

THREATENED FISHES OF THE WORLD: *Plotosus canius* Hamilton, 1822 (Siluriformes: Plotosidae)

Md. Yeamin Hossain^{1,*}, Md. Jahangir Alam²

¹Department of Fisheries, Faculty of Agriculture, University of Rajshahi, Rajshahi 6205, Bangladesh

²Faculty of Fisheries, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1760, Bangladesh

*Corresponding Author, E-mail: yeamin.fish@ru.ac.bd

ARTICLE INFO

Received: 6 July 2014

Received in revised form: 11 December 2014

Accepted: 17 December 2014

Available online: 17 December 2014

Keywords:

Plotosus canius

Gray eel catfish

Vulnerable

Establishment of sanctuaries

Asia

ABSTRACT

Gray eel catfish *Plotosus canius* is a vulnerable species in Bangladesh. The wild populations are declining as a result of over-exploitation, destruction of spawning grounds, various ecological changes in their natural habitats and lack of appropriate management. Establishment of suitable sanctuaries in selected areas of estuaries, streams, canals and lakes is suggested for the conservation of the populations.

How to Cite

Hossain M. Y., Alam, M. J. (2015): Threatened fishes of the world: *Plotosus canius* Hamilton, 1822 (Siluriformes: Plotosidae). Croatian Journal of Fisheries, 73, 35-36. DOI: 10.14798/73.1.778

COMMON NAMES

Gray eel catfish, Canine catfish (Froese and Pauly, 2014)

CONSERVATION STATUS

Vulnerable in Bangladesh (IUCN Bangladesh, 2000)

IDENTIFICATION

Body is elongated, anteriorly depressed and posteriorly compressed (Fig. 1) (IUCN Bangladesh, 2000). Mouth is transverse with a longer upper lip. The snout is rounded. Dorsal spine is serrated on both edges. Pectoral spine is also serrated on both edges. Second dorsal and anal fins confluent with the caudal. D.5-6 (1/4-5); P1.11-12 (1/10-11); P2. 12; Caudal-dorsal-anal, 240-270. There are four pairs of barbels; maxillary is long as nasal and mandibular reaches beyond the gill-opening.

DISTRIBUTION

This fish is widely distributed in Asia, throughout the Indian subcontinent, including the west and south coasts of India

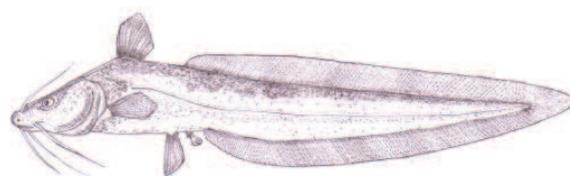


Fig 1. *Plotosus canius* (drawing by the author, Md. Yeamin Hossain)

and off Sri-Lanka eastward along the coasts of Bangladesh and Myanmar, through the Indo-Australian Archipelago and Philippines (Froese and Pauly, 2014). The species has also been reported in Vietnam (Yen and Trong, 1988).

ABUNDANCE

Previously abundant in the brackish water regions including mangrove areas, different rivers, canals, and adjacent to the Sundarbans area of Bangladesh and India, but populations have seriously declined (Patra et al., 2005).

HABITAT AND BIOLOGY

It inhabits streams, lagoons, brackish water, mangroves, swamps with hard or soft bottoms and feeds on shrimps, insects, mollusks and fishes (Froese and Pauly, 2014). Spawning occurs from February to August, with a peak during May and June (Sinha, 1981). Fecundity varied between 1180 and 2250 (Khan et al., 2002).

THREATS

Populations are declining due to a combination of over-exploitation, destruction of breeding grounds, various ecological changes in its natural habitat and lack of proper management (Mijkherjee et al., 2002; Patra et al., 2005).

CONSERVATION ACTION

Artificial breeding and rearing of the species have been conducted by several research and education institutes in Asian countries (Mijkherjee et al., 2002).

CONSERVATION RECOMMENDATIONS

There is a need to conduct in-depth studies on ecology, biology and stock of the species and enact strict conservation strategies for the protection of the remnant-isolated populations in Asian countries. Establishment of suitable sanctuaries in selected areas of estuaries, streams, canals and lakes is suggested, as well as identification of the causal factors to the decline of the species (Hossain, 2014). Necessary measures should be taken to conserve the species in its preferred habitats (Hossain et al., 2008; 2009). The conservation status of *P. canius* should be improved through effective habitat protection and public awareness programs and ranching.

Sažetak

UGROŽENE VRSTE RIBA U SVIJETU: *Plotosus canius* Hamilton, 1822 (Siluriformes: Plotosidae)

Sivi jeguljoliki som, *Plotosus canius*, je osjetljiva vrsta u Bangladešu. Divlje populacije opadaju kao rezultat pretjeranog iskorištavanja, uništavanja staništa za mrijest kao i raznih ekoloških promjena u njihovom prirodnom staništu te

zbog nedostatka odgovarajućeg gospodarenja. Za očuvanje populacije predlaže se uspostava rezervata u odabranim područjima estuarija, potoka, kanala i jezera.

Ključne riječi: *Plotosus canius*, sivi jeguljoliki som, osjetljiva vrsta, uspostava rezervata, Azija

REFERENCES

- Froese, R., Pauly, D. (Eds). (2014): Fishbase 2014. World Wide Web electronic publication. Available at: <http://www.fishbase.org> (accessed on 22 February 2014).
- Hossain, M. Y. (2014): Threatened Fishes of the World: *Mystus vittatus* (Bloch, 1794) (Siluriformes: Bagridae). Croatian Journal of Fisheries 72, 183-185.
- Hossain, M. Y., Ahmed, Z. F., Al-Kady, M. A. H., Ibrahim, A. H. M., Ohtomi, J., Fulanda, B. (2008): Threatened Fishes of the World: *Wallago attu* (Bloch, M. E. and Schneider, J. G. 1801) (Siluriformes: Bagridae). Environmental Biology of Fishes, 82, 277-278.
- Hossain, M. Y., Rahman, M. M. Mollah, M. F. A. (2009): Threatened Fishes of the World: *Pangasius pangasius* Hamilton-Buchanan, 1822 (Pangasiidae). Environmental Biology of Fishes, 84, 315-316.
- IUCN Bangladesh. (2000): Red Book of Threatened Fishes of Bangladesh. IUCN-The World Conservation Union, 116 pp.
- Khan, M. S. A., Alam, M. J., Rheman, S., Mondal, S. Rahman, M. M. (2002): Study on the fecundity and GSI of Brackishwater catfish *Plotosus canius* (Hamilton-Buchanan). Journal of Biological Science, 2, 232-234.
- Mijkherjee, M., Praharaj, A., Das, S. (2002): Conservation of endangered fish stocks through artificial propagation and larval rearing technique in West Bengal, India. Aquaculture Asia, 7, 8-11.
- Patra, M. K., Acharjee, S. K., Chakraborty, S. K. (2005): Conservation categories of siluroid fishes in North-East Sundarbans, India. Biodiversity and Conservation, 14, 1863-1876.
- Sinha, M. (1981): Racial analysis of *Plotosus canius* (Hamilton) from Hooghly-Matkah Estuary and Chilka Lake. Journal of Marine Biological Association India, 23, 7-14.
- Yen, M. D., Trong, N. V. (1988): Species composition and distribution of the freshwater fish fauna of Southern Vietnam. Hydrobiologia, 160, 45-51.