

## RINGKASAN

Rawa Biru merupakan ekosistem rawa yang termasuk dalam Taman Nasional Wasur, Merauke, Papua. Sebagian besar masyarakat Rawa Biru berprofesi sebagai nelayan untuk memenuhi protein hewani maupun diperjualbelikan di pasar tradisional. Dikhawatirkan jika penangkapan ikan terus berlangsung akan berdampak berkurangnya kekayaan spesies dan kelimpahan ikan. Penelitian distribusi spasial dan pertumbuhan ikan bertujuan untuk mengevaluasi kekayaan spesies, kelimpahan, distribusi spasial dan pola pertumbuhan ikan.

Penelitian ini dilakukan menggunakan metode *survey* dan teknik *Purposive Random Sampling*. Perairan Rawa Biru pada delapan stasiun diwakili hulu, tengah dan hilir di perairan Rawa Biru. Kekayaan spesies dan kelimpahan ikan diperoleh dengan mengidentifikasi ikan dan menghitung jumlah spesies kemudian dianalisis secara deskriptif. Distribusi spasial ikan dibuat berdasarkan data kekayaan spesies dan disajikan dalam bentuk peta. Parameter fisik (temperatur air) dan kimiawi (pH dan oksigen terlarut) dibandingkan dengan baku mutu kualitas air kelas tiga PP 82/2001. Pola pertumbuhan ikan dianalisa berdasarkan data panjang total dan berat total serta menghitung hubungan panjang-berat dan faktor kondisi.

Hasil penelitian tercatat 11 spesies dengan kelimpahan 212 individu. Famili Terapontidae mendominasi dengan dua spesies (*Amniataba affinis* dan *Pingalla lorentzi*). *Nematalosa erebi* memiliki kelimpahan tertinggi dengan 122 individu. Distribusi spasial *Plotosus papuensis*, *Lates calcalifer* dan *N. erebi* hadir mulai dari hulu sampai hilir dengan persentase tutupan tumbuhan emerged 30 - 37%. *Scleropages jardinii*, *Hemiramphus georgii* dan *P. lorentzi* hanya hadir pada bagian hulu, *Glossamia aprion* pada bagian tengah dan *A. affinis* pada bagian hilir. Temperatur air (27,5 – 28,5 °C), pH (5 – 6) dan DO (2,7 – 8,1 mg/l) mendukung pertumbuhan ikan Rawa Biru. Tujuh spesies (*H. georgii*, *P. papuensis*, *A. affinis*, *P. lorentzi*, *L. calcalifer*, *Oreochromis niloticus* dan *Oxyeleotris marmorata*) dengan pola pertumbuhan allometrik negatif, 4 spesies (*S. jardinii*, *Megalops cyprinoides*, *N. erebi* dan *G. aprion*) memiliki pola pertumbuhan allometrik positif. Sembilan spesies memiliki faktor kondisi 0,85 – 4,84, sisanya dua spesies (*L. calcalifer* dan *P. lorentzi*) dengan faktor kondisi 0,37 dan 0,66.

Kata kunci: Rawa Biru, kekayaan spesies, kelimpahan, distribusi spasial, pola pertumbuhan

## SUMMARY

Rawa Biru is a swamp ecosystem in Wasur National Park, Merauke, Papua. Most of the people surrounding Rawa Biru is fisherman frequently fishing to fulfill animal protein and domestic trade needs. Considering this activity would be lead to descreasing of fish diversity. A study of spatially distribution and fish growth was conducted in Rawa Biru. The purposes were to evaluated species richness, abundance, and spatial distribution, as well as growth pattern of fish.

The method was used *survey* by *Purposive Random Sampling* technique in eight stations represented upstream, middle and downstream in Rawa Biru. The species richness and fish abundance were analyzed with descriptively. The spatial distribution of fish was created based on species richness. Physical (water temperature) and chemical (pH and DO) were compared with the standard quality of third class water of PP 82/2001 class 3 for fishery. The fish growth patterns were analyzed based on total length, total weight, relationship with between to lenght-weight and condition factor.

An eleven species with 212 individuals was recorded. They are belongs to ten families with dominated by Terapontidae is composed by *Amniataba affinis* and *Pingalla lorentzi*. The most abundance species was *Nematalosa erebi* with 122 individuals. *Plotosus papuensis*, *Lates calcarifer* and *N. erebi* distributed spatially from upstream to downstream regarded to *emergent* vegetation cover 30 – 37%. *Scleropages jardinii*, *Hemiramphus georgii* and *P. lorentzi* were present in upstream, meanwhile *Glossamia aprion* and *Amniataba affinis* were present in mid and downstream respectively. The water temperature (27,5 – 28,5 °C, pH (5 – 6) and DO (2,7 – 8,1 mg/l) supported to fish growth. The growth patterns of seven species (*H. georgii*, *P. papuensis*, *A. affinis*, *P. lorentzi*, *L. calcarifer*, *O. niloticus* and *O. marmorata*) were allometric negative, and the remains *S. jardinii*, *M. cyprinoides*, *N. erebi* and *G. aprion* were allometric positive. Mostly, the species growth healthly with condition factor (FK) 0,85 – 4,84. Otherwise two species (*L. calcalifer* and *P. lorentzi*) was not growth healthly with condition factor (FK) 0,37 and 0,66.

Keywords: Rawa Biru, species richness, abundance, spatially distribution, growth-patter