MT4	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
54	MT5	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
55	SI1	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
56	SI2	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
57	SI3	2.00	Mediterranean	2	Mediterranean	2	Mediterranean	2	Mediterranean
58	GB1	1.00	Atlantic	5	English Channel	5	English Channel	5	English Channel
59	GB2	1.00	Atlantic	5	English Channel	5	English Channel	5	English Channel
60	GB3	1.00	Atlantic	5	English Channel	5	English Channel	5	English Channel
61	EI1	1.00	Atlantic	6	Irish Sea	6	Irish Sea	6	Irish Sea
62	EI2	1.00	Atlantic	6	Irish Sea	6	Irish Sea	6	Irish Sea
63	EI4	1.00	Atlantic	6	Irish Sea	6	Irish Sea	6	Irish Sea

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
64	EI5	1.00	Atlantic	6	Irish Sea	6	Irish Sea	6	Irish Sea
65	GB10	1.00	Atlantic	6	Irish Sea	6	Irish Sea	6	Irish Sea
66	BE1	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
67	BE2	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
68	BE3	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
69	BE4	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
70	BE5	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
71	BE6	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
72	BE7	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
73	BE8	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
74	DE5	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
75	DE8	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
76	GB4	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
77	GB5	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
78	GB6	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
79	GB7	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
80	GB8	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
81	GB9	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
82	NL10	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
83	NL4	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
84	NL5	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
85	NL8	1.00	Atlantic	7	North Sea	7	North Sea	7	North Sea
86	SE11	3.00	Baltic Sea Area	3	Baltic	8	Aland Sea	8	Aland Sea
87	DK8	3.00	Baltic Sea Area	3	Baltic	9	Arkona Basin	9	Arkona Basin
88	DK12	3.00	Baltic Sea Area	3	Baltic	10	Bornholm Basin	10	Bornholm Basin
89	DK13	3.00	Baltic Sea Area	3	Baltic	10	Bornholm Basin	10	Bornholm Basin
90	DK14	3.00	Baltic Sea Area	3	Baltic	10	Bornholm Basin	10	Bornholm Basin
91	DK15	3.00	Baltic Sea Area	3	Baltic	10	Bornholm Basin	10	Bornholm Basin
92	DK16	3.00	Baltic Sea Area	3	Baltic	10	Bornholm Basin	10	Bornholm Basin
93	FI8	3.00	Baltic Sea Area	3	Baltic	11	Bothnian Sea	11	Bothnian Sea
94	FI9	3.00	Baltic Sea Area	3	Baltic	11	Bothnian Sea	11	Bothnian Sea
95	LT1	3.00	Baltic Sea Area	3	Baltic	12	Eastern Gotland Basin	12	Eastern Gotland Basin

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
96	LV2	3.00	Baltic Sea Area	3	Baltic	12	Eastern Gotland Basin	12	Eastern Gotland Basin
97	PL7	3.00	Baltic Sea Area	3	Baltic	12	Eastern Gotland Basin	12	Eastern Gotland Basin
98	PL2	3.00	Baltic Sea Area	3	Baltic	13	Gdansk Bay	13	Gdansk Bay
99	PL3	3.00	Baltic Sea Area	3	Baltic	13	Gdansk Bay	13	Gdansk Bay
100	PL5	3.00	Baltic Sea Area	3	Baltic	13	Gdansk Bay	13	Gdansk Bay
101	EE10	3.00	Baltic Sea Area	3	Baltic	14	Gulf of Finland	14	Gulf of Finland
102	EE2	3.00	Baltic Sea Area	3	Baltic	14	Gulf of Finland	14	Gulf of Finland
103	EE5	3.00	Baltic Sea Area	3	Baltic	14	Gulf of Finland	14	Gulf of Finland
104	FI1	3.00	Baltic Sea Area	3	Baltic	14	Gulf of Finland	14	Gulf of Finland
105	FI10	3.00	Baltic Sea Area	3	Baltic	14	Gulf of Finland	14	Gulf of Finland
106	FI6	3.00	Baltic Sea Area	3	Baltic	14	Gulf of Finland	14	Gulf of Finland
107	FI7	3.00	Baltic Sea Area	3	Baltic	14	Gulf of Finland	14	Gulf of Finland
108	EE1	3.00	Baltic Sea Area	3	Baltic	15	Gulf of Riga	15	Gulf of Riga
109	EE3	3.00	Baltic Sea Area	3	Baltic	15	Gulf of Riga	15	Gulf of Riga
110	EE4	3.00	Baltic Sea Area	3	Baltic	15	Gulf of Riga	15	Gulf of Riga
111	EE7	3.00	Baltic Sea Area	3	Baltic	15	Gulf of Riga	15	Gulf of Riga

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
112	EE8	3.00	Baltic Sea Area	3	Baltic	15	Gulf of Riga	15	Gulf of Riga
113	EE9	3.00	Baltic Sea Area	3	Baltic	15	Gulf of Riga	15	Gulf of Riga
114	SE10	3.00	Baltic Sea Area	3	Baltic	16	Northern Baltic Proper	16	Northern Baltic Proper
115	SE12	3.00	Baltic Sea Area	3	Baltic	16	Northern Baltic Proper	16	Northern Baltic Proper
116	SE13	3.00	Baltic Sea Area	3	Baltic	16	Northern Baltic Proper	16	Northern Baltic Proper
117	SE14	3.00	Baltic Sea Area	3	Baltic	16	Northern Baltic Proper	16	Northern Baltic Proper
118	SE9 (kemi)	3.00	Baltic Sea Area	3	Baltic	16	Northern Baltic Proper	16	Northern Baltic Proper
119	FI2	3.00	Baltic Sea Area	3	Baltic	17	The Quark	17	The Quark
120	FI3	3.00	Baltic Sea Area	3	Baltic	17	The Quark	17	The Quark
121	FI4	3.00	Baltic Sea Area	3	Baltic	17	The Quark	17	The Quark
122	FI5	3.00	Baltic Sea Area	3	Baltic	17	The Quark	17	The Quark
123	SE7	3.00	Baltic Sea Area	3	Baltic	18	Western Gotland Basin	18	Western Gotland Basin
124	DE10	3.00	Baltic Sea Area	4	Baltic Transition	19	Bay of Mecklenburg	19	Bay of Mecklenburg
125	DE2	3.00	Baltic Sea Area	4	Baltic Transition	19	Bay of Mecklenburg	19	Bay of Mecklenburg
126	DE3	3.00	Baltic Sea Area	4	Baltic Transition	19	Bay of Mecklenburg	19	Bay of Mecklenburg
127	DK4	3.00	Baltic Sea Area	4	Baltic Transition	20	Great Belt	20	Great Belt

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
128	DK5	3.00	Baltic Sea Area	4	Baltic Transition	20	Great Belt	20	Great Belt
129	DK9	3.00	Baltic Sea Area	4	Baltic Transition	20	Great Belt	20	Great Belt
130	DK1	3.00	Baltic Sea Area	4	Baltic Transition	21	Kattegat	21	Kattegat
131	DK10	3.00	Baltic Sea Area	4	Baltic Transition	21	Kattegat	21	Kattegat
132	DK11 (MST)	3.00	Baltic Sea Area	4	Baltic Transition	21	Kattegat	27	Roskilde Fjord
133	DK2	3.00	Baltic Sea Area	4	Baltic Transition	21	Kattegat	21	Kattegat
134	SE15	3.00	Baltic Sea Area	4	Baltic Transition	21	Kattegat	21	Kattegat
135	DE11	3.00	Baltic Sea Area	4	Baltic Transition	22	Kiel Bay	22	Kiel Bay
136	DE6	3.00	Baltic Sea Area	4	Baltic Transition	22	Kiel Bay	22	Kiel Bay
137	DE7	3.00	Baltic Sea Area	4	Baltic Transition	22	Kiel Bay	22	Kiel Bay
138	DE9	3.00	Baltic Sea Area	4	Baltic Transition	22	Kiel Bay	22	Kiel Bay
139	DK3	3.00	Baltic Sea Area	4	Baltic Transition	22	Kiel Bay	22	Kiel Bay
140	DE4	1.00	Atlantic	7	North Sea	22	Elbe	22	Elbe
141	SE3	3.00	Baltic Sea Area	4	Baltic Transition	23	The Sound	23	The Sound
142	NL3	1.00	Atlantic	7	North Sea	23	North Sea	23	North Sea
143	NL6	1.00	Atlantic	7	North Sea	23	North Sea	23	North Sea

