Final Report

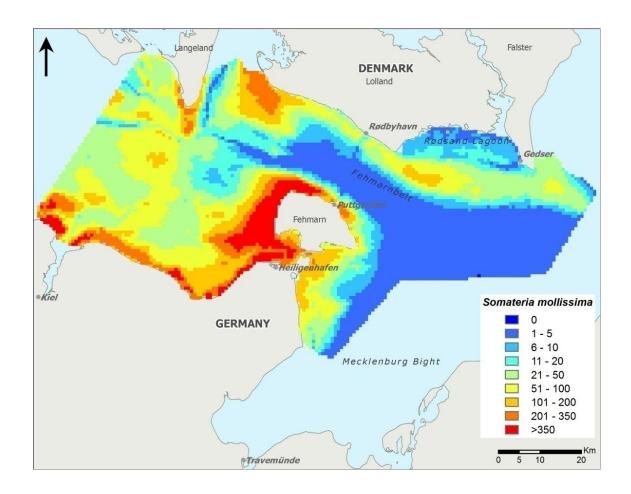
FEHMARNBELT FIXED LINK BIRD SERVICES (FEBI)

Bird Investigations in Fehmarnbelt - Baseline

Waterbirds in Fehmarnbelt

E3TR0011 Volume II - Appendix II, Part IV

Maps of ship-based surveys in 2010



Prepared for: Femern A/S
By: DHI / BioConsult SH Consortium

in association with University of Copenhagen and BIOLA

Responsible editor:

FEBI consortium / co DHI Agern Allé 5 DK-2970 Hørsholm Denmark

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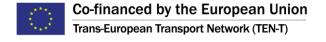
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GEUS (De Nationale Geologiske Undersøgelser for Danmark og Grønland)

HELCOM (Helsinki Commission – Baltic Marine Environment Protection Commission) Landesamt für Vermessung und Geoinformation Schleswig-Holstein (formerly Landesvermessungsamt Schleswig-Holstein) GeoBasis-DE/LVermGeo SH

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Note to the reader:

In this report the time for start of construction is artificially set to 1 October 2014 for the tunnel and 1 January 2015 for the bridge alternative. In the Danish EIA (VVM) and the German EIA (UVS/LBP) absolute year references are not used. Instead the time references are relative to start of construction works. In the VVM the same time reference is used for tunnel and bridge, i.e. year 0 corresponds to 2014/start of tunnel construction; year 1 corresponds to 2015/start of bridge construction etc. In the UVS/LBP individual time references are used for tunnel and bridge, i.e. for tunnel construction year 1 is equivalent to 2014 (construction starts 1 October in year 1) and for bridge construction year 1 is equivalent to 2015 (construction starts 1st January).

1 APPENDIX II - WATERBIRDS IN THE FEHMARNBELT - MAPS

1.1 Ship-based Surveys in 2010

1.1.1 Red-throated Diver / Black-throated Diver / Unidentified Divers - Gavia stellata / Gavia arctica / Gavia sp.

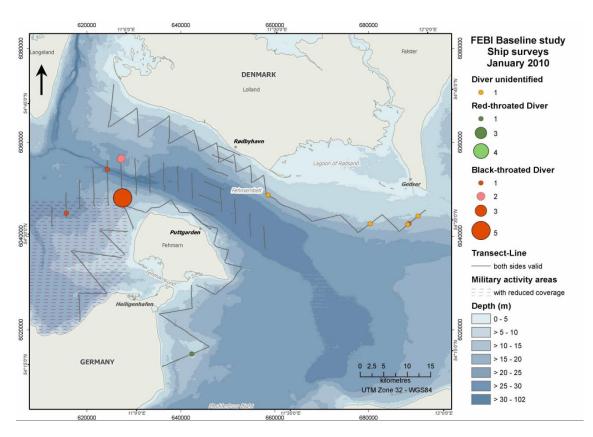


Figure 1.1 Red-throated Diver, Black-throated Diver and unidentified diver (Gavia sp.) distribution in the study area during ship-based surveys (January 2010).

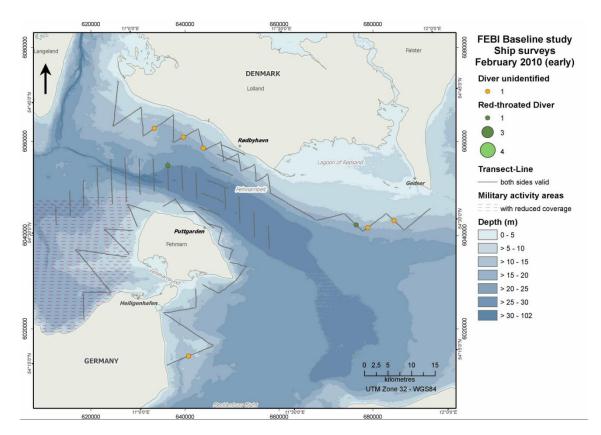


Figure 1.2 Red-throated Diver and unidentified diver (Gavia sp.) distribution in the study area during ship-based surveys (February 2010).

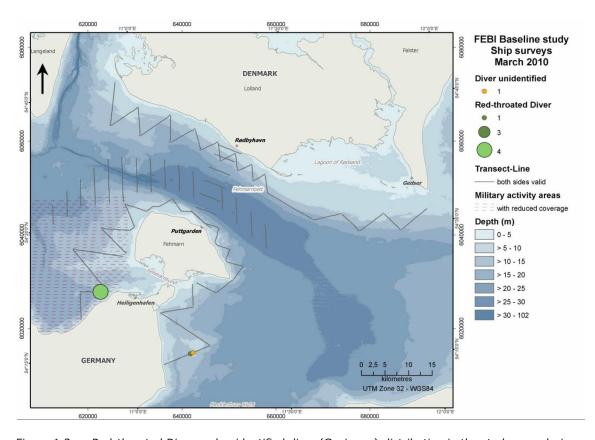


Figure 1.3 Red-throated Diver and unidentified diver (Gavia sp.) distribution in the study area during ship-based surveys (March 2010).

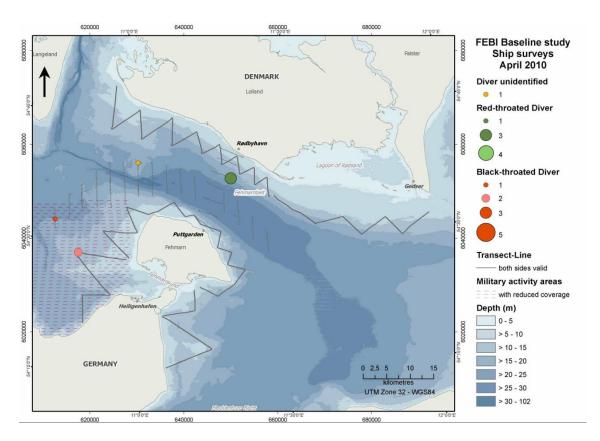


Figure 1.4 Red-throated Diver, Black-throated Diver and unidentified diver (Gavia sp.) distribution in the study area during ship-based surveys (April 2010).

1.1.2 Great Crested Grebe / Red-necked Grebe / Unidentified Grebes - Podiceps cristatus / Podiceps grisegna / Podiceps sp.

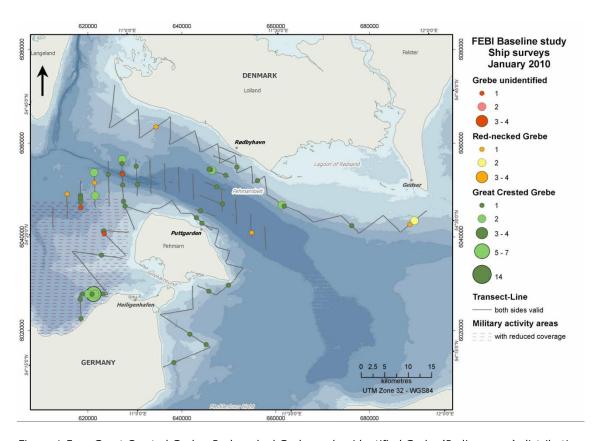


Figure 1.5 Great Crested Grebe, Red-necked Grebe and unidentified Grebe (Podiceps sp.) distribution in the study area during ship-based surveys (January 2010).

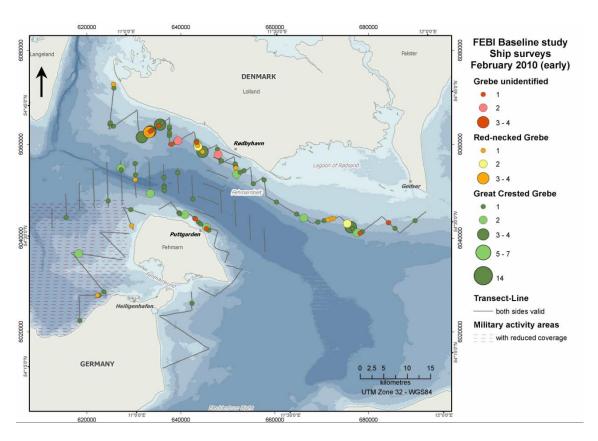


Figure 1.6 Great Crested Grebe, Red-necked Grebe and unidentified Grebe (Podiceps sp.) distribution in the study area during ship-based surveys (February 2010).

