

The Status of *Tenualosa toli* (Valenciennes, 1847) in the South-west Coast of Sarawak, Malaysia

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Abstract

The tropical shad of genus *Tenualosa* (family Clupidae) or locally known as Terubok, are important estuarine fishes, both commercially and culturally in many Asian countries including Malaysia. However, *Tenualosa* species are subject to heavy fishing pressure and have suffered major declines. The decline of *Tenualosa toli* catch landing since 1980's had urged the state government of Sarawak to view with serious concern regarding the problem and directed research and development project to be conducted for maintaining and replenish the natural stock of the species in Sarawak. Therefore, this study was designated to examine the current status on the population of *Tenualosa toli* within Batang Lupar, Batang Lassa and Batang Saribas in the south-west coast of Sarawak which is known as "core Terubok areas". The informations that generated from this research will be useful for further studies not only on the ecology, distribution of *Tenualosa* but also on the conservation and sustainable management of this commercial fish.

Key words: Terubok Sarawak, *Tenualosa toli*, Batang Lassa, Batang Saribas, Batang Lupar

Introduction

The tropical shad of genus *Tenualosa* (family Clupidae) or locally known in Malaysia as ikan Terubok, are important estuarine fishes, both commercially and culturally in many Asian countries including Malaysia. There are currently five clupeids of the genus *Tenualosa* described worldwide; *Tenualosa ilisha*, *Tenualosa macrura*, *Tenualosa revesii*, *Tenualosa thibaudaui* and *Tenualosa toli* (Blaber *et al.*, 2003). However, only *T. macrura* (Terubok Laut) and *T. toli* (Terubok Sungai) can be found in the Malaysian waters, both are confined along the coastal waters of Sarawak. These clupeids are unique because they are protandrous hermaphrodite (Blaber *et al.*, 1996). *Tenualosa toli* is currently found only in the estuaries and adjacent coastal areas of Sarawak (northern coast of Borneo) which comprises the estuaries of Batang Sadong, Batang Lupar, Batang Saribas and Batang Lassa in Sarawak (Rajali, 1991; Milton *et al.*, 1997; Phillip, 2001; Blaber *et al.*, 2003).

However, all *Tenualosa* species are subject to heavy fishing pressure and have suffered major declines. Although *T. toli* and *T. macrura* have a great cultural significance in Sarawak and Sumatra respectively, both are still commercially fished for their eggs, which command very high prices (Blaber *et al.*, 2003). Thus, a more effective management and conservation strategies should be implemented to protect and sustain the fisheries resources of *Tenualosa toli* in Sarawak. The decline of *Tenualosa toli* catch landing since 1980's had urged the state government of Sarawak to view with serious concern regarding on that problem to conduct a collaborative research with Commonwealth Scientific and Industrial Research Organization (CSIRO), Australia (Ministry of Agriculture and Community Development, 1994).

The estuaries of Lassa, Saribas, and Lupar River in Sarawak are known as the "core Terubok's areas" as the population of *Tenualosa toli* can only be found within these three water bodies (Fig. 1). The species has long been a prized target by local fishermen for the high price

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