

GdR PHYCOTOX: an integrated research network on harmful algae from the ecology to societal impacts

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A French research network on HABs, currently led by Ifremer and CNRS, regroups 25 laboratories (> 100 scientists) in mainland France and overseas around five research themes:

- i. Identification and characterization of algal toxins
- ii. Ecology, diversity, modeling and physiology of HABs and implications in toxin production
- iii. Impact and transfer of phycotoxins in marine ecosystems and food webs
- iv. Sanitary impacts and risk evaluation
- v. Socio-economic impacts

The research encouraged through this network is largely interdisciplinary, comprising life sciences, mathematics, chemistry and social sciences.

Recent, interdisciplinary, collaborative national projects include topics such as HAB ecology, chemical diversity and toxicity of algal toxins and their effects on the socio-ecosystem, HAB-parasites, passive sampling, innovative automated techniques and citizen-based science for the detection of HABs. Networking and collaborative projects are also directly promoted by the GDR activities and resources, including small prospective projects in ecology, taxonomy and toxicity of selected species and participation in international congresses.

Communication tools to improve internal networking and visibility to the international scientific community and societal stakeholders include three annual scientific conferences held since 2014. A bilingual website (FR-EN) has been created to display the individual participating laboratories and their activities, as well as the activities of the network (www.phycotox.fr): meeting announcements, job and internship postings, publications and general background information. Membership with an international professional society (ISSHA) has been multiplied by four. Thanks to this networking effort and following a competitive bid, ISSHA has awarded France to be the host for the 2018 HAB conference.