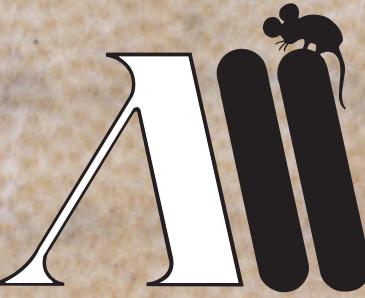


ANNALES



*Analí za istrske in mediteranske študije
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Annals for Istrian and Mediterranean Studies
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Book review: A MINIATURE OCEAN

Authors: Lovrenc Lipej, Manja Rogelja & Borut Mavrič
Editor: High school, electrical and naval school Piran
(GEPŠ), 221 pp.

I was asked to prepare my scientific opinion regarding the manuscript of the monograph entitled "A miniature ocean". This manuscript is dealing with the Aquarium in Piran, an institution with long tradition in the Slovenian coastal town. The monograph with 222 pages is a remarkable compilation of data, concerning the Piran Aquarium and its scientific and educational role in the northern Adriatic area. Opening chapters offer a short description of the history of aquaristics and the roles of modern aquariums. The authors are trying to convey the importance of aquaria from different aspects, such as marine biology, nature conservation, education, cultural role and popularization. Separate chapter is dealing with the scientific contribution the staff of the Piran Aquarium made together with the partner institutions, such as the Marine Biology Station Piran of the National Institute of Biology, in publishing in scientific literature, with special regards to invasive species, tropicalization, and rare, less known and endangered species. A special chapter is dedicated to the functioning of the Piran Aquarium from various aspects, such as animal collection and husbandry, life support systems, etc. The bulk of the monography presents a survey of algal and animal species, which are regularly or occasionally displayed in the tanks of Piran Aquarium. One hundred and seventy species are presented in this chapter. A key for understanding various definitions is presented before the list itself, so the reader has no problem in understanding what certain labels mean. Every single species is presented on one page with a close-up photograph, a short description, its size, habitat and distribution. Finally, if there are any facts the reader may find interesting, they are mentioned at the very end of the page. This chapter is followed by a dictionary where all scientific terms are explained, by index of Latin and Slovenian names of species, literature and

presentation of the authors. The monograph is illustrated with more than 230 excellent color photographs and some original illustrations in black and white.

Since books such as this one are not common in scientific literature, it is quite difficult to compare it and assess its value. However, it is a valuable contribution since it presents in detail an important Slovenian institution and shows the importance such institution has to the local community, also demonstrating the wide range of activities done by the staff of the Aquarium. One of the most important tasks is certainly raising the awareness of how rich the Adriatic Sea actually is.



To my opinion the value of this book is in detailing various contributions the Aquarium has made to the scientific community and providing an overview of marine turtles rehabilitation cases. The monography is also trying to present the importance of new processes such as bioinvasion and tropicalization in modifying the floral and faunal communities in the northern Adriatic Sea.

The survey of aquarium species is also a valuable part, since it could provide help to professionals working in the field of education.

The monography "A miniature ocean" is to my opinion a valuable contribution as it presents finer points of good aquarium practice to a wider public, while also turning the reader's attention to the richness and diversity of the Adriatic Sea.

Milena Mičić
 Director of Aquarium Pula

KAZALO K SLIKAM NA OVITKU

SLIKA NA NASLOVNICI: Zajedavci so pomemben, a velikokrat spregledan vidik morske biodiverzitete. Pogosto se zgodi, da na ribjih gostiteljih najdemo vrste zajedavcev, ki so slabo poznane ali zelo redke. Takšen je tudi primer zajedavskega ceponožca vrste *Demoleus heptatus*, ki je bil najden na primerku morskega psa šesteroškrugarja (*Hexanchus griseus*) v Izoli januarja 2018. (Foto: D. Trkov)

Sl. 1: Pranica na posnetku je ličinka rakov enakonožcev iz družine Gnathiidae. Ličinka je zajedavka na raznih vrstah obrežnih rib. (Foto: D. Trkov)

Sl. 2: Zajedavski raki ceponožci iz rodu *Caligus* zajedajo številne vrste rib. Na svetu jih živi več kot 220 različnih vrst, med njimi tudi takšne, ki povzročajo gospodarsko škodo. (Foto: D. Trkov)

Sl. 3: Endoparazite najdemo znotraj ribjega gostitelja. Čeprav nekateri povzročajo škodo na komercialno pomembnih ribah, je o njihovi biologiji le malo znanega. To velja tudi za sesače (Trematoda). (Foto: D. Trkov)

Sl. 4: Tриje predstavniki rakov ceponožcev iz rodu *Caligus*, od katerih imata dva jajčna filamente, so bili najdeni na velikem prisesniku (*Lepadogaster candolii*). (Foto: D. Trkov)

Sl. 5: Ribja uš, predstavnica skupine zajedavskih rakov enakonožcev iz družine Cymothoidae, je vidna za očesom dolgonosega morskega konjička (*Hippocampus guttulatus*). (Foto: L. Lipej)

Sl. 6: Morski travniki kolenčaste cimodoceje (*Cymodocea nodosa*) so pomembna življenska okolja, ki nudijo veliko ekosistemskih servisov. V zadnjem desetletju raziskovalci poročajo o tem, da se morski travniki soočajo z drastičnim krčenjem. (Foto: L. Lipej)

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FRONT COVER: Parasites are an important, although often neglected part of marine biodiversity. Findings of rare and less-known parasites in fish hosts are frequent. Such was also the case of the parasitic copepod *Demoleus heptatus* found in the bluntnose sixgill shark (*Hexanchus griseus*) in Izola (Slovenia) in January 2018. (Photo: D. Trkov)

Fig. 1: Praniza is the larval stage of marine isopods of the family Gnathiidae. It parasitizes various species of coastal fish. (Photo: D. Trkov)

Fig. 2: Parasitic copepods of the genus *Caligus* infest many fish species. There are more than 220 different species known, some of them causing substantial economic damage. (Photo: D. Trkov)

Fig. 3: Endoparasites live inside the bodies of their fish host. Although some represent a threat to commercially important fish, their basic biology remains poorly investigated. That is also true of trematodes. (Photo: D. Trkov)

Fig. 4: Three copepods of the genus *Caligus*, two of them with filamentous egg strings, were found in the Connemara clingfish (*Lepadogaster candolii*). (Photo: D. Trkov)

Fig. 5: The cymothoid sea louse, a representative of the group of parasitic isopods, can be seen behind the eye of the long-snouted sea horse (*Hippocampus guttulatus*). (Photo: L. Lipej)

Fig. 6: Seagrass meadows of *Cymodocea nodosa* are important habitats, known to provide many different ecosystem services. Over the past decade, scientists have reported that seagrass meadows are faced with a drastic shrinkage of their coverage. (Photo: L. Lipej)