



**IUCN SSC Seahorse, Pipefish and Seadragon Specialist Group**  
**Conservation assessments of syngnathids in Japan**

**Prepared by Dr. Atsushi Sogabe**

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Blackish and freshwater syngnathids

Conservation assessment of blackish and freshwater fish of Japan was made by the Ministry of the Environment, Japan in 2008-2012. It includes all blackish and freshwater fish living in Japan, except for invasive alien species. The Redbook was published firstly in 2014 and then revised five times. The latest one was published in 2020. The list followed the categories and criteria of IUCN Red List Categories and Criteria: Version 3.1 (IUCN 2001).

Four species of syngnathids were listed in the fifth edition of the book. *Microphis argulus*, *M. jagorii*, *M. retzii* were categorized as Critically Endangered (CR) and *Hippichthys heptagonus* as Endangered (EN). The detailed methods and results are available in the website of Ministry of the Environment, Japan (<http://www.env.go.jp/press/107905.html>), but written in Japanese.

Marine syngnathids

Conservation assessment of marine fish of Japan was made by the Ministry of the Environment, Japan in 2012-2017. It includes all marine fish living in Japan with some exception (e.g, species that migrate inside and outside the exclusive economic zone, commercial fish inhabiting the waters around Japan whose resources are evaluated by the Fisheries Agency and species managed by the bilateral fishing agreement and Regional Fisheries Management Organization (RFMO)) . The Redbook was published in 2017. The list followed the categories and criteria of IUCN Red List Categories and Criteria: Version 3.1 (IUCN 2001) partly modified by the Ministry of the Environment, Japan.

Five species of syngnathids were listed in the Redbook. *Bulbonaricus brauni* and *Urocampus carinirostris* were categorized as Near Threatened (NT), *Maroubra yasudai* and *Hippichthys cyanospilos* as Data Deficient (DD) and *Urocampus nanus* in the Ryukyu Islands as Threatened Local Population (LP). The detailed methods and results are available in the website of Ministry of the Environment, Japan (<http://www.env.go.jp/press/103813.html>), but written in Japanese.

#### Subnational assessments of syngnathids in Japan

Local conservation assessment of fish (mainly freshwater fish) were conducted in all 47 prefectures of Japan. However, detailed information such as the method of evaluation, the range of target species, and the timing of the survey is unknown. The Red List species can be searched on the Ministry of the Environment website (<https://ikilog.biodic.go.jp/Rdb/pref>), but only Japanese pages are available. Ten species of syngnathids, including two species of seahorses, are listed.

I asked the Ministry of the Environment, Japan for a list of species to be examined, but replied that it was not disclosed. Thus, it is unclear whether all species of syngnathids living in Japan were included in the assessment. In addition, it has not been disclosed what was the basis for judgement the conservation status of each species (e.g., small population, habitat destruction and overexploitation).