

The SEAPOP programme

- a milestone for the mapping and monitoring of seabirds in Norway



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SEAPOP in brief

SEAPOP (SEAbird POPulations) is a new and long-term monitoring and mapping programme for Norwegian seabirds that was established in 2005. The programme represents a new initiative for these activities in Norway, Svalbard and adjacent sea areas, and will provide and maintain base-line knowledge of seabirds for an improved management of this marine environment. The data analyses aim to develop further models of seabird distribution and population dynamics using different environmental parameters, and to explore the degree of covariation across different sites and species. This knowledge is urgently needed to distinguish human influences from those caused by natural variation.

The activities in the two initial years were restricted to the Lofoten and Barents Sea area (see map), but the programme is designed for implementation on the full national scale within a few years. The work is organised and carried out by the Norwegian Institute for Nature Research (NINA) in close cooperation with the Norwegian Polar Institute (NP) and Tromsø University Museum, and is currently financed by the Ministry of Environment, the Ministry of Petroleum and Energy and the Norwegian Oil Industry Association. The data and knowledge is being organised for serving different users online via an own web site (www.seapop.no).



The existing SEAPOP key-sites as of 2006



The impressive bird cliffs at the south end of Bjørnøya (Bear Island) is one of the established key-sites of the SEAPOP programme. The site holds a mixed population of common and Brünnich's guillemots counting hundreds of thousands of birds. © H. Strøm, Norwegian Polar Institute

Monitoring

The national monitoring of population trends that has been ongoing since the 1980s will be continued and extended with more sites and species. To help reveal as early as possible important environmental pressures acting on the populations, we have extended and further adjusted the monitoring of reproduction, adult survival rates and diets of selected seabird species on the four previously established key-sites Røst, Hjelmsøya, Hornøya and Bjørnøya (i.e. Bear Island, see map) to meet the general design of the programme. Two new key-sites have now been established, one on Anda and the other on western Spitsbergen. The latter is divided among several localities because there is no suitable single site in the area that holds a sufficient variety of breeding species. On the basis of time series that date back many years, a number of interesting trends for different species and parameters are now being uncovered, both within and between these colonies. When the programme is implemented on the full national scale, as is expected within a year or two, additional key-sites will be established in central and southern Norway, most likely including the colonies at Sklinna and Runde and a selection of sites in Rogaland and Telemark counties.

Special studies

SEAPOP will also fund a number of more specialised, shorter-term studies of seabird ecology and habitat use, some of which will apply sophisticated methods for automatic data recording.

Mapping

Within the scheduled programme period of ten years, SEAPOP aims to map in detail the distribution of breeding, staging and wintering seabirds along all coastlines of Norway and the Svalbard archipelago. For logistic and economic reasons, much of the highly dynamic distribution of seabirds at sea in the vast areas covered by the programme will be predicted using multi-disciplinary models. This work is done in close cooperation with the Institute of Marine Research in Bergen and is based on data collected on their ecosystem surveys in parts of the area.

Publication

When up-and-going, the SEAPOP web site (www.seapop.no) will accumulate a lot of results generated by the programme. Although only licensed users will be able to download raw data, a variety of pre-prepared information will be made freely available. The web site will also contain an up-to-date list of scientific publications associated with the programme and summaries of the main results will be presented in annual reports, the first of which (for 2005) has already been published:

Anker-Nilssen, T., Barrett, R.T., Bustnes, J.O., Erikstad, K.E., Fauchald, P., Lorentsen, S.-H., Steen, H., Strøm, H., Systad, G.H. & Tveraa, T. 2006. SEAPOP studies in the Lofoten and Barents Sea area in 2005. NINA Report 127, 38 pp

For a pdf file of the report or additional information, visit

www.seapop.no