

Fulgoromorpha of Seychelles: a preliminary checklist

Werner E. HOLZINGER¹, Holger LÖCKER^{2,3}, Birgit LÖCKER^{2,4}

¹Oekoteam - Institute for Faunistics and Zooecology, Graz, Austria

²Orange Agricultural Institute, NSW Department of Primary Industries, NSW, Australia

³Charles Sturt University, Orange, NSW, Australia

⁴The University of Sydney, Orange, NSW, Australia

Abstract

A preliminary checklist of the Fulgoromorpha of Seychelles (excluded Delphacidae) is presented. 59 species from 8 families are known: Cixiidae (21), Ricaniidae (11), Derbidae (10), Meenoplidae (6), Flatidae (4), Issidae (3), Achilidae (3), and Tropicuchidae (1).

Key words: Auchenorrhyncha, Fulgoromorpha, Fulgoroidea, Seychelles, Checklist.

Introduction

The first data on the Auchenorrhyncha fauna of Seychelles were gained during the Percy Sladen trust expeditions about 100 years ago and published by Distant (1908, 1917). Since then, only very few additional studies were made (Webb, 1975; 1980; Boulard, 1995). Our recent project deals with the Fulgoromorpha, in especially the Cixiidae, of these mid-oceanic islands and addresses their taxonomy, phylogeny, ecology and biogeography in order to show the effects of long term isolation of the archipelago in combination with changing patterns of terrestrial habitats on the speciation process of these insects. Here we present a checklist of Fulgoromorpha species known to occur in Seychelles. Delphacidae are not included, as the African species of this family are currently revised by M. Asche (Berlin).

Checklist

Family Achilidae

- Akotropis* sp.
- Clusivius spectabilis* Distant 1917
- Parakosalya insularis* Distant 1917

Family Cixiidae

- Tribe Eucarpini
 - Adolendana typica* Distant 1917
 - Caneirona maculipennis* Distant 1917
- Tribe Oecleini
 - Volcanalia atrostriata* Distant 1917
 - Volcanalia atrovarya* Distant 1917
 - Volcanalia capitata* Distant 1917
 - Volcanalia cardui* Distant 1917
 - Volcanalia designata* Distant 1917
 - Volcanalia fumosa* Distant 1917
 - Volcanalia modesta* Distant 1917
 - Volcanalia picturata* Distant 1917
 - Volcanalia sulphurata* Singh-Pruthi 1925
 - Volcanalia typica* Distant 1917
 - Volcanalia uniformis* Distant 1917
 - Volcanalia varicolor* Distant 1917

Tribe Cixiini

- Achaemenes major* Jacobi 1917
- Aselgoides insularis* Distant 1917

Tribe Pentastirini

- Oliarus nosibeanus* Jacobi 1917
- Oliarus* sp.

Tribe Brixini

- Brixia mahensis* Distant 1917
- Brixia stellata* Distant 1917
- Curiatius insignis* Distant 1917

Family Derbidae

Tribe Sikaianini

- Sikaiana albomaculata* (Distant 1917)

Tribe Zoraidini

- Proutista moesta* (Westwood 1851)

Tribe Cenchreini

- Aquaelicism brunnescens* Distant 1917
- Aquaelicism elegantulum* Distant 1917
- Aquaelicism typicum* Distant 1917
- Equirria phalaena* Distant 1917
- Fescennia aurea* Distant 1917
- Fescennia bimaculata* Distant 1917
- Fordicidia robusta* Distant 1917
- Vekunta* sp.

Family Flatidae

- Chaetormenis madagascariensis* Signoret 1860
- Euryprosthius rubromarginata* (Distant 1917)
- Paraflatoides protea* (Distant 1917)
- Ulundia madagascariensis* (Signoret 1860)

Family Issidae

- Lollius atromaculatus* Distant 1917
- Lollius virescens* Distant 1917
- Trienopa (Ivinga) typica* Distant 1908

Family Meenoplidae

- Nisia fuscofasciata* Distant 1917
- Nisia maculosa* Distant 1917
- Nisia sulphurata* Distant 1917
- Nisia thoracia* Distant 1917
- Nisia venosa* (Motschulsky 1863)
- Nisia* sp.

