



Scientific Note

New record of *Isognomon bicolor* (C. B. Adams, 1845) (Bivalvia, Isognomonidae) to Bahia Litoral North

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Abstract. *Isognomon bicolor* (C.B. Adams, 1845) is an invasive species from the Caribbean and is newly recorded to Camaçari, Bahia.

Key words: mollusc, invasive species, deleterious effects

Resumo. Nova ocorrência de *Isognomon bicolor* (C.B. Adams, 1845) (Bivalvia, Isognomonidae) para o Litoral Norte da Bahia. Novo registro de *Isognomon bicolor* (C. B. Adams, 1845) (Bivalve, Isognomonidae) para o Litoral Norte da Bahia. *Isognomon bicolor* (C.B. Adams, 1845) é uma espécie originária do Caribe e foi atualmente descrita para Camaçari, Bahia.

Palavras chave: molusco, espécie invasora, efeitos negativos

The establishment of species from other regions in natural or anthropogenic ecosystems, the subsequent spread, potentially dominating the area and causing damage to local species and to the functioning of ecosystems, is called biological invasion or bioinvasion (Nisc 2001). *Isognomon bicolor* (C. B. Adams 1845) is an invasive species from the Caribbean that was possibly introduced into Brazil accidentally on oil (Breves-Ramos *et al.* 2009) or gas platforms (Oliveira & Creed 2008), another probable vector are the ballast water (Breves-Ramos *et al.* 2009) and fouling of commercial vessels (Rocha 2002). Domaneschi & Martins (2002) first recorded the introduced bivalve *Isognomon bicolor* on the Brazilian Coast to Rio Grande do Norte, Pernambuco, Rio de Janeiro, São Paulo and Santa Catarina, to the Bahia state Domaneschi & Martins (2002) only found one shell in Salvador (Itapuã beach). Later, elsewhere in Brazil, it was found at Espírito Santo (Zamprognio *et al.* 2010), Paraíba (Dias *et al.* 2013), Alagoas (Dias *et al.* 2013), and in others sites from Rio de Janeiro

(Fernandes *et al.* 2004, Oliveira & Creed 2008), São Paulo (Jacobucci *et al.* 2006), Pernambuco (Farrapeira *et al.* 2007, Dias *et al.* 2013) and Rio Grande do Norte (Dias *et al.* 2013). *Isognomon bicolor* is recorded inhabiting the lower fringe of the mid-coast shores (Robles & Rosso 2001) with a very dense population and occupying areas traditionally inhabited by bivalves (Domaneschi & Martins 2002).

Our samples were gathered by two snorkel divers, which each spend 10 periods underwater during the high tide, of 1 minute at depth of three meters on 12/16/2012 to 12/19/2012, at Jauá (12°50'09"S; 38°13'53"W), Guarajuba (12°39'11"S; 38°03'50"W), Busca Vida (12°52'24"S; 38°15'58"W), Itacimirim (12°37'06"S; 38°02'29"W), Arembepe (12°46'29"S; 38°10'34"W) and Jacuípe (12°42'29"S; 38°07'20"W), Camaçari, northern Bahia (Fig. 1). *Isognomon bicolor* was found occupying the rocky shores subtidal zone and natural reefs pools at the sites. At each site five specimens were collected

using forceps. There were preserved in 10% formalin and deposited at the Núcleo Integrado de Estudos em Zoologia, Universidade Católica do

Salvador Malacological Collection (zoological collection bath number 25, 26, 27, 28, 29 and 30).

