

PHYTOBS is a French national microphytoplankton monitoring network belonging to Coastal Ocean and Nearshore Observation French Research Infrastructure (“ILICO”). PHYTOBS combines resources and skills from the French institutes Ifremer, CNRS and universities.

The objectives of this network are to analyze the responses of phytoplankton communities to environmental changes, assess the quality of the coastal waters through indicators, define ecological niches, and detect phenological variations. PHYTOBS also offers a synergy within the scientific community through networking and allows the dissemination and consolidation of skills.

PHYTOBS relies on 25 sites distributed along the French coast. The monitoring started in 1987 on some sites and later on others. It consists in studying microphytoplankton assemblages (Utermöhl method) and associated hydrological parameters.

The PHYTOBS network provides the scientific community and stakeholders with long term series, in order to improve knowledge regarding biomass, abundance and composition of marine microphytoplankton in coastal and lagoon waters in their hydrological context. The PHYTOBS data set is very original regarding the two types of taxonomic nomenclatures it proposes. A classical one, with raw data, where the highest taxonomic level reached by each analyst depends on each one’s abilities. In order to standardize taxon groupings, the PHYTOBS also provides an “accredited taxon” dataset corresponding to the best level of identification the whole French analysts community is able to guarantee.

Sharing standardized sampling and analyzing methods, PHYTOBS data are an answer to the need of long term observation of microphytoplankton communities along the French coasts. It provides researchers and end-users with taxonomic information from raw taxon list to an accredited taxon level.