



HAL
open science

Additions to the list of arthropods of Reunion Island

Samuel Nibouche, Joëlle Sadeyen, Sébastien Dervin, Mirana Gauche, Sabine Merion, Janice Minatchy, Romuald Fontaine, Philippe Reynaud, Bruno Michel

► **To cite this version:**

Samuel Nibouche, Joëlle Sadeyen, Sébastien Dervin, Mirana Gauche, Sabine Merion, et al.. Additions to the list of arthropods of Reunion Island. 2024. hal-04717341

HAL Id: hal-04717341

<https://hal.univ-reunion.fr/hal-04717341v1>

Preprint submitted on 1 Oct 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

Additions to the list of arthropods of Reunion Island

Samuel NIBOUCHE¹, Joëlle SADEYEN², Sébastien DERVIN¹, Mirana GAUCHE², Sabine MERION³, Janice MINATCHY³, Romuald FONTAINE³, Philippe REYNAUD⁴ & Bruno MICHEL^{5, 6}

¹ CIRAD, UMR PVBMT, F-97410 Saint-Pierre, La Réunion, France

<samuel.nibouche@cirad.fr>

² University of La Réunion, UMR PVBMT, F-97410 Saint-Pierre, La Réunion, France

³ FDGDON Réunion, Pôle de Protection des Plantes, 7 Chemin de l'IRAT, 97410 Saint-Pierre

⁴ Laboratory of Plant Health, Entomology and Botany Unit, ANSES, 755 avenue du campus Agropolis, CS30016, F – 34988 Montferrier-sur-Lez Cedex

⁵ CIRAD, UMR CBGP, F-34398 Montpellier, France

⁶ CBGP, Univ Montpellier, CIRAD, INRAE, Institut Agro, IRD, Montpellier, France

Abstract. – Contribution to the inventory of arthropods of Reunion Island.

This work is a synthesis of new taxa for the Reunion Island identified between 1963 and 2022 and not published to date. The collections were carried out mainly by researchers and technicians from CIRAD or FDGDON. Sampling mainly targeted at crop pests and their natural enemies. The list includes 101 taxa new for Reunion. The Hymenoptera and Hemiptera are the most represented orders.

Keywords. – Arthropod fauna, Insecta, Acari, Biodiversity, Pests, Beneficials

The list of Insecta Linnaeus, 1758 and Arachnida Cuvier, 1812 from Reunion Island (21.12° S, 55.5°E) in 2021 included 3155 and 216 taxa respectively in the French national taxonomic reference system TAXREF (Gargominy *et al.*, 2021). Legros *et al.* (2020) estimated, by statistical methods, the expected number of taxa in Reunion (taxa already known and taxa not yet reported) at 7673 for Insecta and 824 for Arachnida. These authors estimate that 62% of the terrestrial arthropod fauna of Reunion remains to be discovered.

The work presented here is a contribution to the inventory of arthropods in Reunion. The list is a synthesis of taxa not published to date, collected between 1963 and 2022 mainly as part of crop pest and beneficial identification activities.

MATERIALS AND METHODS

Material examined. – The collections were carried out over a period extending from 1963 to 2022. The collections mainly targeted crop pests and beneficials. The specimens were kept dry (before 2015) or in ethanol 95° to -30°C (from 2015). The specimens are stored in the collections of the CBGP (Centre de Biologie pour la Gestion des Populations) in Montpellier (<https://doi.org/10.15454/D6XAKL>) or in the collection managed by the CIRAD (Centre de Coopération Internationale en Recherche Agronomique pour le Développement) at the Pôle de Protection des Plantes (3P) in Saint-Pierre in Reunion Island. The specimens were morphologically identified by the co-authors of this work or sent to specialists for morphological identification (see details in Results section). Five taxa were identified exclusively by barcoding (see below) using the BIN (Barcode Index Number) assignment tool of the BOLD database (Ratnasingham & Hebert, 2013).

Sequencing. – The specimens collected from 2015 onwards were characterised by barcoding.

DNA extraction from the specimens was performed non-destructively using the Qiagen DNeasy Blood & Tissue Kit (Qiagen, Courtaboeuf, France). DNA samples are stored at 3P.