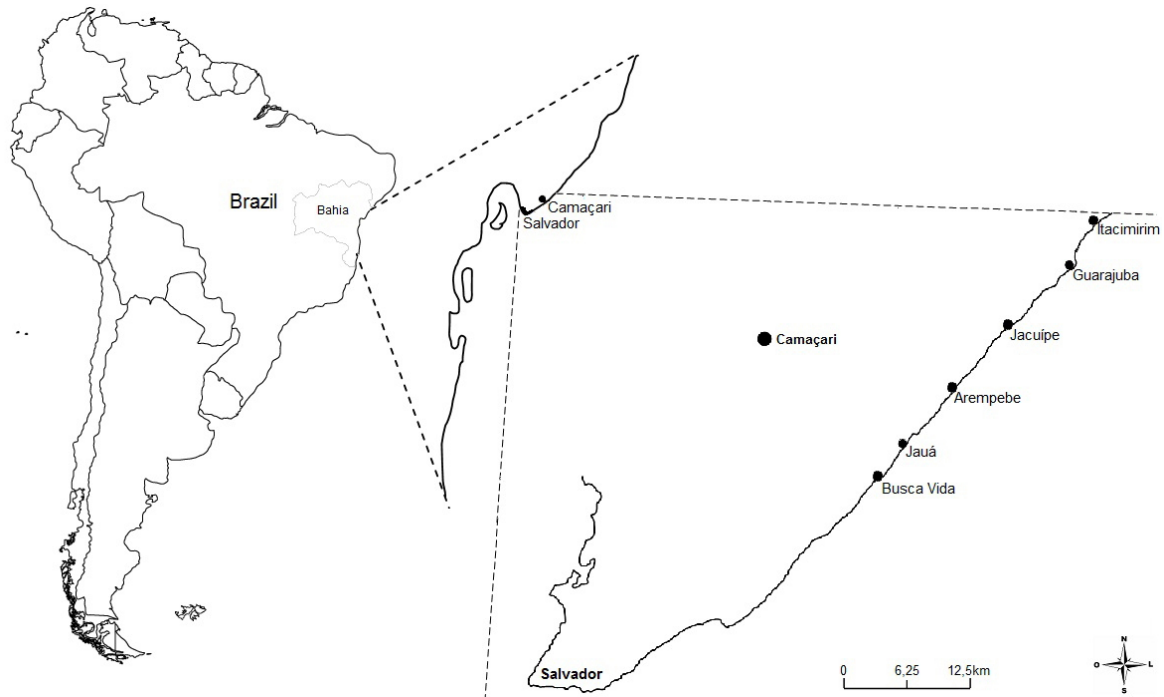


Figure 1. New Records of *Isognomon bicolor* at Camaçari, state of Bahia, Brazil provided by this study.

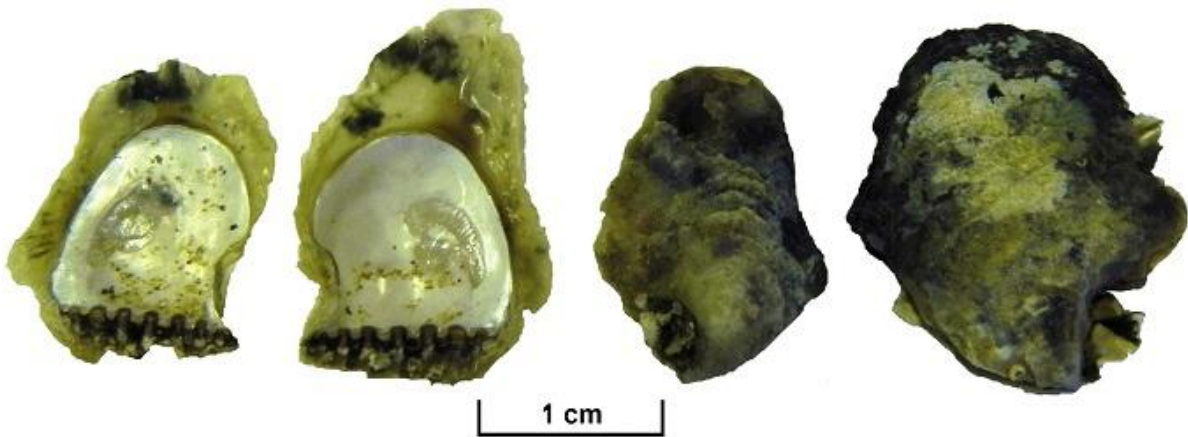


Figure 2. *Isognomon bicolor* from Camaçari, Bahia state, Brazil. (Photo, Vitor Rodrigues).

Our new records show that *I. bicolor* (Fig. 2) is now distributed at Camaçari, Bahia state, at each site it were found, seemingly, in low densities: singly or in small clusters, two to five specimens, being distant, at least two meters, from others of the same species, probably being result of recent invasion. The species occupies the crevices, were attached to rocks, sandstones and man-made structures (anchors and ropes) at the rocky shores

subtidal zone and natural reefs pools, as noted by Dias *et al.* (2013), where the native barnacle *Tetraclita stalactifera* (Lamarck 1818) and the coral *Mussismilia hispida* (Verrill 1868) traditionally occur, *I. bicolor* can cause a decrease in the abundance of the native species and limiting the useful space on the substrate. Previous studies had reported deleterious effects of *Isognomon bicolor* on the native biota by the high densities, which could

prevent the fixation of many native species (Fernandes *et al.* 2004). High densities of *I. bicolor* should reduce the likelihood of settlement of many native species (Suchanek 1986, Navarrete & Castilla 1990) that can lead to ecological changes. This populations need to be continuously monitored, because this species has the potential to become abundant, interfering in local communities, and also spread to other localities, representing threat to the biodiversity.

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