	Country_Code	Water Body Sea Code 1	Water Body Sea Code 1 Name	Regional Sea Sea Code 2	Regional Sea Sea Code 2 Name	Locality Sea Code 3	Locality Sea Code 3 Name	Site Specific Sea Code 4	Site Specific Sea Code 4 Name
144	NL1	1.00	Atlantic	7	North Sea	24	Ijsselmeer	24	Ijsselmeer
145	NL9	1.00	Atlantic	7	North Sea	25	Lauwersmeer	25	Lauwersmeer
146	NO1	1.00	Atlantic	7	North Sea	26	Skagerrak	28	Oslo Fjord
147	NO2	1.00	Atlantic	7	North Sea	26	Skagerrak	28	Oslo Fjord
148	NO6	1.00	Atlantic	7	North Sea	26	Skagerrak	26	Skagerrak

Appendix 7 Specific Data sources

Belgium	
Marina 1	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/royal-north-sea-yacht-club/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/royal-north-sea-yacht-club/
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=zeebruges
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=zeebruges
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=zeebruges
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/royal-north-sea-yacht-club/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/royal-north-sea-yacht-club/

Belgium

Marina 2	http://www.portbooker.com/en/marinas/belgium/zeebrugge/zeebrugge/royal-belgian-sailing-club/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/belgium/zeebrugge/zeebrugge/royal-belgian-sailing-club/
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=zeebruges
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=zeebruges
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=zeebruges
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/belgium/zeebrugge/zeebrugge/royal-belgian-sailing-club/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/belgium/zeebrugge/zeebrugge/royal-belgian-sailing-club/

Marina 3	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/mercator-marina-cvba/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/mercator-marina-cvba/
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=ostend
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=ostend
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=ostend
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/mercator-marina-cvba/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/belgium/zeebrugge/oostende/mercator-marina-cvba/

Belgium

Marina 4	http://www.vvw-westhoek.be/DOC/Info/alginfo.html
Marina length; width	Google Earth
Depth	http://www.vvw-westhoek.be/DOC/Info/alginfo.html
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=ostend
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=ostend
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=ostend
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.vvw-westhoek.be/DOC/Info/alginfo.html
The maximum length of vessel that the marina can accommodate	http://www.vvw-westhoek.be/DOC/Info/alginfo.html

Marina 5	http://www.wsklum.be/welcome.htm
Marina length; width	Google Earth
Depth	http://www.wsklum.be/welcome.htm
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Newport
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Newport
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Newport
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.wsklum.be/welcome.htm
The maximum length of vessel that the marina can accommodate	http://www.wsklum.be/welcome.htm

Belgium

Marina 6	http://www.portbooker.com/es/puertos/belgica/oostende-a-zeebrugge/blankenberge/de-vrije-noordzee zeilers/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/es/puertos/belgica/oostende-a-zeebrugge/blankenberge/de-vrije-noordzee zeilers/
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Blankenberge
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Blankenberge
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Blankenberge
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/es/puertos/belgica/oostende-a-zeebrugge/blankenberge/de-vrije-noordzee zeilers/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/es/puertos/belgica/oostende-a-zeebrugge/blankenberge/de-vrije-noordzee zeilers/

Marina 7	http://www.portbooker.com/en/marinas/belgium/de-veurne-nieuwpoort/nieuwpoort/koninklijke-yacht club-nieuwpoort/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/belgium/de-veurne-nieuwpoort/nieuwpoort/koninklijke-yacht club-nieuwpoort/
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=nieuwpoort
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=nieuwpoort
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=nieuwpoort
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/belgium/de-veurne-nieuwpoort/nieuwpoort/koninklijke-yacht club-nieuwpoort/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/belgium/de-veurne-nieuwpoort/nieuwpoort/koninklijke-yacht club-nieuwpoort/

Belgium

Marina 8	http://www.planetware.com/blankenberge/marina-b-wv-blma.htm
Marina length; width	Google Earth
Depth	http://www.vvwblankenberge.be/welkom.html
Width of the marina entrance	Google Earth
Tidal difference	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Blankenberge
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Blankenberge
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Tides/table.php?station=Blankenberge
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.vvwblankenberge.be/welkom.html
The maximum length of vessel that the marina can accommodate	http://www.vvwblankenberge.be/welkom.html

Bulgaria		
Marina 1	http://www.blueflag.org/blueflag/2008/Bulgaria/Bourgas/Marina%20Dinevi	http://www.dinevimarina.com/about.php?cntid=21
Marina length; width	google earth	
Depth	http://www.dinevimarina.com/about.php?cntid=21	
Width of the marina entrance	google earth	
Tidal difference	http://blacksea.orlyonok.ru/e2.shtml	
Salinity	http://www.icromania.com/infoCoast.asp	
Average water temperature	http://www.wunderground.com/MAR/eum.html#map	
pH	http://www.sumae.gov.tr/eng/proje/devam/02.htm	
The number of vessels moored in the marina	http://www.dinevimarina.com/about.php?cntid=21	
The maximum length of vessel that the marina can accommodate	http://www.dinevimarina.com/about.php?cntid=21	

*Tidal oscillations of the Black Sea level do not exceed 10cm because Mediterranean tidal waves extinguish in the Straits.

Cyprus	
Marina 1	http://www.portbooker.com/en/marinas/cyprus/cyprus/larnaca/larnaca/ http://windowoncyprus.com/larnaca_marina.htm
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/cyprus/cyprus/larnaca/larnaca/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EasyTide/EasyTide/SelectPrediction.aspx?PortID=1985
Salinity	http://www.oceanography.ucy.ac.cy/cycofos/forecast.html
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1 http://www.oc.phys.uoa.gr/SST/images/c041206.jpg
pH	http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VH3-485XDSY-2&_user=224739&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_version=1&_urlVersion=0&_userid=224739&md5=c7711116f1346a9539d674a055c55f53
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/cyprus/cyprus/larnaca/larnaca/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/cyprus/cyprus/larnaca/larnaca/

Cyprus Marina 2	http://www.portbooker.com/en/marinas/cyprus/cyprus/limassol/limasol-st.-raphael-marina/ http://www.tripsailor.com/pois/6337515-st-raphael-marina
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/cyprus/cyprus/limassol/limasol-st.-raphael-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EasyTide/EasyTide/SelectPrediction.aspx?PortID=1984B
Salinity	http://www.oceanography.ucy.ac.cy/cycofos/viod_cyse.html
Average water temperature	http://www.tripsailor.com/pois/6337515-st-raphael-marina
pH	http://www.globe.gov/fsl/worddocs/CY_01_beach.doc
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/cyprus/cyprus/limassol/limasol-st.-raphael-marina/ http://www.raphael.com.cy/article.php?id=21
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/cyprus/cyprus/limassol/limasol-st.-raphael-marina/

Cyprus Marina 3	http://www.portbooker.com/en/marinas/cyprus/cyprus/kyrenia/delta-marina/ http://www.delta-marina.com/english/english_ana.htm
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/cyprus/cyprus/kyrenia/delta-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1984
Salinity	http://www.oceanography.ucy.ac.cy/cycofos/viod_cyse.html
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/cyprus/cyprus/kyrenia/delta-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/cyprus/cyprus/kyrenia/delta-marina/

Cyprus Marina 4	http://www.port-cyprium-marina.com/index.html
Marina length; width	Google Earth
Depth	http://www.port-cyprium-marina.com/index.html
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1983
Salinity	http://www.oceanography.ucy.ac.cy/cycofos/viod_cyse.html
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.port-cyprium-marina.com/index.html
The maximum length of vessel that the marina can accommodate	http://www.port-cyprium-marina.com/index.html

Cyprus Marina 5	http://www.portbooker.com/en/marinas/cyprus/cyprus/paphos/paphos/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/cyprus/cyprus/paphos/paphos/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EasyTide/EasyTide/SelectPrediction.aspx?PortID=1984B
Salinity	http://www.oceanography.ucy.ac.cy/cycofos/viod_cyse.html
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/cyprus/cyprus/paphos/paphos/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/cyprus/cyprus/paphos/paphos/

Denmark	
Marina 1	http://www.tripsailor.com/pois/6327733-%C3%86rzskzbing-havn
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=380
Width of the marina entrance	Google Earth
Tidal difference	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=380
Salinity	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
Average water temperature	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=380

Denmark Marina 2	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=804
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=804
Width of the marina entrance	Google Earth
Tidal difference	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=804
Salinity	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
Average water temperature	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.visitaarhus.com/international/en-gb/menu/turist/om-aarhus/ aktiviteter/ved-paavandet/fritidshavne/produktside/gdk006833/asaa-havn.htm?CallerUrl=1
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=804

Denmark Marina 3	http://www.augustenborg-yachthavn.dk/engelsk/eaugustenborg.htm http://marinas.com/view/marina/828
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=380
Width of the marina entrance	Google Earth
Tidal difference	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=380
Salinity	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
Average water temperature	http://www.tripsailor.com/pois/6354351-augustenborg-yachthavn
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.augustenborg-yachthavn.dk/engelsk/eaugustenborg.htm
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=380

Denmark Marina 4	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=27 http://www.tripsailor.com/pois/6336502-bandholm-marina
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=27
Width of the marina entrance	Google Earth
Tidal difference	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=27
Salinity	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
Average water temperature	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.visitaarhus.com/international/en-gb/menu/turist/om-aarhus/aktiviteter/ved-paa vandet/fritidshavne/produktside/gdk014306/bandholm-havn.htm?CallerUrl=1
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=27