We sequenced a fragment at position 5' of the mitochondrial gene for Cytochrome c oxidase I (COI-5P) (Hebert *et al.*, 2003). However, in the case of Pseudococcidae, difficulties in PCR amplification led us to amplify instead a portion at the 3' end of the gene (COI-3P). The positions of the amplified gene portion and the primer pairs used are detailed in Table I, the PCR conditions are indicated by the associated bibliographic references. The sequencing of PCR products was subcontracted to a private company.

The sequences obtained are available in the Arthemis database (INRAE-CBGP, 2022). They have also been deposited in the BOLD database (Sujeevan & Hebert, 2007), in the DS-UPDRUN1 dataset (dx.doi.org/10.5883/DS-UPDRUN1).

RESULTS

List of equipment examined. – Specimens with a code in XXXXnnnnn_nn format can be consulted on the Arthemis online database (INRAE-CBGP, 2022), with the exception of those whose code begins with 'FAUN'. Unless otherwise stated, the specimens collected are imagos. In the absence of any mention of the collector or the number of specimens collected, these are unknown.

Abbreviations and symbols used:

- det.: determinator
- col.: collector
- (num. spec.): numerous specimens collected
- SPV: Plant Protection Service
- LSV: Plant Health Laboratory
- #: barcoded specimen
- §: Taxon identified by barcoding without morphological confirmation

Arachnida Cuvier, 1812

Trombidiformes Reuter, 1909

Eriophyidae Nalepa, 1898

***Aceria tulipae* Keifer, 1938**

Det. Gutierrez Jean-Paul, col. Quilici Serge, La Réunion, 01.VI.1970, *Allium sativum* ; det. Gutierrez Jean-Paul, col. Etienne Jean, La Réunion, 01.VI.1970, *Allium cepa*.

***Aculus fockeui* (Nalepa & Trouessart, 1891)**

RQ 470 / FAUN03049, det. Fauvel G., col. Quilici Serge, Saint-Leu, la Chaloupe Saint-Leu, 11.III.1983, *Prunus persica*.

***Aculus schlehtendali* (Nalepa, 1890)**

RQ 475 / FAUN03052, det. Fauvel G., col. Quilici Serge, Saint-Paul, Le Guillaume, 14.III.1983, *Malus pumila*.

Insecta Linnaeus, 1758

Blattodea Brunner von Wattenwyl, 1882

Kalotermitidae Froggatt, 1897

***Allotermes paradoxus* Wasmann, 1910**

RQ 2780 / FAUN12335, det. Ruelle J.E., col. Quilici Serge, La Réunion, Bois Rouge, 03.IV.1992, *Mangifera indica* ; RVA 840 / FAUN15340, det. Aberlenc Henri-Pierre, col. Vayssière Jean-François, Saint-Pierre, 27.XII.1997, *Litchi chinensis*.

Rhinotermitidae Froggatt, 1897

***Coptotermes formosanus* Shiraki, 1909**

FAUN12262, det. Ruelle J.E., col. Vercambre Bernard, Saint-André, 21.IX.1992; RQ 840 / FAUN04609, det. Ruelle J.E., col. Quilici Serge, Saint-Denis, 01.VIII.1984, *Citrus* sp.; RQ 3330 /

FAUN15111, det. Ruelle J.E., col. Quilici Serge, Saint-Louis, Rivière Saint-Louis, 10.I.1997, *Prunus persica*.

Hemiptera Linnaeus, 1758

Auchenorrhyncha Duméril, 1805

Cicadellidae Latreille, 1802

***Amrasca biguttula* (Ishida, 1913)**

JHUA00001_01 # (3 specimens), det. Nibouche Samuel, col. Huat Joël, Saint Pierre, Bassin Plat, 04.VI.2020, *Solanum melongena*.

***Balclutha viridinervis* Matsumura, 1914**

MGAU00026_01 (2 specimens), det. Bonfils Jacques, col. Reynaud Bernard, Salazie, Forêt de Bélouve, 28.II.1997.

Fulgoromorpha Evans, 1946

Delphacidae Leach, 1815

***Distantinus amyclas* (Fennah, 1972)**

RQ 3022 / MGAU00115_01 (1 specimen), det. Bonfils Jacques, col. Quilici Serge, Saint-Philippe, Vallée Heureuse, 30.IV.1995.

