

**MOLECULAR PHYLOGENY OF *HELIX CINCTA* (MÜLLER, 1774) AND
HELIX NUCULA (MOUSSON, 1854) IN THE EASTERN
MEDITERRANEAN**

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This study aims to reveal the phylogenetic relationship between two species of the genus *Helix* in the Eastern Mediterranean, using fragments of two mtDNA genes. *Helix cincta* is a relatively big land snail that is generally distributed in the northeastern Mediterranean. In Greece, it is found in the southern and central mainland and islands, but it is absent from the Cyclades islands. This herbivorous species lives in various habitats, e.g. calcareous forests, shrub lands, etc. *Helix nucula* is a medium size land snail that occurs in Anafi, southern Crete and northern Africa. This species is also herbivorous and inhabits sandy coasts, phrygana, semi desert and desert areas. In certain Greek populations there is an overlap of morphological characters (shell and genitalia); as a result these populations cannot be classified with certainty. By examining intraspecific variability at two fragments of the mitochondrial genes, COI and 16S r RNA, it was found that these two species form a monophyletic group that differentiated as *Helix cincta* in northeastern Mediterranean, and as *Helix nucula* in southern Mediterranean and the Aegean. The validity of current “morphological” taxonomy will be re-evaluated under the present molecular findings.