

Linzer biol. Beitr.	40/1	827-831	10.7.2008
---------------------	------	---------	-----------

Notes on the Evaniidae (Hymenoptera) of the Mascarenes

M. MADL & S. GANESHAN

A b s t r a c t : Two species of Evaniidae have been recorded from the Mascarenes. A check list of Evaniidae of the Malagasy subregion is included.

K e y w o r d s : Evaniidae, distribution, Malagasy subregion, Mascarenes, Réunion, Mauritius, Rodrigues.

Introduction

The small family Evaniidae contains about 440 described species worldwide. These species are solitary egg parasitoids (often mentioned as predators) of cockroach oothecae (Blattoidea).

Up to date five genera comprising 13 species have been recorded from the Malagasy subregion (DEANS 2005). During our survey of the Hymenoptera fauna of the Republic of Mauritius another species, *Prosevania erythrosoma* SCHLETTERER 1886, has been discovered on Mauritius and Rodrigues. This species, which is known from the Oriental Region, is the second evaniid to be recorded outside Madagascar.

Material

The paper is based on the material from following institutions: Mauritius Sugar Industry Research Institute (MSIRI) in Réduit (Mauritius), Museum d'Histoire Naturelle de La Réunion (MHN RUN) in Saint Denis (Réunion) and Natural History Museum Vienna (NHMW).

Faunistics

Evania appendigaster (LINNAEUS 1758)

Evania appendigaster (LINNAEUS 1758): MÜLLER 1775: 867 (Mauritius), pl. 26 (fig. 6).

Evania appendigaster (LINNAEUS 1758): OLIVIER 1791: 453 (descr., Mauritius)

Evania appendigaster (LINNAEUS 1758): WESTWOOD 1844: 241 (tax., Mauritius)

Evania appendigaster (LINNAEUS 1758): SCHLETTERER 1886: 6 (key), 10 (descr. ? /, Mauritius), 39 (cat.) pl. 1 (figs. 1, 6, 9).

- Evania appendigaster* (LINNAEUS 1758): SCHLETTERER 1889: 130 (key), 136 (descr. ♂ ♀, Mauritius), pl. 6 (figs. 4b, 5a, 6).
- Evania appendigaster* (LINNAEUS 1758): DALLA TORRE 1902: 1076 (cat., Mauritius, Réunion).
- Evania appendigaster* (LINNAEUS 1758): KIEFFER 1902: 3 (cat., Mauritius), pl. 1 (fig. 3).
- Evania appendigaster* (LINNAEUS 1758): KIEFFER 1912: 2 (fig. 2), 7 (figs. 9, 10), 67 (key), 83 (descr. ♂ ♀, Réunion, Mauritius), 84 (figs. 36, 37).
- Evania appendigaster* (LINNAEUS 1758): BORDAGE 1914: 379 (tax., biol., Réunion), 380 (fig. 16).
- Evania (Evania) appendigaster* (LINNAEUS 1758): HEDICKE 1939: 4 (cat., Mauritius, Réunion).
- Evania appendigaster* (LINNAEUS 1758): MOUTIA & MAMET 1947: 27 (cat., Mauritius).
- Evania appendigaster* (LINNAEUS 1758): BENOIT 1952: 167 (Mauritius).
- Evania appendigaster* (LINNAEUS 1758): WILLIAMS 1958: 113 (cat., Mauritius).
- Evania appendigaster* (LINNAEUS 1758): WILLIAMS 1974: 4 (cat., Mauritius).
- Evania appendigaster* (LINNAEUS 1758): WILLIAMS 1980: 5 (cat., Mauritius).
- Evania appendigaster* (LINNAEUS 1758): GANESHAN & WILLIAMS 2005: 5 (cat., Mauritius).
- Evania appendigaster* (LINNAEUS 1758): DEANS 2001: 27 (cat., Mauritius, Réunion, Rodrigues)
- Evania desjardinsi* nov.sp.: BLANCHARD 1840: 299 (descr., Mauritius)
- Evania Desjardinsi* BLANCHARD 1840: GUÉRIN-MÉNEVILLE 1843: 334 (jun. syn. of *Evania laevigata* OLIVIER)
- Evania Desjardinsii* BLANCHARD 1840: WESTWOOD 1844: 242 (tax.)
- Evania Desjardinsii* BLANCHARD 1840: WESTWOOD 1851: 214 (tax.)
- Evania Desjardinsii* BLANCHARD 1840: de SAUSSURE 1890: pl. 15 (figs. 31, 31a).
- Evania Desjardinsii* BLANCHARD 1840: BORDAGE 1896a: 610 (biol., Réunion).
- Evania Desjardinsii* BLANCHARD 1840: BORDAGE 1896b: 473 (biol., Réunion).
- Evania Desjardinsii* BLANCHARD 1840: SCHULZ 1906: 134 (tax.).
- Evania Desjardinsii* BLANCHARD 1840: SCHULZ 1912: 57 (tax.)
- Evania laevigata* LATREILLE 1807: SMITH 1879: 534 (cat.), 538 (Rodrigues).
- Evania laevigata* OLIVIER 1792: GERSTAECKER 1862: 520 (tax., Mauritius)
- Host: *Periplaneta americana* (LINNAEUS 1758).