***Liburnia krugeri* (Muir, 1929)**

RR 61 / MGAU00129_01 (2 specimens), det. Bonfils Jacques, col. Reynaud Bernard, La Réunion, Ravine Trois Bassins, 05.III.1997, Poaceae.

***Toya suezensis* (Matsumura, 1910)**

RR 67 / MGAU00113_01 (3 specimens), det. Bonfils Jacques, col. Reynaud Bernard, Saint-Paul, Etang Saint-Paul, 05.III.1997, *Paspalidium* sp.

Heteroptera Latreille, 1810

Anthocoridae Fieber, 1836

***Cardiastethus capensis* Carayon, 1961**

PR 018 / FAUN17085, det. Maldès Jean-Michel, col. Fabre F., La Plaine des Cafres, Piton Hyacinthe, 05.VI.2000, *Brassica oleracea*.

Pentatomidae Leach, 1815

***Piezodorus rubrofasciatus* (Fabricius, 1775)**

RV 1952 / MGAU00221_02 (1 specimen), det. Stonedahl G., col. Vercambre Bernard, Saint-Pierre, Bassin Plat, 21.III.1989.

Rhyparochromidae Amyot & Audinet-Serville, 1843

***Elasmolomus transversus* (Signoret, 1861)**

RQ 1637 / FAUN07342, det. Slater J.A., col. Quilici Serge, Le Tampon, 19.XI.1987, *Fragaria* sp.

Sternorrhyncha Duméril, 1806

Aleyrodidae Westwood, 1840

***Aleurothrixus porteri* Quaintance & Baker, 1916**

RQ 1911 / FAUN08501, det. Bink-Moenen R.M., col. Quilici Serge, La Possession, Ilet Latanier, 25.IV.1988, *Citrus latifolia*.

***Aleurotulus anthuricola* Nakahara, 1989**

LSV1200009 / JSTR00070_01 (8 specimens), det. Streito Jean-Claude, col. Minatchy Janice, Sainte-Marie, 29.XII.2011, *Anthurium* sp.

***Asiothrixus antidesmae* Takahashi, 1933**

C17-1231 / LSV1702599, det. Germain Jean-François, col. Vitry Eric, Le Port, 07.XII.2017, *Anthurium* sp.

***Bemisia afer* (Priesner & Hosny, 1934)**

FAUN17032, det. Maldès Jean-Michel, col. Delatte Hélène, Saint-Pierre, Ravine-des-Cabris, 05.IX.2000, *Manihot esculenta* ; FAUN17252, det. Delvare Gérard, col. Grondin & Thornary, Sainte-Rose, Piton Sainte-Rose, 17.V.2000, *Manihot esculenta*.

Aphididae Latreille, 1802

***Aphis odinae* (van der Goot, 1917)**

RQ 1502 / FAUN06285, det. Leclant François, col. Quilici Serge, Etang-Salé, 30.VII.1986, *Muraya paniculata* ; RQ 3202 / FAUN14495, det. Leclant François, col. Quilici Serge, Saint-Benoît, 12.VI.1996, *Litchi chinensis*.

***Aphis solanella* Theobald, 1914**

RVA 829 / FAUN15329, det. Leclant François, col. Vayssières Jean-François, La Plaine des Cafres, Piton Hyacinthe, 02.II.1998, *Solanum nigrum* ; RQ 2107 / FAUN08282 (num. spec.) det. Leclant François, col. Manikom Ronald & Quilici Serge, Saint-Denis, La Bretagne, 11.I.1989, *Solanum americanum*.

***Greenidea ficicola* Takahashi, 1921**

C14-242/ LSV1400561 (4 specimens), det. Balmès Valérie, 18.VI.2014, *Ficus* sp.

***Schizaphis graminum* (Rondani, 1852)**

FAUN09408, det. Leclant François, col. Reynaud Bernard, Le Tampon, Bois Court, 15.XI.1989, *Triticum aestivum*.

***Sipha flava* (Forbes, 1885)**

C17-966 / LSV1702154 (36 specimens), det. Mouttet Raphaëlle, col. FDGDON Réunion, Saint-Denis, 09.X.2017, *Saccharum* sp.; RTIB00049_01 # (num. spec.), det. Nibouche Samuel, col. Tibère

Richard, Saint-Denis, La Bretagne, 26.IX.2017, *Saccharum* sp.; RTIB00048_01 # (num. spec.), det. Nibouche Samuel, col. Tibère Richard, Sainte-Marie, La Mare, 26.IX.2017, *Saccharum* sp.; MDUP00006_01 # (num. spec.), det. Nibouche Samuel, col. Duployer Marianne, Sainte-Marie, La Mare, 19.X.2017.

