



HydroMedit 2021

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Identification of the pearl oyster (*Pinctada imbricate radiata*), mislabeling in the Greek market by using internet-based tools.

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Introduction

Pearl oyster (*Pinctada imbricate radiata*) is an exotic species with significant presence in the Greek seas and good potential for commercial exploitation.

Up to now, limited unregulated and unreported quantities are directed to the market with different names of the bivalve, due to lack of the relevant legal framework of the species.

For this purpose, an internet-based quantitative research was conducted to explore the market supply and potential mislabeling (if any) of the pearl oyster (*P. i. radiata*) in Greece.



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Materials and methods

- Internet-based quantitative research between January 2021 and March 2021.
- Visual similarities between the pearl oyster, the native oyster *Ostrea edulis* and the pectenid *Aequipecten opercularis* (scallops). (Figure 1)
- Various keywords were used in Greek language.

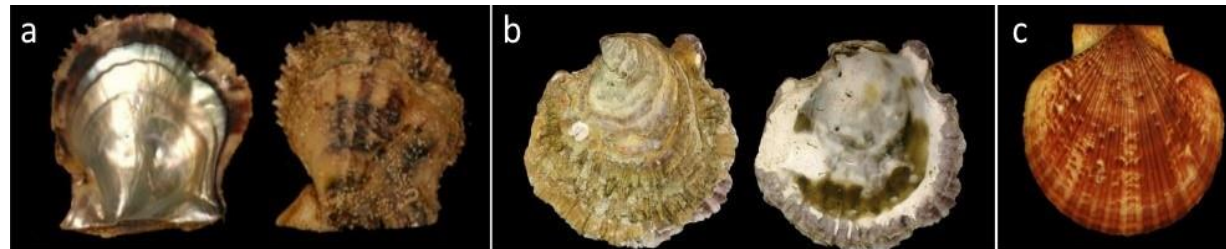


Figure 1. External morphology of the bivalves searched through the keywords (from left to right) a) *P. i. radiata* (pearl oyster), b) *O. edulis* (native oyster) , c) *A. opercularis* (scallop - pectenid) . (Image source www.marinespecies.org)



Results

- Established population of pearl oyster in seven of total nine geographical regions of Greece. (Figure 2)
- Pearl oysters are offered in twenty-five places, covering three geographical regions (Figure 3)
- It is not offered in four geographical regions.
- *O. edulis* and *A. opercularis* are offered to all of them. (Figure 4, 5)

