

DISTRIBUSI DAN KEMELIMPAHAN IKAN DI SUNGAI KAHAYAN, KALIMANTAN TENGAH

TESIS

**Untuk memenuhi sebagian persyaratan
mencapai derajat sarjana S-2**



Oleh:

**ANDRIA YOSEPHANDI ANDEL
22091/IV-7/536/04**

**PROGRAM STUDI ILMU LINGKUNGAN
SEKOLAH PASCASARJANA
UNIVERSITAS GADJAH MADA
YOGYAKARTA
2007**

FISH DISTRIBUTION AND ABUNDANCE IN KAHAYAN RIVER, CENTRAL KALIMANTAN

by:

Andria Yosephandi Andel
22091/IV-7/536/04

Environmental Science, Post Graduate Program
Faculty of Geography, Gadjah Mada University

ABSTRACT

The distribution and abundance of fish in Kahayan River, Central Kalimantan were studied between April and June 2006. The study focus on fish, physico-chemical water qualities of turbidity, temperature, surface water current, DO, and pH. We also studied the fisherman yield along the river in both wet and dry seasons. The data were collected from 5 locations, upstream, midstream, riparian wetland, down-stream, Danau Sabuah, which was an oxbow lake, and long-traditional fish ponds (*beje*). We collected fish from river and oxbow lake using gillnets, but we used hand-scoop in *beje*. The fisherman yield data were collected by conducting in-depth interview with local fishermen in each study locations. The result showed that the number of fish species were different between seasons, but these differences were respond to the fluctuations of river water level and volume. In contrast, in each season the differences between locations were responds to the habitats changed. During the wet season, the riparian wetland was functioned as habitats for spawning ground. In both seasons, we found 28 species in all stream locations, 44 species from oxbow lake, and 12 species from *beje*. The water turbidities were high from upstream to downstream in both seasons, and the fish communities were composed more by un-scaled fish. *Hemibagrus nemurus* (*Baung*) were found in all locations. It means that *Baung* had wide tolerance to water turbidity and current.

The fisherman-catchments yields were declined compared to the past years. The catchments yield from the study was similar to the fisherman yields which were sold to the traditional market. The local fisherman along the river and oxbow lake had a high dependence to the fisheries resources. In conclusions, Kahayan River water qualities were declined which affected the number of fish communities. The decreasing of yield of the economic-important species caused to the decreasing of the local fisherman daily income.

Keywords: *Kahayan River, fish, turbidity, oxbow lake, beje, riparian wetland, fisherman yield*

DISTRIBUSI DAN KEMELIMPAHAN IKAN DI SUNGAI KAHAYAN, KALIMANTAN TENGAH

oleh:

Andria Yosephandi Andel
22091/IV-7/536/04

Program Studi Ilmu Lingkungan Pascasarjana Fakultas Geografi
Universitas Gadjah Mada

INTISARI

Distribusi dan kelimpahan ikan di Sungai Kahayan, Kalimantan Tengah diteliti antara bulan April dan Juni tahun 2006. Studi difokuskan pada ikan, kualitas fisik-kimia perairan meliputi turbiditas, temperatur, kecepatan arus permukaan, DO, dan pH. Juga dipelajari hasil tangkapan nelayan di sepanjang aliran sungai pada musim hujan dan kemarau. Data dikoleksi dari 5 lokasi, upstream, midstream, rawa riparian, downstream, Danau Sabuah, yang merupakan danau oxbow, dan kolam ikan tradisional (*beje*). Ikan dikoleksi dari sungai dan danau oxbow menggunakan jala, tapi di *beje* menggunakan serok. Data hasil tangkapan nelayan dikoleksi dengan melakukan wawancara secara mendalam dengan nelayan lokal pada setiap lokasi studi. Hasil yang didapat menunjukkan bahwa cacah spesies ikan berbeda pada masing-masing musim, sebagai respon terhadap fluktuasi volume dan tinggi muka air. Sebaliknya, pada masing-masing musim perbedaan pada masing-masing lokasi merupakan respon terhadap perubahan habitat. Pada musim hujan, rawa riparian berfungsi sebagai habitat untuk memijah. Pada 2 musim, ditemukan 28 spesies pada semua lokasi di sungai, 42 spesies di oxbow lake, dan 12 spesies di *beje*. Kekerusuhan perairan dari upstream hingga downstream meningkat pada kedua musim, dan komunitas ikan lebih banyak disusun oleh ikan-ikan tidak bersisik, Ikan Baung (*Hemibagrus nemurus*) ditemukan di semua lokasi. Hal ini menunjukkan bahwa ikan Baung memiliki toleransi yang lebar terhadap perubahan kekeruhan dan arus.

Hasil tangkapan nelayan menurun dibandingkan dengan hasil pada tahun-tahun sebelumnya. Hasil tangkapan selama studi memiliki kesamaan penyusun dengan hasil tangkapan nelayan yang dijual ke pasar tradisional. Nelayan lokal di sepanjang aliran sungai dan danau oxbow memiliki ketergantungan yang tinggi pada sumberdaya perikanan. Kesimpulannya, Sungai Kahayan mengalami penurunan kualitas perairan yang mempengaruhi komunitas ikan. Penurunan hasil tangkapan dari ikan ekonomis penting berdampak pada penurunan pendapatan harian nelayan lokal.

Keywords: *Sungai Kahayan, ikan, turbiditas, danau oxbow, beje, rawa riparian, hasil tangkapan nelayan*