



Occurrence of functional single-lobed ovary in *Cirrhinus mrigala* (Hamilton, 1822) brood fish from Assam, India

B. K. Bhattacharjya¹, B. J. Saud¹, V. K. Verma¹, D. Debnath^{1*}, D. Kumar¹, A. K. Yadav¹, S. Yengkokpam¹, and U. K. Sarkar²

¹ICAR-Central Inland Fisheries Research Institute, Regional Centre, HOUSEFED Complex, Dispur, Guwahati – 781006 (Assam), INDIA

²ICAR-Central Inland Fisheries Research Institute, Barrackpore, Kolkata – 700120 (West Bengal), INDIA

*Corresponding author. E-mail: dipesh.debnath@gmail.com

Received: November 11, 2016; Revised received: July 8, 2017; Accepted: November 8, 2017

Abstract: Occurrence of abnormally developed gonads in fish is rather more uncommon in freshwater fish than marine fish. It is therefore worthwhile to disseminate the information of occurrence of a single-lobed ovary in *Cirrhinus mrigala* brood fish as an abnormal phenomenon. During April 2011 to March 2013, around 500 brood fish samples of Indian major carps (*Labeo rohita*, *Catla catla* and *C. mrigala*) were collected from different government and private fish farms of Assam and Tripura located in the Northeast of India. Among them, one *C. mrigala* specimen measuring 41 cm in total length and 640 g in weight collected from Ulubari fish seed farm of Guwahati, Assam during June, 2012 was found to have a single-lobed ovary instead of the normal bilobed structure. The ovary occupied the entire body cavity and the majority of ova were round and translucent. The ovary contributed substantially to the total body weight with gonado-somatic index of 32.81 which was the highest among all the mrigal specimens examined. The study indicates possibility of artificially inducing development of single-lobed ovary in *C. mrigala* for achieving possible higher spawn outputs in induced breeding of the cultivable species.

Keywords: Abnormal ovary, Brood fish, *Cirrhinus mrigala*, Single-lobed ovary, Brood fish