



Small Specimen of *Pinctada imbricata* found in the intertidal of Boca Cangrejo, Tenerife Island (Feb 2023) and a large specimen found in the shallow waters of Radazul, Tenerife Island.

PASSIVE TRANS-ATLANTIC DISPERSAL OF THE PEARL-OYSTER *PINCTADA IMBRICATA* RÖDING, 1798 TO THE CANARIES. José Carlos Hernández\*, Leopoldo Moro-Abad\*\*, Sara González-Delgado\*, Beatriz Alfonso\*, Marina Aliende\*, Carlos Sangil\* & Rogelio Herrera\*\*.

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From 2013, the Pearl-oyster (*Pinctada imbricata*) have been more frequently observed in the Canary Islands. Most of the observations have been uploaded at the citizen science platform RedPromar (redpromar.org). There has been a total of thirty-three observation, most of them from the East coast of Tenerife Island. However, isolated individuals have also been observed in El Hierro Island and Lanzarote. Other observations have been directly registered by the authors of this study in Gran Canaria and La Palma Islands. This specie occurs from the intertidal habitat to the shallow waters, but at no more than 10 meters' depth, and 2-4 cm in shell length. The presence, and more likely the establishment, of this specie in the Canary Island is important because it is a species originally distributed in the warm western Atlantic, North Caroline, West Indies, the Caribbean, Venezuela and Brasil (Cunha et al. 2011). Therefore, the Canaries is a new location, off its normal distributional range.

It is also relevant to highlight here that this species form a genetic complex with *P. radiata* and *P. fucata*, with low levels of genetic divergence (Tëmkin 2010), which are native species from the Indian Ocean and Indo-Pacific respectively. Therefore, Tëmkin (2010) have considered these species as subspecies of *P. imbricata*. This taxonomic comment is relevant here because in 1997 Gómez and Pérez wrote about the presence of *P. radiata* in Tenerife at the localities of Las Caletillas and



Candelaria. However, and taking into account the previous taxonomic comment, we believe that it is the same species we are observing today, *P. imbricata* (Western Atlantic subspecies). In 2011 Hernández and collaborators cited Gómez & Pérez (1997) paper but also included a picture of a specimen of 42mm which was found attached to driftwood in Tzacorte, La Palma Island.

Another recent work by Png-Gonzalez et al (2021) have studied the arrival and presence of the subspecies *P. imbricata radiata* (Indian-Ocean subspecies) in the Balearic Archipelago due maritime transport. However, the presence of this species in the Mediterranean can be trace back to 1874 as a lessepsian immigrant and since then it has spread to western locations, being considered one of the worst invasive species (Streftaris & Zenetos 2006) for this Sea. In the Easter Atlantic and regarding *P. imbricata* (Western Atlantic subspecies) there has also been observations for the Irish coasts (Holmes et al 2015).

This is an interesting case because specimens have been found in macroplastic litter, a bait pot type not used outside of the USA. This observation together with Gómez & Pérez (1997) shows that passive dispersal through rafting specimens (attached to floating objects) is a plausible explanation for its arrival to the Canaries. We believe that our observation is relevant because it present a species that, presumably, has arrived from warmer regions due to a passive transport, and it has increase its presence in recent years. Thus, it is a good local candidate to be benefited by ocean warming.



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