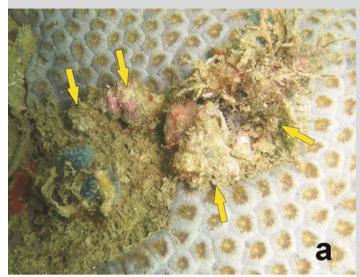
Reef sites

New record of a corallivorous gastropod in South Atlantic coral reefs



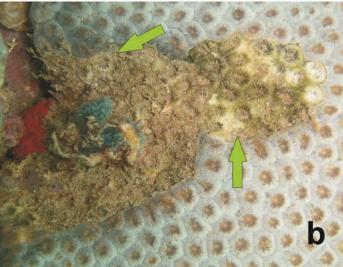


Fig. 1 Latiaxis mansfieldi (yellow arrows) and grazing scar after removal of the gastropod (green arrows) on Montastraea cavernosa (3-5 m depth)

Corallivory can play a significant controlling role on coral population dynamics. Over 160 species have been reported to consume scleractinian corals, including 51 species of invertebrate corallivores (i.e., annelids, arthropods, echinoderms and mollusks; Rotjan and Lewis 2008). Despite their diversity and key ecological role, little is known about their feeding activity, and their role in regulating coral populations has probably been underestimated. Coral reefs of Brazil harbor the highest reef biodiversity in the South Atlantic. However, only three corallivore species have been recorded, all of them fishes from the family Labridae. Here, we present a new record of a corallivorous gastropod, Latiaxis mansfieldi (Coralliophilidae), found on rocks and shallow coral reefs. This snail was observed in Todos os Santos Bay and Tinharé Island (Bahia, Brazil) feeding on five coral species: Agaricia agaricites, Favia gravida, Mussismilia braziliensis, M. hispida and Montastraea cavernosa (Fig. 1). Grazing scars can be observed where the snail was removed (green arrow, Fig. 1). Corallivores can be obligate or facultative coral feeders (Rotjan and Lewis 2008). However, it is not known whether a L. mansfieldi is an obligate corallivore and its role in structuring reef ecosystem is undetermined. Some snails are vectors of coral diseases (e.g., Coralliophila abbreviata, Williams and Miller 2005), and due to their feeding activity, they can limit coral growth and sometimes cause coral population declines (Baums et al. 2003). Further investigations concerning the possible effects of the feeding activity of this gastropod in coral populations in Brazil are warranted.

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References

Baums IB, Miller MW, Szmant AM (2003) Ecology of a corallivorous gastropod, *Coralliophila abbreviata*, on two scleractinian hosts.
II. Feeding, respiration and growth. Mar Biol 142:1093–1101
Rotjan RD, Lewis SM (2008) Impact of coral predators on tropical reefs. Mar Ecol Prog Ser 367:73–91

Williams DE, Miller MW (2005) Coral disease outbreak: pattern, prevalence and transmission in *Acropora cervicornis*. Mar Ecol Prog Ser 301:119–128

G. B. G. Souza (⊠)

Laboratório de Ecologia Bentônica, Universidade Federal da Bahia, Salvador, BA, Brazil e-mail: gabrielbbarros@gmail.com

I C S Cruz

Laboratório de Ecologia Marinha, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, RJ, Brazil

F P Santos

Dep. de Engenharia Ambiental, Faculdade ÁREA1, Salvador, BA, Brazil

P. M. Meirelles

Laboratório de Microbiologia, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil

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