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MYXOBOLUS BARAKENSIS SP. N. AND ONE KNOWN SPECIES OF *HENNEGUYA* (CNIDARIA : MYXOSPOREA) FROM THE FRESHWATER FISHES OF BARAK VALLEY, ASSAM

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ABSTRACT : *M. barakensis* sp. n. (Cnidaria : Myxosporea : Bivalvulida) had been described from gills and ovary of the freshwater garfish, *Xenentodon cancila* based on morphological data. Ovoid to spherical cyst-like plasmodia were found in the ovary only. No pathological changes were observed in the host tissue surrounding the cyst-like plasmodia. Mature myxospores were ovoid in frontal view and lenticular in lateral view, with slightly pointed anterior and rounded posterior ends. *Myxobolus* was a common parasite of freshwater fishes reported from almost all over the world. The severity of infection may lead to mortality of fish host. The present paper dealt with the description of a new species of *Myxobolus* sp. from the *Xenentodon cancila*, from Barak River, Assam, India.

The plasmodia of *Myxobolus barakensis* sp.n. were found infecting gills and ovary of *Xenentodon cancila*, the freshwater garfish. The infection rate was found to be 36.67% (30 fishes were examined and 11 fishes were infected). Numerous minute plasmodia each filled with hundreds of spores were detected. Smear of mucous from gills exhibited hundreds of spores. The present species had been proposed as new on the basis of its peculiar shape and morphometric data. The report had been made as the first record of myxobolid infection in the freshwater garfish from Barak River, Assam (India). The plasmodia were not found in the gill filaments and were present within the entire length of the ovary. The present study also observed a known *Henneguya* species i.e. *H. bleekeri* from the gills and fins of the same host fish *Mystus bleekeri* from Barak Valley, Assam. The prevalence rate of infection was 31.81%. This was also the first record of *Henneguya* sp. in the freshwater fishes of Barak Valley, Assam.

Key words : Myxozoa, parasite, freshwater gar fish, Assam.

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INTRODUCTION

Myxosporeans (Cnidaria : Myxosporea) are common, diverse parasites of marine and freshwater fishes (Lom and Dykova, 2006). Myxozoans are microscopic parasitic cnidarians of fish (Okamura *et al*, 2015). They are a group of microscopic metazoans, which are primarily parasites of freshwater and marine fishes and a few other vertebrates (Sitja-Bobadilla *et al*, 2016). These parasites are characterized by multicellular myxospore, composed of 1 to 15 nematocyst-like polar capsules each containing a polar filament and one or many amoeboid sporoplasms (Kent *et al*, 2001; Whipps *et al*, 2003). The occurrence of myxozoan parasites has been extensively studied in aquaculture due to their pathogenic potential (Fiest and Longshaw, 2006). They will induce significant mortalities in wild and farmed fishes, resulting in major economic losses (Naldoni *et al*, 2009; Morsy *et al*, 2012 and Gomez *et al*, 2014). Among myxozoans, the category Myxosporea represents more than 2200 nominal myxosporean species that are classified into 64genera and 17 families, essentially supported morphological characteristics with some fragment data on their SSU rDNA sequence and also, within the myxosporea, *Myxobolus* has the foremost speciose compared to other genus of an equivalent Family: Myxobilidae with approximately 910 species belonging to the genus *Myxobolus* Bütschli, 1882 (Lom and Dykova, 2006). *Xenentodon cancila* Hamilton, 1822 (Beloniformes: