

## Abstract

The genus *Pelasgus* (Cyprinidae) is endemic to the southern part of the Balkan Peninsula and includes seven species. In this work, a multilocus approach has been applied to study phylogenetic relationships between the species and their populations and to revise their distribution areas. 180 specimens from 47 localities from 30 river drainages were analyzed, comprehensively covering the distribution range of the genus. Moreover, samples from type localities of all species were included in the analyses. Mitochondrial (cytochrome b) and nuclear markers (the first intron of ribosomal protein S7, recombination activating gene RAG1 and rhodopsin) were used. Existence of seven well supported lineages was revealed based on cytochrome b, which is the most variable marker. These lineages correspond to *P. laconicus*, *P. marathonicus*, *P. minutus*, *P. stymphalicus*, *P. thesproticus*, *P. prespensis* and *Pelasgus* sp. The most variable nuclear marker was first intron of S7, which provides almost the same results as cytochrome b, revealing six well supported lineages, whereas RAG1 and rhodopsin appear to be less informative, revealing only four well supported clades. These markers did not separate several species (*P. marathonicus*, *P. stymphalicus*, *P. thesproticus*, and *Pelasgus* sp.) due to low variability of the markers and common haplotype sharing between these species. *Pelasgus* sp. requires further research; it could be *P. epiroticus*. However, this issue could be resolved only by analyses of the specimens from Ioannina Lake, the population, which is possibly extinct. Molecular identification has allowed reshaping the knowledge of the distribution areas for the species of the genus. The introduction of *Pelasgus* sp. is suggested in two localities on the Peloponnesus Peninsula (Kandila springs and Stymphalia Lake) and possibly in one locality in the mainland (Zaravina Lake in W Greece). Sympatric occurrence of *P. stymphalicus* and *Pelasgus* sp. within the above mentioned Peloponnesus localities and hybridization between them was revealed.

**Key words:** *Pelasgus*, mitochondrial and nuclear markers, haplotype network, phylogeography, southern Balkans, freshwater fish.