Material examined: Mauritius: Flic en Flac, Manisa Hotel 1 ♀ 04. Dezember 2004 leg. G. u. M. Novak (NHMW) – Grand Bay 1 ♂ 10.1.1984 leg. J.R. Williams (MSIRI) – Quatre Bornes, Hotel El Monaco 1 ♀ 17.05.2007 leg. M. Madl (NHMW) – Réduit 1 ♀ April 1954, 1 ♀ 17.3.1982, 1 ♂ 30.1.1983, 1 ♂ 24.2.1984 leg. J.R. Williams (MSIRI) – Vacoas, Henrietta 3 ♂ 8 December 2003 leg. Siedlecki (NHMW) – without locality 1 ♂ 1858 leg. I. Pfeiffer (NHMW) – Réunion: Saint Denis: Boulevard Lancaster 1 ♂ 20.-21.04.2004 leg. M. Madl (NHMW); Museum 1 ♀ 19.3.1968, 1 ♂ 30.3.1968 (MHN REU); 1 ♀ 3.8.2001, 1 ♀ 10.3.2001 leg. R. Parnadeau (MHN REU).

Distribution: Known from all zoogeographical regions. In the Malagasy subregion recorded from Seychelles (Inner Seychelles, Coetivy), Madagascar, Réunion, Mauritius and Rodrigues.

The cosmopolitan species *Evania appendigaster* is an important control agent of the American cockroach, *Periplaneta americana* (LINNAEUS 1758), which is a nasty household pest in tropical and subtropical areas. Other hosts in the Mascarene islands could be *Periplaneta australasiae* (FABRICIUS 1775) and *Rhyparobia maderae* (FABRICIUS 1781). MOUTIA & MAMET (1947) erroneously recorded spiders as hosts.

***Prosevania erythrosoma* (SCHLETTERER 1886)**

Material examined: Mauritius: Plaisance, Airport 1 ♀ leg. M. Madl (NHMW) – Mondrain Reserve 1 ♀ 14.05.2007 leg. M. Madl (NHMW) — Rodrigues: Nouvelle Decouverte, in car 1 ♀ 10.05.2007 leg. M. Madl (NHMW).

Distribution: Oriental Region: India, Sri Lanka — Ethiopian Region: Mauritius, Rodrigues.

The specimens were compared with the type of *Prosevania erythrosoma* (SCHLETTERER 1886), which is housed in the Natural History Museum in Vienna.

Checklist of Evaniidae of the Malagasy subregion and their distribution

Evania appendigaster (LINNAEUS 1758): Madagascar, Seychelles (Inner Seychelles, Coetivy), Réunion, Mauritius, Rodrigues.

Microvania difficilis BENOIT 1952: Madagascar.

Microvania minuscula BENOIT 1952: Madagascar.

Parevania madegassa BENOIT 1952: Madagascar.

Parevania plana BENOIT 1952: Madagascar.

