

Components of a microalgae information system - Nordic Microalgae, Swedish Oceanographic Data Centre and Plankton Toolbox

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Microalgae, i.e. phytoplankton, form the base of the marine ecosystem. The biodiversity of unicellular plankton in the seas surrounding Sweden is substantial. More than 2000 species have been described based on morphology. Early results based on barcoding of rDNA indicate that this is an underestimation, possibly by a factor of 20. One of the goals of the Swedish Lifewatch project is to make phytoplankton data easily accessible to researchers. A microalgae information system developed by Swedish Lifewatch consists of three parts:

1. The web site <http://nordicmicroalgae.org> with images and information about the taxa contributed by users.
2. A database with records of observations of microalgae taxa, their abundance and biomass. Swedish marine data is accessible at the Swedish Oceanographic Data Centre through a web interface for humans <http://sharkweb.smhi.se> and for machines <http://sharkdata.smhi.se/about/>.
3. The Plankton Toolbox <http://nordicmicroalgae.org/tools>, an open source software for working with plankton data and for use by the microscope when counting samples. The system has been developed in cooperation Nordic microalgae specialists, AlgaeBase, World Register of Marine Species and the Intergovernmental Oceanographic Commission. Data is also available through the Swedish Lifewatch Analys Portal www.analysisportal.se and the Ocean Biogeographic Information System <http://www.iobis.org>.

Three parts of the system will be demonstrated.