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MARINE BIOINVASION BY FOULING ORGANISMS: AN ANALYSIS OF RESEARCH IN BRAZIL.

Priscila R. de Araújo^{1,2}; Juliana Ferrari^{1,2}; Lais P.D. Naval-Xavier^{1,2}; Ricardo Coutinho^{1,2}

¹*Programa de Pós Graduação em Biotecnologia Marinha, IEAPM/UFF;*

²*Departamento de Biotecnologia Marinha, Instituto de Estudo do Mar Almirante Paulo Moreira*

The Brazilian coast, from Oiapoque to Chui, is particularly diverse in coastal environments (mangroves, coral reefs, rocky shores, sandy beaches). The conservation of biodiversity in these areas has been threatened by biological invasions. The increase in introduction of non-indigenous marine species is related to the expansion of maritime trade. Fouling species are mainly transported in ship hulls and maritime structures, overcoming geographic barriers and facilitating their establishment in new regions. Understanding the scenario of marine bioinvasions in Brazil is crucial for conservation of marine biodiversity. Thus, the present study aimed to evaluate and discuss the current scenario of marine bioinvasions research by fouling organisms in Brazil. An exhaustive survey by scientific articles was carried out in Google Scholar and Periódicos Capes databases, using the terms "marine" AND "bioinvasion" AND "Brazil" in both english and portuguese languages. We only selected studies related to bioinvasion by fouling organisms in Brazilian marine environments, including estuaries, and with an impact factor calculated by the *Journal Citation Reports*. We analyzed 83 articles. The oldest work found dates back to 2006. Only as of 2016, has been published, annually, more than 5 articles on this thematic. These data indicate that marine bioinvasion of fouling organisms is a recent science in Brazil. Most of the research with invading marine fouling is related to the study of the interaction of these species with other marine organisms (14%). Most of the studies with bioinvasion of fouling are from studies to survey fouling species in a specific coastal region (13%), with no focus on invasive species. Researches conducted to record the occurrence of invasive fouling (11%) are common. There is a shortage of studies that approach the environmental impacts (4%) and social impacts (1%) caused by bioinvasions. There is also few researches with invading fouling focusing on the genetic (4%), successional (1%), life cycle (0.8%) and climate change (0.8%) aspects. Among the works analyzed, most of them are descriptive (73%, including 7 bibliographical reviews) and few are experimental (26%). In general, experimental evaluations focus on an invasive target species, being the most studied: *Tubastraea* spp., *Perna perna* and *Stragulum bicolor*. However, a few experimental studies approach the fouling community or large groups of organisms (eg, ascidians and corals). The data reveals the need to increase experimental research, both in the field and in the laboratory. Studies of the ecological relationships of fouling bioinvasions at the population and community levels are also required, due to evaluation of interactions by individuals or by few species has a low predictive power regarding the impacts of invasive species.