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Aggressive behaviour of African catfish *Clarias gariepinus* juveniles under different light intensities and light wavelengths (Article)

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Abstract

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The survival and growth rates of African catfish (*Clarias gariepinus*) were reported to be affected by light conditions. One of the methods to understand the effects of light conditions on fish survival and growth rates is through analysing the aggressive behaviour of the fish. The objective of the present study was to analyse the aggressive behaviours of African catfish juveniles under different light intensities and light wavelengths. For this purpose, the behaviour of African catfish juveniles (average body weight = 0.45 ± 0.19 ; average total length = 35.2 ± 5.0) was observed under three light intensities (0.0014, 0.014, and $1.40 \mu\text{moles}/\text{m}^2/\text{s}$) and five light wavelengths (white, blue, green, yellow, and red). The results showed that the aggressive behaviour of the fish was significantly affected by light intensities and light wavelengths. Among the three light intensities, the juveniles showed less aggressive behaviour under $0.0014 \mu\text{moles}/\text{m}^2/\text{s}$. Furthermore, the juveniles also showed less aggressive behaviour under the yellow light. Therefore, the rearing of African catfish juveniles under of $0.0014 \mu\text{moles}/\text{m}^2/\text{s}$ and yellow light wavelength is recommended. © 2018, Malaysian Society of Applied Biology. All rights reserved.

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African catfish Aggressive behaviour *Clarias gariepinus* Light intensities Light wavelengths

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