Family Ricaniidae

Armilustrium gardineri Distant 1917
Armilustrium scotti Distant 1917
Carmentalia biformis Distant 1917
Deferundata aldabrana Distant 1917
Neoprivesa fuscovaria Distant 1917
Osaka hyalina Distant 1909
Osaka relata Distant 1909
Privesa fryeri Distant 1917
Privesa melanaria Distant 1917
Privesa punctifrons Distant 1917
Privesana infusca Distant 1909

Family Tropiciduchidae

Daradoxoides mahensis Distant 1917

Note: *Matutinus opulentus* Distant 1917 was described in Cixiidae, but is currently placed in Delphacidae (Fennah, 1972) and therefore not included in the checklist.

Conclusion

The Fulgoromorpha fauna of Seychelles comprises – excluding Delphacidae – 8 families with 59 species. The vast majority of species is endemic.

Acknowledgements

Our sincere thanks go to Dr. Justin Gerlach (Cambridge, GB), Mag. Brigitte Komposch (Graz, Austria), Pat Matyot and Terence Valentin (both Mahé, Seychelles) and Dr. Murray Fletcher (NSW Department of Primary Industries) for their substantial support and to many other friends and colleagues for their help in the course of this project.

This work was financed by the Austrian Science Fund (project No. P18642-B16), our stays in Paris and London were additionally supported by SYNTHESYS grants (GB-TAF-2873 and FR-TAF-971). In-kind support from NSW Department of Primary Industries and The University of Sydney are gratefully acknowledged.

References

- BOULARD M., 1995.- Membracides nouveaux des îles Seychelles. Création d'une Tribu nouvelle.- *EPHE, Biologie et Evolution des Insectes*, 8: 179-187.
- DISTANT W. L., 1908.- 'Sealark' Rhynchota.- *Transactions of the Linnean Society of London*, 2 (13): 29-47.
- DISTANT W. L., 1917.- Rhynchota. Part II: Suborder Homoptera. The Percy Sladen Trust Expedition to the Indian Ocean in 1905, under the leadership of Mr. J. Stanley Gariner, M. A.- *Transactions of the Linnean Society London, Zoology*, 17: 273-322.
- FENNAH R. G., 1972.- A revision of the genus *Matutinus* Distant (Homoptera: Fulgoroidea: Delphacidae).- *Bulletin of entomological Research*, 61: 421-461.
- SINGH-PRUTHI H., 1925.- The morphology of the male genitalia in Rhynchota.- *Transactions of the Entomological Society London*, 1925: 127-267.
- WEBB M. D., 1975.- Fulgoroidea from Aldabra, Astove, and Cosmoledo Atolls, collected by the Royal Society Expedition 1967-68 (Hemiptera-Homoptera).- *Atoll Research Bulletin*, 177: 1-10.
- WEBB M. D., 1980.- The Cicadellidae from Aldabra, Astove and Cosmoledo Atolls collected by the Royal Society Expedition 1967-68 (Hemiptera, Homoptera).- *Journal of Natural History*, 14: 829-863.

Authors' addresses: Werner E. HOLZINGER (corresponding author: holzinger@oekoteam.at), Oekoteam - Institute for Faunistics and Zooecology, Bergmannsgasse 22, A-8010 Graz, Austria; Holger LÖCKER¹ (holger.loecker@dpi.nsw.gov.au), Birgit LÖCKER² (birgit.loecker@dpi.nsw.gov.au), Orange Agricultural Institute, NSW Department of Primary Industries, Forest Road Orange, NSW 2800, Australia.

¹ Charles Sturt University, Leeds Parade, Orange, NSW 2800, Australia

² The University of Sydney, Leeds Parade, Orange, NSW 2800, Australia.