***Smynthuroides betae* Westwood, 1849**

Det. Balmès Valérie, col. Lucas Eric, Le Tampon, 05.II.2008, *Solanum lycopersicum* ; det. Mintachy Janice, col. Ferrante A., Le Tampon, 30.IV.2008, *Phaseolus vulgaris* ; det. Balmès Valérie, col. Méron Sabine, Cilaos, 30.VII.2008, *Lens culinaris*.

Diaspididae Targioni-Tozzetti, 1868

***Aulacaspis rosae* (Bouché, 1833)**

C18-109 / LSV1800284, det. Germain Jean-François, col. Duployer Marianne, Les Aviron, 19.II.2018, *Cycas* sp.

***Diaspis bromeliae* (Kerner, 1778)**

Det. D'Aguilar J., col. Garçonnet C., La Réunion, 01.V.1965, *Ananas comosus*

Monophlebidae Maskell, 1880

***Icerya purchasi* Maskell, 1879**

SDER00394_01 # (num. spec.), det. Nibouche Samuel, col. Dervin Sébastien, Etang-Salé, 10.I.2017, *Sophora tomentosa* ; BREY00004_01 (num. spec.), det. Germain Jean-François, col. Reynaud Bernard, Etang-Salé, 03.XI.2017, *Phyllanthus casticum* ; MDUP00009_01 # (num. spec.), det. Nibouche Samuel, col. Duployer Marianne, La Plaine des Cafres, 02.IV.2019, *Acacia* sp.

Pseudococcidae Heymons, 1915

***Dysmicoccus neobrevipes* Beardsley, 1959**

LMUL00035_02 # (7 specimens), det. Germain Jean-François & Nibouche Samuel, col. Muller Lucile, Saint-Pierre, Pierrefonds, 30.I.2015, *Mangifera indica* ; MATI00079_01 # (3 specimens), det. Nibouche Samuel, col. Atiama Morguen, Saint-Gilles, Grand Fond, 26.X.2017, *Mangifera indica* ; MATI00080_01 # (3 specimens), det. Nibouche Samuel, col. Atiama Morguen, Saint-Gilles, Grand Fond, 26.X.2017, *Annona reticulata* ; BHOS00004_01 (3 specimens), det. Balmès Valérie, col. Hostachy Bruno, Les Aviron, 2020, *Agave* sp.

***Hypogeococcus pungens* Granara de Willink, 1981**

C19-28 / LSV1900220, det. Balmès Valérie, col. Pallas Régine, Les Aviron, 22.I.2019, *Hylocereus undatus*.

Poveda-Martínez et al. (2019, 2020) suggest the existence of cryptic species within *Hypogeococcus pungens* populations. In the current state of the literature, our specimens having been collected on Cactaceae are to be linked to *Hypogeococcus pungens sensu lato*; *Hypogeococcus pungens sensu stricto* corresponding to the populations present on Amaranthaceae.

Palmicultor palmarum (Ehrhorn, 1916)

L2017. RE5.099 / BHOS00001_01 # (3 specimens), det. Germain Jean-François, col. Hostachy Bruno, Les Avirons, 20.XI.2017, *Dypsis lutescens*.

Phenacoccus solani Ferris, 1918

LSV1102034 / EPIE00394 (1 specimen), det. Germain Jean-François, Saint-Leu, 17.VIII.2011, *Solanum lycopersicum*.

Pseudococcus cryptus Hempel, 1918

LSV1401292 / SDER00205_01 # (3 specimens), det. Germain Jean-François, La Réunion, 20.VIII.2014, Areaceae.

Thysanoptera Haliday, 1836

Terebrantia Haliday, 1836

Thripidae Stephens, 1829

Ceratothripoides brunneus Bagnall, 1918

C18-299 / LSV1800588, det. Reynaud Philippe, col. Fontaine Romuald, Saint-Joseph, 12.IV.2018, *Solanum lycopersicum*.

