

## **The Eastern Mosquitofish, (*Gambusia holbrooki*) – a prime example of allopatric speciation**

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In the twenties of the 20th century the eastern mosquitofish *Gambusia holbrooki* was exposed in many European countries to malaria control. In aid of chemical pest control the project was forgotten shortly after. In many waters *Gambusia holbrooki* survived to date under different ecological conditions. This makes an excellent opportunity to study allopatric selection respiratory speciation in fishes. This was reason enough to carry out a series of researches on this species over several decades.

Hanno Fürnwein compared fishes from 5 different biotopes (Turkey Yugoslavia, Hungary) using morphometric methods. He clearly showed significant differences.

Individuals of two different habitats (a cold pond in Krk – Croatia and a thermal lake in Heviz – Hungary) were bred under identical conditions and tested for their respiratory rates and their reaction to cold temperatures. It was found that the fishes from the thermal lake lost their tolerance to low temperatures and developed a distinctive stenothermia.

Günther Hulla raised the offspring of fish from 2 different biotopes (thermal lake, cold lake) under identical conditions. It was found that the population from the thermal waters is characterized by faster growth and a significantly faster generation sequence.