

ABSTRAK

Penelitian bertujuan untuk mengevaluasi pengaruh endosulfan terhadap aktifitas hipotalamus ikan nilem (*Osteochilus hasselti* C.V), mengetahui pengaruh endosulfan terhadap ekspresi sGnRH pada ikan nilem dan mengetahui konsentrasi dan waktu pemaparan endosulfan yang dapat mengganggu ekspresi gen sGnRH pada ikan nilem. Penelitian dilaksanakan bulan Mei 2017 di Laboratorium Fakultas Perikanan dan Ilmu Kelautan, Laboratorium Molekuler Fakultas Biologi dan Laboratorium Riset, Universitas Jenderal Soedirman. Digunakan metode eksperimental dengan RAL dengan 4 konsentrasi endosulfan (ppb): 0; 0,88; 1,76 dan 2,64. Tiap perlakuan terdiri dari 50 ekor ikan jantan. Selama 30 hari perlakuan, sampel ikan diambil tiap 2 minggu sekali dengan 3 ekor setiap perlakuan. Data dianalisis dengan deskripsi komparatif, One Way Anova dan uji BNT. Hasil penelitian menunjukkan pengaruh paparan endosulfan terhadap nilai ekspresi sGnRH ikan nilem tidak signifikan ($P>0,05$). Pemberian perlakuan senyawa endosulfan pada ikan nilem seharusnya dilakukan dengan waktu yang lebih lama untuk dapat mengetahui pengaruh endosulfan terhadap nilai ekspresi gen sGnRH.

Kata kunci : Ikan nilem, *Osteochilus hasselti* C.V, pengaruh endosulfan, ekspresi sGnRH, One Way Anova, uji BNT

ABSTRACT

This research aims to evaluate the effect of endosulfan on the hard-lipped barb (*Osteochilus hasselti* C.V) hypothalamus activity, determine the effect of endosulfan on sGnRH expression in hard-lipped barb and determine the concentration and exposure duration of endosulfan which can interfere sGnRH gene expression in hard-lipped barb. The study was conducted in May 2017 at the Laboratory of Fisheries and Marine Sciences Faculty, the Molecular Laboratory of Biology Faculty and Research Laboratory, Jenderal Soedirman University. The method was experimental with CRD with 4 endosulfan concentrations (ppb): 0; 0.88; 1.76 and 2.64. Each treatment consisted of 50 male fishes. During 30 days of treatment, fish samples were taken every 2 weeks with 3 fish per treatment. Data were analyzed with a comparative description, One Way Anova and LSD test. The results showed the effect of endosulfan exposure was not significant ($P > 0.05$) towards the value of sGnRH expression of the hard-lipped barb. Endosulfan treatment should be done in a longer time to be able to determine the effect of endosulfan on the value of the sGnRH gene expression.

Keywords: *Hard-lipped Barb, Osteochilus hasselti C.V, endosulfan effect, sGnRH expression, One Way Anova, LSD test*