Echinothrips americanus Morgan, 1913

ISA5 / ICAB00001_01 (3 specimens), det. Michel Bruno, col. Cabeu Isabelle, Saint-Pierre, Bassin Martin, 11.XII.2014, *Rosa* sp.; M3 / MTEN00022_01 (1 specimen), det. Michel Bruno, col. Tenailleau Mickael, Saint-Pierre, Bassin Martin, 12.VIII.2014, *Rosa* sp.; SDER00264_01 # (1 specimen), det. Frago Enric & Nibouche Samuel, col. Frago Enric, La Réunion, Saint-Pierre, Bassin Martin, 22.VIII.2016, *Rosa* sp.; LSV1401764 / SDER00241_01 # (num. spec.), det. Balmès Valérie & Nibouche Samuel, La Réunion, 28.X.2014, *Rosa* sp.

Neohydatothrips samayunkur (Kudo, 1995)

C18-867 / LSV1801179, det. Reynaud Philippe, col. Fontaine Romuald, Saint-Paul, 17.VII.2018, *Tagetes patula*

Scirtothrips dorsalis Hood, 1919

Det. LSV Montpellier, col. Vitry Eric, Saint-Paul, 07.VI.2012, *Dendrobium* sp.; LSV1500777 / SDER00239_01 (num. spec.), det. Balmès Valérie, La Réunion, 29.VII.2015, *Rosa* sp.

Stenchaetothrips biformis Bagnall, 1913

MJAQ00108_01 (1 specimen), det. Michel Bruno, col. Jacquot Maxime, Saint-Paul, Boucan Canot, 21.VIII.2014; MJAQ00109_01 (1 specimen), det. Michel Bruno, col. Jacquot Maxime, Saint-Pierre, Pierrefond, 20.VIII.2014, *Mangifera indica*.

***Trichomothrips xanthius* (Williams, 1917)**

C17-1230 / LSV1800164, det. Reynaud Philippe, col. Pallas Régine, Salazie, 04.XII.2017, *Anthurium* sp.

***Thrips nigropilosus* Uzel, 1895**

C11-1655 / LSV1500777 (5 specimens), det. Balmès Valérie, col. Pallas Régine, Etang Salé, 27.IX.2011, *Lactuca sativa*.

Tubulifera Haliday, 1836

Phlaeothripidae Uzel, 1895

***Ananthakrishnana euphorbiae* Priesner, 1931**

C22-01 / LSV2200039 / MGAU04292 # (25 specimens), det. Reynaud Philippe, col. Danger Camille & Hoarau Henri, Saint-Leu, Pointe au Sel, 10.XII.2021, *Euphorbia puntasalinae* sp. nov.

***Androthrips ramachandrai* Karny, 1926**

Det. LSV Montpellier, col. Bagny Patricia, Saint-Joseph, 04.VII.2012, *Ficus* sp.; LSV1102694 / SDER00233_01 (num. spec.), det. Reynaud Philippe, La Réunion, 09.XI.2011, *Ficus* sp.

***Dolichothrips indicus* (Hood, 1919)**

33BM / SDER00230_01 (6 specimens), det. Michel Bruno, col. Quilici Serge, Saint-Pierre, Bassin Plat, 01.I.1998, *Malus domestica*.

Neuroptera Linnaeus, 1758

Hemerobiidae Latreille, 1802

***Psectra cf. iniqua* (Hagen, 1859)**

MGAU04166_01 # (5 specimens), det. Michel Bruno, col. Festin Cyril, Saint-Pierre, Bassin Plat, 24.II.2021, *Abelmoschus esculentus*, *Portulaca* sp. & *Hubertia* sp. (specimens transmitted by Morguen Atiama from a colony reared by the biofactory 'Coccinelle').

Coleoptera Linnaeus, 1758

Curculionidae Latreille, 1802

***Hypothenemus birmanus* (Eichhoff, 1878)**

RQ 2806 / FAUN12081 (9 specimens), det. Wood S.L., col. Normand Frédéric, Saint-André, Ravine creuse, 15.V.1992, *Litchi chinensis*; RQ 3577 / FAUN15743 (19 specimens), det. Aberlenc Henri-Pierre, col. Dubois B., Saint-Pierre, Pierrefonds, 20.XI.1997, *Vitis vinifera*; RQ 3437 / FAUN15749 (5 specimens), det. Aberlenc Henri-Pierre, col. Dubois B., Saint-Pierre, Bassin Martin, 28.VII.1997, *Vitis vinifera*.

