

Intisari

Penggunaan otolith untuk penentuan umur ikan belanak (*Chelon subviridis*) di Indonesia belum pernah dilakukan. Oleh karena itu perlu dilakukan pengkajian penggunaan otolith untuk menentukan umur belanak. Tujuan penelitian ini adalah untuk menetapkan umur, musim pemijahan dan laju pertumbuhan belanak (*Chelon subviridis*) di Estuari Opak, berdasarkan pengamatan lingkaran harian pada otolith. Sampel ikan ditangkap menggunakan jaring insang selama bulan April 2014-Maret 2015 setiap dua minggu sekali. Semua hasil tangkapan dibawa ke laboratorium untuk dilakukan identifikasi, pengukuran panjang dan diambil otolithnya. Otolith kemudian direkatkan pada objek gelas menggunakan lem dan diampelas sampai terlihat lingkaran harian. Jumlah lingkaran harian diamati menggunakan mikroskop perbesaran 40-100x. Data yang diambil berupa panjang total dan jumlah lingkaran harian. Umur belanak ditetapkan berdasarkan jumlah lingkaran harian ditambah waktu pertama kali terbentuknya lingkaran harian sejak menetas. Waktu pemijahan ditentukan dengan perhitungan balik dari waktu sampling ditambah umur dan masa pengeraman. Laju pertumbuhan ditentukan menggunakan model von Bertalanffy. Hasil penelitian menunjukkan ikan belanak berumur 81-228 hari dan didominasi oleh belanak berumur 160-179 hari. Belanak memijah pada bulan November-April ketika curah hujan tinggi dan memijah pada semua fase bulan. Model pertumbuhan belanak yaitu $L_t : 469,35 [1 - \exp^{-0,36(t+0,11)}]$ dengan laju pertumbuhan (K) sebesar 0,36 dan panjang maksimum (L_∞) sebesar 469,35 mm.

Kata kunci : *Chelon subviridis*, lingkaran harian, otolith, Estuari Opak

Abstract

The use of otolith to determine the age on mullet (*Chelon subviridis*) had never been done in Indonesia. Therefore, it is necessary to study the use otolith to determine the age on mullet. The purpose of this research was to determine the age, spawning time, and daily growth rate of mullet (*Chelon subviridis*) in Estuary Opak river by investigation of the daily ring of otolith. The Samples were collected beweckly using a gillnet from April 2014 to March 2015. All samples were transfered to laboratory then identification, individual length was measured and otolith was collected. Otolith was mounted on a glass object with glue and sanded until visible daily ring. The daily ring was observed under student microscope with 100-400x magnification and was counted. The data that were recorded are the total length and the number of daily ring. The mullet age was determined base on the number of daily ring plus the first time of forming ring since the mullet was hatching. Spawning time was determined by using back calculation of the sampling time plus age and the period of incubation. The rate of growth was determined base von Bertalanffy model. The result showed that the age of mullet was between 81-228 days old and majority of the mullet was 160-179 days old. The mullet was spawning from November to April when the rainfall is high and spawning on all phases of the moon. The mullet growth model was $L_t: 469,35[1 - \exp^{-0,36(t + 0,11)}]$ with growth rate (K) 0,36 and maximum length (L_∞) 469,35 mm.

Keyword : *Chelon subviridis*, daily ring, otolith, Opak Estuary