

J.Lit.Perikan.Ind. 12 (2) 2005: p. 1-7
Purnomo, K (RIFSE)
Kartamihardja, E.S. (RCCF)

The total fish catch of Wonogiri reservoir (6.480 ha) in 1998-2000 range from 3300.8 to 3510.0 ton per year. The Java barb (*Barbodes gonionotus*) being one of the five major commercially important species in the reservoir, constitutes about 1.390 ton or 40% of the total catch. Studi on the growth, mortality, and feeding habits of java barb was conducted in Wonogiri reservoir from January to December 2000. The objective of the study is to provide information, relevant to the management of Java barb in the reservoir. The von Bertalanffy growth parameters and mortality rate were estimated from length frequency data using FISAT program. The growth performance index (Φ') was computed from the equation of Pauly & Munro's (1984). Analysis of the stomach contents was carried out to evaluate their feeding preferences. Results show that the total length of individuals of java barb ranged from 11.0 to 39.0 cm, and the weight from 20.0 to 1100.0 g. The length-weight regression both for males ($b=2.938\pm0.084$) and females ($b=3.008\pm0.041$) indicated isometric growth. The overall sex ratio was 1:2 in favour of females. The von Bertalanffy growth parameters for the sexes combined were: $L_{\infty}=47.3$ cm total length; $k=0.42$ year⁻¹; and the Φ' (phi-prime) estimation was 2.973. Natural mortality rate, M , was 0.89 year⁻¹, fishing mortality (F) was 0.17 year⁻¹ and the total mortality rate (Z) was 1.06 year⁻¹ (range from 0.93-1.19) and the exploitation rate (E) was 0.16. The diets of java barb composed of macrophytes (80.41 \pm 1.27%), detritus (12.17 \pm 0.95%) and phytoplankton (7.43 \pm 1.01%). It indicates that the java barb is herbivorous species. Although the java barb stock was exploited below the optimum level the fisheries manager should recommend the fisher to take greater responsibility for the sustainability and conservation of the fisheries resources.

J.Lit.Perikan.Ind. 12 (2) 2005: p. 9-27
Utomo, A.D. (RIIWF)
Prasetyo D. (RIIWF)

Barito River have economics value in fisheries, many fishes are living there and it's habitats for fishing, so that ecosystem should be managed properly. The objectives of the study was to reach fishing gear selectivity of length, fishing mortality of some fishes, catches data and fishing season of some main fishing gears. The research was conducted by survey methods on Mei 2003 to December 2003. Two types of location were selected; the first location at Danau Panggang District (South Kalimantan) there are many fishing activities, and the second location at Rantau Birit, Jenemas District (Central Kalimantan) that location have strongly changing ecosystem. Data were collected by sampling methods and distributed questioner blank sheets to fisherman. Catches and selectivity data were analysed using data tabulation and histogram grafik, growth and mortality parameter were analysed by FISAT II program. The result showed that catches data at Rantau Birit, Jenemas Distrik (Central Kalimantan) lower than some location at

Danau Panggang Distrik (South Kalimantan). Main fishing gear: hampang (barrier with traps chamber), selambau (filtering net), beje (seine with pond traps), mangumpe (seine with fish aggregating device) are not selected gears for big fish such as baung (*Mystus nemurus*) and haruan (*Channa striatus*), that device caught young fish before doing reproduction. The exploitation rate (E)=0.71 for baung (*Mystus nemurus*), $E=0.57$ for haruan (*Channa striatus*) and $E=0.41$ for sepat siam (*Trichogaster pectoralis*).

