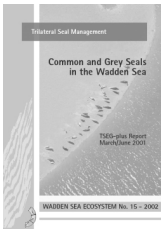
Publications

Trilateral Seal Management



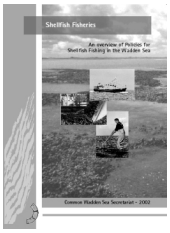
Trilateral Seal Expert Group-plus, 2002. Common and Grey Seals in the Wadden Sea. TSEG-plus Report March/June 2001. Wadden Sea Ecosystem No. 15. Common Wadden Sea Secretariat, Wilhelmshaven.

The extended Trilateral Seal Expert Group (TSEG-plus) consisted of seal experts and representatives of the competent seal management authorities of the four Wadden Sea regions (The Netherlands, Lower Saxony, Schleswig-Holstein, Denmark) and had the tasks to assess the current Seal Management Plan and develop a revised version for the coming period. The Seal Management Plan was developed in the framework of the Seal Agreement, which was signed in 1991 as the first regional agreement under the Bonn Convention.

The TSEG-plus report served as a main background document for the compilation and decision making regarding the new Seal Management Plan for the period 2002 – 2006, which was adopted at the Trilateral Governmental Conference in Esbjerg in 2001.

The report gives an assessment of the development of the seal population since the phocine distemper epidemic in 1988, potential conflicts, ethical and educational aspects, as well as of the amendment of the Seal Management Plan.

Shellfish Fisheries



CWSS, 2002. Shellfish Fisheries. An Overview of Policies for Shellfish Fishing in the Wadden Sea. Common Wadden Sea Secretariat, Wilhelmshaven, Germany.

The report gives a systematic overview of facts and figures of national shellfish policies and was prepared in the framework of the Governmental Conference in Esbjerg in 2001. It was further updated by the Common Wadden Sea Secretariat in 2002.

It covers blue mussel and cockle fisheries and other shellfish fisheries. For both categories first a summary of relevant trilateral agreements is given followed by relevant national information like the legal basis, policy, management and research.

The report only provides an overview of national policies and not an assessment of the differences in these policies. Such an analysis was agreed on at the Esbjerg Conference (ED §9) and will be carried out in the framework of the implementation of the Esbjerg Declaration.

Brent Geese and Grazing

D. Bos, 2002. Grazing in Coastal Grasslands – Brent Geese and Facilitation by Herbivory. PhD Thesis, University of Groningen, 224 p., ISBN 90-367-1711-6. Download: www.ub.rug.nl/eldoc/dis/science/d.bos/

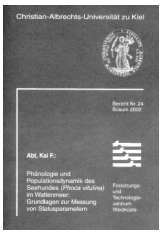
The thesis by Daan Bos aims to understand the mechanism that determine the spatial distribution of brent geese and to determine to what extent this distribution is affected by grazing of livestock on coastal grassland. The preference for brent geese for experimentally manipulated plats on salt marshes were measured, direct experiments with human disturbances were carried out and the use of a variety of plant communities by geese were investigated. He concluded that the foraging conditions of geese deteriorate under undisturbed plant growth and that grazing can counteract these processes, thus allowing managers to influence directly the capacity of salt marshes for brent geese.

Effects of Pollutants on Harbour Porpoise

U. Siebert, A. Vossen, W. Baumgärtner, G. Müller, A. Beineke, M. McLachlan, R. Bruhn, K. Thron, 2002. Investigation on the Influence of Pollutants on the Endocrinium and Immune System of Harbour Porpoise in the German North Sea. In German, 307 p., Umweltbundesamt Berlin, Forschungsbericht 299 65 221/01.

The study investigated the effect of organochlorines on the immune and endocrine system of harbour porpoises. The PCB, PBDE, DDT, DDE and toxaphene concentrations were analyzed in blood and blubber and correlated with lesions of the endocrine and immune system by using different methods. For the first time, it could be demonstrated that organochlorine concentrations are correlated with morphological changes of lymphatic and endocrine organs. It is assumed that these changes may have negative effects on the health of the porpoises.

Population Dynamics of Seals



K. Abt, 2002. Phenology and Population Dynamics of Harbour Seals (*Phoca vitulina*) in the Wadden Sea: Measurements of Status Parameters. In German, 117 p., PhD Thesis University of Kiel, Bericht Nr. 24, Forschungs- und Technologiezentrum Westküste, Büsum.

The thesis analyzed the population history of harbour seals with focus on 1989 – 2000 to determine seal population parameters such as pupping period, female fertility, increase and mortality. Additionally, recommendations on methods for seal monitoring are given.

The results revealed that different growth rates of the population were able to be observed and assigned to specific time periods. A slower increase during 1979 – 1987 was, for the first time, able to be attributed to a reduction in female fertility by about 20% probably as a result of PCB exposure.

The high fluctuation in population development after the 19988 seal die-off (between 10 and 20% increase) was able to be largely attributed to an unstable age distribution. The latter caused also fluctuations of the proportion of seals on shore resulting in an abnormally high apparent increase of the population.

For the first time, realistic estimates of age- and sex-specific mortality rates are presented. The annual mortality rates were 5% for adult females, 9% for adults male, 35% in the first year of life and 2-5% in sub-adult seals, which were lower than previously suggested ones.

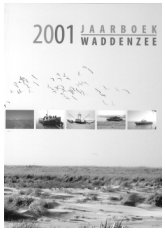
Community Ecology of Mussel Beds

Asmus, H., R.M. Asmus (eds.) 2002. ECSA workshop: Community ecology of soft bottom mussel beds. Helgol Mar Res 56: 1-85

This special issue presents the proceedings from an international workshop on the ecology of mussel beds held at the Wadden Sea Station Sylt of the Alfred Wegener Institute for Polar and Marine Research in August 2000. The objectives were to update the current research by pooling the experience of different mussel bed ecologists and to identify the needs for future research. The workshop focussed mainly on basic research and discussed aspects of mussel fishery only marginally.

Mussel beds are biotic structures with a high potential to modify and control ecological processes. Anthropogenic changes of these structures will have consequences on the total ecosystem, especially on the material cycling, energy flow, species diversity, trophic interactions and sediment stability as well as hydrodynamics.

Condition of the Dutch Wadden Sea in 2001



Jaarboek Waddenzee 2001. 86 pp, RIKZ Haren.

This 6th Wadden Sea Yearbook has been produced by five ministries and three provinces. Facts and figures regarding the state of the Wadden Sea have been jointly compiled by many institutes and private organizations. This concerns information about nature and environment such as seal population and water quality, as well as human activities such as fishing, recreation, sand dredging, shell extraction and military activities.

The Yearbook concludes that "the overall picture suggests that the Wadden Sea region is doing relatively well".

The complete Yearbook (in Dutch) can be downloaded from InterWad (www.waddenzee.nl) where an English summary is also available. Hard copies can be ordered at the Bibliotheek Rijkswaterstaat, Postbus 2310, 8901 JH Leeuwarden, phone +31 58 2344405, bibliotheek@ dnn.rws.minvenw.nl