Denmark Marina 5	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=582 http://www.tripsailor.com/pois/6335102 http://marinas.com/view/marina/804
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=582
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1395
Salinity	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
Average water temperature	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.byportalen.dk/page.asp?objectid=550&zcs=350
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=582

Denmark Marina 6	http://www.tripsailor.com/pois/6326309-hvide-sande-nordhavn http://www.hvidesande.dk/havn/ http://marinas.com/view/marina/11366
Marina length; width	Google Earth
Depth	http://www.hvidesande.dk/havn/tidevand.htm
Width of the marina entrance	Google Earth
Tidal difference	http://www.hvidesande.dk/havn/tidevand.htm
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=esbjerg
Average water temperature	http://marinas.com/view/marina/11366
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	http://www.hvidesande.dk/havn/tidevand.htm

Denmark Marina 7	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=584 http://www.blueflag.org/blueflag/2008/Denmark/Regionsyddanmark/BrejningHavn http://www.brejninghavn.dk/
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=584
Width of the marina entrance	Google Earth
Tidal difference	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=584
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=esbjerg
Average water temperature	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=esbjerg
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://brejninghavn.dk/index.php?id=92,0,0,1,0,0
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=584

Denmark Marina 8	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=90 http://www.tripsailor.com/pois/6325383-gedser-lystbzdehavn http://marinas.com/view/marina/10516
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=90
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1390
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=esbjerg
Average water temperature	http://marinas.com/view/marina/10516
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=90

Denmark Marina 9	http://marinas.com/view/marina/10756 http://www.tripsailor.com/pois/6325648-havnsz-havn http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=605
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=605
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1387
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=esbjerg
Average water temperature	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.visitodsherred.dk/international/engb/menu/turist/oplevelser/aktiviteter/ fritidshavne/produktside/gdk009776/havnsoehavn.htm?wbc_purpose=Basic&CallerUrl=1
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=605

Denmark Marina 10	http://marinas.com/view/marina/11743 http://www.tripsailor.com/pois/6326708-skagen-havn http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=827
Marina length; width	Google Earth
Depth	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=827
Width of the marina entrance	Google Earth
Tidal difference	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=827
Salinity	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
Average water temperature	http://www2.dmu.dk/marineecologyandmicrobiology/Cruisereports/Cruise154/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	http://www.danskehavnelods.dk/havneoplysninger.aspx?ID=827

Estonia	
Marina 1	www.marinas.nautilus.ee
Marina length; width	Google Earth
Depth	www.marinas.nautilus.ee
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.estonica.org/eng/lugu.html?kateg=10&menyy_id=515&alam=71&tekst_id=516
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080718_1_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.marinas.nautilus.ee
The maximum length of vessel that the marina can accommodate	www.marinas.nautilus.ee

Estonia Marina 2	http://www.marinas.nautilus.ee/index.php/database
Marina length; width	Google Earth
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	Google Earth
Tidal difference	http://www.ices.dk/Ocean/
Salinity	http://www.estonica.org/eng/lugu.html?kateg=10&menyy_id=515&alam=71&tekst_id=516
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Estonia Marina 3	http://www.marinas.nautilus.ee/index.php/database
Marina length; width	Google Earth
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.modlab.lv/publications/1998/publ3.htm
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080711_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Estonia Marina 4	http://www.marinas.nautilus.ee/index.php/database
Marina length; width	Google Earth
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.modlab.lv/publications/1998/publ3.htm
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080718_1_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Estonia Marina 5	http://www.marinas.nautilus.ee/index.php/database
Marina length; width	Google Earth
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.estonica.org/eng/lugu.html?kateg=10&menyy_id=515&alam=71&tekst_id=516
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080711_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Estonia Marina 6	http://www.archipelago.nu/SKARGARD/ENGELSKA/ESTONIA/nasva.htm
Marina length; width	Google Earth
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.modlab.lv/publications/1998/publ3.htm
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080711_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Estonia Marina 7	http://www.marinas.nautilus.ee/index.php/database
Marina length; width	NA
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	NA
Tidal difference	NA
Salinity	http://www.estonica.org/eng/lugu.html?kateg=10&menyy_id=515&alam=71&tekst_id=516
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080711_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Estonia Marina 8	http://www.marinas.nautilus.ee/index.php/database
Marina length; width	Google Earth
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.modlab.lv/publications/1998/publ3.htm
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080711_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Estonia Marina 9	http://www.portbooker.com/en/marinas/estonia/saaremaa/kuressaare/roomassaare/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/estonia/saaremaa/kuressaare/roomassaare/
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080718_1_1_1/
Salinity	http://www.estonica.org/eng/lugu.html?kateg=10&menyy_id=515&alam=71&tekst_id=516
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080711_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/estonia/saaremaa/kuressaare/roomassaare/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/estonia/saaremaa/kuressaare/roomassaare/

Estonia Marina 10	http://www.marinas.nautilus.ee/index.php/database
Marina length; width	Google Earth
Depth	http://www.marinas.nautilus.ee/index.php/database
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080718_1_1_1/
Salinity	http://www.estonica.org/eng/lugu.html?kateg=10&menyy_id=515&alam=71&tekst_id=516
Average water temperature	http://www.fimr.fi/en/ajankohtaista/mtl_uutisarkisto/2008/en_GB/levauutinen20080711_1_1/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marinas.nautilus.ee/index.php/database
The maximum length of vessel that the marina can accommodate	http://www.marinas.nautilus.ee/index.php/database

Finland	
Marina 1	http://www.blueflag.org/blueflag/2008/Finland/It-UusimaastraNyland/LaivasiltaSkeppsbron
Marina length; width	Google Earth
Depth	http://www.blueflag.org/blueflag/2008/Finland/It-UusimaastraNyland/LaivasiltaSkeppsbron
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.estonica.org/eng/lugu.html?menyy_id=515&kateg=10&alam=71&leht=1
Average water temperature	http://www.wunderground.com/MAR/eum.html#map
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.blueflag.org/blueflag/2008/Finland/It-UusimaastraNyland/LaivasiltaSkeppsbron
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 2	http://marinas.com/view/marina/14058
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/14058
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/ http://www.springerlink.com/content/f763565953154102/fulltext.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 3	http://marinas.com/view/marina/14061
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/14061
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/ http://www.springerlink.com/content/f763565953154102/fulltext.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 4	http://marinas.com/view/marina/13195
Marina length; width	Google Earth
Depth	
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/ http://www.springerlink.com/content/f763565953154102/fulltext.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 5	http://marinas.com/view/marina/13194
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/13194
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1 http://www.springerlink.com/content/f763565953154102/fulltext.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 6	http://marinas.com/view/marina/13334
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/13334
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.estonica.org/eng/lugu.html?menyy_id=515&kateg=10&alam=71&leht=1
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 7	http://marinas.com/view/marina/14053
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/14053
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.estonica.org/eng/lugu.html?menyy_id=515&kateg=10&alam=71&leht=1
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 8	http://marinas.com/view/marina/15281
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/15281
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1
pH	http://www.cfb.ie/salmonid_workshop/timo_yrana.htm
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Finland Marina 9	http://marinas.com/view/marina/13837
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/13837
Width of the marina entrance	Google Earth
Tidal difference	http://www.fimr.fi/en/itamerinyt/en_GB/vedenkorkeus/#locations
Salinity	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
Average water temperature	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

France	
Marina 1	Yachting Pages 61
Marina length; width	Google Earth
Depth	Yachting Pages 61
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1785
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 61
The maximum length of vessel that the marina can accommodate	Yachting Pages 61

France Marina 2	Yachting Pages 66
Marina length; width	Google Earth
Depth	Yachting Pages 66
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1786
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 66
The maximum length of vessel that the marina can accommodate	Yachting Pages 66

France Marina 3	Yachting Pages 73
Marina length; width	Google Earth
Depth	Yachting Pages 73
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1789
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 73
The maximum length of vessel that the marina can accommodate	Yachting Pages 73

France Marina 4	Y. Page 75
Marina length; width	Google Earth
Depth	Y. Page 75
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1789
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 75
The maximum length of vessel that the marina can accommodate	Y. Page 75

France Marina 5	Y. Page 89
Marina length; width	Google Earth
Depth	Y. Page 89
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1789
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 89
The maximum length of vessel that the marina can accommodate	Y. Page 89

France Marina 6	Y. Page 91
Marina length; width	Google Earth
Depth	Y. Page 91
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1789
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 91
The maximum length of vessel that the marina can accommodate	Y. Page 91

France Marina 7	Y. Page 92
Marina length; width	Google Earth
Depth	Y. Page 92
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1790
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 92
The maximum length of vessel that the marina can accommodate	Y. Page 92

