

## Abstrak

### Hubungan Panjang-Berat dan Faktor Kondisi Ikan Nilem (*Osteochilus vittatus* Valenciennes, 1842) di Rawa Pening Kabupaten Semarang

Ikan nilem (*Osteochilus vittatus* Valenciennes, 1842) merupakan ikan endemik di Rawa Pening yang populasinya semakin menurun, dan data biologinya masih sangat sedikit. Penelitian ini bertujuan untuk mengetahui hubungan panjang-berat dan faktor kondisi ikan nilem di Rawa Pening Kabupaten Semarang. Pengambilan sampel ikan dilakukan dua minggu sekali yang dilaksanakan pada bulan Oktober 2019 sampai Maret 2020 dengan target 100 ekor setiap bulan. Ikan yang diperoleh berasal dari hasil tangkapan nelayan menggunakan kerai bambu. Data yang dikumpulkan adalah data panjang total, berat total, dan jenis kelamin. Data dianalisis secara deskriptif menggunakan analisis regresi untuk hubungan panjang-berat dan faktor kondisi, serta perbandingan jenis kelamin dilakukan uji *chi-square* ( $X^2$ ). Jumlah ikan nilem jantan yang diperoleh sebanyak 255 ekor dengan panjang berkisar 10,2-22,4 cm dan berat berkisar 15,0-160,9 g. Ikan nilem betina yang diperoleh 392 ekor dengan kisaran panjang antara 10,0-26,0 cm dan kisaran berat antara 14,5-264,1 g. Secara keseluruhan rasio ikan nilem betina dan jantan 1,54:1, yang menunjukkan bahwa populasi ikan betina jauh lebih tinggi daripada jantan. Pola pertumbuhan ikan nilem di Rawa Pening bersifat allometrik negatif. Persamaan hubungan panjang-berat ikan nilem jantan yaitu  $W = 0,0151 L^{2,9689}$  ( $R^2 = 0,9386$ ) dan ikan nilem betina yaitu  $W = 0,0186 L^{2,9096}$  ( $R^2 = 0,9527$ ). Nilai faktor kondisi ikan nilem jantan pada rerata 1,02 dan ikan nilem betina memiliki rerata 1,05. Proporsi faktor kondisi ikan nilem jantan berada dalam kondisi baik (0,95-1,05) dan ikan nilem betina dalam keadaan sangat baik ( $>1,05$ ), sehingga Rawa Pening merupakan habitat yang sesuai untuk pertumbuhan ikan nilem.

Kata kunci: *allometrik*, faktor kondisi, nilem, pertumbuhan, Rawa Pening

## Abstract

### Length-Weight Relationship and Condition Factor of Bonylip Barb (*Osteochilus vittatus* Valenciennes, 1842) in the Lake Rawa Pening Semarang Regency

Bonylip barb (*Osteochilus vittatus* Valenciennes, 1842) is an endemic fish in the lake Rawa Pening whose population is declining, and biological data are still minimal. This study aims to determine the length-weight relationship and condition factor of bonylip barb in lake RawaPening, Semarang Regency. Fish sampling was conducted biweekly from October 2019 to March 2020, with a target of 100 individual fish each month. Fish was caught using bamboo blinds, which were operated by local fishermen. Data collected consisted of total length, individual weight, and sex. Data on sex ratio was analyzed with the chi-square test ( $X^2$ ), while the length-weight relationship and condition factors were analyzed descriptively. Female bonylip barb was obtained as many as 392 individuals with a long-range between 10.0-26.0 cm and a weight range between 14.5-264.1 g. Male bonylip barb counted 255 individuals with a length range of 10.2-22.4 cm and a weight range of 15.0-160.9 g. The overall ratio of females bonylip barb and males bonylip barb was 1.54:1, which shows a significantly higher female population than males. The growth pattern of bonylip barb in RawaPening was allometric negative. The equation of the length-weight relationship of female was  $W = 0.0186 L^{2.9096}$  ( $R^2 = 0.9527$ ), and the male was  $W = 0.0151 L^{2.9689}$  ( $R^2 = 0.9386$ ). The value of the average condition factor of females was 1.05, and the male was 1.02. The condition factor in females was in excellent condition ( $> 1.05$ ), and males were in good condition (0.95-1.05) so that Lake RawaPening was a suitable habitat for bonylip barb growth.

Keywords: allometric, bonylip barb, condition factor, growth, Rawa Pening