

Phylogeography of the land snail *Albinaria hippolyti* (Pulmonata : Clausiliidae) from Crete, inferred from ITS-1 sequences

Abstract

The polytypic Cretan land snail *Albinaria hippolyti* has a range that is partly fragmented and partly subdivided by hybrid zones. For this reason, it has served as a model species for investigating speciation and radiation in Mediterranean Clausiliidae. The first internal transcribed spacer (ITS-1) of the nuclear ribosomal DNA was sequenced in 20 populations of *A. hippolyti* and phylogenetically analysed using maximum parsimony. We employed a novel method involving logarithmic weighting of gaps and topological constraints based on bootstrap values. The resulting phylogeography suggests that the species has undergone a recent cycle of range expansion and range reduction. Speciation cannot be linked to major geological vicariance events in the Miocene and Pliocene, as has been suggested previously. The subspecies *A. h. arthuriana* appears unrelated to other *A. hippolyti* subspecies, which supports recent suggestions, based on morphology, to regard it as a separate species. (C) 2004 The Linnean Society of London.