

one, and such taxonomic entity is absorbed within Pedinini [Helopinina (=Aptilina syn. nov. ; =Micrantereina syn. nov. ; =Oncosomina syn. nov. )]. Pythiopina is considered as a synonym of Dendarina [Dendarina (=Pythiopina syn. nov. )]. The genus *Phylacinus* is transferred from Melambiina to Dendarina.

**Phylogeography of *Odocnemis aegaeica* Nabozhenko et Keskin, 2016 species group**

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*Odocnemis aegaeica* Nabozhenko et Keskin, 2016, *Odocnemis seducta* Nabozhenko et Keskin, 2016 and *Odocnemis euritopica* Nabozhenko et Keskin, 2016 are closely related species, distributed in Western Anatolia. They are found in subalpine zones of high mountain areas. In this study; phylogram generated with RaxML analysis obtained from mtDNA *cox1* and nDNA *Mp20* gene regions is built on Western Anatolia map using GenGIS program. It is possible to evaluate phylogenetic analyses with a zoogeographical point of view. Even though *O. euritopica* has a wide distribution, individuals collected from different locations are seen in the same lineage.

**Biotic and abiotic factors that influence the biodiversity patterns of Tenebrionidae in the Puna and High Andes of the province of Salta, Argentina**

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Studies of biodiversity in the desert and semi-desert environments are very interesting because the associated fauna to these environments exhibits significant morphological, physiological and behavioural adaptations to allow their development in these extreme habitats. In the province of Salta, two high altitude ecoregions are well represented, Puna and High Andes, considered as priority conservation areas included in the Global 200 as vulnerable. We studied tenebrionids of Puna and High Andean ecoregions in Salta province to compare the alpha and beta diversity between them and the regional gamma diversity with the purpose to identify the possible environmental factors that may influence their diversity

patterns. Two samplings (2014-2015) were carried out in 30 sites (12 in High Andes and 18 in Puna), using pitfall traps and G-Vac (suction samples) over the vegetation and we measured several environmental variables related with soil, climate and local vegetation. Two hundred and seventy individuals were collected (21 species, 11 genera, 8 tribes and 2 subfamilies). The results showed that there are no significant differences in the tenebrionid species richness between these two ecoregions, but both differ in their composition and the number of endemic species. The greatest contribution to the gamma diversity of tenebrionids is given by the diversity between sites and the ecoregional beta diversity, indicating that the heterogeneity at multiple scales is crucial for the maintenance of the regional biodiversity. The diversity patterns of tenebrionids in these two ecoregions are mainly influenced by the geographic distance, which in turn exerts an effect combined with environmental variables.

### **New species of *Schizaraeus* Kulzer from Peru (Pimeliinae: Stenosini)**

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The tribe Stenosini is composed of small species with pantropical distribution, often associated with ants, rodent nests and soil. In South America it is represented by the genera *Grammicus* Waterhouse, *Ecnomoderes* Gebien, *Renefouqueosis* Aalbu et al., *Schizaraeus* Kulzer (subtribe Stenosina) and *Discopleurus* Solier and *Hexagonochilus* Solier (subtribe Dichillina). Prior to this study, *Schizaraeus* is monotypic with one species, *S. acuticosta* from Catamarca, Argentina. In this contribution we describe a new species of *Schizaraeus* from southern Andes of Peru. SEM photographs for the new species are included, with comparisons to the other known species of these genera. A map including new records of the known species and the new one is presented.

### **Female genital tubes in the tribe Helopini: structure and taxonomic significance**

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Female genital tubes in darkling beetles of the tribe Helopini very diverse and can belong to different morphological types according to the scheme of phylogeny by Tschinkel & Doyen (1980): tenebrionine, eleodine, lagriine (multiple bursa-derived spermatheca), and also several not presented types. In total, female genital tubes demonstrate two main lineages of Helopini: ‘cylindrinotine’ (spermatheca with single tube) and ‘helopine’ (spermatheca with two or more branched tubes) according to two subtribes Cylindrinotina and Helopina, but with but with