Zootaxa 2343: 66–68 (2010)
www.mapress.com/zootaxa/

Correspondence

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

First record of the sea anemone *Nematostella vectensis* (Actiniaria: Edwardsiidae) in Southern Hemisphere waters

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This is the first record of the starlet sea anemone, *Nematostella vectensis* Stephenson, 1935, in Southern Hemisphere waters. Specimens of *N. vectensis* were collected in the surroundings of the Port of Recife, Pernambuco, Brazil. The species is native to the Atlantic coast of the United States of America; populations along the Pacific coast of the USA and the coasts of England are the result of anthropogenic introduction, probably associated with ships and boats used in oyster commerce (Sheader *et al*. 1997; Pearson *et al*. 2002; Reitzel *et al*. 2008). The present study extends the latitudinal distribution of this species, and we discuss the presence on the Brazilian coast of this exotic species.

Nematostella vectensis is a small (typically less than 1 cm in column length), infaunal sea anemone inhabiting salt marshes, saline lagoons, and other sheltered estuarine environments (Hand and Uhlinger 1992, 1994; Reitzel *et al*. 2008). The reported distribution of the species includes three geographically isolated regions: the west coast of North America (from Washington to Central California), the east coast of North America (from New Scotia, Canada, to Georgia, USA), and the northern English Channel and western North Sea in England (Hand and Uhlinger 1994; Fautin 2008; Reitzel *et al*. 2008).

The seven specimens reported here were collected on 21 January 2004 by M.P.R. Lima using a benthic grab at 12 m depth in the estuary of the Port of Recife, Pernambuco (08°02.693'S, 034°51.600'W). Bottom temperature was approximately 28°C. Salinity in this estuary ranges from 18 to 37 psu with great variation between superficial waters and the bottom and between rainy and dry seasons. The specimens were fixed in 10% formaldehyde and deposited in the Cnidaria collection of the Grupo de Pesquisa em Antozoários (Anthozoa Research Group; GPA n° 137) of the Universidade Federal Rural de Pernambuco.

Specimens exhibit the typical morphology of the species: an elongated column with a distinct physa. The column length is from 18 to 40 mm. The scapus lacks nemathybomes, tenaculi, or true periderm, but has a sheath of mucus and foreign material that is easily removed. The tentacles (14–16) are arranged in two cycles, the outer longer than the inner ones. Mesenteries follow the arrangement of the family Edwardsiidae: two pairs of directives and two macrocnemes on each side. The major characteristic of the genus, the nematosomes, were observed only in histological sections because specimens had been fixed and stained with Rose Bengal. For the same reason it was not possible to see their coloration in life. All specimens collected were infertile. The cnidom includes spirocysts, basitrichs, and microbasic *p*-mastigophores.

Nematostella vectensis may have been transported to Pernambuco by ships. The Port of Recife receives an average of 491 ships annually. These are mainly freighters but also include container ships, research and training vessels, freezer ships, naval vessels, passenger/tourist liners, fishing boats, oil tankers, and others (Farrapeira *et al*. 2007; Porto do Recife 2008). Many exotic invertebrate species, some well-known invaders and some cryptogenic, have been recorded in association with ships in this port (Farrapeira *et al*. 2007).

We have been unable to determine whether populations of *N. vectensis* have become established in the Port of Recife area, but this record shows that the species has the capacity to reach the Brazilian coast. The specimens of *N. vectensis* were collected during a study of the soft sediment community. For this study, collections were made from January to July of 2004 at seven stations in the Bacia do Pina, an area that includes the Port of Recife and its surroundings. Despite regular collections, *N. vectensis* was recorded only during the month of January in one station near the port exit, an area

 Accepted by D. Fautin: 14 Dec. 2009; published: 25 Jan. 2010