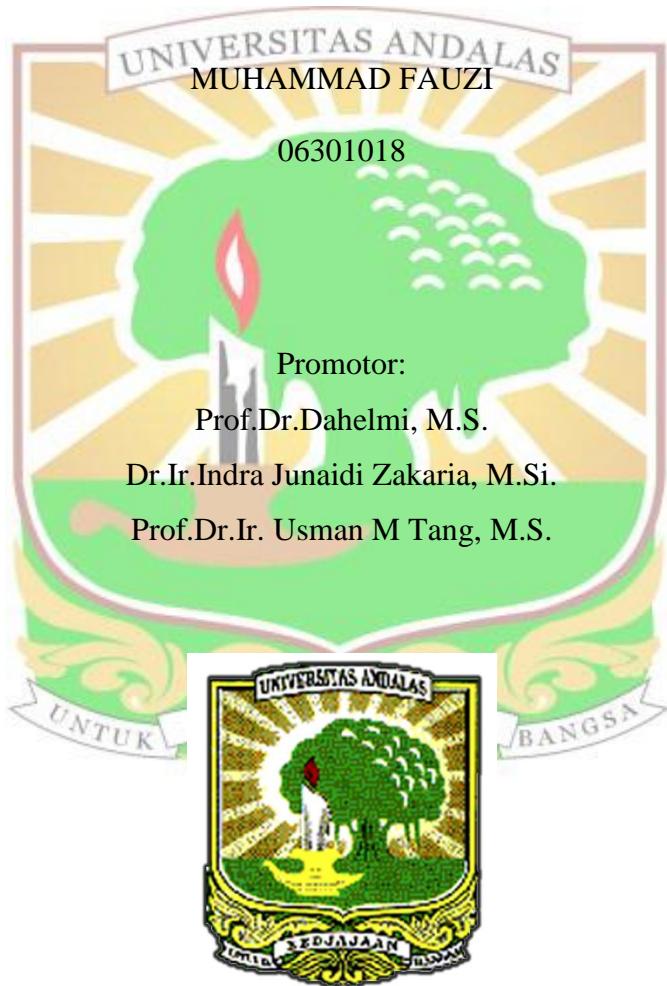


EKOLOGI DAN BIOLOGI IKAN LELAN  
(*Diplocheilichthys pleurotaenia* Bleeker)  
DI SUNGAI KAMPAR DAN WADUK PLTA  
KOTO PANJANG

DISERTASI



PROGRAM PASCASARJANA

UNIVERSITAS ANDALAS

2016

# **EKOLOGI DAN BIOLOGI IKAN LELAN (*DIPLOCHEILICHTHYS PLEUROTAENIA BLEEKER*) DI SUNGAI KAMPAR DAN WADUK PLTA KOTO PANJANG**

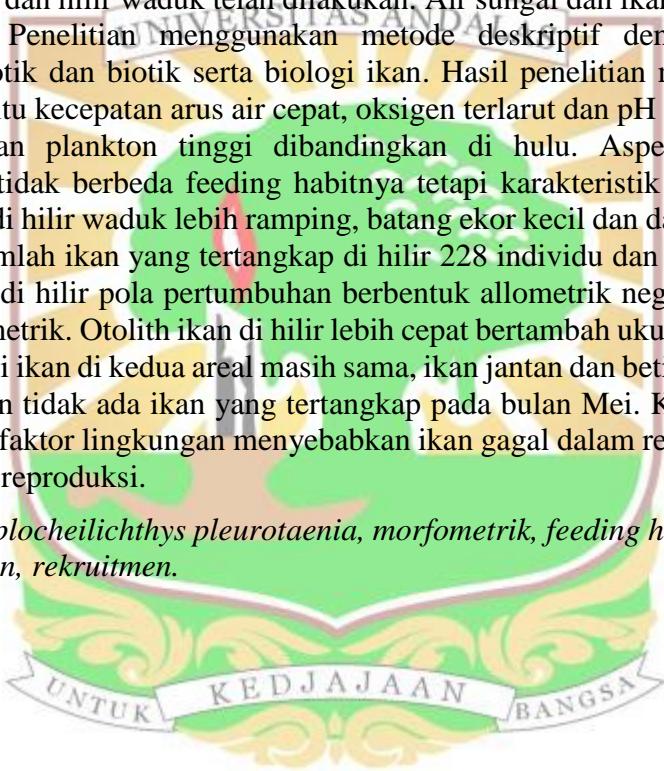
Oleh: MUHAMMAD FAUZI

(Dibawah bimbingan: Prof.Dr.Dahelmi, M.S., Dr.Ir.Indra Junaidi Zakaria, M.Si., dan Prof.Dr.Ir. Usman M Tang, M.S.)

