

THREATENED FISHES OF THE WORLD: *Pethia ticto* (Hamilton, 1822) (Cypriniformes: Cyprinidae)

Md. Yeamin Hossain^{1*}, Md. Akhtar Hossain¹, Rafiqul Islam¹, Md. Alomgir Hossen¹, Obaidur Rahman¹, Md. Mosaddequr Rahman²

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

²Faculty of Fisheries, Kagoshima University, 4-50-20 Shimoarata, Kagoshima 890-0056, Japan

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

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ABSTRACT

The threatened Ticto barb *Pethia ticto* is a small indigenous fish species widely distributed in the natural waters of Asian countries. Previously it was known as *Puntius ticto*. Natural populations have been reduced seriously to the verge of extinction due to excess exploitation and ecological changes in their natural habitats. This paper suggests the actions for the conservation of the remaining isolated population of *P. ticto* in Asian countries.

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COMMON NAMES

Tit punti in Bangladesh (Rahman, 1989), Tetputi and pothia in India (Froese and Pauly, 2014), Poti and Tite pothi in Nepal (Froese and Pauly, 2014), Thith pethiya in Sri Lanka (Pethiyagoda, 1991).

CONSERVATION STATUS

Vulnerable in Bangladesh (IUCN Bangladesh, 2000); lower risk near threatened in India (Balasundaram et al., 2000; Sarkar et al., 2010); threatened in Sri Lanka (IUCN Sri Lanka, 2000); least concern on the global IUCN Red List of Threatened Species (Dahanukar, 2010).

IMPORTANCE

A small fish, *P. ticto* (Fig. 1), is a fresh and brackish-water, subtropical species which is commonly known as "ticto" or "two-spot" barb (Hossain et al., 2012). It is the most popular aquarium fish among barb species in Bangladesh and in other Asian countries (Froese and Pauly, 2014). This fish



Fig 1. *Pethia ticto* sample and photo were taken by the author (Md. Yeamin Hossain) from the Padma River (lower part of the Ganges), northwest, on 9 June 2014

is an important target species for small scale fishers (Rahman, 1989). It is a source of animal protein and micronutrients in the diet of rural small-scale farmers (Roos et al., 2007).

IDENTIFICATION

D. 11 (3/8); P1. 13-15 ; P2. 9; A. 7-8 (2-3/8) (Rahman, 1989).

DISTRIBUTION

This fish is widely distributed through the Indian subcontinent, including Bangladesh, India, Nepal, Pakistan, Sri-Lanka, Myanmar and Thailand (Talwar and Jhingran, 1991).

ABUNDANCE

P. ticto was previously abundant in the rivers, creeks, canals, reservoirs, lakes, swamplands (*beels*, *haors* and *baors*) and ponds of Bangladesh (IUCN Bangladesh, 2000), India and Sri-Lanka (Froese and Pauly, 2014), but the populations have seriously declined to the verge of extinction (Hossain et al., 2014).

HABITAT AND ECOLOGY

Ticto barb inhabits still shallow, marginal waters of tanks and rivers, mostly with muddy bottoms. It feeds on crustaceans, insects, plankton, plants and other benthic invertebrates (Bisht and Das, 1981). It grows to a maximum total length of 10 cm (Dahanukar, 2010). It has extended period of breeding which lasts from April to June (Villif and Jorgensen, 1993). Fecundity ranges from 1611 to 4130 (Hossain et al., 2012).

THREATS

The populations have seriously declined due to over-exploitation and various ecological changes in its natural habitats (Hossain et al., 2014).

CONSERVATION ACTION

A number of studies have been conducted on *P. ticto*, including conservational status (IUCN Bangladesh, 2000), population traits (Archarya and Iftekhara, 2000; Chandrashekhariah et al., 2000) and biology (Hossain, 2010; Hossain et al., 2009a; 2012).

CONSERVATION RECOMMENDATIONS

Studies on the reproductive biology and stock assessment of this fish are needed. Establishment of suitable sanctuaries in selected areas of rivers, streams, canals, reservoirs, lakes and swampland is suggested (Hossain et al., 2008; 2009b; Hossain, 2014). Fishing in a peak-spawning season should be banned. The conservation status of *P. ticto* should be developed through effective habitat preservation and increasing public consciousness and ranching.

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Sažetak

UGROŽENE VRSTE RIBA U SVIJETU: *Pethia ticto* (Hamilton, 1822) (Cypriniformes: Cyprinidae)

Ugrožena indijska autohtona vrsta, *Pethia ticto*, široko je rasprostranjena u prirodnim vodama azijskih zemalja. Ranije je bila poznata kao *Puntius ticto*. Prirodne su populacije ozbiljno smanjene te na rubu izumiranja zbog viška eksploatacije i ekoloških promjena u njihovim prirodnim staništima. U radu se predlažu mjere za očuvanje preostalih izoliranih populacija *P. ticto* u azijskim zemljama.

Ključne riječi: *Pethia ticto*, indijski ciprinid, osjetljiva vrsta, Bangladeš, Azija

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