

New Occurrence of the Dwarf Oyster *Ostera stentina* (Payraudeau 1826) in Egypt (Southeastern Mediterranean Sea)

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Short Communication

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Short Communication

This work is the first confirmed record of the crested or dwarf oyster *Ostera stentina* [1] on the Egyptian coast, the Mediterranean Sea. The present species exhibits a broad worldwide geographic distribution ranging from southern Mediterranean coasts, southwestern coast of the Iberian Peninsula, southern coast of Argentina, both western and eastern Atlantic coasts, Gulf of California in eastern and

Asian Pacific [2]. The dwarf oyster predominantly exists along the northern coastline of Africa extending from the northern to the eastern Tunisian coast. Nevertheless, its distribution extends southward and possibly reaches the South African waters as documented by Lapègue S, et al. [3]. In the Mediterranean Sea, it was first recorded in Corsica Island, France by Payraudeau BC [1]. Subsequently, its presence was reported from Spain, Italy, Morocco, Tunisia, Greece, and Turkey. The present oyster species is a potential host for *Bonamia spp.*, which are serious pathogens capable of infecting oyster hemocytes causing high mortality rates among susceptible species [4].

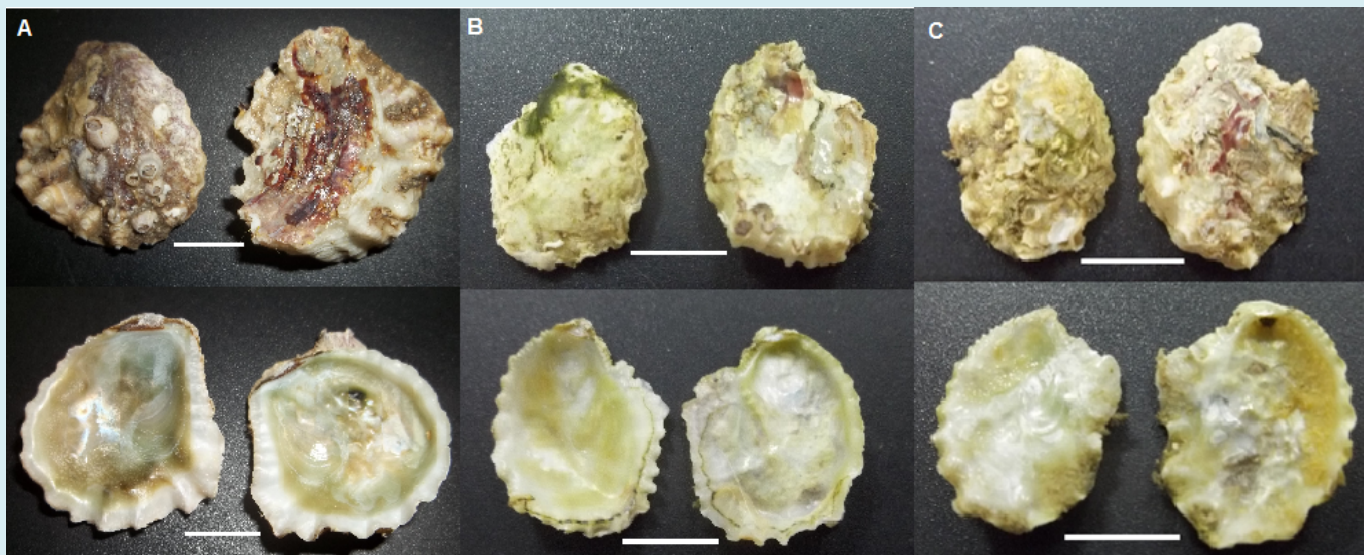


Figure 1: External and internal shell valves of the dwarf oyster *Ostera stentina* collected from Miami, Alexandria, Egypt. The scale is 1 cm.

On June 2022 a live specimen (Figure 1A) of *O. stentina* was caught by Scuba diving at coordinates (31.26514, 29.97998) at a depth of 5m which is located in Miami, Alexandria, Egypt. The specimen was collected from sandy habitat, where it was attached to a population of pearl oyster *Pinctada radiata*. Identification of this species was determined according to characteristic diagnostic features defined by Harry HW [5]. Additionally, two smaller live specimens (Figures 1B and 1C) were also collected at the same site similarly attached to population of *P. radiata* in August 2023.

The measurements of shell height and shell length were as follow: 28mm & 30mm for specimen A, 21mm & 16mm for specimen B, and 21mm & 12mm for specimen C, respectively. The shell color closely resembles that of a stone. The left valve, which adheres to the substrate over a large area, exhibits raised margins and shallow umbonal cavities. It is slightly larger and more cupped than the right valve displaying a white and green coloration. The right valve is considerably more flattened than the left valve and is characterized by a series of fine crenellations on both sides of the ligament.

The present finding of *Ostrea stentina* in the southearten part of the Mediterranean Sea suggests its slow expansion rate as it is recorded after two centuries of its first recorded appearance in the Mediterranean Sea.

References

1. Payraudeau BC (1826) Catalogue descriptif et méthodique des annelides et des mollusques de l'île de Corse; avec huit planches représentant quatre-vingt-huit espèces, dont soixante-huit nouvelles. Imprimerie de J Tastu, Paris, 5: 1-8.
2. Hu L, Wang H, Zhang Z, Li C, Guo X (2019) Classification of Small Flat Oysters of *Ostrea stentina* Species Complex and a New Species *Ostrea neostentina* sp. nov. (Bivalvia: Ostreidae). Journal of Shellfish Research 38(2): 295-308.
3. Lapègue S, Ben Salah I, Batista M, Heurtebise S, Neifar L, et al. (2006) Phylogeographic study of the dwarf oyster, *Ostreola stentina*, from Morocco, Portugal and Tunisia: evidence of a geographic disjunction with the closely related taxa, *Ostrea aupouria* and *Ostreola equestris*. Marine Biology 150(1): 103-110.
4. Bishop M, Carnegie JRB, Stokes NA, Peterson CH, Burreson EM (2006) Predicting the outcome of a non-native oyster introduction: facilitation of an enzootic parasite. Marine Ecology Progress Series 325: 145-152.
5. Harry HW (1985) Synopsis of the supraspecific classification of living oysters (Bivalvia: Gryphaeidae and Ostreidae). Veliger 28: 121-158.