J.Lit.Perikan.Ind. 12 (2) 2005: p. 29-37
Nasution, S.H. (P2 Limnologi-LIPI)

Activity of the fishery tending to exploit natural sources and condition of the water quality changing or polluted, would result the decreasing the amount of fish populations in nature. Particularly if a number of the species exploited is endemic which needed to protect and threatened species. Rainbow selebensis fish (*Telmatherina celebensis* Boulenger) including into set of Telmatherinidae family and is one of endemic fish in Lake Towuti. The current research aims to know the characteristic reproduction this endemic fish, as basic data to the effort conservation and domestication. The results show that testis and fish ovary are found one organ during a period of gonad development. Gonad maturity stage. The range of eggs diameters is 0.02-1.79 mm with 103.2 mm maximum length. Male and female fishes are mature at size of 74.3 and 77.3 mm total length respectively. Gonad maturity index value of male and female is 0.46-0.81% and 1.87-2.65%. The reproduction ability is in relation to the eggs produced, so that it affects on amount of juveniles. The range of fish fecundity is 185-1,448 eggs with 63.9-88.6 mm total length and 2.756-9.600 mg total weight.

J.Lit.Perikan.Ind. 12 (2) 2005: p. 39-45
Suprpto (RIMF)
Sumiono, B. (RIMF)
Hendriyatna, N. (RIMF)

Study on community structure of macrozoobenthos was conducted in Province Sumatera Utara waters (Malaka Strait) at September 2003 by sampling in selected twelve stations. Sampling of substrates was conducted by using Grab Bottom Sampler. The objective of the study is to gather information on species composition, density, diversity indexes, and some parameters of bottom water quality. Results show that the number of species of macrozoobentos collected were 36 species of phylum Mollusca, Annelida, Arthropoda, and Echinodermata. Diversity of total macrozoobentos varied from 3.8×10^3 - 7.1×10^5 ind m^{-2} . Diversity index is low-grade ($H'=1.77$) its indicating a polluted condition. Average level of evenness indexes was 0.77. The most abundances of macrozoobentos species were *Tellina* sp., *Epicodakia* sp., *Dentalium* sp., *Turitella* sp., and *Plicarcularia* sp. The average levels of temperature and salinity were 29.13°C and 32.83 ppt respectively. Range level of current velocity was 0.05-0.53 m dt^{-1} and type of bottom substrat was dominated by fine sands and silt.

J.Lit.Perikan.Ind. 12 (2) 2005: p. 47-56

Hariati, T. (RIMF)

Taufik, M. (RIMF)

Zamroni, A. (RIMF)

A research on reproduction of round scad (*Decapterus russelli*) and Indian mackerel (*Rastrelliger kanagurta*) from the Straits of Malacca, part of Indonesia aims to estimate the spawning season and area, and the length at first maturity (L_m) of both scad and indian mackerel stock. The result was expected to be used as a basic for management of the stock. The samples of round scad and mackerel of medium to big size (15 cm and more) 1,000 fish for each species were collected by month during the period of May 2003–December 2004 from the catch of purse seine fleet landed in Tanjung Balai, North Sumatera Province. The monthly observations were emphasized on body length and weight measurement, maturity, and weight of gonad of the female, in order to get the values of percentage of maturity and gonad index as well as L_m values. The results show that spawning season for the round scad occurred from April to October, while the mackerel occurred from May to October and from December to March. Spawning area of both species was estimated in the northern part of the Malacca Straits, around 200 meters isodepth line. The values of L_m of round scad and indian mackerel are 16 cm FL and 17 cm FL, respectively.

J.Lit.Perikan.Ind. 12 (2) 2005: p. 57-67

Hariati, T. (RIMF)