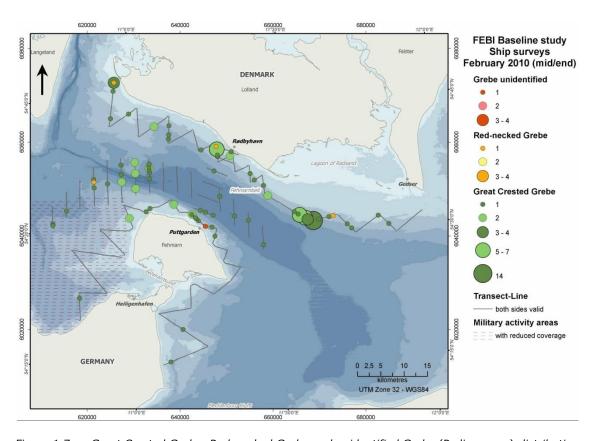


Figure 1.7 Great Crested Grebe, Red-necked Grebe and unidentified Grebe (Podiceps sp.) distribution in the study area during ship-based surveys (February 2010).

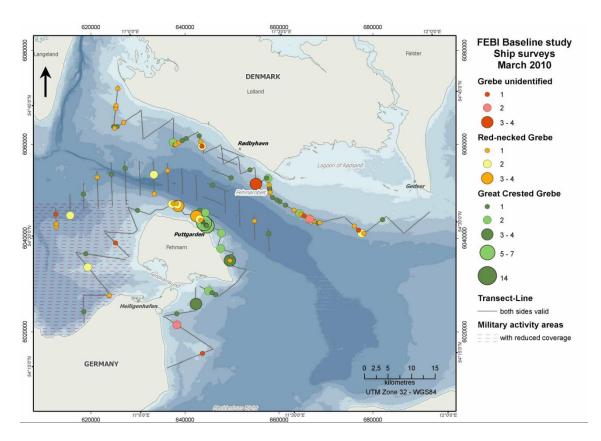


Figure 1.8 Great Crested Grebe, Red-necked Grebe and unidentified Grebe (Podiceps sp.) distribution in the study area during ship-based surveys (March 2010).

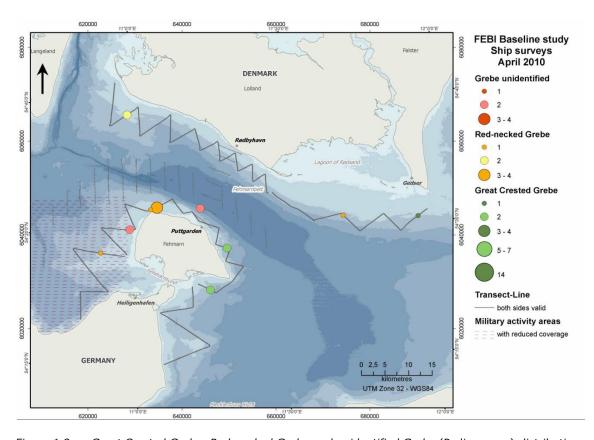


Figure 1.9 Great Crested Grebe, Red-necked Grebe and unidentified Grebe (Podiceps sp.) distribution in the study area during ship-based surveys (April 2010).

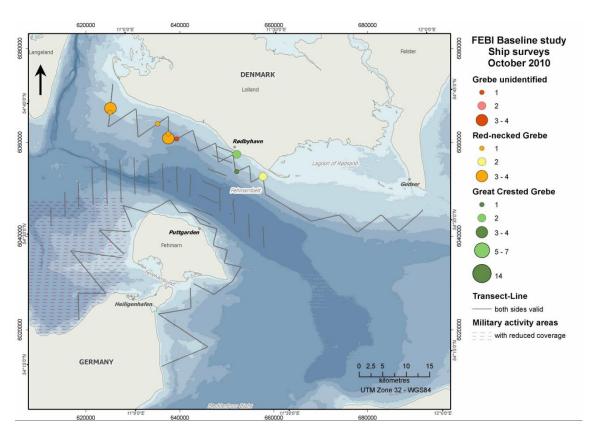


Figure 1.10 Great Crested Grebe, Red-necked Grebe and unidentified Grebe (Podiceps sp.) distribution in the study area during ship-based surveys (October 2010).

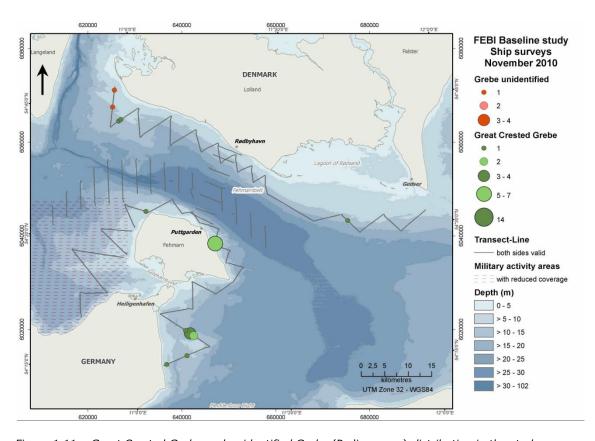


Figure 1.11 Great Crested Grebe and unidentified Grebe (Podiceps sp.) distribution in the study area during ship-based surveys (November 2010).

1.1.3 Great Cormorant – Phalacrocorax carbo

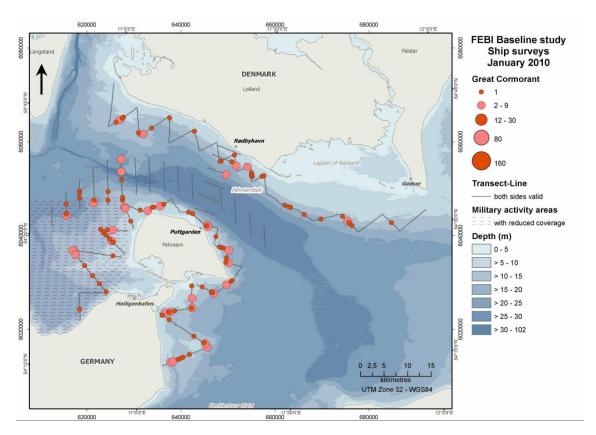


Figure 1.12 Great Cormorant distribution in the study area during ship-based surveys (January 2010).

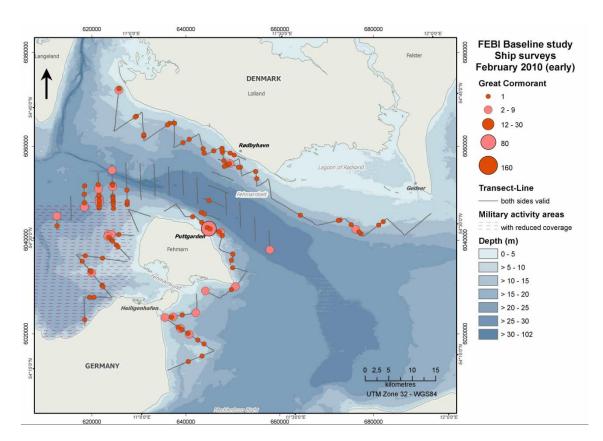


Figure 1.13 Great Cormorant distribution in the study area during ship-based surveys (February 2010).

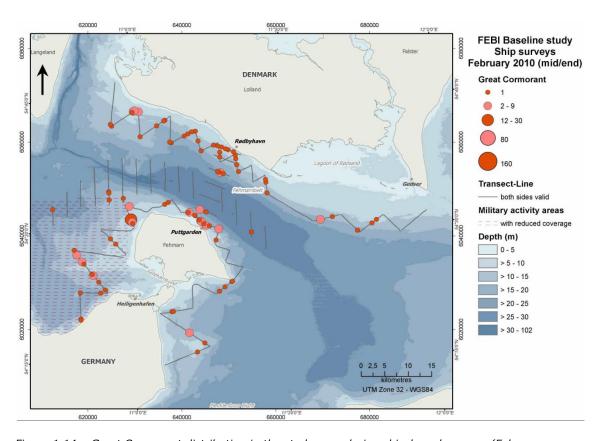


Figure 1.14 Great Cormorant distribution in the study area during ship-based surveys (February 2010).

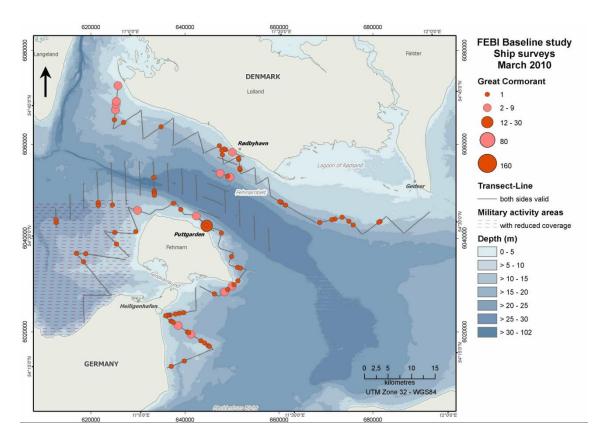


Figure 1.15 Great Cormorant distribution in the study area during ship-based surveys (March 2010).

