



Reproductive parameters of a catfish (*Arius latiscutatus* Günther, 1864) inside and outside the Bamboung Marine Protected Area (Saloum Delta), Senegal

Khady Diop Diouf^{1,*}, Khady Diouf GOUDIABY², Méry Dialwé NDIONE³, Hamet Diaw DIADHIOU⁴, Papa NDIAYE², and Didier JOUFFRE¹

¹Institut de Recherche pour le Développement, UMR MARBEC, BP 1386, 18524 Dakar, Sénégal

²Institut fondamental d'Afrique Noir Cheikh Anta Diop, Laboratoire de biologie et d'écologie des poissons en Afrique de l'Ouest, BP 206, Dakar, Sénégal

³Faculté des sciences et techniques, Université Cheikh Anta Diop, BP 206, Dakar, Sénégal

⁴Institut Sénégalais de Recherche Agricole, Centre de Recherches Océanographiques de Dakar-Thiaroye, Pôle de Recherche de Hann, BP 2241, Dakar, Sénégal

*Correspondance: Tél: (221) 77 659 36 35; Courriel: khady.diop@ird.fr (K.D. DIOP)

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Abstract

The reproduction of *Arius latiscutatus* (Günther, 1864) was studied both inside and outside of the Bamboung marine protected area (MPA) (Saloum Delta) in Senegal, from individuals collected monthly from April 2015 to March 2016. The reproductive parameters were quantified from the macroscopic examination of the gonads and from the counting and measurement of the oocytes. The monthly variation of the condition factor was similar at both sites. The strongest condition coefficients were observed during the two major seasons (cold and warm) and the lowest during the transition period (warm - cold). *A. latiscutatus* had only one breeding season from March to July. Size at first sexual maturity varied by gender and site: 400 mm for females and 448 mm for males inside the MPA, and 419 mm for females and 375 mm for males outside. Absolute fecundity was 29 ± 14 oocytes and relative fecundity 0.024 ± 0.007 oocytes per gram within the MPA. Outside, absolute fecundity was 22 ± 10 oocytes and relative fecundity 0.027 ± 0.005 oocytes per gram. The MPA appeared to be the privileged spawning area of the species, an area where reproductive activity would be more intense and fertility higher. Additional analyzes based on a larger sample and integrating other parameters such as age estimation, growth and diet, will allow to complement these initial results and to specify the impact of the reserve on the biological parameters of the species but also to have a global knowledge of its life traits.

Keywords: *Arius latiscutatus*, reproduction, marine protected area, Bamboung.



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Extended book of Abstract

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