The exploitation rate of both indian scad (*Decapterus russelli*) and indian mackerel (*Rastrelliger kanagurta*) caught using Sibolga's purse seine in west Sumatera waters in 1995 were high, 0.65 and 0.75 respectively. CPUE per vessel per day of scads and mackerels in the five fishing grounds tended to decrease. Several Sibolga purse seiners tried to find new fishing grounds along west Sumatera coast through Banda Aceh waters. A research on purse seine fishery of Sibolga was conducted in the period of 2003–2004, to get some information on the status and its development. Catch and effort data were collected from a private landing place, dimension of vessels, operational aspects, and lengths of several dominant pelagic species were obtained by interview and measurement. In 2003, the development of vessels size, number of vessels, and the use of rumpon beside halogen lamps had made two kinds of purse seine net i.e. the 1 inch and the 3–4 inch of purse seines, and also the extension of fishing grounds to the waters off the shelf (deeper sea). Fishes caught by the 1 inch purse seine were dominated by the three scads (*D. russelli*, *D. macrosoma*, and *D. macarellus*) while by the 3–4 inch were dominated by skipjack (*Katsuwonus pelamis*), tuna (*Thunnus albacares*), as well as little tunas (*Auxis thazard* and *Thunnus tonggol*). Both range of the length and L_c value of scads, indian mackerel (*Rastrelliger kanagurta*) and bigeye scad (*Selar crumenophthalmus*) caught by the 1 inch purse seine in 2003 were wide and high especially indian mackerel, since the development of fishing grounds into the deeper waters probably close to the spawning ground.

J.Lit.Perikan.Ind. 12 (2) 2005: p. 69-74

Suman, A. (RIMF)

Boer, M. (BAI)

The objective of this research is to study the population dynamic aspects of endeavour shrimp (*M. ensis* de Haan) in Cilacap and adjacent waters. This research was conducted from May 2001 to April 2002 with survey method. Results show that the size at first maturity of endeavour shrimp (*M. ensis* de Haan) was 31.8 mm in carapace length and spawned throughout the year with the peak spawning season in September. The von Bertalanffy growth equation of male endeavour shrimp is $L_t = 41.5 [1 - e^{-1.49(t+0.03)}]$ and female is $L_t = 52.2 [1 - e^{-1.52(t+0.023)}]$.

J.Lit.Perikan.Ind. 12 (2) 2005: p. 75-82

Suman, A. (RIMF)

Study on the status of exploitation to endeavour shrimp (*Metapenaeus ensis* de Haan) resources in Cilacap and adjacent waters needs to be done for its management purpose. The objective of this research is to analyse the exploitation status of endeavour shrimp resources in Cilacap and its adjacent waters. This research was conducted from December 2002 to June 2003. The evaluation was based on the surplus production and bioeconomic models. Results show that the annual production average of endeavour shrimp in Cilacap and adjacent waters landed about 77% in Cilacap District, 21% in Ciamis District, and 2% in Kebumen District. Maximum sustainable yield of endeavour shrimp in Cilacap and adjacent waters is 540 ton per year and effort optimum is about 305 units of fishing gear standard (active trammel net in weekly trip). Status of its open access exploitation stayed at 413 ton production level per year with 509 units effort of standard gear, thus the condition of optimal exploitation stayed at 206 ton per year with 365 unit effort of standard gear. For sustainable exploitation, it needs to be restricted for 305 units effort of standard gear per year and 540 ton production per year.

J.Lit.Perikan.Ind. 12 (2) 2005: p. 83-93

Hartati, S.T. (RIMF)

Edrus, i.N. (BPTP, Maluku)

The reefs of Saleh Bay were in serious degradation occurring in across the islands, included Rakiti and Taikabo. The need of baseline data may upsurge in regarding of rehabilitation program for the bay. One of variables needed to evaluate and monitor the changing coastal water environment is coral fish. Coral fish is a suitable indikator of unsettled coral habitats. Hence, this study identified the intrinsic species and some indeces including the fish diversity index (H), dominance index (D or Simpson), evenness index (E), and fish density (m^{-2}). The method used in data gathering was a census visual transect. The results show that total coral fish kinds found in the study areas was 105 species, varying from 34 to 57 species for respective transect sites. Fish density varied as well, from 3.4 to 17.7 ind m^{-2} . Fish diversity indeces (H) were low level for the whole transect sites and ranged from 2.54 to 3. Dominance or Simpson indeces for the respective-transect sites ranged from 0.08 to 0.14, whereas evenness indeces ranged from 0.72 to 0.75. It means that there are no population dominance and significant dissilution in the coral fish community.

