

SPECIES IDENTIFICATION OF THE REINTRODUCED *HYLA* TREEFROG: PRELIMINARY RESULTS

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The European tree frog *Hyla arborea* (Linnaeus, 1758) is a species complex which includes ten species, many of which are morphologically indistinguishable, distributed across Europe. Historical accounts have recorded the presence of European tree frog in Latvia during 18th and 19th century. In the 20th century, however the increase of agricultural pollution and disappearance of beavers drove tree frogs to extinction. In the late 1980s Riga Zoo's Laboratory of Ecology carried out the reintroduction of the species, collecting individuals from the Belarusian population for the captive breeding and release program of the European tree frog. The reintroduction process in Kurzeme was successful, establishing expanding populations. In recent years, phylogeographic studies of the populations of *Hyla* species throughout Europe (excluding Latvia) mapped distribution of the different species, showing that the Belarusian population was of the Eastern tree frog *Hyla orientalis* (Bedriaga, 1890). This calls for a re-examination of the reintroduced tree frog in Latvia. Additionally, *H. arborea* is protected by the EU Habitats Directive and included in IUCN Red List whereas *H. orientalis* is not.

Buccal and skin swab samples were collected from 35 tree frogs caught from eleven ponds across the distribution of *Hyla sp.* tree frog in Kurzeme. The genomic DNA was extracted and amplified using standard methods and *Hyla* genus specific primers *Chmf4* and *Chmr4* by following sequencing. Eleven sequences were compared with nucleotide sequences deposited in GenBank using BLASTn. Results showed all samples belonging to *Hyla orientalis* with on average $98,5 \pm 0,3\%$ certainty.

The taxonomy of *H. arborea* and its species complex has called in question many frog populations across Eurasia. Our results are among them proving, for the first time, that the *Hyla* species resident in Latvia is the Eastern tree frog. Since *H. arborea* is protected by Latvian legislation and EU directives, but *H. orientalis* is not, a course of action needs to be discussed.