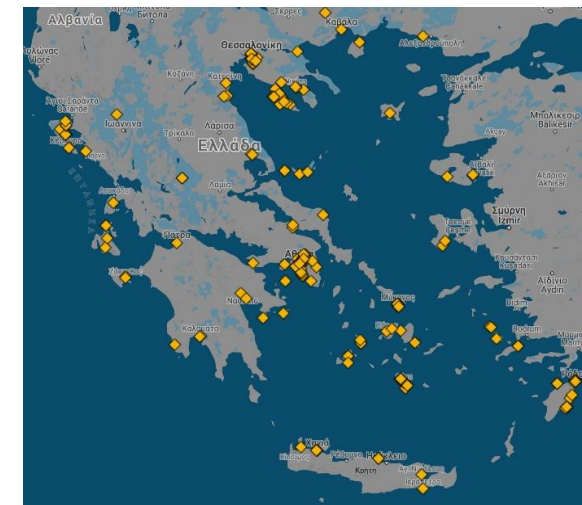
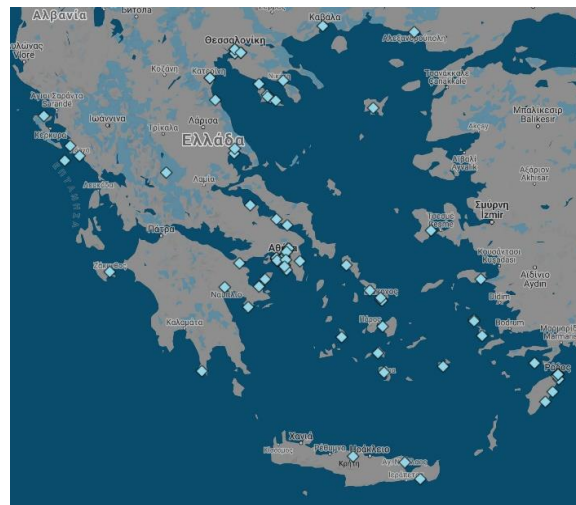
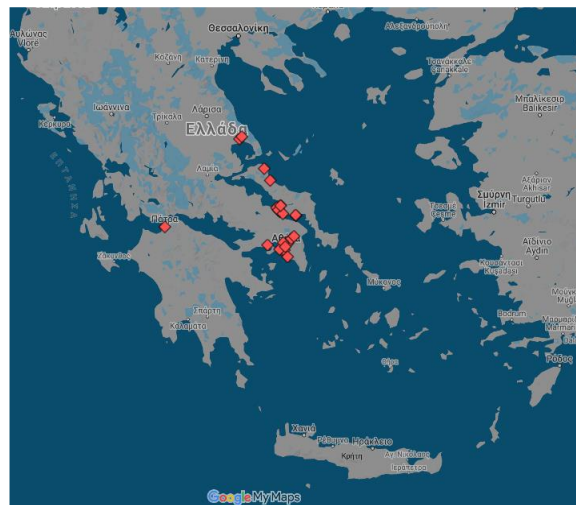
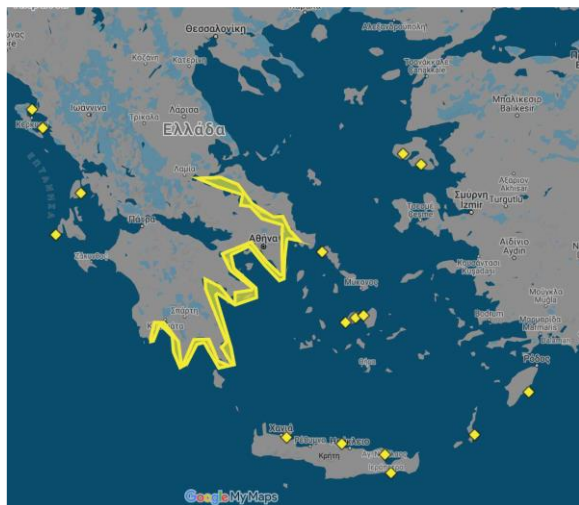


Figure 2. *P. i. radiata* habitat in Greece

Figure 3. *P. i. radiata* (pearl oyster) marketplaces

Figure 4. *O. edulis* (native oyster) marketplaces

Figure 5. *A. opercularis* (scallop) marketplaces

Discussion

- Pearl oyster *P. i. radiata*, is a non endemic species, that due to its certain visual similarity with the native species of *O. edulis* and *A. opercularis* is mis-labelled in the Greek market value chain.
- Various keywords referring to pearl oyster often led to specific websites about *O. edulis* or *A. opercularis*
- Many areas, despite the fact that they constitute habitat of the pearl oyster, no report of its availability to consumers was found.
- In the same areas, there were found dozens of references to the market of native oysters and scallops.

Conclusion

Summarizing all the above, it seems that there is a specimen mislabeling throughout Greece, thus, extraction of significant information about the market supply of pearl oyster is deficient.

Further readings : www.pearlseafood.upatras.gr

Acknowledgements

The present work is a part of the project “Commercial exploitation of the pearl oyster *Pinctada imbricata radiata* by adding value through the development of processed products (Code MIS: 5010850) funded by the “Innovation in Fisheries” EU-Greece Operational Program of Fisheries, EPAL 2014-2020.