TINJAUAN BUKU

Oleh: Endang Sriyati
Pusat Riset Perikanan Tangkap

PROSIDING

Forum Perairan Umum Indonesia Ke-1

PEMANFAATAN DAN PENGELOLAAN PERAIRAN UMUM SECARA TERPADU BAGI GENERASI SEKARANG DAN MENDATANG



Departemen Kelautan dan Perikanan
Badan Riset Kelautan dan Perikanan
Pusat Riset Perikanan Tangkap
Tahun 2005

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3. Makalah Penunjang sebanyak 38 judul yang merupakan hasil penelitian di perairan umum dan dipresentasikan pada forum.
4. Makalah Penunjang Lain-lain sebanyak 12 judul yang merupakan hasil penelitian di perairan umum tetapi tidak dipresentasikan pada forum.

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- **Judul** hendaknya tidak lebih dari 15 kata dan harus mencerminkan isi naskah, diikuti dengan nama penulisnya. Jabatan atau instansi penulis ditulis sebagai catatan kaki di bawah halaman pertama.
- **Abstrak** merupakan ringkasan penelitian dan tidak lebih dari 250 kata. Kata kunci (3-5 kata) harus ada dan dipilih dengan mengacu pada Agrovocs.
- **Pendahuluan** secara ringkas menguraikan masalah-masalah, tujuan dan pentingnya penelitian. Jangan menggunakan subbab.
- **Bahan dan Metode** harus secara jelas dan ringkas menguraikan penelitian dengan rincian secukupnya sehingga memungkinkan peneliti lain untuk mengulangi percobaan yang terkait.
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- **Gambar** skema, diagram alir, dan potret diberi nomor urut dengan angka Arab. Judul dan keterangan gambar diletakkan di bawah gambar dan disajikan dalam bahasa Indonesia dan Inggris.
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- **Daftar Pustaka** disusun berdasarkan abjad tanpa nomor urut dengan urutan sebagai berikut: nama pengarang (dengan cara penulisan yang baku), tahun penerbitan, judul artikel, judul buku/nama dan nomor jurnal, penerbit dan kotanya, serta jumlah/nomor halaman. Hanya pustaka yang dikutip perlu dimasukkan dalam Daftar Referens. Sebagai contoh adalah:

Heinen, J.M., D'Abramo, L.R., Robinette, H.R. & Murphy, M.J. 1989. Polyculture of two sizes of freshwater prawns (*Macrobrachium rosenbergii*) with fingerling channel catfish (*Ictalurus punctatus*). *J. World Aquaculture Soc.* 20(3): 72-75.

Collins, A. 1977. Process in acquiring knowledge. In Anderson, R.C., Spiro, R.J. & Montague, W.E. (eds.). *Schooling and the Acquisition of Knowledge*. Lawrence Erlbaum, Hillsdale, New Jersey. p.339-363

Bose, A.N., Ghosh, S.N., Yang, C.T. & Mitra, A. 1991. *Coastal Aquaculture Engineering*. Oxford & IBH Pub. Co. Pvt. Ltd., New Delhi. 365 pp.

Untuk sitiran dari Tesis, seperti contoh berikut:

Simpson, B.K. 1984. *Isolation, Characterization and Some Applications of Trypsin from Greenland Cod (*Gadus morhua*)*. PhD Thesis. Memorial University of New Foundland, St. John's, New Foundland, Canada. 179 pp.

Cetak Ulang

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Naskah yang mencakup aspek yang agak spesifik belum mendalam dengan data dan informasi awal, tetapi dipandang segera untuk dipublikasikan sebagai "Komunikasi Singkat" dengan persetujuan penulis.

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