Distribution and Relative Abundance of the Endemic Cyprinid, *Barbodes tumba (*Herre,1924) from Lake Lanao

Introduction

Barbodes tumba is one of the 18 endemic species of cyprinids from Lake Lanao of Mindanao, Philippines. Fifteen of these species were described by Herre (1924) as belonging to the genus *Barbodes, B. tumba* among them. Several authors (Herre, 1953; Escudero *et al.*, 1980; Kornfield, 1982; Kornfield and Carpenter, 1984; IUCN, 1990; IUCN, 1994; Ismail, *et al.*, 2014) thereafter used the genus *Puntius* for the species. Kottelat, (2013) however, provided evidence that it should be *Barbodes* for all the Mindanao endemic cyprinids. The International Union for Conservation of Nature and Natural Resources (IUCN) are now using *Barbodes* for all endemic cyprinids in Lake Lanao.

B. tumba was first described by Herre in 1924 (Figure 1). In his description of the species he noted that his specimens were collected from the streams and rivers draining into the Lake. It is a small fish whose maximum recorded length is 12.7 cm. The result of some studies (Villaluz, 1966; Escudero, 1994; Rosagaron, 2001; Ismail *et al.*, 2014) would tend to show *B. tumba* and the other endemic cyprinids are becoming rare. Particularly, Escudero and Demoral (1980, 1983) and Escudero (1994) in their survey recorded the total relative weight of cyprinids as comprising some 55% (1980) of the total and reduced to nine percent of the total in 1994 fish survey. Escudero (1994) pointed out that such could be due to the increasing presence of the introduced species displacing them. In 1996 IUCN placed the conservation status of this fish as vulnerable under the Threatened Category.

Figure 1. *Barbodes tumba*

There has been no assessment of its IUCN status since then. The most recent survey by Ismael (2011), showed that the cyprinids are very rarely caught by fishermen along coastal areas of Lake Lanao. Of the 18 species, only *B. tumba* (in very reduced numbers) and perhaps another species, *B. lindog* (the author was not sure of its identification of this species) are still extant. Surveys of cyprinids by MSU Biology students (Bacarat, 2001; Ali 2001; Disomangcop 2010; Guinal, 2016; Mohammad, 2016) working on their unpublished undergraduate theses, recorded the two species, and another species *B. sirang,* caught along the streams and river tributaries of the Lake.

The present paper is an attempt to address the question on the actual distribution of this group and the actual species still extant and its abundance in Lake Lanao and its immediate environment. Information generated from this study may help concerned government agencies in crafting some conservation measures that may protect the species.