AQUACULTURE EXTENSION MANUAL NO. 67 JULY 2020

Biology and Hatchery Rearing of the Silver Therapon *Leiopotherapon plumbeus*

Frolan A. Aya
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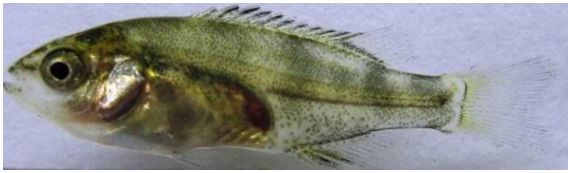

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ISSN 0115-5369

Published and printed by:
Southeast Asian Fisheries Development Center
Aquaculture Department
Tigbauan, Iloilo, Philippines

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SEAFDEC Aquaculture Department Library Cataloging-in-Publication Data

Aya, Frolan A.

Biology and hatchery rearing of the silver therapon *Leiopotherapon plumbeus* / Frolan A. Aya, Luis Maria B. Garcia. -- Tigbauan, Iloilo, Philippines : Aquaculture Dept., Southeast Asian Fisheries Development Center, 2020, ©2020.

[ii], 32 pages : color illustrations. -- (Aquaculture extension manual, 0115-5369 ; no. 67).

Includes bibliographical references.

1. Freshwater fish -- Breeding -- Handbooks, manuals, etc. 2. Freshwater fish -- Growth -- Handbooks, manuals, etc. 3. Freshwater fish -- Feeding and feeds -- Handbooks, manuals, etc. 4. Freshwater fish -- Reproduction -- Handbooks, manuals, etc. 5. Fish culture -- Handbooks, manuals, etc. 6. *Leiopotherapon plumbeus* I. Garcia, Luis Maria B. II. SEAFDEC. Aquaculture Department.

SH 167 .S55 A93 2020 DLS2020-02

Foreword

Known for its tasty flesh, silver therapon, locally known as *ayungin*, has been regarded as one of the most valuable edible native freshwater species in the Philippines. Demands for this fish species remain high which has caused the wild stock to decline. According to the Philippine Statistics Authority, catch for this fish deteriorated from 4,765 metric tons in 2002 to only 1,408 metric tons in 2018.

Due to this growing concern, a hatchery technique was devised by a SEAFDEC/AQD scientist to aid the deteriorating population of the species in the Philippine waters. This new system of growing *ayungin* larvae in captivity was granted a patent by the Intellectual Property Office of the Philippines (IPOPHIL) in 2019, published in Volume 22, Number 124 of the office's official gazette.This protocol, just like other technologies developed by SEAFDEC/AQD, will be for free and open to fish farmers interested to venture into *ayungin* culture.

This manual contains the patented technique which will provide current knowledge on the biology, breeding, and seed production of *ayungin*. It aims to serve as a useful reference for students, aquaculturists, researchers, and government fishery agency personnel who are interested in the breeding and culture of the native fish species.

Refinements on the technology for seed production and rearing of this specific species are still being continued. SEAFDEC/AQD is aiming to conduct more research in the development of nursery and grow-out technology. The Department is also gearing towards developing techniques for bigger culture systems which will be fit for commercial production. This is to help stakeholders and the industry boost the economy through the production of this endemic species.

Dan D. Baliao
Chief
SEAFDEC/AQD

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Introduction

The silver therapon (*Leiopotherapon plumbeus*, Kner), locally known as *ayungin* (Tagalog), *lika-ok* (Pampanga) is a native and important freshwater food species caught largely from Laguna de Bay (Figure 1) in the Philippines. It has been introduced to other lake habitats such as Sampaloc Lake and Taal Lake in the late 1950s and early 1970s, respectively. Considered as one of the tastiest freshwater fish, it is known to be the Philippine national hero Dr. Jose Rizal's favorite fish to eat. Sold fresh or dried, this fish species commands a high market price, often reaching as much as Php 800 per kilo (Figure 2). Comprising about 70% of the total fishery catch from Laguna de Bay, it used to be the most abundant fish caught in the lake and utilized mainly for domestic human consumption and as a component of duck feed. However, by the late 1990s, the wild fishery catch of silver therapon in Laguna de Bay was reported to have declined significantly. More recently, the silver therapon fishery catch all over the country continued to decline by as much as 30% from 4,765 mt in 2002 to only 1,438 mt tons in 2017.

Figure 1. Hatchery-bred Philippine native silver therapon *Leiopotherapon plumbeus.* Scale bar = 10 mm

Intense fishing pressure on wild fishery stocks, habitat degradation due to pollution and sedimentation, and more recently, the introduction of invasive alien species in Laguna de Bay and adjacent inland waters have led to a growing interest in the domestication and conservation of this species. Production of hatchery seeds of silver therapon may support current efforts of the Philippine government in its "*Balik Sigla sa Ilog at Lawa* (BASIL)" program to stock indigenous species in major lakes and rivers of the country.

This manual provides current knowledge on the biology, breeding and seed production of the silver therapon derived from published information conducted over five years (since 2014) of research focusing on the domestication of this native species for culture production. It is hoped that information presented in this manual will serve as a useful reference for students, aquaculturists, researchers, and government fishery agency personnel interested to breed and culture native fish species such as silver therapon.

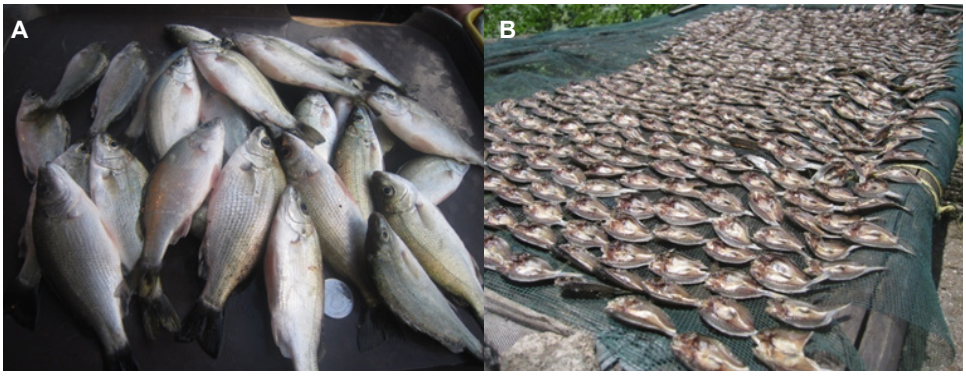

Figure 2. Fresh (A) and dried (B) silver therapon as a market commodity sold in lakeside fishing communities.