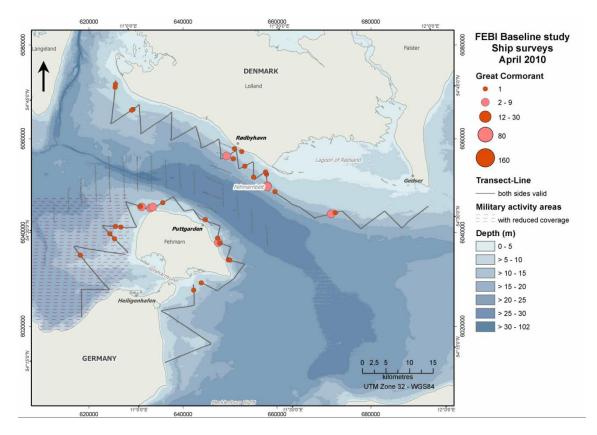


Figure 1.16 Great Cormorant distribution in the study area during ship-based surveys (April 2010).

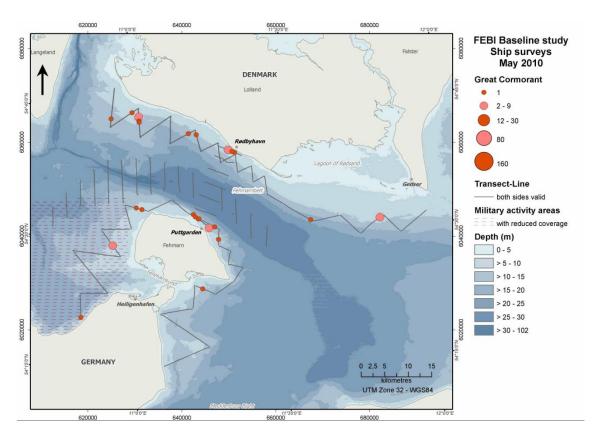


Figure 1.17 Great Cormorant distribution in the study area during ship-based surveys (May 2010).

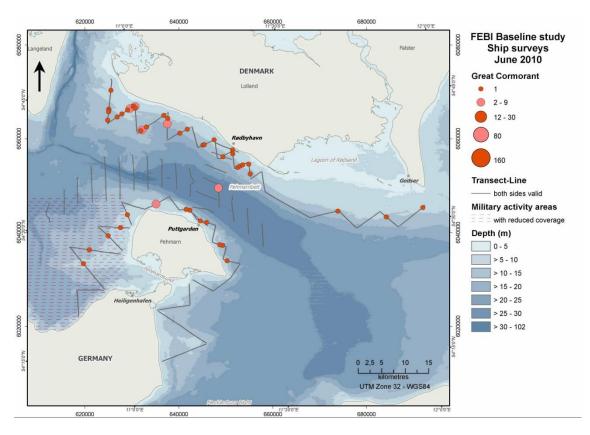


Figure 1.18 Great Cormorant distribution in the study area during ship-based surveys (June 2010).

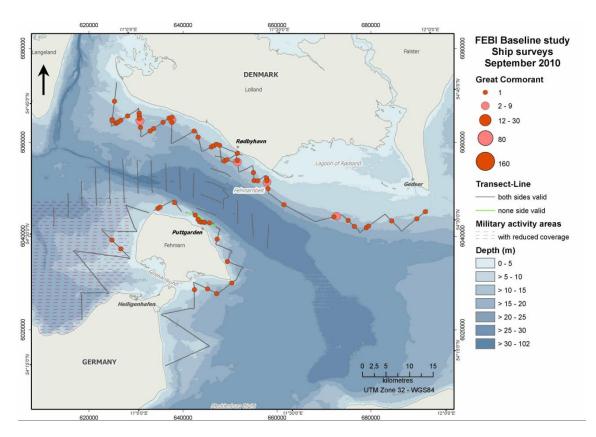


Figure 1.19 Great Cormorant distribution in the study area during ship-based surveys (September 2010).

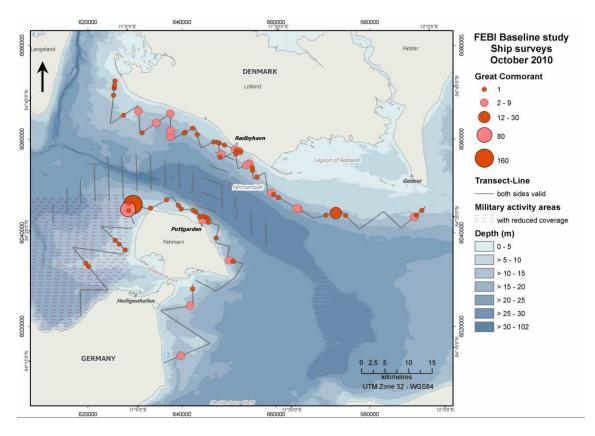


Figure 1.20 Great Cormorant distribution in the study area during ship-based surveys (October 2010).

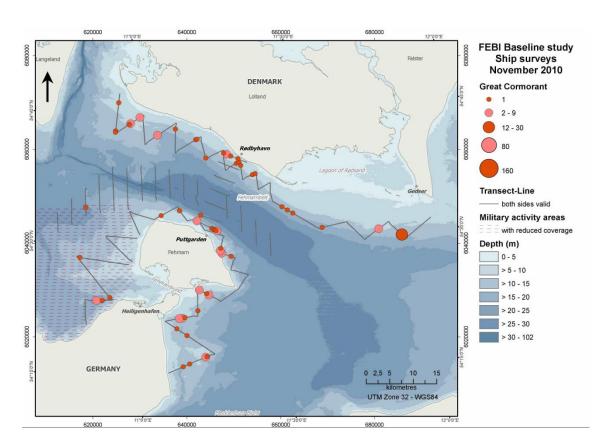


Figure 1.21 Great Cormorant distribution in the study area during ship-based surveys (November 2010).

1.1.4 Common Goldeneye / Greater Scaup / Tufted Duck - Bucephala clangula / Aythya marila / Aythya fuligula

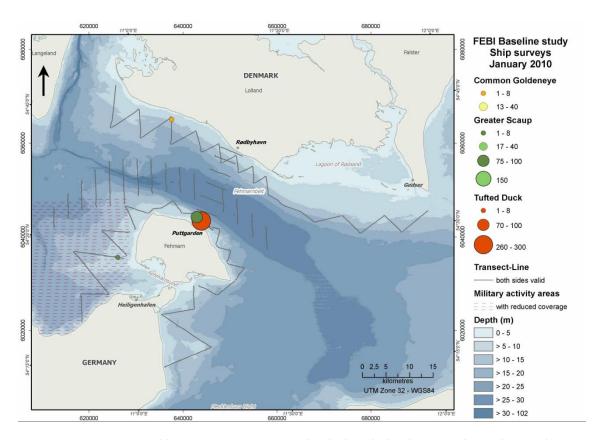


Figure 1.22 Common Goldeneye, Greater Scaup and Tufted Duck distribution in the study area during ship-based surveys (January 2010).

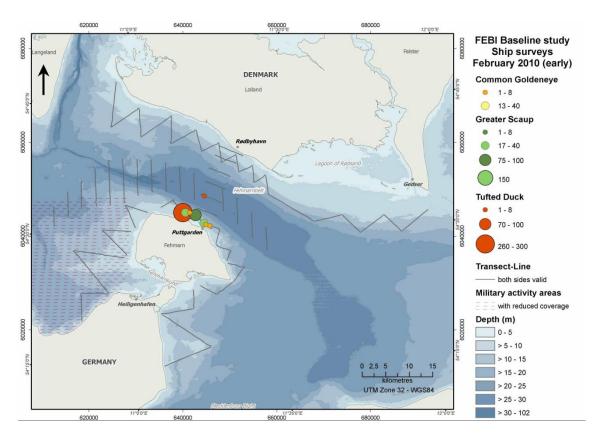


Figure 1.23 Common Goldeneye, Greater Scaup and Tufted Duck distribution in the study area during ship-based surveys (February 2010).

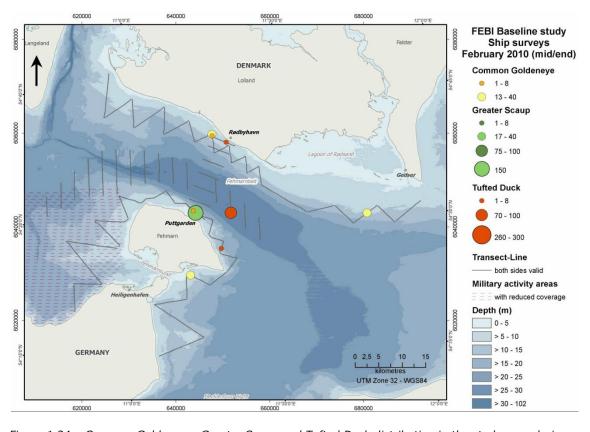


Figure 1.24 Common Goldeneye, Greater Scaup and Tufted Duck distribution in the study area during ship-based surveys (February 2010).

