Phylogeny and ecology of the Oecleini of Seychelles Islands (Hemiptera: Fulgoromorpha: Cixiidae)

Werner E. Holzinger[1], Birgit Löcker[2] and Holger Löcker[2]

[1] Ökoteam - Institute for Animal Ecology and Landscape Planning, Bergmanngasse 22, 8010, Graz, Austria; holzinger@oekoteam.at
[2] NSW Department of Primary Industries – Orange Agricultural Institute - ASCU, Forest Road, Orange, NSW 2800, Australia

In the Seychelles, the cixiid tribe Oecleini is represented by two genera: *Volcanalia* Distant, 1917 and *Fipsianus* Holzinger, 2009. The genus *Volcanalia* comprises five species: *V. typica* Distant, 1917, *V. atrostriata* Distant, 1917, *V. barbarae* Holzinger, Löcker & Löcker, 2009, *V. cardui* Distant, 1917 and *V. uniformis* Distant, 1917. In the genus *Fipsianus*, two species are known: *F. picturatus* (Distant, 1917) and *F. andreae* Holzinger, 2009. *Volcanalia* and *Fipsianus* species all feed only on endemic palms (*Phoenicophorium, Roscheria, Verschaffeltia, Nephrospermum*), with exception of *V. cardui* feeding on *Pandanus seychellarum*.

A phylogenetic analysis including all Oecleini taxa occurring in the Seychelles as well as the two malagasy Oecleini species, *Borbonomyndus pandanicola* Attié, Bourgoin & Bonfils, 2002 and *Nesomyndus australis* Jacobi, 1917, is presented. The cladistic analysis shows, that Oecleini of Seychelles are a holophyletic taxon of Gondwana origin (palaeo-endemics), closely related to *Borbonomyndus* from Réunion and *Nesomyndus* from Madagascar. The cladogram of Seychelles Oecleini matches the cladogram of the host plants very well. It seems probable that the separation of the ancestor of the Oecleini of Seychelles was initiated by host-plant shift from *Pandanus* to the ancestor palm of the *Phoenicophorium*-clade. The subsequent radiation of Oecleini happened presumably by a combination of sympatric speciation by host plant shift (and co-evolution with host plants) and allopatric speciation by separation of islands.

Leafhoppers and planthoppers (Hemiptera: Cicadomorpha and Fulgoromorpha) occurring in acidophilous picea forests in montane to alpine level (*Plagothecio-Piceetum hercynicum*) in Sudety Mountains

Tomasz Klejdysz[1] and Andrzej Mazur[2]

[1] Institute of Plant Protection-State Research Institute,Wł Węgorka 20, 60-318 Poznań, Poland
[2] Poznan University of Life Sciences, Faculty of Forestry, Wojska Polskiego 28, 60-637 Poznań, Poland

Inventory of the entomofauna was carried out in the years 2005 and 2006. Studies were done at 30 experimental places situated in acidophilous picea forests in montane to alpine level in Polish part of Sudety Mountains. With the use of Barber traps, 23 species of leafhoppers and planthoppers were captured, one of them, *Anoscopus alpinus* Wagner, 1955 is new to the Polish fauna. Altogether 351 specimens were examined.

Species groups characteristic to the investigated mountain ranges and to various environments, i.e. forest plantations, young, mature, and disintegrating forests, as well as other aspects of the phytocenoses, including typical, *Sphagnum* and fern subtypes were identified.