PERKEMBANGAN KEMATANGAN GONAD IKAN BENTONG, *Selar crumenophthalmus* (CARANGIDAE) DI LAUT JAWA

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ABSTRAK

Kajian mengenai perkembangan karakteristik kematangan gonad ikan bentong (*S.crumenophthalmus*) didasarkan pada hasil pengamatan mikroskopis dan visual terhadap gonad (ovarium) serta pengukuran nilai indeks gonad telah dilakukan. Hasil pengamatan terhadap 1818 specimen ikan betina menunjukkan adanya empat tingkat kematangan gonad yang berbeda dalam ciri visual, mikroskopis dan nilai indeks gonad. Ukuran induk ikan betina yang matang berkisar antara 17-21 cm *Fork Length* (FL) dan ditandai dengan ukuran telur yang besar (diameter 42-93 mikron) dan transparan, *Gonad Index* (GI) antara 41,7-142,2.

ABSTRACT: Study on Gonadal Development of Big-eye Scad, *Selar crumenophthalmus* (Carangidae) in the Java Sea. *By: Suwarso and Bambang Sadhotomo.*

Study on gonadal development of big-eye scad (*S. crumenophthalmus*) based on microscopic and visual observations to the ovary and the measurement of gonad index had been conducted. Observations on 1818 female specimen showed that four stages of maturity were obtained during the survey. The ovary appearance, ova and gonad index distribution of each stage were different. The size of ripe female specimen was about 17-21 cm Fork Length (FL) and the ovary contains the big size ova (42-93 micron in diameter) and transparan, The Gonad Index (GI) ranges from 41,7 to 142,2.

KEYWORDS: *Gonade/ovarium, S.crumenophthalmus*

PENDAHULUAN

Pengetahuan mengenai daur hidup (*life history*) ikan sangat diperlukan dalam mempelajari dinamika populasi karena erat kaitannya dengan proses peremajaan (*recruitment*). Studi ini mempelajari aspek reproduksi yang antara lain berupa perkembangan kematangan gonad sejak pemijahan sampai pemijahan berikutnya. Tahapan dari perkembangan gonad sebelum dan sesudah pemijahan disebut "Tingkat Kematangan Gonad". Dalam studi reproduksi penentuan kriteria tingkat kematangan gonad sangat penting sebab selain dapat menggambarkan siklus reproduksi juga berkaitan dengan pendugaan umur/ukuran ikan mencapai matang seksual, waktu dan daerah pemijahan.

Beberapa kriteria tingkat kematangan gonad telah diusulkan oleh beberapa peneliti, baik yang bersifat umum, seperti Holden dan Raitt (1974), Wood (1930) *dalam* Shamsul Hoda (1976); maupun ditujukan hanya untuk spesies tertentu, misalnya Pradhan and Palekar (1956) untuk *Rastrelliger kanagurta*,

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ditemukan selama penelitian. Spesimen *ripe ovary* ini diduga merupakan telur-telur matang yang akan segera dipijahkan.