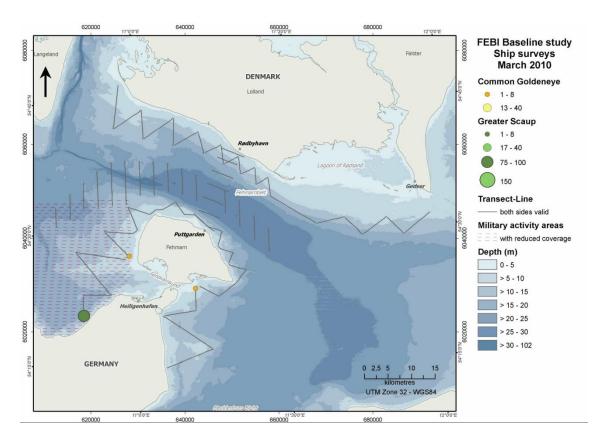


Figure 1.25 Common Goldeneye and Greater Scaup distribution in the study area during ship-based surveys (March 2010).

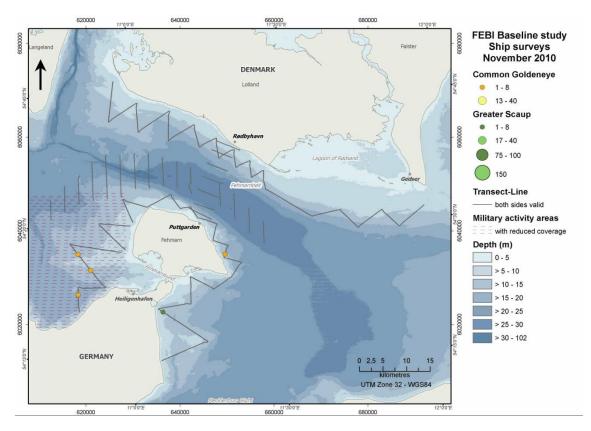


Figure 1.26 Common Goldeneye and Greater Scaup distribution in the study area during ship-based surveys (November 2010).

Common Eider - Somateria mollissima **FEBI Baseline study** Ship surveys January 2010 Common Eider 1 - 24 25 - 76 78 - 175 180 - 370 0000909 400 - 700 736 - 1500 2000 - 3000 6000 - 10500 6040000 Transect-Line both sides valid Military activity areas with reduced coverage Depth (m) 0 - 5 > 5 - 10 > 10 - 15 > 15 - 20 GERMANY > 20 - 25 > 25 - 30 > 30 - 102

Figure 1.27 Common Eider distribution in the study area during ship-based surveys (January 2010).

680000

660000

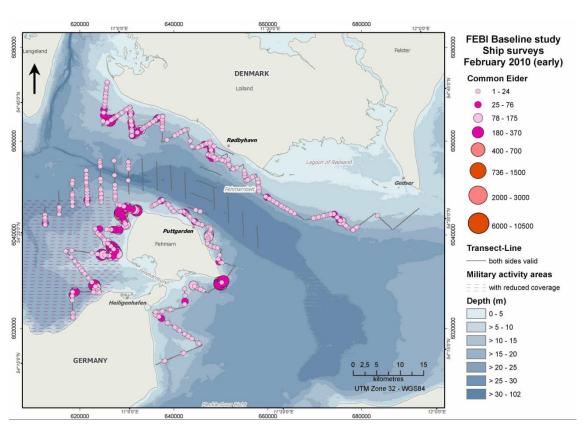


Figure 1.28 Common Eider distribution in the study area during ship-based surveys (February 2010).

620000

640000

1.1.5

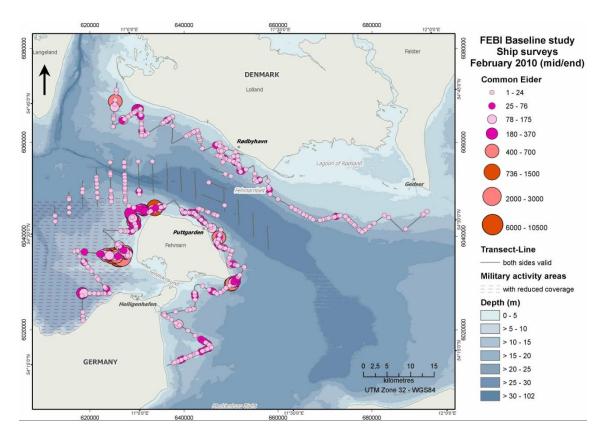


Figure 1.29 Common Eider distribution in the study area during ship-based surveys (February 2010).

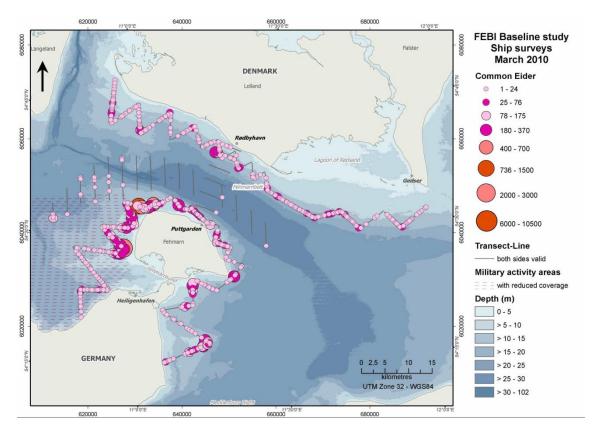


Figure 1.30 Common Eider distribution in the study area during ship-based surveys (March 2010).

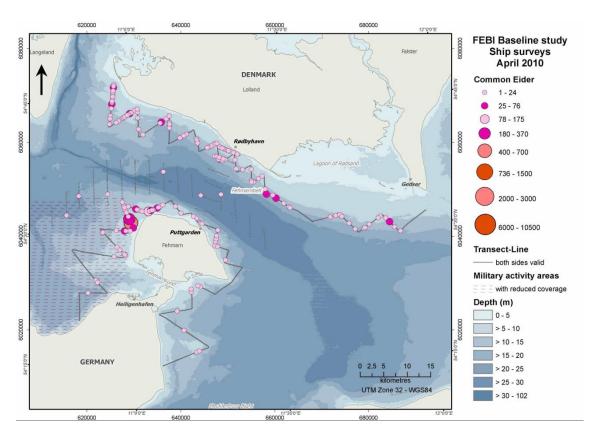


Figure 1.31 Common Eider distribution in the study area during ship-based surveys (April 2010).

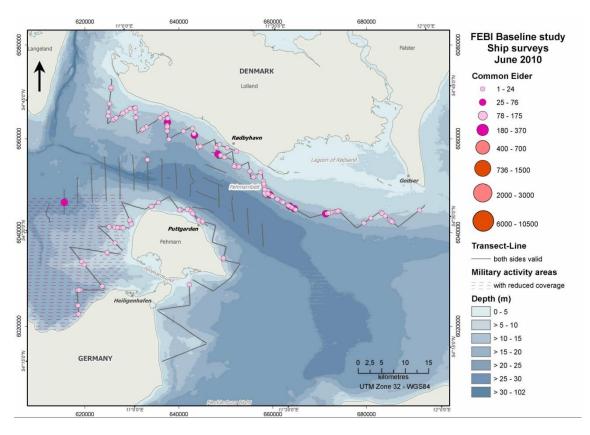


Figure 1.32 Common Eider distribution in the study area during ship-based surveys (June 2010).

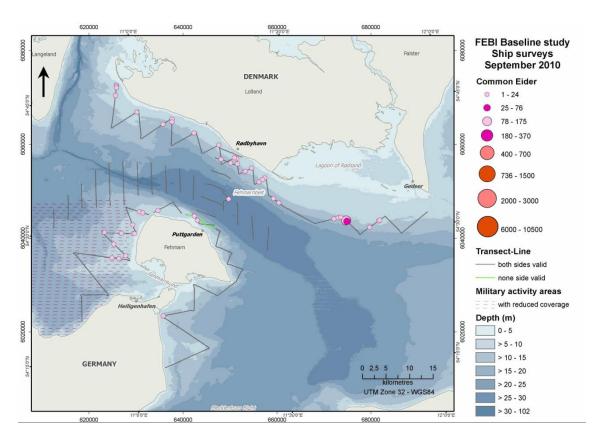


Figure 1.33 Common Eider distribution in the study area during ship-based surveys (September 2010).

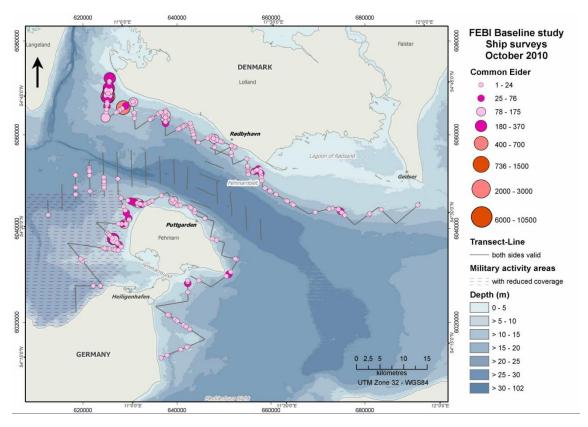


Figure 1.34 Common Eider distribution in the study area during ship-based surveys (October 2010).

