# EFFECTIVE STIMULATION OF OVULATION IN SELECTED RHEOPHILIC CYPRINIDS SPECIES

Jan Mazurkiewicz[1,2], Marcin Wiśniewski[3], Mateusz Rawski[1], Paula Skrzypczak[1], Krzysztof Florczyk[1,2], Jan Banaszak[2]

[1] Poznań University of Life Sciences, Laboratory of Inland Fisheries and Aquaculture

[2] Poznań University of Life Sciences, Experimental Station of Feed Production Technology and Aquaculture in Muchocin

[3] Polish Angling Association in Poznań

Rheophilic cyprinids populations decrease in European rivers during the last 50 years due to human activity and its effect on the environment.

As an important element of trophic systems, they may be considered as an „umbrella species" for the entire ecosystems of lowland rivers.Thus methods of their reproduction and rearing of juvenile stages must be developed and improved for the effective production of restocking material.

Adult females of common barbel (*Barbus barbus*), vimba bream (*Vimba vimba*), ide (*Leuciscus idus*) and European chub (*Squalius cephalus*) were obtained from a long-term captive population maintained in the Experimental Station of Feed Production Technology and Aquaculture in Muchocin.In the experiments, the possibility of stimulation for egg production was assessed.

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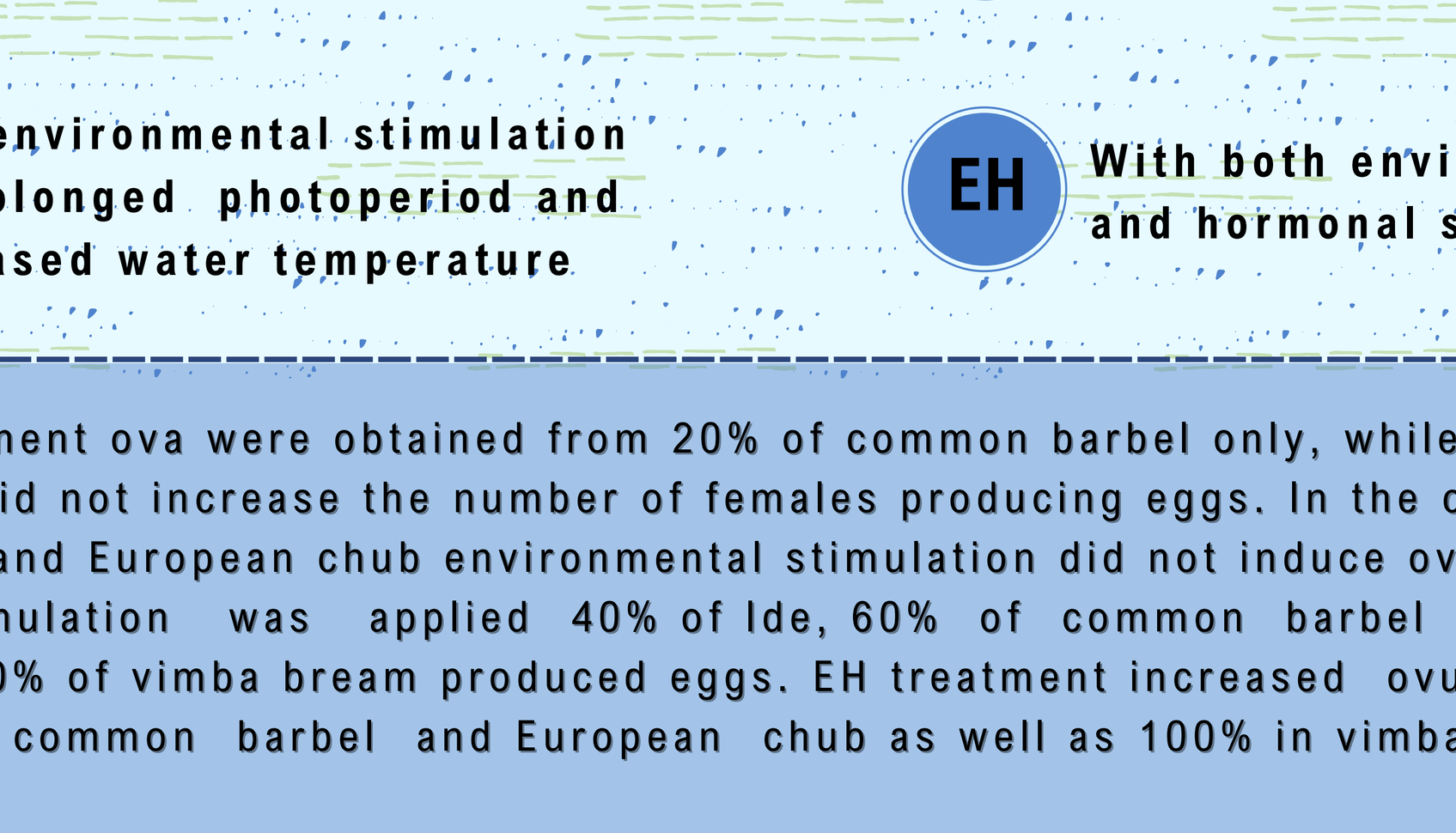
**KON** Control with no stimulation

**H** With hormonal stimulation (ovopel)

**E** With environmental stimulation by prolonged photoperiod and increased water temperature

**EH** With both environmental and hormonal stimulation

In CON treatment ova were obtained from 20% of common barbel only, while environmental induction did not increase the number of females producing eggs. In the case of vimba bream, Ide and European chub environmental stimulation did not induce ovulation. When hormonal stimulation was applied 40% of Ide, 60% of common barbel and European chub and 100% of vimba bream produced eggs. EH treatment increased ovulation success up to 80% in common barbel and European chub as well as 100% in vimba bream and Ide.




**Despite the highest increase in ovulation due to hormonal stimulation use, the applicationof environmental stimulation of females in rheophilic cyprinids seems to be an important element of effective and sustainable breeding in this group.**

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