

## Threatened fishes of the world: *Hippocampus reidi* Ginsburg, 1933 (Syngnathidae)

Ierecê L. Rosa<sup>a</sup>, Thelma L. Dias<sup>a</sup> & Julia K. Baum<sup>b</sup>

<sup>a</sup>Universidade Federal da Paraíba, CCEN, DSE, Campus I, João Pessoa, Paraíba, Brasil 58059-900

<sup>b</sup>Department of Biology, Dalhousie University, Halifax, Nova Scotia B3H 4J1, Canada

(e-mail: ierece@dse.ufpb.br)

**Common names:** Cavalo-marinho (Por), longsnout seahorse (Am), slender seahorse (Eng), caballito-de-mar (Spa). **Conservation status:** Vulnerable according to the IUCN Red List of Threatened Animals (2000) and the List of Threatened Animals of Rio de Janeiro (Mazzoni et al. 2000) and São Paulo States, Brazil (Governo do Estado de São Paulo 1998). **Identification:** D 17 (16–19), P 16 (15–17), rings: 11 + 35 (31–39). Often profusely spotted with brown, with numerous tiny white dots especially on tail. May have paler saddles across dorso-lateral surfaces (Lourie et al. 1999). Base colour when live red, orange, yellow, brown, ash grey, black. Skin fronds sometimes present on young (Ginsburg 1937, personal observation). Lourie et al. (1999) noted that skin appendages are usually absent. Illustration from Ginsburg (op. cit.). **Distribution:** From Cape Hatteras, United States to Rio de Janeiro, Brazil and Gulf of Mexico (Lourie et al. 1999). **Abundance:** No published information is available on the abundance of *H. reidi*, but a by catch study and trade research suggests that it is less abundant than *H. erectus* in the Gulf of Mexico and Central America (JKB, unpublished data). Collection records and indirect evidence from trade research suggest that *H. reidi* is more abundant than *H. erectus* in Brazil, where it has been found singly or in small groups (up to 4 individuals) (TLD, ILR, personal observation). Vari (1982) mentioned that the species can be found at depths between 15 and 55 m. In Brazil it has been found close to the water surface, at a depth of about 10 cm (TLD, ILR, personal observation). **Habitat and ecology:** Known to occur in association with mangrove roots (mostly *Rhizophora mangle* and *Avicennia* sp.), seagrass (*Thalassia testudinum*, *Halophila* sp., *Halodule wrightii*), macroalgae (*Caulerpa* spp.), oysters, cnidarians (*Carijoa* sp.), sponges and tunicates (*Ascidia* spp.), usually using the tail to coil around these substrates that are used as holdfasts. Also found in association with man-made structures in estuaries. Home range is between 6 and 20 m<sup>2</sup> with a maximum observed displacement of 143 m. In Brazil it has been found in salinity of 45‰ (TLD, ILR, personal observation). **Reproduction:** There is no published information on the reproduction of *H. reidi* based on studies carried out in the wild. A laboratory study indicates that the breeding season extends to more than eight months with a gestation period of two weeks, varying with temperature; egg diameter 1.2 mm, brood size about 1000, with one male producing 1536 young; young approximately 7 mm at release (Vincent 1990). Silveira (2000) observed that males remate with the same female about two days after releasing the young. **Threats:** Collection for use as aquarium fishes, folk medicine, souvenirs and for religious purposes, by catch in shrimp trawl fisheries in U.S., Mexico and Central America (some retained for export to Asia for the traditional Chinese medicine trade). **Conservation recommendations:** Population parameters and ecology of *H. reidi* should be studied in the wild; live and dried trade should be quantified and its effects on wild populations evaluated; further taxonomic research should be undertaken to determine the status of populations throughout the species' range, and suitable sanctuary zones should be established, where fishing is prohibited or strictly regulated. **Remarks:** The longsnout seahorse may be regarded as a flagship species that can help to promote marine conservation. This fact, together with its unique reproduction, provides important reasons for its conservation.



- Ginsburg, I. 1937. Review of seahorses (*Hippocampus*) found on the coasts of the American continents and Europe. Proc. U.S. Nat. Mus. 83(2997): 497–594.
- Governo do Estado de São Paulo. 1998. Fauna ameaçada no Estado de São Paulo. Série PROBIO/SP. Secretaria do Meio Ambiente.
- Hilton-Taylor, C. (Compiler). 2000. 2000 IUCN Red List of Threatened Species. IUCN, Gland and Cambridge. xviii + 61 pp.
- Lourie, S.A., A.C.J. Vincent & H.J. Hall. 1999. Seahorses: an identification guide to the world species and their conservation. Project Seahorse, London. 214 pp.
- Mazzoni, R., R.S.F. Bizerril, P.A. Buckup, O.C.M. Filho, C.A. Figueiredo, N.A. Menezes, G.W. Nunan & K. Tanizaki-Fonseca. 2000. Peixes. pp. 63–76. In: H.G. Bergallo, C.F.D. Rocha, M.A.S. Alves & M.V. Sluys (ed.) A Fauna Ameaçada de Extinção do Estado do Rio de Janeiro, UERJ, Faperj, Rio de Janeiro.
- Silveira, R.B. 2000. Comportamento reprodutivo e crescimento inicial do cavalo marinho *Hippocampus reidi* Ginsburg (Pisces, Syngnathiformes, Syngnathidae) em laboratório. Biociências, Porto Alegre 8: 115–122.
- Vari, R.P. 1982. Fishes of the Western North Atlantic, subfamily Hippocampinae. The seahorses. Sears Found. Mar. Res. Memoir, Yale University, New Haven, 1: 173–189.
- Vincent, A.C.J. 1990. Reproductive ecology of seahorses. Ph.D. Thesis, University of Cambridge, Cambridge. 101 pp.