France Marina 8	Y. Page 98
Marina length; width	Google Earth
Depth	Y. Page 98
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1790
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 98
The maximum length of vessel that the marina can accommodate	Y. Page 98

France Marina 9	Y. Page 69
Marina length; width	Google Earth
Depth	Y. Page 69
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1786
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 69
The maximum length of vessel that the marina can accommodate	Y. Page 69

France Marina 10	Y. Page 90
Marina length; width	Google Earth
Depth	Y. Page 90
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1789
Salinity	Climate Change Scenario for the Mediterranean Sea
Average water temperature	Climate Change Scenario for the Mediterranean Sea
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 90
The maximum length of vessel that the marina can accommodate	Y. Page 90

Germany	
Marina 1	http://www.tripsailor.com/pois/6353151-nordsee-marina http://www.marina-bremerhaven.de/
Marina length; width	Google Earth
Depth	http://www.marina-bremerhaven.de/
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/cgi-bin/gezeiten/was_tab_e.pl?ort=DE__103P&zone=Legal+time+%B9&niveau=NN
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Temperature/series.php?station=bremerhaven
Average water temperature	(Arkona SST)
pH	http://www.ices.dk/Ocean/ http://www.meteo24.de/wetter/49X492.html
The number of vessels moored in the marina	http://www.marina-bremerhaven.de/
The maximum length of vessel that the marina can accommodate	http://www.marina-bremerhaven.de/

Germany Marina 2	www.ancora-marina.com
Marina length; width	Google Earth
Depth	www.ancora-marina.com
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/aktdat/wvd/wahome.htm
Salinity	http://www.fimr.fi/en/tietoa/algaline_seuranta/mittaustulosarkisto/2008/en_GB/1208075859728_1_1_2_1/
Average water temperature	(Arkona SST) Development of Sea Surface Temperature in the Baltic Sea in 2005 http://www.meteo24.de/wetter/49X492.html
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.ancora-marina.com
The maximum length of vessel that the marina can accommodate	www.ancora-marina.com

Germany Marina 3	http://www.portbooker.com/en/marinas/germany/fehmarn-to-warnemunde/kuhlungsborn/kuhlungsborn/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/germany/fehmarn-to-warnemunde/kuhlungsborn/kuhlungsborn/
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/aktdat/wvd/wahome.htm
Salinity	http://www.fimr.fi/en/tietoa/algaline_seuranta/mittaustulosarkisto/2008/en_GB/1208075859728_1_1_2_1/
Average water temperature	http://www.bsh.de/en/Marine_data/Observations/MURSYS_reporting_system/mursys0108.jsp
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/germany/fehmarn-to-warnemunde/kuhlungsborn/kuhlungsborn/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/germany/fehmarn-to-warnemunde/kuhlungsborn/kuhlungsborn/

Germany Marina 4	http://www.blueflag.org/blueflag/2008/Germany/Schleswig-Holstein/HamburgerYachthafen-Gemeinschaft http://www.hamburger-yachthafen.de/
Marina length; width	Google Earth
Depth	NA
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/cgi-bin/gezeiten/was_tab_e.pl?ort=DE__508P&zone=Legal+time+%B9&niveau=NN
Salinity	http://www.fimr.fi/en/tietoa/algaline_seuranta/mittaustulosarkisto/2008/en_GB/1208075859728_1_1_2_1/
Average water temperature	(5/8) SST, Google E
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.hamburger-yachthafen.de/
The maximum length of vessel that the marina can accommodate	Google Earth

Germany Marina 5	http://marinas.com/view/marina/9305
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/9305
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/cgi-bin/gezeiten/was_tab_e.pl?ort=DE__631P&zone=MEZ&niveau=KN
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=husum
Average water temperature	http://www.tripsailor.com/pois/6336479-amrum-hafen-marina
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Germany Marina 6	http://www.blueflag.org/blueflag/2008/Germany/Schleswig-Holstein/YachthafenMaasholm
Marina length; width	Google Earth
Depth	NA
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/aktdat/wvd/wahome.htm
Salinity	http://www.ices.dk/Ocean/
Average water temperature	(Arkona SST)
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.tripsailor.com/pois/6336796-maasholm-marina
The maximum length of vessel that the marina can accommodate	Google Earth

Germany Marina 7	http://www.blueflag.org/blueflag/2008/Germany/Schleswig-Holstein/YachthafenLaboe http://marinas.com/view/marina/9453 http://www.laboe.de/portal_1000.htm
Marina length; width	Google Earth
Depth	NA
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/aktdat/wvd/wahome.htm
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.tripsailor.com/pois/6336643-fischenhafen-laboe/marinas (Arkona SST)
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Germany Marina 8	http://www.tripsailor.com/pois/6336614-cuxhaven-yacht-club-marina http://marinas.com/view/marina/9427
Marina length; width	Google Earth
Depth	http://www.tripsailor.com/pois/6336614-cuxhaven-yacht-club-marina
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/cgi-bin/gezeiten/was_tab_e.pl?ort=DE__506P&zone=Legal+time+%B9&niveau=NN
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=cuxhaven
Average water temperature	http://www.tripsailor.com/pois/6336614-cuxhaven-yacht-club-marina
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.tripsailor.com/pois/6336614-cuxhaven-yacht-club-marina
The maximum length of vessel that the marina can accommodate	http://www.tripsailor.com/pois/6336614-cuxhaven-yacht-club-marina

Germany Marina 9	http://marinas.com/view/lock/429
Marina length; width	Google Earth
Depth	http://marinas.com/view/lock/429
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/aktdat/wvd/wahome.htm
Salinity	http://www.ices.dk/Ocean/
Average water temperature	(Arkona SST)
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Germany Marina 10	http://www.blueflag.org/blueflag/2008/Germany/Schleswig-Holstein/HafenOrthGmbH
Marina length; width	Google Earth
Depth	http://www.hafen-orth.de/hafen.html
Width of the marina entrance	Google Earth
Tidal difference	http://www.bsh.de/aktdat/wvd/wahome.htm
Salinity	http://www.ices.dk/Ocean/
Average water temperature	(Arkona SST)
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.blueflag.org/blueflag/2008/Germany/Schleswig-Holstein/HafenOrthGmbH
The maximum length of vessel that the marina can accommodate	Google Earth

Greece	
Marina 1	Yachting Pages 196
Marina length; width	Google Earth
Depth	Yachting Pages 196
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1920
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 196
The maximum length of vessel that the marina can accommodate	Yachting Pages 196

Greece Marina 2	Yachting Pages 199
Marina length; width	Google Earth
Depth	Yachting Pages 199
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1920
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 199
The maximum length of vessel that the marina can accommodate	Yachting Pages 199

Greece Marina 3	Yachting Pages 200
Marina length; width	Google Earth
Depth	Yachting Pages 200
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1920
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 200
The maximum length of vessel that the marina can accommodate	Yachting Pages 200

Greece Marina 4	Yachting Pages 201
Marina length; width	Google Earth
Depth	Yachting Pages 201
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1920
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 201
The maximum length of vessel that the marina can accommodate	Yachting Pages 201

Greece Marina 5	Yachting Pages 202
Marina length; width	Google Earth
Depth	Yachting Pages 202
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1920
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 202
The maximum length of vessel that the marina can accommodate	Yachting Pages 202

Greece Marina 6	Yachting Pages 203
Marina length; width	Google Earth
Depth	Yachting Pages 203
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1972
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 203
The maximum length of vessel that the marina can accommodate	Yachting Pages 203

Greece Marina 7	Yachting Pages 205
Marina length; width	Google Earth
Depth	Yachting Pages 205
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1972
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 205
The maximum length of vessel that the marina can accommodate	Yachting Pages 205

Greece Marina 8	Yachting Pages 206
Marina length; width	Google Earth
Depth	Yachting Pages 206
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1972
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 206
The maximum length of vessel that the marina can accommodate	Yachting Pages 206

Greece Marina 9	Yachting Pages 207
Marina length; width	Google Earth
Depth	Yachting Pages 207
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1943
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 207
The maximum length of vessel that the marina can accommodate	Yachting Pages 207

Greece Marina 10	Yachting Pages 208
Marina length; width	Google Earth
Depth	Yachting Pages 208
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1972
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 208
The maximum length of vessel that the marina can accommodate	Yachting Pages 208

Italy	
Italy Marina 1	Yachting Pages 116
Marina length; width	Google Earth
Depth	Yachting Pages 116
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1850
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 116
The maximum length of vessel that the marina can accommodate	Yachting Pages 116

Italy Marina 2	Yachting Pages 122
Marina length; width	Google Earth
Depth	Yachting Pages 122
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1851
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 122
The maximum length of vessel that the marina can accommodate	Yachting Pages 122

Italy Marina 3	Yachting Pages 124
Marina length; width	Google Earth
Depth	Yachting Pages 124
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1851
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 124
The maximum length of vessel that the marina can accommodate	Yachting Pages 124

