

SIZE STRUCTURE AND EXPLOITATION PATTERN OF *AILIA COILA* (HAMILTON, 1822) FROM THE GANGA RIVER AT ALLAHABAD, INDIA

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ABSTRACT : Two stressors viz. fishing pressure and invasion of exotic species are the most alarming threat for economically important fish species of freshwater. The small sized minor catfish species belonging to family schilbeidae (order Siluriformes), contribute a major portion of the catches from rivers. *Ailia coila* is one of the small sized catfish, which is regularly found in the catches from river Ganga at Allahabad. However, the biology of this fish has not been studied so far. With an aim to study the present status of *Ailia coila*, the study on selected parameters of fish biology were undertaken from the catches of river Ganga and Yamuna river at Allahabad. The fish samples were obtained randomly during the months of July 2015 to June 2017 from the Ganga river at Allahabad. The collected fishes were grouped into different size group with 10 mm size interval. Exploitation pattern of the small catfish *Ailia coila* in river Ganga was studied. Maximum exploitation was recorded in 141-150mm size group with 16.22% and minimum in 91-100 mm size group with 3.68% in the collected samples. In the wake of diminishing population of indigenous fish groups of river year after year, the exploitation pattern indicated that the middle sized group fishes are overfished as they are preferred fish used as cheap food by fishermen and consumers. It was observed that middle sized groups of fish stock of mature fishes is very healthy in the Ganga river at Allahabad, India.

Key words : Size structure, exploitation pattern, *Ailia coila*, Ganga.

INTRODUCTION

Ailia coila, one of the small sized catfish, belonging to family Schilbeidae (order : Siluriformes) is a common fish in the commercial catches from Indian riverine waters. In Allahabad, it is recorded as a major portion of miscellaneous fish catch including other Schilbeids like *Clupisoma garua*, *Eutropiichthys vacha*, *Ompak pabda*, *Ompak bimaculatus* etc. Riverine fishes are important as it provide nutritional food and sustenance to million of people around the world (Dwivedi *et al*, 2014). The fisheries of river Ganga at Allahabad has undergone a vast change during last few decades (Gupta and Tyagi, 1992; Singh *et al*, 1998; Dwivedi *et al*, 2016). While population of indigenous major carps here declined during last two decades due to various factors like over-exploitation, habitat degradation due to climate and pollution, invasion of hardy exotic species like common carp, *Tilapia*, *Cyprinus carpio* etc (Table 1, Fig. 1) the yield of miscellaneous catch, including *Ailia coila*, if not increased has remained more or less constant. As such these species seem to be more viable during the changes in aquatic condition.

Commercially important freshwater catfish which are widely distributed in India, Bangladesh, Nepal and Pakistan (Chondar, 1999) are recorded to be confined to Jamuna, Ganga, Brahmaputra and Mahanadi rivers in India (Talwar and Jhingran, 1991; Menon, 1999). It is commonly known as 'Banspatti or suti' at Allahabad, and is largely utilized as a food fish (Dwivedi *et al*, 2016; Patra *et al*, 2005; Mishra *et al*, 2009). It is one of the most desirable food fish species used by majority of consumers. Although, reports of some studies on *Clupisoma garua* and *Eutropiichthys vacha* (Mijkherjee *et al*, 2002; Lakra *et al*, 2010; Rahman *et al*, 2012; di Sungai *et al*, 2013; Froese and Pauly, 2014; Jha *et al*, 2016) are available, no report of *Ailia coila* is available at present. However, the parameters or the biology of this fish like size composition, exploitation pattern etc are unexplored. Present investigation is aimed to carry the investigation on the fish aims to update the information on the size composition and exploitation pattern of *Ailia coila* from the stretch of the river Ganga at Allahabad, India. The observation are reported for the first time.