Prosevania berlandi (BENOIT 1952): Madagascar.

Prosevania animensis (SPINOLA 1840): Madagascar.

Prosevania erythrosoma (SCHLETTERER 1886): Mauritius, Rodrigues.

Prosevania ivondroensis (BENOIT 1952): Madagascar.

Prosevania microptalma (BENOIT 1952): Madagascar.

Prosevania scintilla (BENOIT 1952): Madagascar.

Prosevania seyrigi (BENOIT 1952): Madagascar.

Zeuxevania lamellata BENOIT 1952: Madagascar.

Zeuxevania variabilis BENOIT 1952: Madagascar.

Acknowledgements

The authors would like to thank Dr. J.C. Autrey (former director, MSIRI), Mr. J. Félicité (Department of Agriculture, Rodrigues), Dr. K.F. Ng Kee Kwong (director, MSIRI), Mr. R. Parnadeau (formerly entomologist, MHN RUN), Mr. M. Puttoo (director, National Parks and Conservation Services, Mauritius), Mr. K. Pynee (Mauritius Herbarium, MSIRI), Mr. J. C. Raffaut (Rodrigues), Mrs. S. Ribes (director, MNN RUN) and Mr. J.R. Williams (retired entomologist, MSIRI) for their support in the study.

Zusammenfassung

Über die Evaniidae (Hymenoptera) der Maskarenen — Die Familie Evaniidae ist auf den Maskarenen mit zwei Arten vertreten. Eine Artenliste der Evaniidae der Madagassischen Unterregion ist beigefügt.

References

- BENOIT P.L.G. (1952): Les Evaniidae Malgaches (Hym.-Terebr.). — Mémoires de l'Institut Scientifique de Madagascar, Série E, **1** (1): 165-179.
- BLANCHARD E. (1840): Orthoptères, Névroptères, Hyménoptères, Lépidoptères et Diptères. — In: Histoire Naturelle des Animaux Articulés, Annelides, Crustacées Arachnides, Myriapodes et Insectes **3**: 672 pp.
- BORDAGE E. (1896a): Mœurs d'*Evania Desjardinsii* BLANCH. — Comptes Rendus d'Académie des Sciences **123**: 610-613. not seen.
- BORDAGE E. (1896b): On the Habits of *Evania Desjardinsii*, BLANCH. — Annals and Magazine of Natural History, 6. series, **18** (108): 473-475.

