

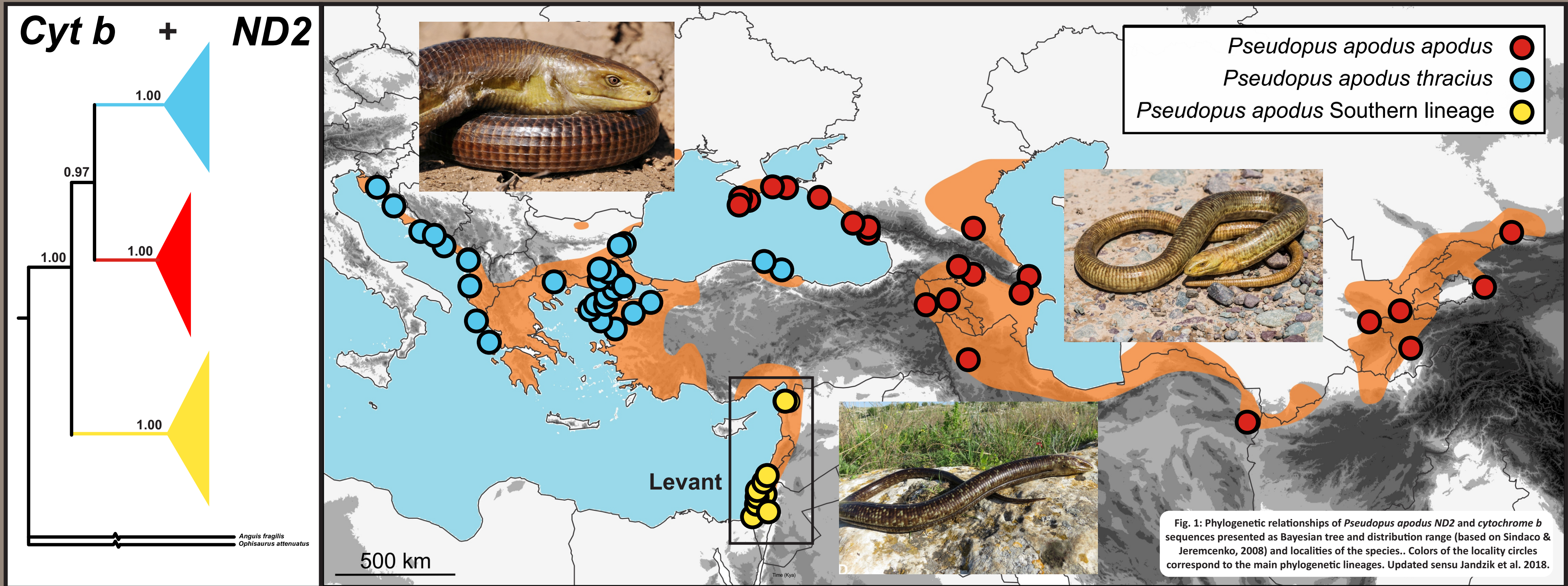
MITOCHONDRIAL DIVERSITY IN THE SOUTHERN POPULATIONS OF *PSEUDOPUS APODUS*

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INTRODUCTION

The Eastern Mediterranean is a region with extraordinary diversity of reptile fauna. Many Western Palearctic species are endemic to this region or have southern limits of their distribution here. This is also a case of the legless anguid lizards of the genus *Pseudopus* Merrem, 1820. Despite the species diversity of the genus since the Early Miocene, only one species, *Pseudopus apodus* (Pallas, 1775), has survived until the present time in a longitudinally oriented range that spreads from the coastal Balkans in the west through Anatolia, western Levant, the Caucasus Isthmus, the Black Sea, and the southern Caspian region to central Asia in the east. Only recently, mitochondrial as well as nuclear phylogeography of the species revealed three main phylogenetic lineages that diverged during or shortly before the Pleistocene (Jandzik et al. 2018). Two of them more or less correspond to the known subspecies, and their low genetic variability suggests relatively recent dispersal and colonization of vast parts of the range. The third, southern and endemic, lineage is more geographically restricted and diversified than the other two (Figure 1).