Table 1. Description of each stage of maturity of S. crumenophthalmus

Stage	State	Description	
		Visual	Microscopic
I	*Immature*	*Small ovary and testis until 1/3rd of body cavity, oval shape. Ovary pinkish, tranlucent; testis whitish.*	*Small ova about 1-16 micron in diameter, transparant. Ova not visible to naked eye.*
II	*Mature*	*Ovary and testis about 1/2rd of body cavity, lengthening oval shape. Ovary pinkish, translucent; testis whitish; more or less symetrical.*	*Ova not visible to naked eye, transparant or opaque, diameter was about 1-21 micron. The 1-10 micron ova were dominant, the largest ova group was clear with maximum mode of ova about 13 micron.*
IIIA	*Early mature*	*Ovary and testis about 1/2 to 2/3rd of body cavity, left and right part of the gonad was often not symetric. Ovary yellow colour with granular appearance and superficial blood vessel. Testis whitish.*	*Opaque ova no transparant or tranlucent ova visible. Maximum mode of ova was 29 micron and maximum size of ova was 52 micron.*
IIIB	*Late mature*	*Ovary and testis about 2/3rd of body cavity, left and right part of the gonad was often not symetric. Ovary yellow colour with granular appearance and superficial blood vessel. Testis whitish.*	*Opaque ova, no transparant or tranlucent visible ova. Maximum mode of ova was 33 micron and maximum size of ova was 55 micron.*
IVA	*Ripe*	*Large ovary and testis about 2/3rd to full of body cavity. Ovary orange-pink colour with conspicuous superficial blood vessels. Soft and translucent ovary. Testis whitish-creamy and soft.*	*Large semi transparant or transparant ova (ripe ovas) were clear separated from the opaque ova. Semi transparant ova were more dominant, mode of the largest ova group was 45 micron and maximum size of ova was 70 micron.*
IVB	*Ripe*	*Large ovary and testis about 2/3rd to full of body cavity. Ovary orange-pink colour with conspicuous superficial blood vessels. Soft and and translucent ovary. Testis whitish-creamy and soft.*	*Large transparant or semi transparant ova (ripe ovas) were clear separated from the opaque ova. Transparant ova were more dominant, mode of the largest ova group was 51 micron and maximum size of ova was 93 micron.*

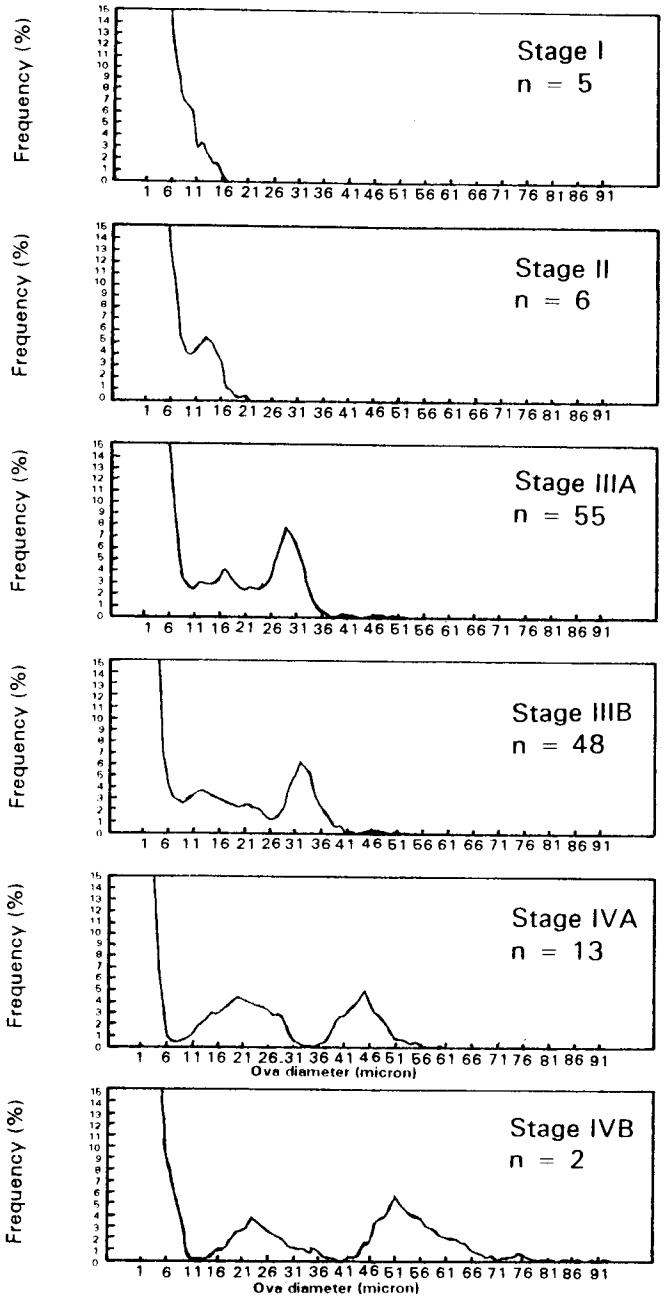

Figure 1. Polygon of ova diameter distribution according to the stage of maturity