Italy Marina 4	Y. Page 125
Marina length; width	Google Earth
Depth	Y. Page 125
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1851
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 125
The maximum length of vessel that the marina can accommodate	Y. Page 125

Italy Marina 5	Y. Page 126
Marina length; width	Google Earth
Depth	Y. Page 126
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1851A
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 126
The maximum length of vessel that the marina can accommodate	Y. Page 126

Italy Marina 6	Y. Page 129
Marina length; width	Google Earth
Depth	Y. Page 129
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1852
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 129
The maximum length of vessel that the marina can accommodate	Y. Page 129

Italy Marina 7	Y. Page 130
Marina length; width	Google Earth
Depth	Y. Page 130
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1852
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 130
The maximum length of vessel that the marina can accommodate	Y. Page 130

Italy Marina 8	Y. Page 139
Marina length; width	Google Earth
Depth	Y. Page 139
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1856
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 139
The maximum length of vessel that the marina can accommodate	Y. Page 139

Italy Marina 9	Y. Page 142
Marina length; width	Google Earth
Depth	Y. Page 142
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1867
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 142
The maximum length of vessel that the marina can accommodate	Y. Page 142

Italy Marina 10	Y. Page 147
Marina length; width	Google Earth
Depth	Y. Page 147
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/easytide/EasyTide/SelectPrediction.aspx?PortID=1867
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Y. Page 147
The maximum length of vessel that the marina can accommodate	Y. Page 147

Ireland	
Marina 1	http://www.marina-guide.eu/en/marinas/ www.marinamap.com
Marina length; width	Googl Earth
Depth	http://www.marina-guide.eu/en/marinas/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marina-guide.eu/en/marinas/
The maximum length of vessel that the marina can accommodate	http://www.marina-guide.eu/en/marinas/

Ireland Marina 2	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/howth-yacht-club---marina/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/howth-yacht-club---marina/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/howth-yacht-club---marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/howth-yacht-club---marina/

Ireland Marina 3	
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/ireland/donegal-(dun-na-ngall)/fahan/lough-swilly-marina/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/ireland/donegal-(dun-na-ngall)/fahan/lough-swilly-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/ireland/donegal-(dun-na-ngall)/fahan/lough-swilly-marina/

Ireland Marina 4	http://www.marina-guide.eu/en/marinas/
Marina length; width	Googl Earth
Depth	http://www.marina-guide.eu/en/marinas/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marina-guide.eu/en/marinas/
The maximum length of vessel that the marina can accommodate	http://www.marina-guide.eu/en/marinas/

Ireland Marina 5	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/poolbeg-marina/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/poolbeg-marina/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/poolbeg-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/ireland/fingal-(fine-gall)/dublin/poolbeg-marina/

Ireland Marina 6	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/royal-cork-yacht-club/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/royal-cork-yacht-club/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/royal-cork-yacht-club/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/royal-cork-yacht-club/

Ireland Marina 7	http://www.marina-guide.eu/en/marinas/
Marina length; width	Googl Earth
Depth	http://www.marina-guide.eu/en/marinas/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marina-guide.eu/en/marinas/
The maximum length of vessel that the marina can accommodate	http://www.marina-guide.eu/en/marinas/

Ireland Marina 8	http://www.portbooker.com/en/marinas/ireland/clare-(an-clar)/kilrush/kilrush-marina/ http://www.bluemoment.com/marinasireland.html
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/ireland/clare-(an-clar)/kilrush/kilrush-marina/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/ireland/clare-(an-clar)/kilrush/kilrush-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/ireland/clare-(an-clar)/kilrush/kilrush-marina/

Ireland Marina 9	http://www.marina-guide.eu/en/marinas/
Marina length; width	Googl Earth
Depth	http://www.marina-guide.eu/en/marinas/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marina-guide.eu/en/marinas/
The maximum length of vessel that the marina can accommodate	http://www.marina-guide.eu/en/marinas/

Ireland Marina 10	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/crosshaven-boat-yard/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/crosshaven-boat-yard/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/crosshaven-boat-yard/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/ireland/cork-(corcaigh)/cork/crosshaven-boat-yard/

Latvia	
Marina 1	http://www.pavilostamarina.lv/?cat=/en/yacht_berth/
Marina length; width	NA
Depth	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/pavilosta/pavilosta/
Width of the marina entrance	NA
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/pavilosta/pavilosta/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/pavilosta/pavilosta/

Latvia Marina 2	http://www.ody.lv/marina/?sec=prices http://www.archipelago.nu/SKARGARD/ENGELSKA/LATVIA/marina.htm http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/ventspils/ventspils/
Marina length; width	goole earth
Depth	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/ventspils/ventspils/
Width of the marina entrance	goole earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.ices.dk/Ocean/ http://www.ody.lv/marina/?sec=weather
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/ventspils/ventspils/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/ventspils/ventspils/

Latvia Marina 3	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/jurmala/jurmala/
Marina length; width	goole earth
Depth	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/ventspils/ventspils/
Width of the marina entrance	goole earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.modlab.lv/publications/1998/publ3.htm
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/jurmala/jurmala/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/jurmala/jurmala/

Lithuania	
Marina 1	http://www.portbooker.com/en/marinas/lithuania/lithuania-and-the-west-coast-of-latvia/klaipeda/klaipeda/ http://www.portofklaipeda.lt/en.php
Marina length; width	google earth
Depth	http://www.portbooker.com/en/marinas/lithuania/lithuania-and-the-west-coast-of-latvia/klaipeda/klaipeda/
Width of the marina entrance	google earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/lithuania/lithuania-and-the-west-coast-of-latvia/klaipeda/klaipeda/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/lithuania/lithuania-and-the-west-coast-of-latvia/klaipeda/klaipeda/

Malta	
Marina 1	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/grand-harbour-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/grand-harbour-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1880
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/grand-harbour-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/grand-harbour-marina/

Malta Marina 2	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/portomaso-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/portomaso-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1880
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/portomaso-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/portomaso-marina/

Malta Marina 3	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/manoel-island-marina-(marsamxett)/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/manoel-island-marina-(marsamxett)/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1880
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/manoel-island-marina-(marsamxett)/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/manoel-island-marina-(marsamxett)/

Malta Marina 4	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/msida-creek-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/msida-creek-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1880
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf

Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/msida-creek-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/malta/malta-island/valletta/msida-creek-marina/
Malta Marina 5	http://www.portbooker.com/en/marinas/malta/gozo-island/nadur/mgarr-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/malta/gozo-island/nadur/mgarr-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1880
Salinity	(2000 Ix-Xatt l-Ahmar)
Average water temperature	http://www.portbooker.com/en/marinas/malta/gozo-island/nadur/mgarr-marina/
pH	(2000 Ix-Xatt l-Ahmar)
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/malta/gozo-island/nadur/mgarr-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/malta/gozo-island/nadur/mgarr-marina/

Netherlands	
Marina 1	http://www.compagnieshaven.nl/content/view/12/68/ http://marinas.com/view/marina/10081
Marina length; width	Googl Earth
Depth	http://www.compagnieshaven.nl/content/view/12/68/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1487
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.compagnieshaven.nl/content/view/12/68/
The maximum length of vessel that the marina can accommodate	http://www.compagnieshaven.nl/content/view/12/68/

Netherlands Marina 2	http://marinas.com/view/marina/10082
Marina length; width	Googl Earth
Depth	http://marinas.com/view/marina/10082
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1520B
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.actuelewaterdata.nl/watertemp/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://marinas.com/view/marina/10082
The maximum length of vessel that the marina can accommodate	http://marinas.com/view/marina/10082

Netherlands Marina 3	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/jachthaven-brouwershaven/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/jachthaven-brouwershaven/
Width of the marina entrance	Googl Earth
Tidal difference	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/jachthaven-brouwershaven/
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.marina-guide.eu/en/marinas/jachthaven-brouwershaven/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/jachthaven-brouwershaven/

Netherlands Marina 4	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/friesland-to-groningen/jachthaven-neptunus/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/friesland-to-groningen/jachthaven-neptunus/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1476
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=borkum
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/friesland-to-groningen/jachthaven-neptunus/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/friesland-to-groningen/jachthaven-neptunus/

Netherlands Marina 5	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/waddenhaven-vlieland/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/waddenhaven-vlieland/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1484
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/waddenhaven-vlieland/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/waddenhaven-vlieland/

Netherlands Marina 6	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/scharendijke-jachthaven/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/scharendijke-jachthaven/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1522
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/scharendijke-jachthaven/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/zeeland-and-the-southern-delta/grevelingenmeer/scharendijke-jachthaven/

Netherlands Marina 7	http://www.portbooker.com/en/marinas/netherlands/the-delta/harinvliet-and-the-slijkgat/stellendam/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/the-delta/harinvliet-and-the-slijkgat/stellendam/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1521
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/netherlands/the-delta/harinvliet-and-the-slijkgat/stellendam/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/the-delta/harinvliet-and-the-slijkgat/stellendam/

