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## Czech Journal of Animal Science

The application of [D-Tle6,ProNHEt9]mGnRH (Lecirelin) with the dopaminergic inhibitor metoclopramide to stimulate ovulation in African catfish (*Clarias gariepinus*)

Brzuska E., Kouřil J., Adamek J., Stupka Z., Bekh V.

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The results of reproduction were tested in females of the African catfish (*Clarias gariepinus* Burchell 1822) after stimulation of ovulation with carp pituitary (4 mg/kg body weight) or with Lecirelin

(15 µg/kg) and metoclopramide (10 mg/kg). After administering the synthetic substance eggs were obtained from all females while in the group treated with pituitary homogenate 7 out of 8 hypophysectomized females spawned. The applied spawning agent did not significantly influence the weight of eggs expressed in grams, but in the case of females treated with carp pituitary homogenate a significantly higher weight of eggs expressed as the percentage of body weight of fish was recorded. The applied stimulators of ovulation did not affect any trait reflecting the quality of eggs. Females used as an experimental material belonged to two categories in respect of body weight: lighter females with average body weight of  $2.63 \pm 0.36$  kg and heavier females with average body weight of  $3.91 \pm 0.48$  kg. It was proved that the weight of eggs expressed either in grams or as a percentage of a female's weight was significantly related to the body weight of a female ( $P \leq 0.01$  and  $P \leq 0.05$ , respectively), as well as the percentage of fertilised eggs and the percentage of living embryos after 28 hours of incubation ( $P \leq 0.05$  and  $P \leq$

0.05, respectively). The interaction between the stimulator of ovulation and the female body weight was significant only for traits reflecting the weight of obtained eggs ( $P \leq 0.05$  and  $P \leq 0.01$ ).

## Keywords:

*Clarias gariepinus*; carp pituitary homogenate; Lecirelin; induced ovulation; artificial propagation

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