Potency of freshwater fishes in Aceh waters as a basis for aquaculture development program

[Potensi ikan air tawar di Aceh sebagai dasar untuk pengembangan budi daya]

Z. A. Muchlisin

Department of Aquaculture, Faculty of Marine and Fishery Sciences, Syiah Kuala University
Jln. Syech Abdurauf, Kepolma Darusalam, Banda Aceh 23111
E-mail: muchlisinza@yahoo.com

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Abstract

The development of aquaculture industry of Aceh Province should be based on local potency of indigenous species; however adequate information on the economic status of these freshwater fishes is crucially needed to support this activity. Hence, the objective of the present study was to evaluate the potency of the freshwater fishes which found in Aceh waters as a basic for aquaculture and conservation program. Explorative sampling was conducted from January 2008 to July 2012 in seventeen locations of Aceh Province. A total of 114 species of freshwater fishes were documented during the survey, of which 84 species were true freshwater fishes and the rest species were estuarine fishes. Among the freshwater fishes about 40 were utilized for consumption, of these 14 species were of high economic value and they have potential as fish target for aquaculture, while at least 21 species displayed potential for the ornamental fish.

Keywords: aquaculture, ornamental fish, Poropuntius, Rasbora, Tor.

Abstrak


Kata penting: budi daya, ikan hias, Poropuntius, Rasbora, Tor.

Introduction

The Aceh Province has vast potential for fisheries as it has many rivers, marshes and lakes with numerous fish species with high economic value. However, these potential have not been optimally utilized. Recently, the aquaculture industry has become a popular business in Aceh Province, but unfortunately has been dominated by the culture of invasive species such as Oreochromis niloticus, Clarias gariepinus, and Cyprinus carpio (Muchlisin, 2012). General scientific consensus agrees that the introduction of alien species has negative impact on biodiversity and has become a global ecological problem, especially in inland water systems (Garcia-Berthou & Moreno-Amich, 2000) and fisheries production (Sorensen & Hoye, 2007). Introduction of exotic species is also a serious issue that contributes to depletion of native species (Leung et al., 2006; Westphalet et al., 2008). Biological invasion is widely considered to be the second highest cause of species extinction after habitat destruction (Simberloff, 2003). A report on introduced freshwater fishes in Aceh waters and its problem has