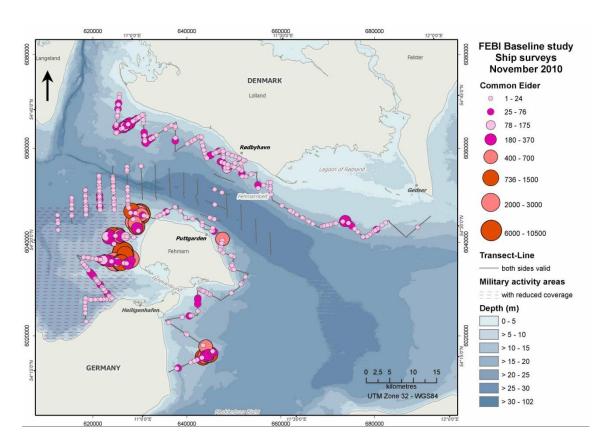


Figure 1.35 Common Eider distribution in the study area during ship-based surveys (November 2010).

1.1.6 Long-tailed Duck - Clangula hyemalis

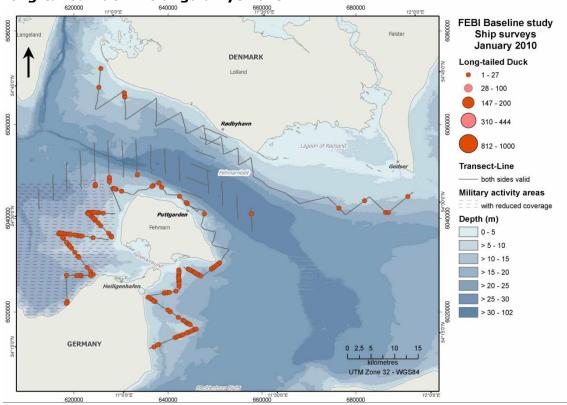


Figure 1.36 Long-tailed Duck distribution in the study area during ship-based surveys (January 2010).

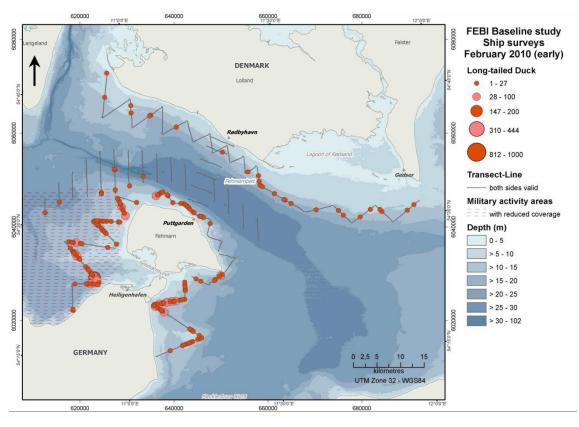


Figure 1.37 Long-tailed Duck distribution in the study area during ship-based surveys (February 2010).

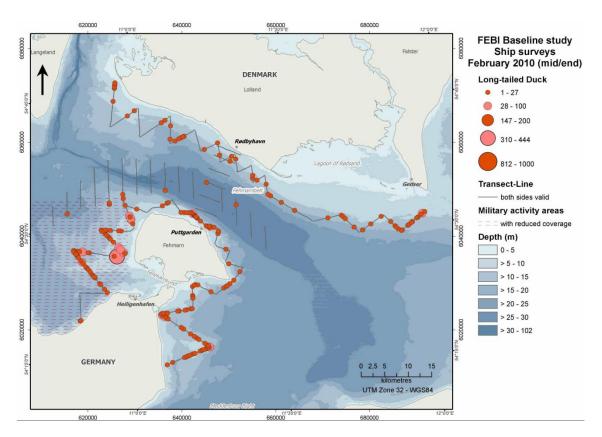


Figure 1.38 Long-tailed Duck distribution in the study area during ship-based surveys (February 2010).

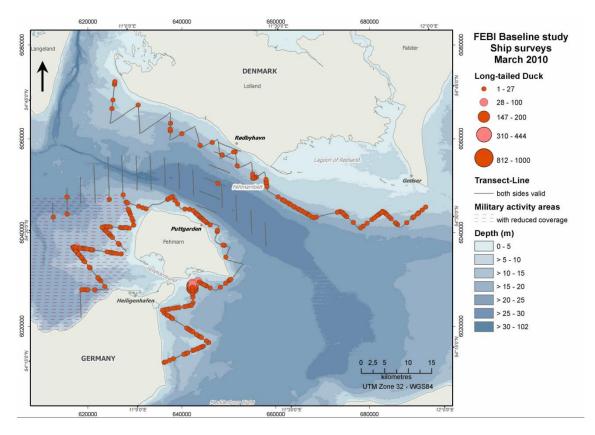


Figure 1.39 Long-tailed Duck distribution in the study area during ship-based surveys (March 2010).

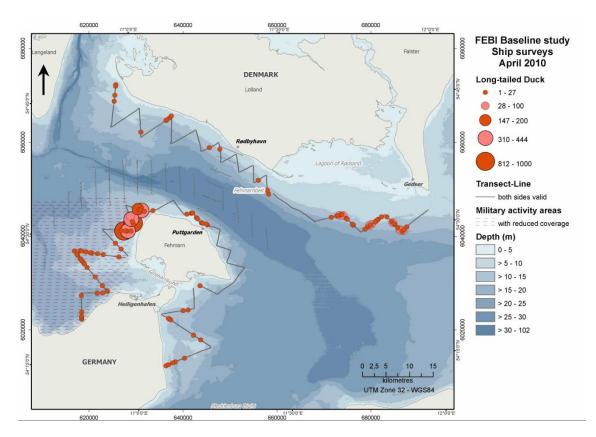


Figure 1.40 Long-tailed Duck distribution in the study area during ship-based surveys (April 2010).

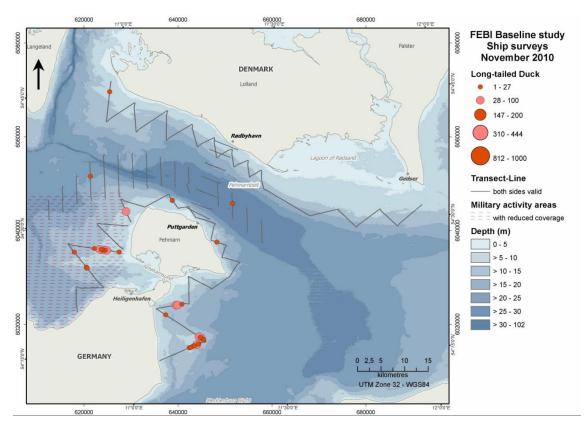


Figure 1.41 Long-tailed Duck distribution in the study area during ship-based surveys (November 2010).

1.1.7 Velvet Scoter / Common Scoter – Melanitta fusca / Melanitta nigra

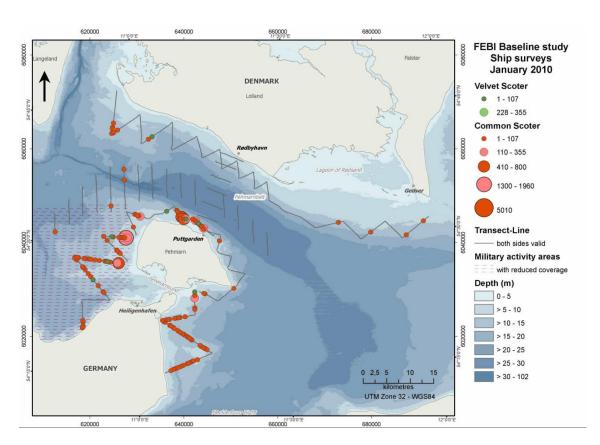


Figure 1.42 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (January 2010).

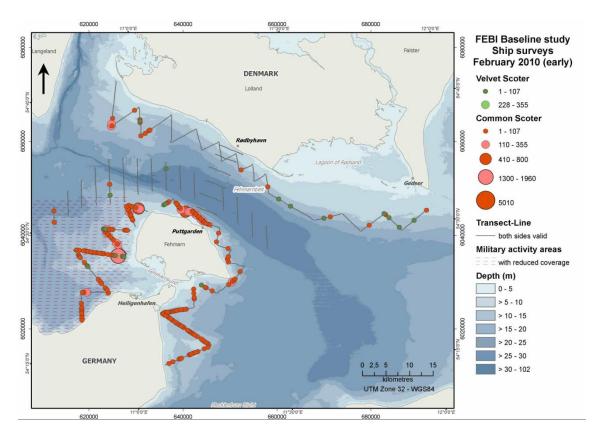


Figure 1.43 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (February 2010).

