

# Nachweis einer Seefrosch-Teichfrosch-Männchen-Population (*Pelophylax ridibundus*, *Pelophylax esculentus*) in der Ruhraue in Bochum (NRW)

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## Evidence of a *Pelophylax ridibundus*-*Pelophylax esculentus* male population in the Ruhraue in Bochum

Because of its structural diversity, the nature reserve „Stiepelers Ruhraue“ represents a valuable habitat and an important reproduction site for amphibians, among other animals, which are represented here by nine species and the hybrid form *Pelophylax esculentus*. During a four-week survey, which was carried out by means of a 650 m long trapping fence, more than 20,000 individuals were recorded, including 1,956 water frogs, of which the adults (n = 1,030) could be determined as edible frogs (*Pelophylax esculentus*), except for a few specimens with unusual phenotypes. Adult marsh frogs (*Pelophylax ridibundus*), which colonise the groyne areas along the river banks and the filter basins of a former waterworks near the riverbed in large numbers, were not found at the trapping fence. This is because marsh frogs do not hibernate on land, but in oxygen-rich, aquatic habitats, typically in, or in the immediate vicinity of, their spawning grounds. The almost complete absence of *P. esculentus* females can, on the other hand, be attributed to a specific reproductive mode of hybrid males, which clonally inherit a genome of the pool frog (*Pelophylax lessonae*) with male-determining factors, reproduce as sexual parasites by backcrossing with *P. ridibundus* females and in this way establish so-called *ridibundus-esculentus* male populations. The existence of such a population type in the Ruhr floodplain raises the question of its origin, especially since occurrences of autochthonous *P. ridibundus* have so far only been known from the coastal provinces of the Netherlands and the Rhine delta, but not from more southern sections of the rivers Rhine and Ruhr. Whether, or to what extent, the structure and reproductive modes of this population correspond to those of the *ridibundus-esculentus* male populations known so far only from Eastern Germany must be left to further investigations.

**Key words:** Amphibia, Anura, *Pelophylax ridibundus*, *Pelophylax esculentus*, R-E system, Ruhr floodplain.

## Zusammenfassung

Das Naturschutzgebiet Stiepelers Ruhraue stellt aufgrund seiner strukturellen Vielfalt einen wertvollen Lebensraum und eine bedeutende Reproduktionsstätte u.a. für Amphibien dar, die hier mit neun Arten und der Hybridform *Pelophylax esculentus* vertreten sind. Während einer vierwöchigen Bestandserfassung, die mittels eines 650 m langen Fangzaunes erfolgte, wurden mehr als 20000 Individuen registriert, darunter 1956 Wasserfrösche, von denen die adulten Individuen (n = 1030) bis auf wenige Tiere mit unklarem Phänotyp als Teichfrösche (*Pelophylax esculentus*) bestimmt werden konnten. Adulte Seefrösche (*Pelophylax ridibundus*), die in großer Zahl die Bühnenbe-