Netherlands Marina 8	http://www.portbooker.com/en/marinas/netherlands/the-delta/westerschelde/jachthaven-michiel-de-ruijterhaven-(vlissingen)/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/the-delta/westerschelde/jachthaven-michiel-de-ruijterhaven-(vlissingen)/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1534
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/netherlands/the-delta/westerschelde/jachthaven-michiel-de-ruijterhaven-(vlissingen)/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/the-delta/westerschelde/jachthaven-michiel-de-ruijterhaven-(vlissingen)/

Netherlands Marina 9	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-oostmahorn/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-oostmahorn/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1478
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-oostmahorn/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-oostmahorn/

Netherlands Marina 10	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-lauersoog/
Marina length; width	Googl Earth
Depth	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-lauersoog/
Width of the marina entrance	Googl Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1478
Salinity	http://www.mumm.ac.be/EN/Models/Operational/Salinity/series.php?station=denhelder
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-lauersoog/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/netherlands/noord-holland-and-the-frisian-islands/the-frisian-islands/jachthaven-lauersoog/

Norway	
Marina 1	http://www.portbooker.com/en/marinas/norway/oslo-fjord/oslo/akerbrygge/ http://www.archipelago.nu/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/norway/oslo-fjord/oslo/akerbrygge/
Width of the marina entrance	Google Earth
Tidal difference	N
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/norway/oslo-fjord/oslo/akerbrygge/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/norway/oslo-fjord/oslo/akerbrygge/

Norway Marina 2	http://www.archipelago.nu
Marina length; width	Google Earth
Depth	http://www.archipelago.nu
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1300
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.archipelago.nu
The maximum length of vessel that the marina can accommodate	http://www.archipelago.nu

Norway Marina 3	www.marinamap.com
Marina length; width	Google Earth
Depth	www.marinamap.com
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1300
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.marinamap.com
The maximum length of vessel that the marina can accommodate	www.marinamap.com

Norway Marina 4	www.marinamap.com
Marina length; width	Google Earth
Depth	www.marinamap.com
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1300
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.marinamap.com
The maximum length of vessel that the marina can accommodate	www.marinamap.com

Norway Marina 5	www.marinamap.com http://www.portbooker.com/en/marinas/norway/fjord-norway/korsfjord-to-bergen/hjellestad/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/norway/fjord-norway/korsfjord-to-bergen/hjellestad/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1300
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/norway/fjord-norway/korsfjord-to-bergen/hjellestad/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/norway/fjord-norway/korsfjord-to-bergen/hjellestad/

Norway Marina 6	http://www.portbooker.com/en/marinas/norway/oslo-fjord/larviksfjord/stavern/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/norway/oslo-fjord/larviksfjord/stavern/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1300
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/norway/oslo-fjord/larviksfjord/stavern/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/norway/oslo-fjord/larviksfjord/stavern/

Norway Marina 7	www.marinamap.com
Marina length; width	Google Earth
Depth	www.marinamap.com
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1276
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.marinamap.com
The maximum length of vessel that the marina can accommodate	www.marinamap.com

Poland Marina 1	http://www.gdynia.pl/eng/tourism/5330_44515.html
Marina length; width	Google Earth
Depth	www.marinagdynia.pl/index.htm
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://pogoda.wp.pl/mi.html?POD=1&mid=1201048&date=&ticaid=1652b
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.marinagdynia.pl/index.htm
The maximum length of vessel that the marina can accommodate	www.marinagdynia.pl/index.htm

Poland Marina 2	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk

Poland Marina 3	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk http://www.gdynia.pl/eng/tourism/5330_44515.html http://www.jastarnia.pl/marinywgminiejastarnia.html
Marina length; width	Google Earth http://www.jastarnia.pl/marinywgminiejastarnia.html
Depth	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.jastarnia.pl/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk

Poland Marina 4	http://www.blueflag.org/blueflag/2006/Poland/PomoskieiKujawsko-Pomorskie/Marina%20Gdansk http://www.gdynia.pl/eng/tourism/5330_44515.html
Marina length; width	Google Earth
Depth	www.mosir.gda.pl
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	G.P. Glasby, P. Szefer,1998
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.mosir.gda.pl
The maximum length of vessel that the marina can accommodate	www.mosir.gda.pl

Poland Marina 5	http://moksir-puck.home.pl/eng/index.html http://80.55.74.74/index.shtml.en
Marina length; width	Google Earth
Depth	http://moksir-puck.home.pl/eng/index.html
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	G.P. Glasby, P. Szefer,1998
Average water temperature	http://www.wunderground.com/cgi-bin/findweather/getForecast?query=puck+poland http://www.wunderground.com/MAR/eum.html
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	http://moksir-puck.home.pl/eng/index.html

Poland Marina 6	http://www.gdynia.pl/eng/tourism/5330_44515.html
Marina length; width	Google Earth
Depth	http://www.gdynia.pl/eng/tourism/5330_44515.html
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	Baltic sea countries, tide different less than 1 meter
Average water temperature	G.P. Glasby, P. Szefer,1998
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	N
The maximum length of vessel that the marina can accommodate	N

Poland Marina 7	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk/wladyslawowo/wladyslawowo/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk/wladyslawowo/wladyslawowo/
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.ices.dk/Ocean/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk/wladyslawowo/wladyslawowo/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/poland/gulf-of-gdansk/wladyslawowo/wladyslawowo/

Poland Marina 8	http://www.gdynia.pl/eng/tourism/5330_44515.html
Marina length; width	Google Earth
Depth	http://www.gdynia.pl/eng/tourism/5330_44515.html
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter
Salinity	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	NA

Portugal	
Marina 1	Yachting Pages 17
Marina length; width	Google Earth
Depth	Yachting Pages 17
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	http://www.surf-forecast.com/breaks/PraiadoGuincho.seatemp.shtml
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 17
The maximum length of vessel that the marina can accommodate	Yachting Pages 17

Portugal Marina 2	Yachting Pages 20
Marina length; width	Google Earth
Depth	Yachting Pages 20
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 20
The maximum length of vessel that the marina can accommodate	Yachting Pages 20

Portugal Marina 3	Yachting Pages 21
Marina length; width	Google Earth
Depth	Yachting Pages 21
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 21
The maximum length of vessel that the marina can accommodate	Yachting Pages 21

Portugal Marina 4	Yachting Pages 22
Marina length; width	Google Earth
Depth	Yachting Pages 22
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 22
The maximum length of vessel that the marina can accommodate	Yachting Pages 22

Portugal Marina 5	www.marinamate.com/m-eu-pt.html
Marina length; width	Google Earth
Depth	Yachting Pages 17
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.marinamate.com/m-eu-pt.html
The maximum length of vessel that the marina can accommodate	www.marinamate.com/m-eu-pt.html

Portugal Marina 6	Yachting Pages
Marina length; width	Google Earth
Depth	Yachting Pages
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages
The maximum length of vessel that the marina can accommodate	Yachting Pages

Portugal Marina 7	Yachting Pages
Marina length; width	Google Earth
Depth	Yachting Pages
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages
The maximum length of vessel that the marina can accommodate	Yachting Pages

Portugal Marina 8	Yachting Pages
Marina length; width	Google Earth
Depth	Yachting Pages
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	Google Earth

Portugal Marina 9	www.marinamap.com
Marina length; width	Google Earth
Depth	Yachting Pages 17
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	www.marinamap.com
The maximum length of vessel that the marina can accommodate	www.marinamap.com

Portugal Marina 10	Yachting Pages
Marina length; width	Yachting Pages
Depth	Yachting Pages 17
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages
The maximum length of vessel that the marina can accommodate	Google Earth

Romania	
Marina 1	http://www.anayachtclub.ro/eng/calendar.htm
Marina length; width	Google Earth
Depth	http://www.anayachtclub.ro/eng/calendar.htm
Width of the marina entrance	Google Earth
Tidal difference	http://blacksea.orlyonok.ru/e2.shtml
Salinity	http://www.icromania.com/infoCoast.asp
Average water temperature	http://www.wunderground.com/MAR/eum.html#map
pH	http://www.sumae.gov.tr/eng/proje/devam/02.htm
The number of vessels moored in the marina	http://www.anayachtclub.ro/eng/calendar.htm
The maximum length of vessel that the marina can accommodate	http://www.anayachtclub.ro/eng/calendar.htm

Slovenia

Marina 1	http://www.portbooker.com/en/marinas/slovenia/slovenia/izola/marina-izola/ http://www.blueflag.org/blueflag/2008/Slovenia/Slovenia/MarinaIzola http://www.tripsailor.com/pois/6350451-marina-izola
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/latvia/gulf-of-riga/pavilosta/pavilosta/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1897
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1 http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/slovenia/slovenia/izola/marina-izola/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/slovenia/slovenia/izola/marina-izola/