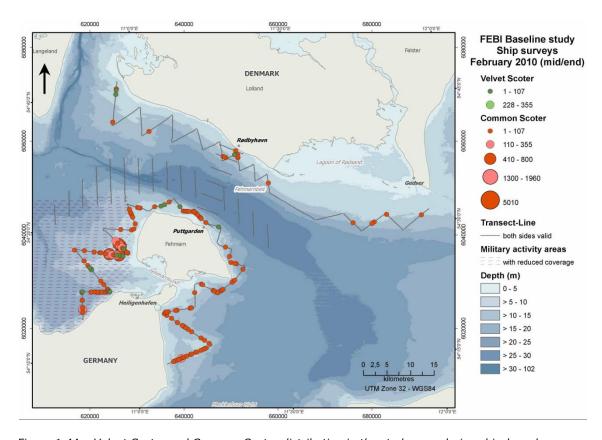


Figure 1.44 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (February 2010).

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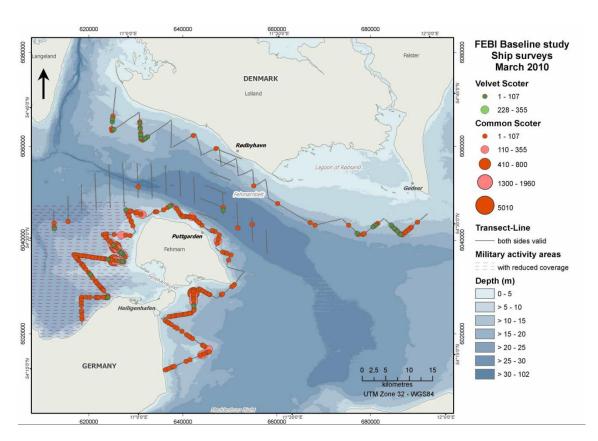


Figure 1.45 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (March 2010).

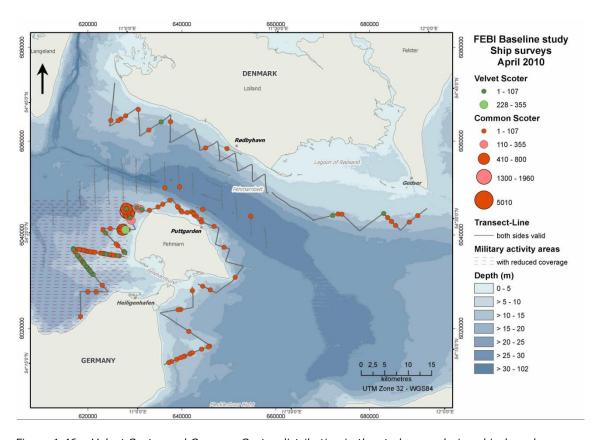


Figure 1.46 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (April 2010).

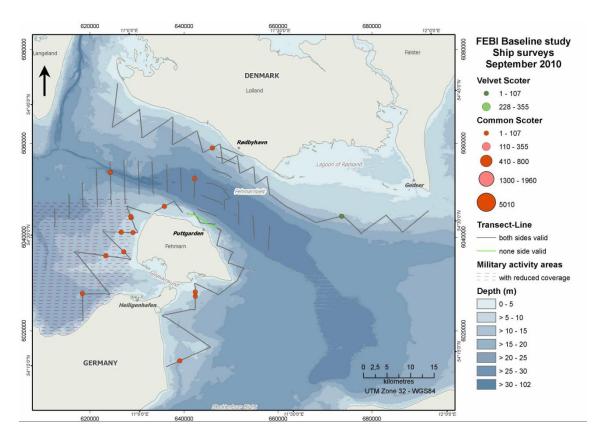


Figure 1.47 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (September 2010).

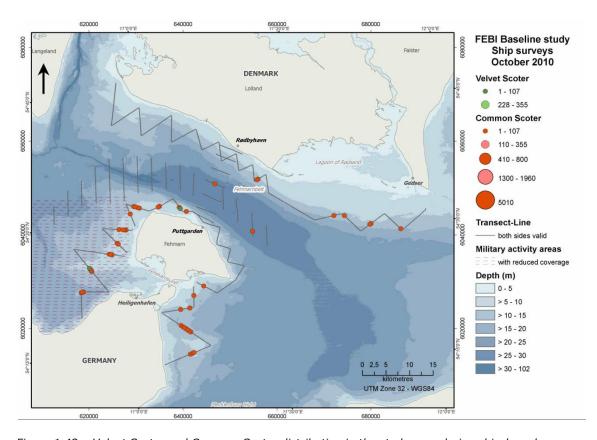


Figure 1.48 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (October 2010).

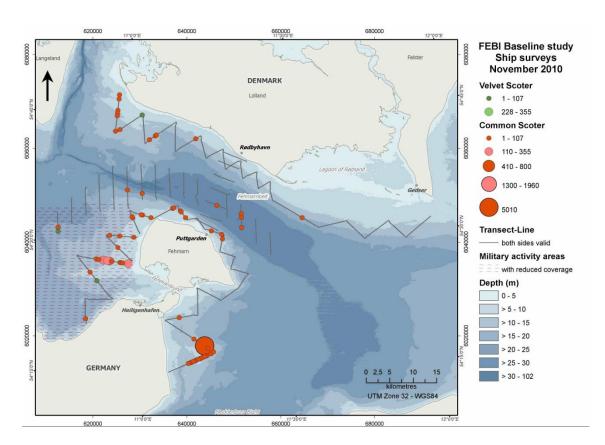


Figure 1.49 Velvet Scoter and Common Scoter distribution in the study area during ship-based surveys (November 2010).

1.1.8 Red-breasted Merganser / Goosander – Mergus serrator / Mergus merganser

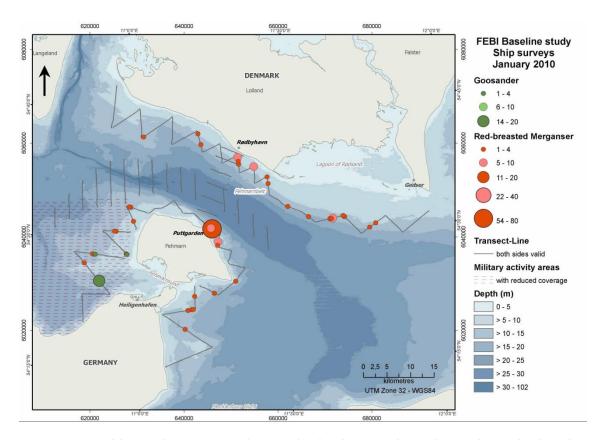


Figure 1.50 Red-breasted Merganser and Goosander distribution in the study area during ship-based surveys (January 2010).

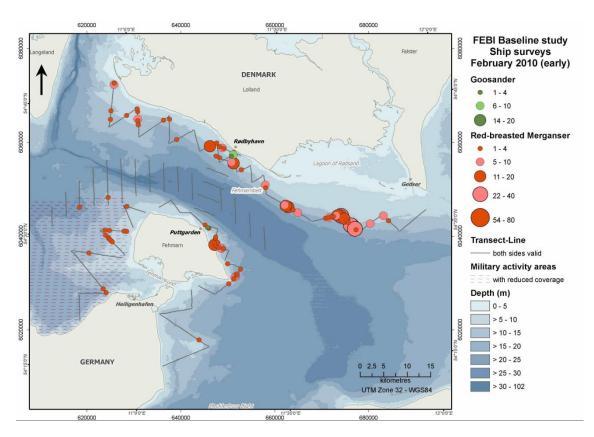


Figure 1.51 Red-breasted Merganser and Goosander distribution in the study area during ship-based surveys (February 2010).

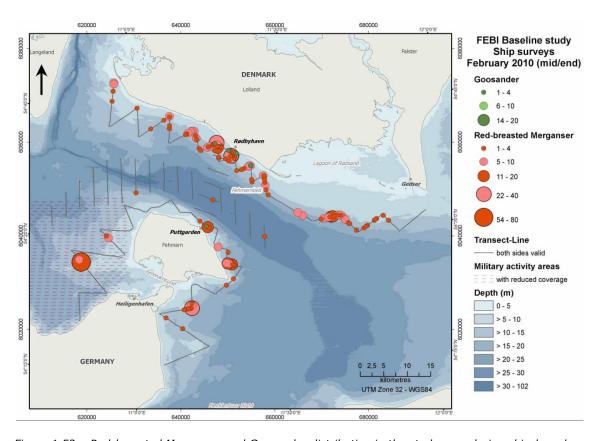


Figure 1.52 Red-breasted Merganser and Goosander distribution in the study area during ship-based surveys (February 2010).

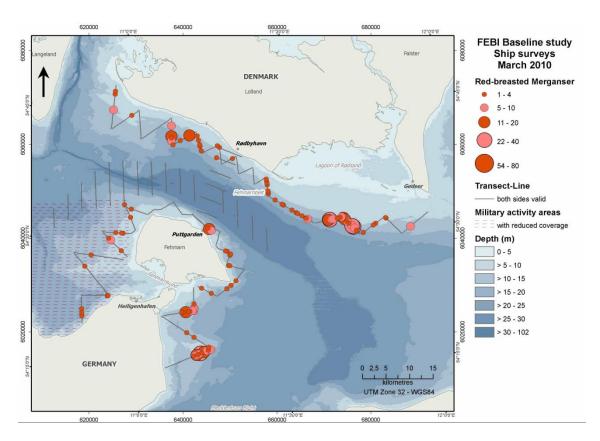


Figure 1.53 Red-breasted Merganser distribution in the study area during ship-based surveys (March 2010).