## **ABSTRAK**

Ikan lelan (*Diplocheilichthys pleurotaenia*) salah satu ikan asli di Sungai Kampar yang melakukan migrasi ke hilir dalam aktivitas reproduksinya. Konstruksi waduk telah menyebabkan ikan sulit bermigrasi. Penelitian Ekologi dan biologi ikan pada hulu dan hilir waduk telah dilakukan. Air sungai dan ikan lelan disampel setiap bulan. Penelitian menggunakan metode deskriptif dengan mengukur parameter abiotik dan biotik serta biologi ikan. Hasil penelitian menunjukkan di hilir waduk yaitu kecepatan arus air cepat, oksigen terlarut dan pH air rendah, jenis dan kelimpahan plankton tinggi dibandingkan di hulu. Aspek biologi ikan menunjukkan tidak berbeda feeding habitnya tetapi karakteristik morfologi ikan berbeda. Ikan di hilir waduk lebih ramping, batang ekor kecil dan dasar sirip caudal lebih lebar. Jumlah ikan yang tertangkap di hilir 228 individu dan di hulu hanya 7 individu. Ikan di hilir pola pertumbuhan berbentuk allometrik negatif dan di hulu berbentuk isometrik. Otolith ikan di hilir lebih cepat bertambah ukuran panjangnya. Pola reproduksi ikan di kedua areal masih sama, ikan jantan dan betina matang pada bulan April dan tidak ada ikan yang tertangkap pada bulan Mei. Kelangkaan ikan di hulu karena faktor lingkungan menyebabkan ikan gagal dalam rekruitmen bukan karena biologi reproduksi.

Kata kunci: *Diplocheilichthys pleurotaenia, morfometrik, feeding habit, reproduksi ikan, rekruitmen.*



# **ECOLOGY AND BIOLOGY OF LELAN FISH (*DIPLOCHEILICHTHYS PLEUROTAENIA* BLEEKER) IN THE KAMPAR RIVER AND IN THE PLTA KOTO PANJANG DAM**

by: MUHAMMAD FAUZI

(Supervised: Prof.Dr.Dahelmi, M.S., Dr.Ir.Indra Junaidi Zakaria, M.Si, and Prof.Dr.Ir. Usman M Tang, M.S.)

## **ABSTRACT**

*Diplocheilichthys pleurotaenia* is a native fish of the Kampar River, Riau, Indonesia. This fish used to migrate for reproductive activity. The construction of the Koto Panjang Dam, may hamper the migration of the fish. To understand the environmental condition and the biological aspects of the fish from the upstream and downstream areas of the dam, a study has been conducted. The water and the fish were sampled monthly. Data obtained were analyzed descriptively. Results shown that in the downstream, the current was faster, the DO and the pH were lower and the types and abundance of plankton was higher than those of the upstream. The biological aspects of fish shown that there was no difference in feeding habit, but there was difference in morphological characteristics. The fish from the downstream has more compressed body, smaller tail base and bigger caudal fin. The number of fish captured in the downstream was 228, while that of the upstream was 7. The downstream fish was slimmer than that of the upstream and it shown negative allometric growth pattern, while that of the upstream was isometric. The otolith of the downstream fish also shown faster growth. However, the reproductive pattern of fish from both areas were similar, there were mature males and females in April and there was no fish captured in May. The rarity of fish in the upstream may not be caused by the environmental factors nor the reproductive biology, but it caused by the failure in recruitment.

Keywords: *Diplocheilichthys pleurotaenia*, morphometric, feeding habit, fish reproduction, fish recruitment.