Slovenia Marina 2	http://www.portbooker.com/en/marinas/slovenia/slovenia/portoroz/portoroz/ http://portfocus.com/cgi-bin/seek/dataseek.cgi?Terms=slovenia&Range=All&x=&db=&howmuch=ALL&template=search http://www.marinap.si/elements/frames.html
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/slovenia/slovenia/portoroz/portoroz/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1897
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.wunderground.com/MAR/eum.html?MR=1 http://www.ody.lv/marina/?sec=weather
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/slovenia/slovenia/portoroz/portoroz/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/slovenia/slovenia/portoroz/portoroz/

Slovenia Marina 3	http://www.portbooker.com/en/marinas/slovenia/slovenia/koper/koper-(capodistria)/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/slovenia/slovenia/koper/koper-(capodistria)/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1897
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/slovenia/slovenia/koper/koper-(capodistria)/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/slovenia/slovenia/koper/koper-(capodistria)/

Spain	
Marina 1	Yachting Pages 23
Marina length; width	Google Earth
Depth	Yachting Pages 23
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=3485
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 23
The maximum length of vessel that the marina can accommodate	Yachting Pages 23

Spain Marina 2	Yachting Pages 25
Marina length; width	Google Earth
Depth	Yachting Pages 25
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=3485
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 25
The maximum length of vessel that the marina can accommodate	Yachting Pages 25

Spain Marina 3	Yachting Pages 26
Marina length; width	Google Earth
Depth	Yachting Pages 26
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1724
Salinity	(annual world salinity/2005)
Average water temperature	http://www.cosis.net/abstracts/COSPAR04/03549/COSPAR04-A-03549.pdf
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 26
The maximum length of vessel that the marina can accommodate	Yachting Pages 26

Spain Marina 4	Yachting Pages 31
Marina length; width	Google Earth
Depth	Yachting Pages 31
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1770
Salinity	http://www.cnrm.meteo.fr/gmgec/page_perso/somot/sevault_somot_deque_2004.pdf
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 31
The maximum length of vessel that the marina can accommodate	Yachting Pages 31

Spain Marina 5	Yachting Pages 32
Marina length; width	Google Earth
Depth	Yachting Pages 32
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1773
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 32
The maximum length of vessel that the marina can accommodate	Yachting Pages 32

Spain Marina 6	Yachting Pages 34
Marina length; width	Google Earth
Depth	Yachting Pages 34
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1773
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 34
The maximum length of vessel that the marina can accommodate	Yachting Pages 34

Spain Marina 7	Yachting Pages 35
Marina length; width	Google Earth
Depth	Yachting Pages 35
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1773A
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 35
The maximum length of vessel that the marina can accommodate	Yachting Pages 35

Spain Marina 8	Yachting Pages 45
Marina length; width	Google Earth
Depth	Yachting Pages 45
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1780
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 45
The maximum length of vessel that the marina can accommodate	Yachting Pages 45

Spain Marina 9	Yachting Pages 50
Marina length; width	Google Earth
Depth	Yachting Pages 50
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1775
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature(2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 50
The maximum length of vessel that the marina can accommodate	Yachting Pages 50

Spain Marina 10	Yachting Pages 51
Marina length; width	Google Earth
Depth	Yachting Pages 51
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk/EASYTIDE/EasyTide/SelectPrediction.aspx?PortID=1775
Salinity	(annual world salinity/2005)
Average water temperature	annual seasurface temperature(2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Yachting Pages 51
The maximum length of vessel that the marina can accommodate	Yachting Pages 51

Sweden Marina 1	http://marinas.com/view/marina/8864
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/8864
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www3.interscience.wiley.com/cgi-bin/fulltext/118487839/PDFSTART http://www.int-res.com/articles/meps/149/m149p073.pdf
Average water temperature	http://www.bbc.co.uk/weather/world/city_guides/results.shtml?tt=TT004300 (max) http://marinas.com/view/marina/8864
pH	http://ambio.allenpress.com/perlserv/?request=get-document&doi=10.1639%2F0044-7447(2001)030%5B0277%3AUIITHO%5D2.0.CO%3B2&ct=1
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	http://marinas.com/view/marina/8864

Sweden Marina 2	https://marinas.com/view/marina/8865
Marina length; width	Google Earth
Depth	https://marinas.com/view/marina/8865
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://ambio.allenpress.com/perlserv/?request=get-document&doi=10.1639%2F0044-7447(2001)030%5B0277%3AUIITHO%5D2.0.CO%3B2&ct=1
Average water temperature	https://marinas.com/view/marina/8865 http://www.bbc.co.uk/weather/world/city_guides/results.shtml?tt=TT004300 (max)
pH	http://www.springerlink.com/content/nm666867033t2778/fulltext.pdf
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	https://marinas.com/view/marina/8865

Sweden Marina 3	http://www.portfocus.com/sweden/zz_marinas/index1.html
Marina length; width	Google Earth
Depth	http://www.portfocus.com/sweden/zz_marinas/index1.html
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://marinas.com/view/marina/8998 http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=ISKNEMAL2&month=1&day=27&year=2008
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	Google Earth
The maximum length of vessel that the marina can accommodate	http://www.portfocus.com/sweden/zz_marinas/index1.html

Sweden Marina 4	http://www.blueflag.org/blueflag/2008/Sweden/Stockholmsln/SdertljeGsthamn
Marina length; width	Google Earth
Depth	http://www.blueflag.org/blueflag/2008/Sweden/Stockholmsln/SdertljeGsthamn
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.fimr.fi/en/tietoa/algaline_seuranta/mittaustulosarkisto/2008/en_GB/12080 75859728_1_1_2_1/
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://gasthamn.se/engelska.htm
The maximum length of vessel that the marina can accommodate	http://gasthamn.se/engelska.htm

Sweden Marina 5	http://marinas.com/view/marina/8918
Marina length; width	Google Earth
Depth	http://marinas.com/view/marina/8918
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.fimr.fi/en/tietoa/algaline_seuranta/mittaustulosarkisto/2008/en_GB/1208075859728_1_1_2_1/
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://marinas.com/view/marina/8918
The maximum length of vessel that the marina can accommodate	http://marinas.com/view/marina/8918

Sweden Marina 6	http://www.portbooker.com/en/marinas/sweden/the-gulf-of-bothonia/gavle/harnosand/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/sweden/the-gulf-of-bothonia/gavle/harnosand/
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.springerlink.com/content/f763565953154102/fulltext.pdf
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/sweden/the-gulf-of-bothonia/gavle/harnosand/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/sweden/the-gulf-of-bothonia/gavle/harnosand/

Sweden Marina 7	http://www.portbooker.com/en/marinas/sweden/vastervik-to-nynashamn/arkosund/arkosund/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/sweden/vastervik-to-nynashamn/arkosund/arkosund/
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.fimr.fi/en/tietoa/algaline_seuranta/mittaustulosarkisto/2008/en_GB/1208075859728_1_1_2_1/
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/sweden/vastervik-to-nynashamn/arkosund/arkosund/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/sweden/vastervik-to-nynashamn/arkosund/arkosund/

Sweden Marina 8	http://www.portbooker.com/en/marinas/sweden/eastern-denmark-and-southern-sweden/kalmar/kalmar/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/sweden/eastern-denmark-and-southern-sweden/kalmar/kalmar/
Width of the marina entrance	Google Earth
Tidal difference	Baltic sea countries, tide different less than 1 meter.
Salinity	http://www.fimr.fi/en/tietoa/algaline_seuranta/mittaustulosarkisto/2008/en_GB/120807585972 8_1_1_2_1/
Average water temperature	http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/sst/_print/
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/sweden/eastern-denmark-and-southern-sweden/kalmar/kalmar/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/sweden/eastern-denmark-and-southern-sweden/kalmar/kalmar/

United Kingdom Marina 1	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/Penzance
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/Penzance
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	http://www.surf-forecast.com/breaks/PraiadoGuincho.seatemp.shtml
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/Penzance
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/Penzance

United Kingdom Marina 2	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/mevagissey/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/mevagissey/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/mevagissey/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/cornwall/mevagissey/

United Kingdom Marina 3	http://www.portbooker.com/en/marinas/united-kingdom/england/east-sussex/newhaven-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/east-sussex/newhaven-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/east-sussex/newhaven-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/east-sussex/newhaven-marina/

United Kingdom Marina 4	http://www.portbooker.com/en/marinas/united-kingdom/england/kent/ramsgate/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/kent/ramsgate/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/kent/ramsgate/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/kent/ramsgate/

United Kingdom Marina 5	http://www.portbooker.com/en/marinas/united-kingdom/england/essex/bradwell-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/essex/bradwell-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/essex/bradwell-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/essex/bradwell-marina/

United Kingdom Marina 6	http://www.portbooker.com/en/marinas/united-kingdom/england/suffolk/royal-norfolk---suffolk-yacht-club/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/suffolk/royal-norfolk---suffolk-yacht-club/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/suffolk/royal-norfolk---suffolk-yacht-club/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/suffolk/royal-norfolk---suffolk-yacht-club/

