Biodiversity, distribution and habitat preferences of the Tunisian scolopendromorph centipedes (Chilopoda, Scolopendromorpha)

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The scolopendromorph centipedes of Tunisia have never been studied thoroughly, although several authors (e.g. Silvestri 1896, Attems 1908, Brolemann 1932) also recorded from the country, among other myriapods, Scolopendra morsitans, S. canidens, Cormocephalus gervaisianus, Cryptops anomalans, C. trisulcatus, and C. (Trigonocryptops) punicus. Two other species, Scolopendra cingulata and S. oraniensis were added recently to the Tunisia’s centipede list without mentioning their exact localities (cf. Zapparoli 2002, Minelli et al. 2006). Taken as a whole, the Tunisian scolopendromorph fauna is currently known to comprise 4 (sub-)genera and 8 species. The biology and ecology of Tunisian scolopendromorph centipedes have so far remained outside the scope of any scientific investigation. The fauna of southern arid (including large mountain massifs as Jebel Chambi), semi-desert and desert regions remains virtually unknown in regard to the scolopendromorphs, all previous collecting activities have been concentrated in the northern and central-eastern parts of the country. Yet, the occurrence of S. cingulata, S. oraniensis, and C. anomalans in Tunisia needs confirmation.

In the last 5 years abundant material of Scolopendromorpha collected in all the main bioclimatic zones of the country – Humid (Khroumirie and Mogod regions), Subhumid (Cap Bon), Semiarid (Central Tunisia), Arid (meridian Tunisia, south of 36th parallel) – was accumulated and investigated. Various types of habitats were prospected for scolopendromorphs: oak forests (dominated by Quercus saber, Q. faginea, Q. ilex), pine forest (Pinus halepensis), open habitats dominated by Steppa tennacissima, arid rocky plane with scattered palm trees, pure sandy and rocky deserts, coastal and mountainous oases dominated by palm trees (Phoenix dactylifera), etc. Through morphological investigation of a large series of individuals the taxonomic status of some poorly known species, as well as the presence in the country of some dubious taxa, was clarified. The distribution of each of the recorded species was visualised on a map. The study revealed that some species are euryecious. They occur in all bioclimatic zones and were recorded in a wide range of habitats: xerophytic oak formations, grasslands with sparse trees, olive orchards, suburban areas, semihumid oases, even in most harsh environments like the pure sandy desert near Douz. The scolopendromorph centipedes are forming the southernmost border of distribution of Myriapoda in Tunisia (Scolopendra sp., in Ksar Ouled Sultane and in Douiret).