A bloom of *Prorocentrum triestinum* in the Hossegor Marine Lake (France)

Phytoplankton communities in the Hossegor marine lake (Southern French Atlantic coast, Fig. 1) have been monthly monitored since 1997 to protect human health (REPHY network: monitoring of toxin producing species which may contaminate cultivated oysters) and environmental (EU Water Framework Directive (WFD) network) purposes.

This shallow, eutrophic marine lake which is subject to opportunistic green algae blooms is fed by a narrow canal that receives water from the ocean and two small rivers. Water temperature ranges between 10 and 25° C and salinity between 20 and 35. In this lake, the phytoplanktonic communities are usually dominated by marine species (*i.e. Leptocylindrus minimus, Dactyliosolen fragilissimus, Cylindrotheca closterium*) whilst blooms of freshwater species (Cyanobacteria: *Planktothrix agardhii*) may occur during periods of high river discharge.

In August 2019, following the observation of a brown coloured water phenomenon, analysis of water samples revealed high abundances (about 6 million cells per liter) of *Prorocentrum triestinum* (class *Dinophyceae*, order *Prorocentrales*, Fig. 2). This was the first observation of this species in this lake. Since then, its presence has been quite sporadic due to the high tidal-induced renewal of water within the lake.

Authors
Myriam Perrière-Rumèbe & Claire Meteigner, Ifremer - LER Arcachon, Quai du Commandant Silhouette, 33120 Arcachon – France

Corresponding author:
littoral.lerar@ifremer.fr

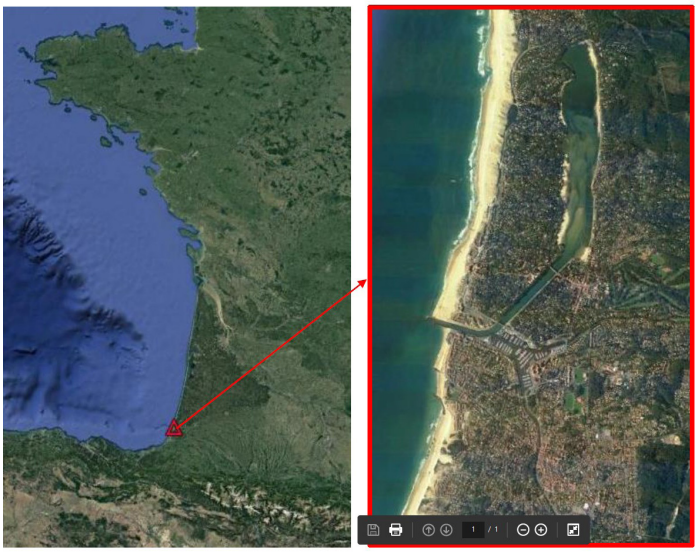

Fig. 1. Study area - Hossegor marine lake

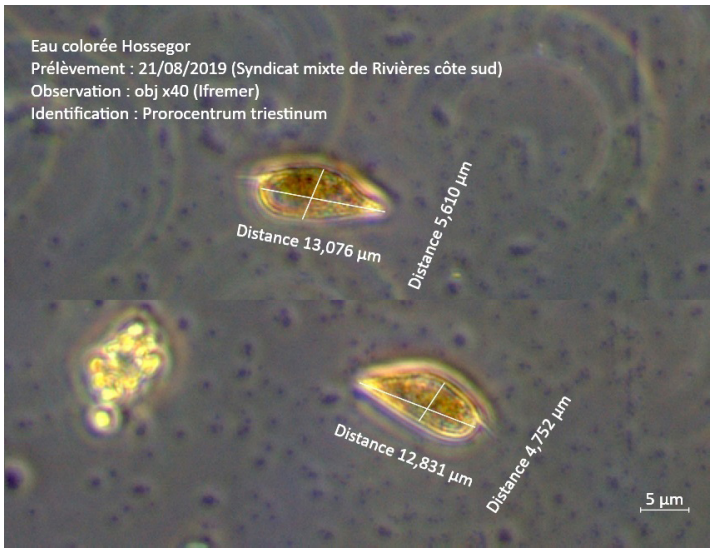

Fig. 2. Prorocentrum triestinum (fixed with neutral Lugol's solution) in a lake water sample collected during August 2019.

Continued from page 7

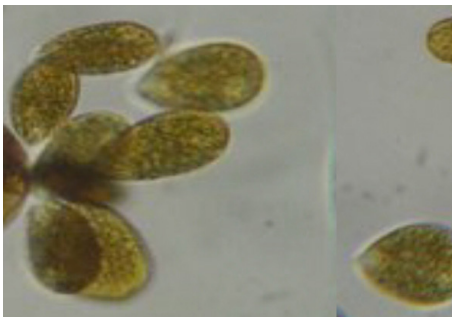

Fig. 3. Micrographs of Ostreopsis cf. ovata

Mediterranean Sea. Results of this study may contribute to a better understanding of *Ostreopsis* ecology and population dynamics and its trends in Alexandria waters. In addition, it provides the basis for an effective bloom management and mitigation of its effects.

References
1. *Mikhail S 2007. Chem Ecol23(5): 393-407*
2. *Imai I & M Yamaguchi 2012. Harmful Algae 14: 46-70*
3. *Klöpper S et al 2013. Eur J Phycol 48:79-92*
4. *Imai I et al 2006. Jap Plank Benth Res 1:71-84*
5. *Haque SH & Y Onoue 2002. Environ Toxicol 17: 113–118*
6. *Hallegraeff GM & Y Hara 2003. UNES Pub, Paris, 511–522*
7. *Mikhail S & W Labib 2012. In: Kim HG et al (eds), Harmful Algae 2012, ISSHA 2014, pp 41-44 (on line)*
8. *Hosny SH 2016. PhD Thesis, Faculty of Science, Tanta University, Egypt*
9. *Parsons ML et al 2012. Harmful Algae 14: 107-129*
10. *Ciminiello P et al 2011. Toxicon 57: 362-36*
11. *Tubaro A et al 2011. Toxicon 57: 478-495*
12. *Mikhail SK & W Labib 2014. Abstracts. Estuaries & Coastal Protected Areas, Izmir, Turkey, 4-6 Novembre 2014*
13. *Hosny SH & W Labib 2019: J Oceanogr Mar Res 7:1*
14. *Boisnoir A et al 2019. Harmful Algae 81: 18-29*
15. *Yamaguchi H et al 2012. Fish Sci 78: 993-1000*

Authors
Shimaa Hosny & Wagdy Labib, Cooperative National Institute of Oceanography and Fisheries, Alexandria, Egypt

Corresponding author:
shimaasea@yahoo.com