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ECOLOGY AND BEHAVIOUR OF CHANNA PUNCTATUS (BLOCH, 1793) FROM AKOLA DISTRICT, MAHARASHTRA, INDIA

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ABSTRACT: The purpose of the present study is to provide information about ecology and behaviour of Clarias batrachus (Linnaeus, 1758). The study was conducted during 2020-2021 in Akola district of Vidharbha region of Indian state Maharashtra. Study revealed the interesting facts about ecology and behaviour of species. This freshwater fish is member of family Claridae. It is a delicious and nutritious fish of high market demand. The Clarias batrachus is listed as Least Concern in IUCN, due to lack of major threats to this species population.

Key words: - Akola, Behaviour, Clarias batrachus, Ecology, Maharashtra, Snakehead.

INTRODUCTION:

The Clarias batrachus is the freshwater fish belong to family Clariidae that native to parts of Southeast Asia. It is named for its ability to 'walk' and wiggle across dry land, to find food or suitable environments. While truly, it does not walk as most bipeds or quadrupeds do, it has the ability to use its pectoral fins to keep it upright as it makes a wiggling motion with snakelike movements to traverse land. This fish normally lives in slow-moving and often stagnant waters in ponds, swamps, streams, and rivers, as well as in flooded rice paddies, or temporary pools that may dry up. When this happens, its 'walking' skill allows the fish to move to other aquatic environments (Heok and Maurice (2008). It is listed as Least Concern in IUCN, due to lack of major threats to this species population (Froese and Daniel, 2011).

The purpose of the present study is to provide information about ecology and behaviour of Clarias batrachus (Linnaeus, 1758). from Akola district of Vidharbha region of Indian state Maharashtra.

MATERIAL AND METHOD:

The study was conducted during 2020-2021 in Akola district. It is located in the western region

of Vidharbha (20° 30' 0" N, 77° 10' 0" E). Healthy climate and rivers with many dams and lakes provides a suitable condition for growth of fish fauna. Fish were collected, observed and identified using available literature (Day, 1996; Menon, 1992; Talwar and Jhingran, 1991; Jayaram, 2010; Eschmeyer and Fricke, 2011).

RESULT AND DISCUSSION :

The walking catfish has an elongated body shape and reaches almost 0.5 m (1.6 ft) in length and 1.2 kg (2.6 lb) in weight. Often covered laterally in small white spots, the body is mainly coloured a gray or grayish brown. This catfish has longbased dorsal and anal fins, as well as several pairs of sensory barbels. The skin is scaleless, but covered with mucus, which protects the fish when it is out of water. This fish needs to be handled carefully when fishing it due to its thorn-like embedded sting or defensive mechanism hidden behind its fins. Das (2002) also recorded the similar observations.

Walking catfish thrive in stagnant, frequently hypoxic waters, and often are found in muddy ponds, canals, ditches, and similar habitats. The species spends most of its time on, or right above, the bottom, with occasional trips to the surface to gulp air. In the wild, this creature is omnivorous; it feeds on smaller fish, molluscs, and other invertebrates, as well as detritus and aquatic weeds. It is a voracious eater that consumes food supplies rapidly, so it is considered harmful when invasive. This finding is in well agreement with Verreth et al., (1993)

The spawning period is during the rainy season, when rivers rise and fish are able to excavate nests in submerged mud banks and dikes of flooded fields. These catfish breed with a single mate during the season via multiple spawning cycles in which increasingly more eggs are produced. The eggs are internally fertilized during the spawning embrace and an adult female will produce an average of 7,000-9,000 eggs a season. The walking catfish fry become independent after three days. Similar observations were also quoted by Argungu et al., (2013) in their study.

CONCLUSION:

Study revealed the interesting facts about ecology and behaviour of Clarias batrachus. It is commonly found in the water bodies as well highly cultivated in Akola district of Maharashtra. It is a delicious and nutritious fish of high market demand. The species is listed as Least Concern in IUCN, due to lack of major threats to this species population.

REFERENCES:

- Argungu, L., Christianus A., Amin S., Daud S., Siraj S., and M. Rahman (2013). Asian catfish Clarias batrachus (Linnaeus, 1758) getting critically endangered. Asian Journal of Animal and Veterinary Advances, 8(2): 168-176.
- Das, S. (2002). Seed production of magur (Clarias batrachus) using a rural model portable hatchery in Assam, India - A farmer proven technology. Aquaculture Asia Magazine, 7(2): 19-21.
- Day, F. (1996). The Fishes of India; Being A Natural History of the Fishes Known to

Inhabit the Seas and Fresh Waters of India, Burma, and Ceylon. Vol. 1 and 2. Today and Tommorow's Book Agency, 778pp.

Eschmeyer W.N. and R. Fricke (eds.) (2011). Catalog of Fishes electronic version. http://research.calacademy.org/ ichthyology/catalog/fishcatmain.asp.

- Froese, R and P. Daniel (2011). Clarias batrachus in FishBase. December 2011 version.
- Heok H N, and K. Maurice (2008). The identity of Clarias batrachus (Linnaeus, 1758), with the designation of a neotype (Teleostei: Clariidae).Zoological Journal of the Linnean Society 153: 725–732.
- Jayaram, K.C. (2010). The Freshwater Fishes of the Indian Region. Second Edition. Narendra Publishing House, Delhi, 616pp.
- Joshi P. S., Tantarpale S. A., Tantarpale V. T. and K.M. Kulkarni. (2012). Ichthyological fauna of Buldhana District, Maharashtra (India.). Onl. I. Inter. Res. J. 2(2): 111-115
- Menon, A.G.K. (1992). The Fauna of India and Adjacent Countries, Pisces, Vol-4, Teleostei-Cobitoidea, Part-2 Cobitidae. Zoological Survey of India, Kolkata, 113pp.
- Talwar, P.K. and A.G. Jhingran (1991). Inland Fishes of India and Adjacent Countries. Oxford-IBH Publishing Co. Pvt. Ltd., New Delhi, 1158pp.
- Verreth, J., Eding E., Rao G., Huskens F. and H. Segner (1993). A review of feeding practices, growth and nutritional physiology in larvae of the catfishes Clarias gariepinus and Clarias batrachus. Journal of the World Aquaculture Society, 24/2: 135-144.