

## PHYLOGENETIC RELATIONSHIPS IN GONYLEPTINAE SUNDEVALL, 1833 (OPILIONES: GONYLEPTIDAE)

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The subfamily Gonyleptinae is composed by 38 genera and 144 species, which occur mainly in the Atlantic Rain Forest domain. No synapomorphy is known to support the group. The phylogenetic relationships of eighteen genera of Gonyleptinae, represented by their type-species, are studied. More species and more characters will be included in future analyses. Seven species were used as outgroups. *Caelopygus elegans* (Perty, 1833), *Hernandaria heliae* (H. Soares, 1945), *Progonyleptoidellus striatus* (Roewer, 1913) and *Sodreana sodreana* Mello-Leitão, 1922 represent the four subfamilies closest to Gonyleptinae. The parsimony analysis was based in 36 morphological characters. Analysis was performed in NONA and all characters were equally weighted. Six trees of 131 steps (CI = 4, RI = 55) have been found. This analysis showed Gonyleptinae as a polyphyletic group. *Hoggellula vallentini* (Hogg, 1913), from Falklands Islands, and *Oxapampeus weyrauchi* Roewer, 1916, from Peru, do not belong to the groundplan of the Gonyleptinae-like branch. *Neosadocus* Mello-Leitão, 1926 is phylogenetically closest to Sodreaninae species, while *Parampheres* Roewer, 1913 and *Sphaerobunus* Roewer, 1917 are closest to Progonyleptoidellinae species. *Megapachylus* Roewer, 1913, *Metagonyleptes* Roewer, 1913 and *Mischonyx* Bertkau, 1880 form a monophyletic group along with Hernandariinae. The species of *Gonyleptes* Kirby, 1818 represent the typical Gonyleptinae groundplan, besides being one of the most common groups of the Atlantic Rain Forest. The branch *Gonyleptellus* + *Gonyleptes* + *Collonychium* is well supported. The position of *Geracormobius* Holmberg, 1887 as its sister group is unclear, but it is probably an artifact of a preliminary analysis. The Gonyleptinoids clade (Caelopyginae, Gonyleptinae, Hernandariinae, Progonyleptoidellinae and Sodreaninae) is confirmed.

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Poster, Thursday 9<sup>th</sup>

## THE FAUNA OF SCORPIONS IN THE TAIBAD, BORDERLINE OF IRAN AND AFGHANISTAN

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Scorpions are the most important arthropods which cause Entomophobia, fear of their sting and stress among military individuals. As scorpion bites are considered an emergency, it is important that we determine the fauna inhabiting strategic border lines, because military camping and maneuvers are held in the area and also war happens on the field. To determine the scorpion fauna in Taibad, northeastern border line of Iran, a field study was carried out in Khorasan province, close to Taibad border line, from March 2002 to May 2003, when a sectional sampling was done by smoking and hole water pouring methods. A total of 56 scorpions were captured, conserved and taken to the lab for identification. The family and genus composition were as follows: Buthidae: *Buthus*, *Mesobuthus*, *Orthochirus*, *Ferobuthus*; Scorpionidae: *Odontobuthus*, *Olivierus*. This study shows that in the Taibad, there are no dangerous scorpions and all species in this region are of low risk and have polyvalent serum for emergencies.

Oral, Thursday 9<sup>th</sup>