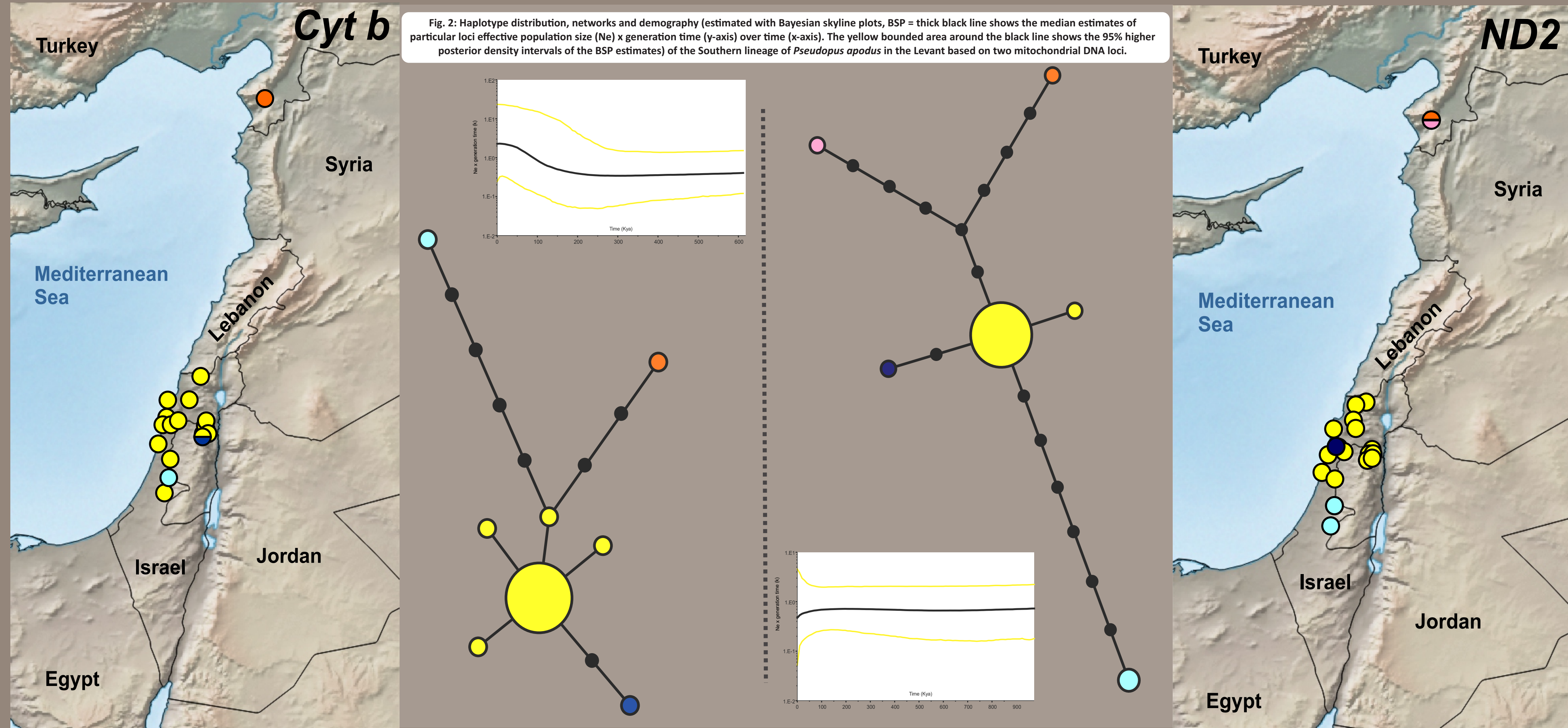


MATERIAL & METHODS

All phylogenetic analysis followed work Jandzik et al. 2018. For this study we used 22 tissue samples of *Pseudopus apodus* from the collection of the Steinhardt Museum of Natural History, Tel-Aviv, Israel. We investigated two mitochondrial loci, *ND2* and *cytochrome b*.

RESULTS & DISCUSSION

We investigated mtDNA diversity of the populations originating from Israel and southern Turkey. We found eight haplotypes in *cyt b* loci and six haplotypes in *ND2* (Fig. 2). Our results revealed the highest haplotype and nucleotide diversity from the entire distribution range of the species. Interestingly, some of the haplotypes from central Israel are more distant from each other than populations from southern Turkey and northern Israel despite they occur in significantly smaller area. Preliminary demography analyses inferred population growth and stability in *cyt b* and *ND2*, respectively (Fig. 2). These results highlight the importance of Eastern Mediterranean for preserving high diversity of reptiles. The Southern lineage presumably comes into parapatry with *P. a. thracicus* in Turkey (see Fig. 1) what, together with these molecular and further morphological data, would add a geographic argument for legitimate description of new subspecies in *P. apodus*.



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