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THREATENED FISHES OF THE WORLD: *Ompok pabda* (Hamilton, 1822) (Siluriformes: Siluridae)

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ABSTRACT

The endangered catfish, *Ompok pabda,* is one of the foods high in nutritional value in Asian countries but its natural populations have declined due to over-exploitation and various ecological changes in its natural habitats leading to an alarming condition and deserving high conservation importance. This paper recommends the actions for the sustainable conservation of the remaining isolated population of *O. pabda* in Asian countries.

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COMMON NAME

O. pabda (Fig. 1) is known as Madhu pabda in Bangladesh (Rahman, 1989); Pabdah catfish in India (Talwar and Jhingran, 1991) and Pallu in Pakistan (Misra, 1976).

CONSERVATION STATUS

Endangered in Bangladesh (IUCN Bangladesh, 2000) and in lower Brahmaputra basin of Assam, India (CAMP, 1998), near threatened in Pakistan (IUCN, 2011), also globally categorized as near threatened (IUCN, 2014).

IMPORTANCE

This species attains a length of 17 cm and is caught in West Bengal and the northeastern states of India. It is an esteemed food fish (Talwar and Jhingran, 1991). This is an important target fish species for the small- and large-scale fishermen of Bangladesh who use different types of traditional fishing gears and traps.

IDENTIFICATION

Body is elongated and compacted. Body color is silvery-grey, dark on back and often two dark lateral bands are

Fig 1. *Ompok pabda.* Photo was taken by the author (Md. Yeamin Hossain) of a specimen from the Ganges River (known as Padma in Bangladesh)on 22 February 2015.

present on its body. Mouth is large and oblique with villiform teeth. There are pairs of barbels; maxillary barbels extend to the middle of the pectoral fin and mandibular barbels expand to the posterior border of the eye. Anal fin is long, inserted usually opposite to the origin of the dorsal fin. Pectoral spine is moderately strong and inner edges are serrated in male and often weak in female. Caudal fin is forked. Fin formula: D.4; P_1.12-14 (1/11-13); P_2.8; A.53-59 (Rahman, 1989).

DISTRIBUTIONS

It is distributed throughout the Indian subcontinent including Afghanistan, Bangladesh, India, Myanmar and Pakistan (Talwar and Jhingran, 1991), and also reported from Bhutan (Petr, 1999).

ABUNDANCE

This catfish was available in *beels*, ponds, rivers and inundated fields (Rahman, 1989) as well as streams and lakes (Menon, 1999) but now it is seriously declining in the main streams (IUCN Bangladesh, 2000).

HABITAT AND ECOLOGY

The species lives in lotic habitats such as rivers and larger streams. Lentic habitats such as lakes and ponds are likely to be marginal for this species (Ng. pers. comm., 1998). Adults inhabit clear as well as muddy rivers, streams, ponds and lakes (Menon, 1999). Omnivorous in habitat (Shafi and Quddus, 2001), it feeds on algae, roots of some higher plants, protozoa, crustaceans, a little quantity of mud and sands (Bhuiyan, 1964). Also, it feeds on some small fishes (IUCN Bangladesh, 2000).

REPRODUCTION

Size at first sexual maturity is 12.9 cm in total length (TL) and 13.9 cm in TL for male and female populations of *O. pabda*, respectively (Gupta et al., 2014). It spawns (spawning season) in rivers of Tripura between March and August (Banik et al., 2012) and in the River Gomti from June to September (Gupta et al., 2014). Fecundity varied from 2190-41552 (Banik et al., 2012) and 2460-5986 (Gupta et al., 2014) (TL ranges from, 11.5-20.0 cm).

THREATS

Overexploitation is a major threat and has resulted in population declines (Mishra et al., 2009). The effects of other potential anthropogenic threats such as habitat destruction and competition from alien species need to be further ascertained (Ng. pers. comm., 1998; Hossain et al., 2009a). Killing of fry and fingerlings, use of illegal fishing gear, pollution and siltation are also key causes for the declining of this species (Hossen et al., 2015; Hossain et al., 2015a).

CONSERVATION ACTION

Several studies on ecology, biology, life history and aquaculture of *O. pabda* have been conducted (Breder and Rosen, 1966; Rahman, 1989; Menon, 1999; Kohinoor et al., 2009; Banik et al., 2012).

CONSERVATION RECOMMENDATIONS

Studies on morphology, reproductive biology and stock assessment are immediately required (Hossain, 2014; Hossain et al., 2015b). Empirical data on exploitation levels for this species throughout the rest of its range (other than southwestern Bengal) is needed (Hossain et al., 2015c). The effects of other anthropogenic threats such as pollution and habitat destruction on population declines need to be further ascertained (Hossain et al., 2008; Tenzin and Ng, 2010; Hossain et al., 2015d). Establishment of suitable sanctuaries in selected areas of rivers, streams, canals, reservoirs, lakes and swampland is suggested (Hossain et al., 2009b; 2015e). Fishing practices (<size at sexual mature fish) during spawning season (March-September) should be strictly banned (Hossain et al., 2012; Hossain and Alam, 2015). The conservation status of *O. pabda* should be improved through effective habitat preservation and by increasing public awareness.

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Sažetak

UGROŽENE VRSTE RIBA U SVIJETU: *Ompok pabda* (Hamilton, 1822) (Siluriformes: Siluridae)

Ugroženi som, *Ompok pabda,* je visoko nutritivna vrijedna hrana u azijskim zemljama. Prirodne populacije opadaju zbog pretjeranog iskorištavanja i raznih ekoloških promjena u svojim prirodnim staništima što dovodi do zabrinjavajućeg stanja te zaslužuje visoku važnost za očuvanje. Preporučuju se akcije održivog očuvanja preostalih izoliranih populacija *O. pabda* u azijskim zemljama.

Ključne riječi: *Ompok pabda,* som, ugrožena vrsta, zaštita, Azija

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