

ABSTRAK

Gambaran Histopatologi Organ Ginjal Ikan Kerapu Muara (*Epinephelus coioides*) Akibat Intoksikasi Metomil

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Kerapu muara (*Epinephelus coioides*) merupakan komoditas penting pasar ikan hidup dan ikan beku. Budidaya kerapu muara tersebar luas di Asia Tenggara, namun penangkapan benih/anakan dari alam liar masih dilakukan untuk dibesarkan di pembudidayaan. Praktik illegal penangkapan ikan (*destructive fishing*) masih dilaporkan, di antaranya menggunakan toksin metomil. Penelitian ini bertujuan mendeskripsikan perubahan histopatologi ginjal akibat paparan metomil. Penelitian ini menggunakan 6 sampel ikan kerapu muara dewasa (berat 0,63 -0,8 kg dan panjang 34-39 cm) yang dibagi menjadi 3 ekor untuk kelompok kontrol dan 3 ekor untuk kelompok perlakuan. Kelompok perlakuan akan diberikan paparan metomil 25% dengan dosis 1 mg/liter dan kelompok kontrol akan dipingsankan dengan es batu tanpa pemaparan metomil. Nekropsi dan koleksi sampel organ ginjal akan dilakukan pada kedua kelompok. Sampel organ diidentifikasi secara makroskopis, difiksasi dalam larutan *neutral buffered formalin* 10% lalu diproses dengan pewarnaan Hematoxylin-Eosin (HE) dan didokumentasikan optilab viewer dengan kamera terhubung. Pengamatan organ ginjal berfokus pada 3 komponen, yaitu jaringan hematopoietik, tubulus renalis, dan glomerulus, dan dianalisis secara deskriptif. Perubahan histopatologis signifikan terjadi pada kelompok yang mengalami intoksikasi akut metomil. Perubahan histopatologis meliputi hipertrofi, hiperplasia, perubahan struktural, lesi degeneratif, atrofi, dan nekrosis.

Kata Kunci: *Destructive fishing*, ginjal ikan, ikan kerapu muara, metomil

ABSTRACT

Kidney Organ Histopathological Image of Orange Spotted Grouper (*Epinephelus coioides*) Due to Methomyl Intoxication

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Orange spotted grouper (*Epinephelus coioides*) is an important commodity in the live and frozen fish markets. Orange spotted grouper cultivation is widespread in Southeast Asia, but wild fry are still captured for cultivation. Illegal destructive fishing practices, including the use of methomyl toxin, are still reported in Indonesia. This study aims to describe the histopathological changes in the kidneys caused by methomyl exposure. This study used six samples of adult orange spotted grouper (weighing 0.63-0.8 kg and 34-39 cm long), divided into three control groups and three treatment groups. The treatment group will be exposed to 25% methomyl at a dose of 1 mg/liter, while the control group will be stunned with ice cubes without methomyl exposure. Necropsies and kidney organ sample collection will be performed on both groups. Organ samples will be identified macroscopically, fixed in 10% neutral buffered formalin solution, then processed with Hematoxylin-Eosin (HE) staining, and documented using an optilab viewer with a connected camera. Kidney organ observations focused on three components: hematopoietic tissue, renal tubules, and glomeruli, and were analyzed descriptively. Significant histopathological changes occurred in the group experiencing acute methomyl intoxication. Histopathological changes included hypertrophy, hyperplasia, structural changes, degenerative lesions, atrophy, and necrosis.

Keywords : Destructive fishing, fish kidney, methomyl, Orange spotted group