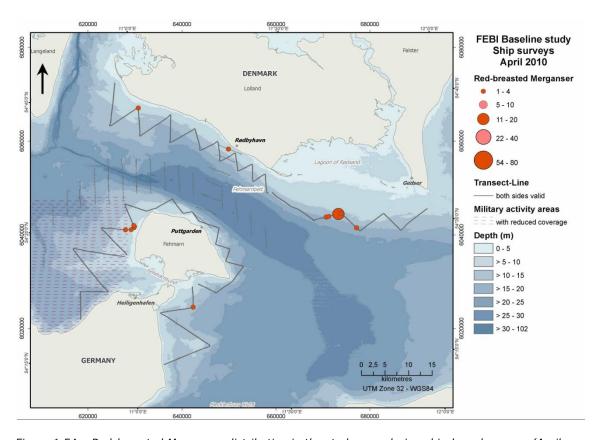


Figure 1.54 Red-breasted Merganser distribution in the study area during ship-based surveys (April 2010).

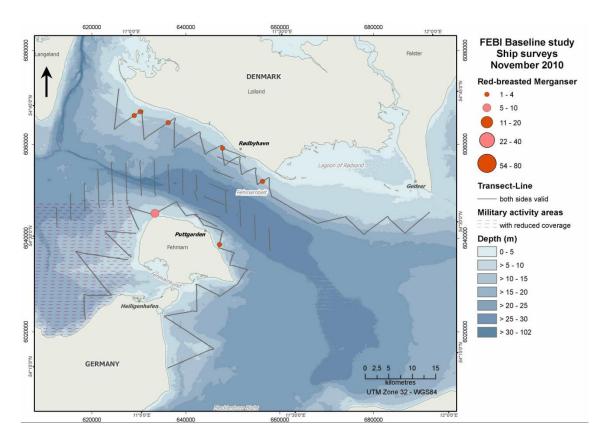


Figure 1.55 Red-breasted Merganser distribution in the study area during ship-based surveys (November 2010).

1.1.9 Black-headed Gull / Little Gull - Larus ridibundus / Larus minutus

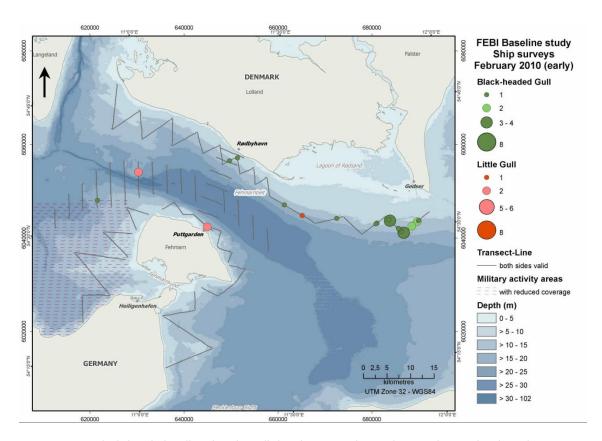


Figure 1.56 Black-headed Gull and Little Gull distribution in the study area during ship-based surveys (February 2010).

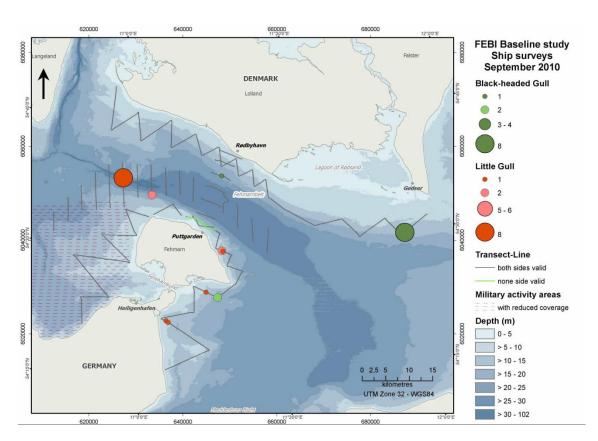


Figure 1.57 Black-headed Gull and Little Gull distribution in the study area during ship-based surveys (September 2010).

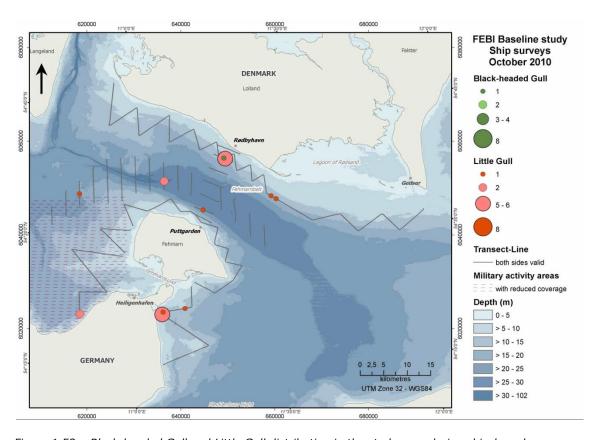


Figure 1.58 Black-headed Gull and Little Gull distribution in the study area during ship-based surveys (October 2010).

1.1.10 Great Black-backed Gull / Common Gull / Herring Gull - Larus marinus/ Larus canus / Larus argentatus

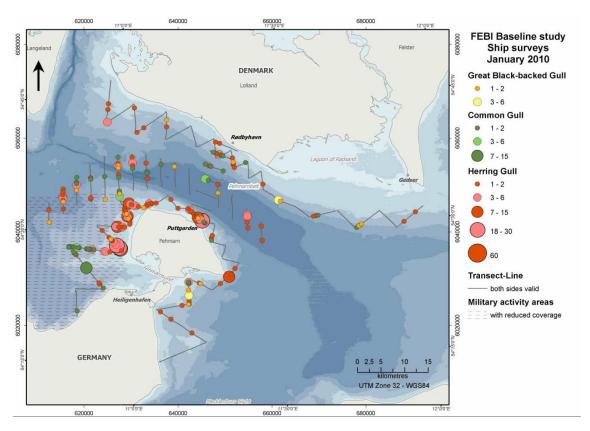


Figure 1.59 Great Black-backed Gull, Common Gull and Herring Gull distribution in the study area during ship-based surveys (January 2010).

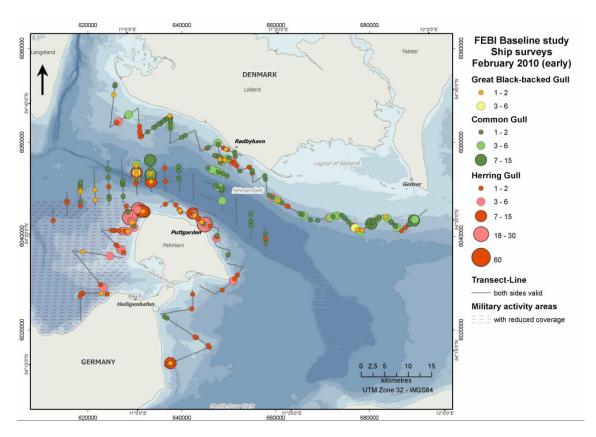


Figure 1.60 Great Black-backed Gull, Common Gull and Herring Gull distribution in the study area during ship-based surveys (February 2010).

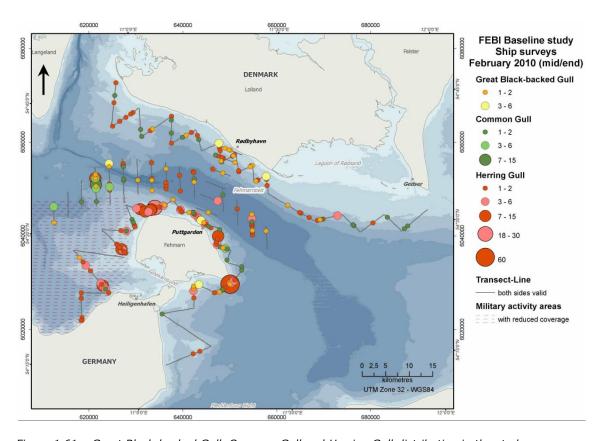


Figure 1.61 Great Black-backed Gull, Common Gull and Herring Gull distribution in the study area during ship-based surveys (February 2010).

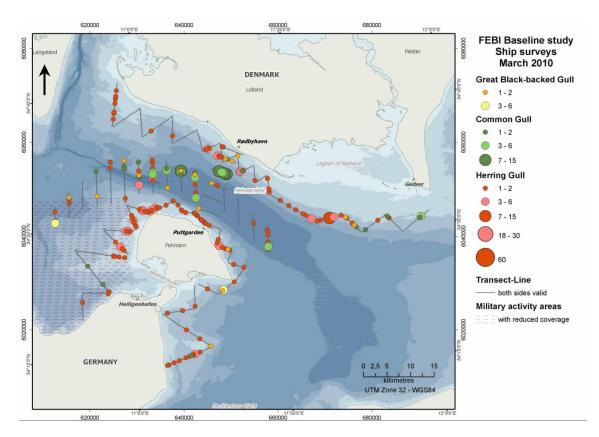


Figure 1.62 Great Black-backed Gull, Common Gull and Herring Gull distribution in the study area during ship-based surveys (March 2010).