United Kingdom Marina 7	http://www.portbooker.com/en/marinas/united-kingdom/england/sunderland/sunderland-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/sunderland/sunderland-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/sunderland/sunderland-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/sunderland/sunderland-marina/

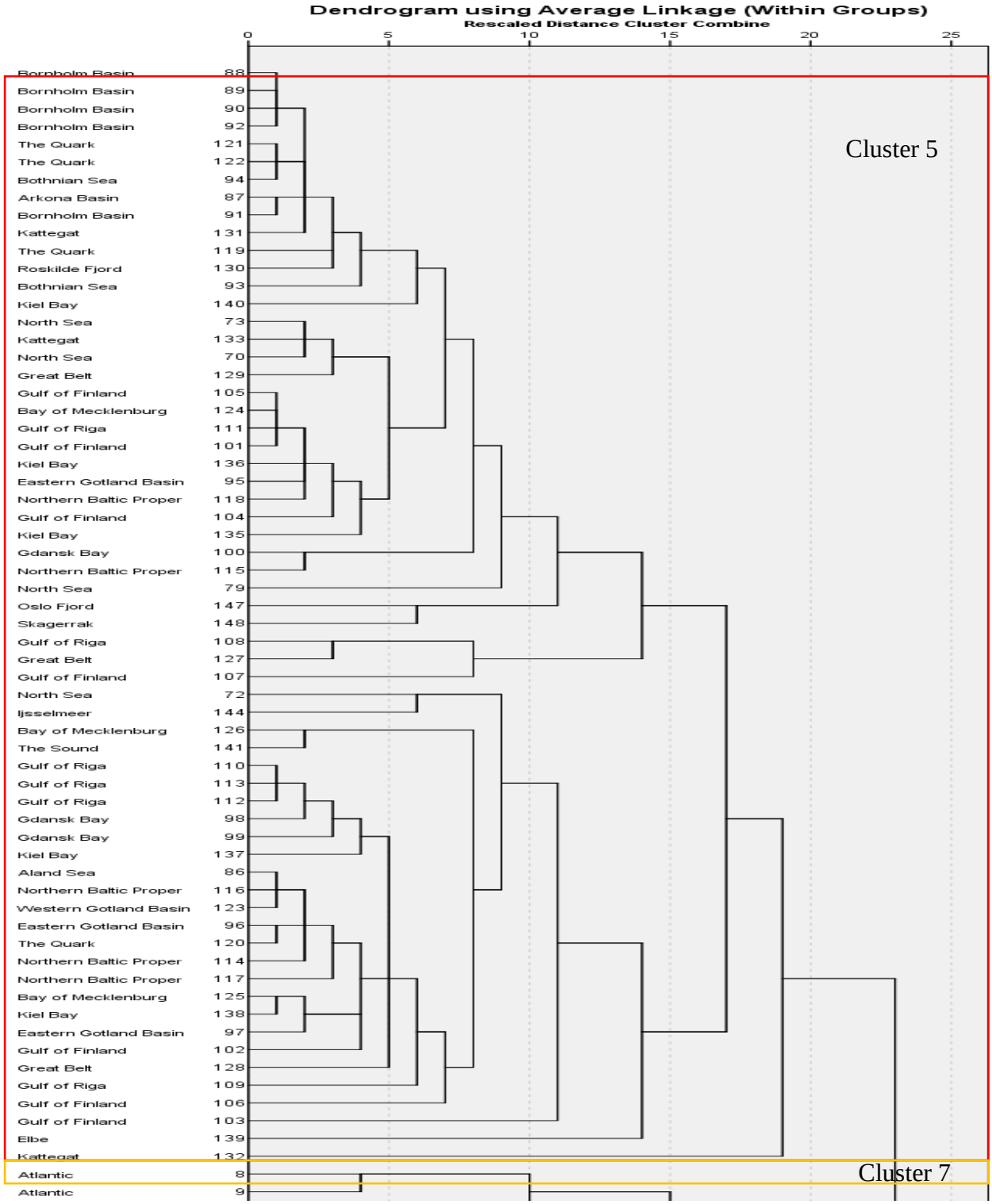
United Kingdom Marina 8	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/blyth-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/blyth-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/blyth-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/blyth-marina/

United Kingdom Marina 9	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/amble-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/amble-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/amble-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/england/northumberland/amble-marina/

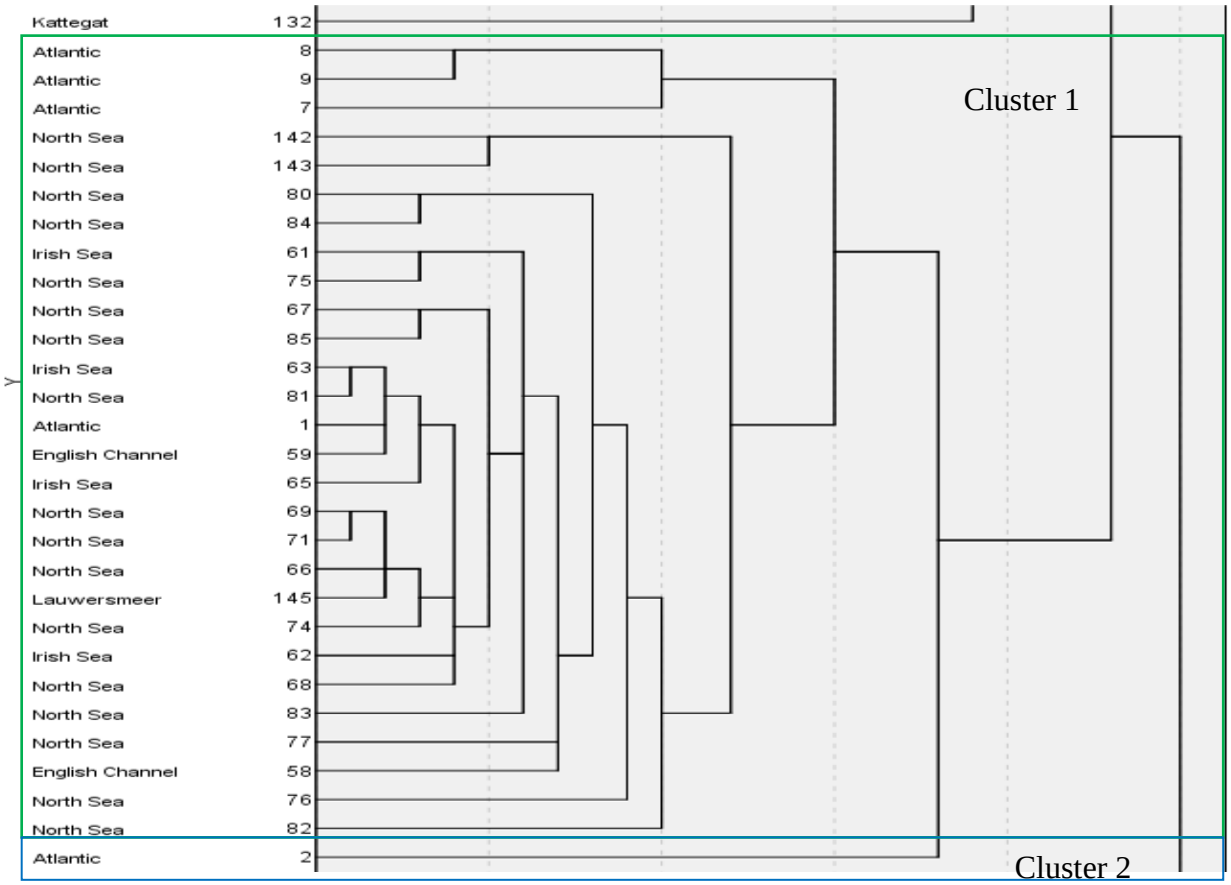
United Kingdom Marina 10	http://www.portbooker.com/en/marinas/united-kingdom/wales/ceredigion/aberystwyth-marina/
Marina length; width	Google Earth
Depth	http://www.portbooker.com/en/marinas/united-kingdom/wales/ceredigion/aberystwyth-marina/
Width of the marina entrance	Google Earth
Tidal difference	http://easytide.ukho.gov.uk
Salinity	http://www.ices.dk/Ocean/
Average water temperature	annual seasurface temperature 2005
pH	http://www.ices.dk/Ocean/
The number of vessels moored in the marina	http://www.portbooker.com/en/marinas/united-kingdom/wales/ceredigion/aberystwyth-marina/
The maximum length of vessel that the marina can accommodate	http://www.portbooker.com/en/marinas/united-kingdom/wales/ceredigion/aberystwyth-marina/

Appendix 8: Dendrogram detail

Cluster 5 and 7



Cluster 1 and 2



Cluster 3, 6 and 4