- BORDAGE E. (1914): Notes biologiques recueillies à l'Ile de la Réunion. — Bulletin Scientifique de la France et de la Belgique **47**: 377-412.
- DALLA TORRE C.G. (1901-1902): Trigonulidae, Megalyridae, Stephanidae, Ichneumonidae, Agriotypidae, Evaniidae, Peleciniidae. — Catalogus hymenopterorum hucusque descriptorum systematicus et synonymicus **3** (1901): 1-544; 1902: 545-1141.
- DEANS A. (2005): Annotated Catalog of the World's Ensign Wasp Species (Hymenoptera: Evaniidae). — Contributions of the American Entomological Society **34** (1): 1-164.
- GANESHAN S. & J.R. WILLIAMS (2001): Entomological parasitoid-host records from Mauritius (2nd Revised edition). — Mauritius Sugar Industry Research Institute, Occasional Paper **36**: 45 pp.
- GERSTAECKER A. (1862): Hymenoptera. Hautflügler. — In: PETERS W.C., Naturwissenschaftliche Reise nach Mossambique auf Befehl seiner Majestät des Königs Friedrich Wilhelm IV in den Jahren 1842 bis 1848 ausgeführt von Wilhelm C. H. Peters. Zoologie V. Insecten und Myriopoden. Berlin (G. Reimer): 439-526, pl. 19-32.
- GUERIN-MÉNEVILLE M. (1843): Note sur le genre *Evania*, de l'ordre des Hyménoptères. — Revue Zoologique **6**: 333-336.
- HEDICKE H. (1939): Evaniidae. — In: HEDICKE H. (ed.), Hymenopterorum Catalogus **9**: 50 pp.
- KIEFFER J.J. (1902): Hymenoptera, Fam. Evaniidae. — In: WYTSMAN P. (ed.), Genera Insectorum **2**: 13 pp.
- KIEFFER J.J. (1912): Evaniidae. — In: SCHULZE F.E. (ed.), Das Tierreich **30**: V-XIX, 431 pp.
- MOUTIA L.A. & R. MAMET (1947): An Annotated List of Insects and Acarina of Economic importance in Mauritius. — Bulletin, Department of Agriculture, Colony of Mauritius, Scientific Series **29**: II, 43 pp.
- MÜLLER P.L.S. (1775): Von den Insecten. — In: Des Ritters Carl von Linné, Königlich Schwedischen Leibarztes, vollständiges Natursystem nach der zwölften lateinischen Ausgabe und nach Anleitung des holländischen Houtuynischen Werks mit einer ausführlichen Erklärung V, **2**: X1-XX6, 761-1166, a-g3, pls 23-36.
- OLIVIER M. (1791): Encyclopedie methodique. Histoire naturelle. Insectes **6**. — Paris (Panckoucke):
- SAUSSURE H. de (1890): Histoire Naturelle des Hyménoptères. — In: GRANDIDIER A. (ed.), Histoire physique, naturelle et politique de Madagascar Volume **XX**: I-XXI, 1-176, pl. 1-20.
- SCHLETTERER A. (1886): Ueber die Hymenopteren-Gattung *Evania* FABR. — Verhandlungen der k. k. Zoologisch-botanischen Gesellschaft in Wien **36**: 1-46.
- SCHLETTERER A. (1889): Die Hymenopteren-Gruppe der Evaniiden. — Annalen des k. k. Naturhistorischen Hofmuseums in Wien **4** (2): 107-180; (3): 289-338; (4): 373-546.
- SCHULZ W.A. (1906): Strandgut. — In: SCHULZ W.A., Spolia Hymenopterologica. — Paderborn (Junfermannsche Buchhandlung Albert Pape): 76-269.
- SCHULZ W.A. (1912): Zweihundert alte Hymenopteren. — Zoologische Annalen **4**: 1-220.
- SMITH F. (1979): Zoology of Rodriguez. Hymenoptera, Diptera, and Neuroptera. — Philosophical Transactions of the Royal Society of London **168**: 534-540.
- WESTWOOD J.O. (1844): On *Evania* and some allied Genera of Hymenopterous Insects. — Transactions of the Entomological Society of London **3** (4): 237-278.
- WESTWOOD J.O. (1851): Descriptions of some new Species of hymenopterous Insects belonging to *Evania* and the allied Genera, being a Supplement to a Memoir on those Insects published in the Third Volume of the Transactions of the Entomological Society. — Transactions of the Entomological Society of London, new series, **1** (7): 213-234.
- WILLIAMS J.R. (1958): A List of Hymenoptera (Excluding Formicidae) recorded from Mauritius. — Bulletin of the Mauritius Institute **5** (4): 108-128.
- WILLIAMS J.R. (1974): Entomological parasite-host records from Mauritius. — Mauritius Sugar Industry Research Institute, Occasional Paper **28**: 33 pp.

- WILLIAMS J.R. (1980): Entomological parasite-host records from Mauritius (revised edition).
— Mauritius Sugar Industry Research Institute, Occasional Paper **32**: 39 pp.

Author's addresses:

Seelavarn GANESHAN
Entomology Department
Mauritius Sugar Industry Research Institute
Réduit, Mauritius
E-mail: sganeshan@msiri.intnet.mu

Michael MADL
Internationales Institut für Entomologie
(2. Zoologische Abteilung)
Naturhistorisches Museum
Burgring 7
A-1010 Vienna, Austria
E-mail: michael.madl@nhm-wien.ac.at

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2008

Band/Volume: [0040_1](#)

Autor(en)/Author(s): Madl Michael, Ganeshan Seelavarn

Artikel/Article: [Notes on the Evaniidae \(Hymenoptera\) of the Mascarenes 827-831](#)