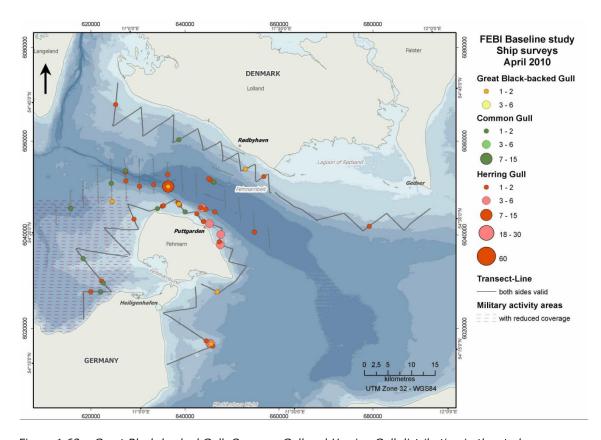


Figure 1.63 Great Black-backed Gull, Common Gull and Herring Gull distribution in the study area during ship-based surveys (April 2010).

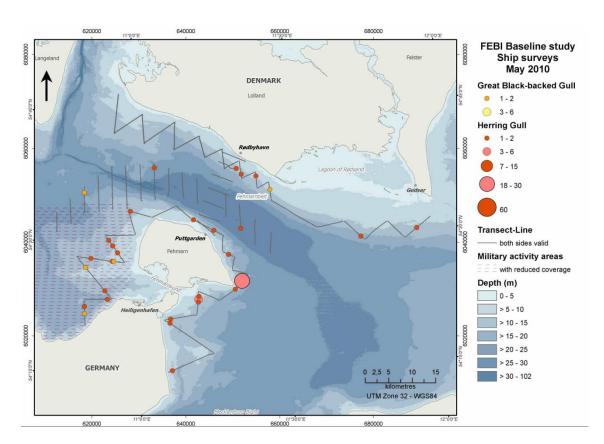


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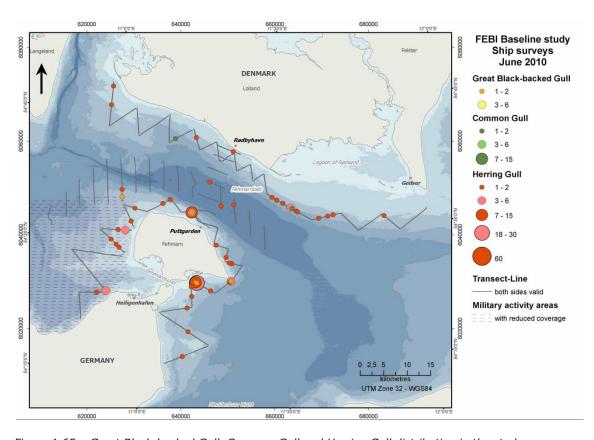


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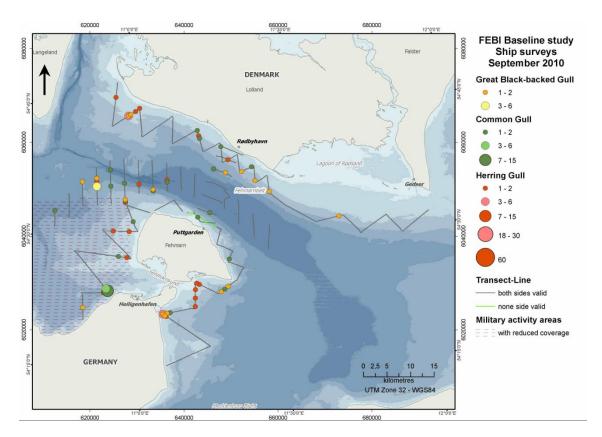


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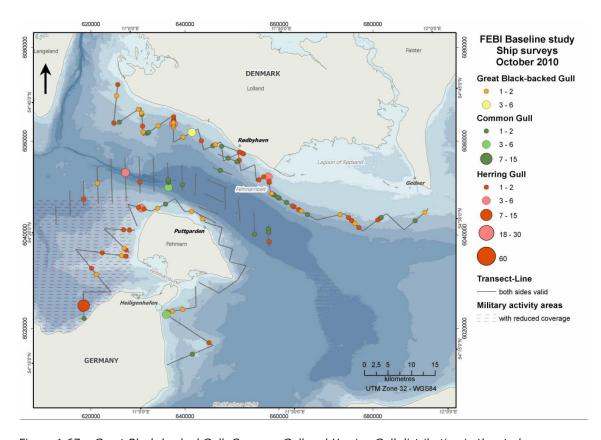


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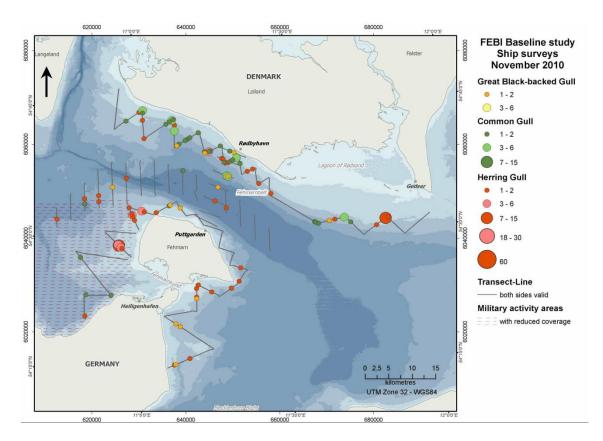


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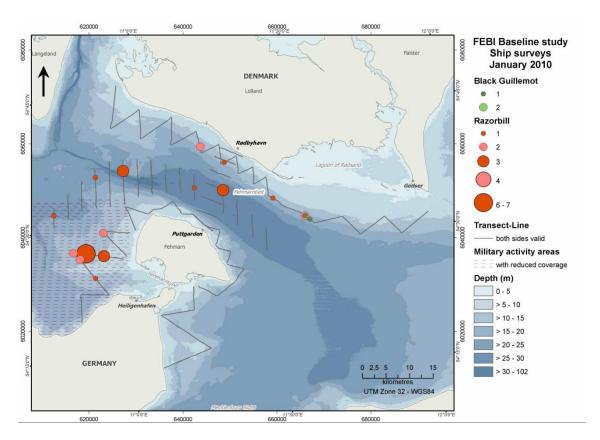


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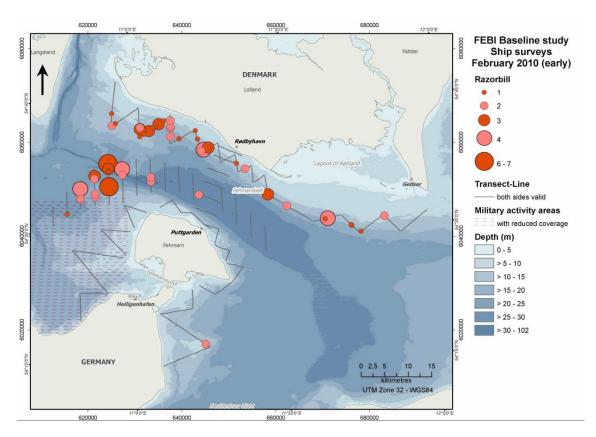


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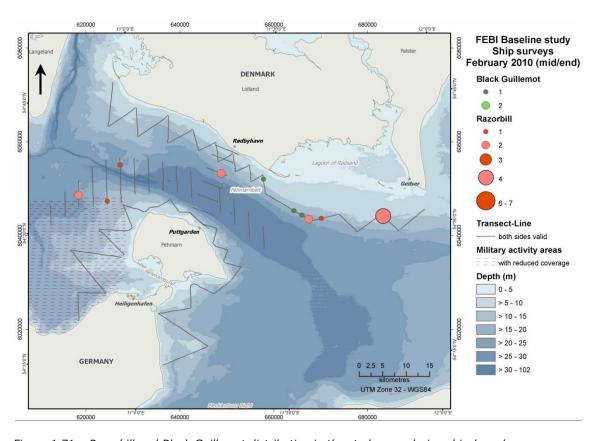


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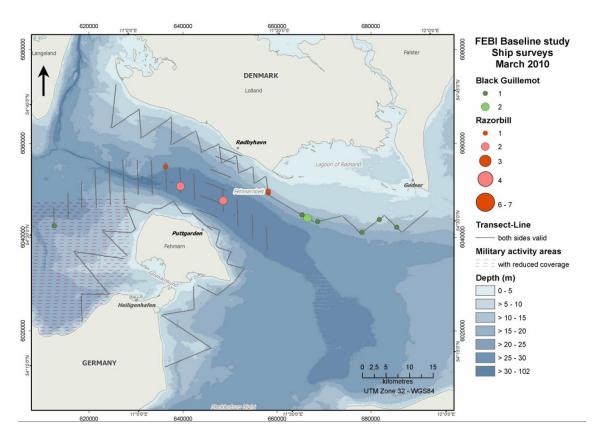


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