***Hypothenemus obscurus* (Fabricius, 1801)**

RQ 863 / FAUN04701 (10 specimens), det. Wood S.L., col. Quilici Serge, Saint-Paul, Piton Maïdo, 31.XII.1984, *Ulex europaeus*.

***Xylosandrus crassiusculus* (Motschulsky, 1866)**

RQ 3221 / FAUN14370 (16 specimens), det. Wood S., col. Quilici Serge, Saint-Benoît, Bras Madeleine, 12.VI.1996, *Litchi chinensis*; RVA 241 / FAUN14677, det. Delvare Gérard, col. Vayssières Jean-François, Bras-Panon, 23.VII.1997, *Litchi chinensis*; RVA 242 / FAUN14677, det. Delvare Gérard, col. Vayssières Jean-François, Bras-Panon, 23.VII.1997, *Litchi chinensis*; JPOU00099_01 # (1 specimen), det. Nibouche Samuel, col. Poussereau Jacques, Saint-Benoît, Sainte-Marguerite, Chemin de Ceinture, 13.II.2017; JPOU00105_03 # (3 specimens), det. Nibouche Samuel, col. Poussereau Jacques, Saint-Pierre, Vieux Domaine de La Ravine des Cabris, 10.XII.2016.

Nitidulidae Latreille, 1802

***Cybocephalus binotatus* Grouvelle, 1908**

RQ 1355 / FAUN05623 (15 specimens), det. Endrody-Younga S., col. Guyot J. & Manikom Ronald, Sainte-Clotilde, 24.III.1986, *Nerium oleander*, ex *Pseudaulacaspis pentagona* ; RQ 2310 / FAUN09730 (53 specimens), det. Delvare Gérard, col. Quilici Serge & Manikom Ronald, Saint-Denis, 22.XII.1989, *Nerium oleander*, ex *Pseudaulacaspis pentagona* ; RQ 2318 / FAUN09823 (4 specimens), det. Delvare Gérard, col. Quilici Serge & Manikom Ronald, Saint-Denis, 21.XII.1989, *Nerium oleander*.

Lepidoptera Linnaeus, 1758

Gelechiidae Stainton, 1854

***Tuta absoluta* (Meyrick, 1917)**

C18-120 / LSV1800374 (4 specimens), det. Ramel Jean-Marie, col. FDGDON Réunion, Saint-Joseph, 22.III.2018, *Solanum lycopersicum*; MDUP00007_01 # (3 specimens), det. Nibouche Samuel, col. Duployer Marianne, Saint Joseph, La Crête, 17.V.2018, *Solanum lycopersicum* ; AFRA00302_01 #, AFRA00303_01 # & AFRA00304_01 # (3 specimens), det. Nibouche Samuel, col. Fontaine Romuald, La Réunion, 28.III.2018, *Solanum lycopersicum* ; RTIB00114_01 # (3 specimens), det. Nibouche Samuel, col. Tibère Richard, Saint-Paul, Bois de Nèfles, 01.XI.2019, *Solanum lycopersicum*.

Hesperiidae Latreille, 1809

***Erionota torus* Evans, 1941**

C16-323 / LSV 1600637 (1 specimen), det. Mouttet Raphaëlle, col. FDGDON Réunion, Saint-Paul, 02.VI.2016, *Musa* sp.; AFRA00205_01 # & AFRA00206_01 # (2 specimens), det. Nibouche Samuel, col. Fontaine Romuald, La Réunion, 23.VI.2016, *Musa* sp.; RFON00001_01 # (5 specimens), det. Nibouche Samuel, col. Fontaine Romuald, Saint-Paul, 02.VI.2016; JSAD00009_01 # (2 specimens), det. Nibouche Samuel, col. Sadeyen Joëlle, Saint-Pierre, 02.IV.2017, *Musa* sp.; JSAD00010_01 # (2 specimens), det. Nibouche Samuel, col. Sadeyen Joëlle, Saint-Pierre, 29.XI.2017, *Musa* sp.; SDER00259_01 # (1 specimen), det. Nibouche Samuel, col. Simon P., Saint-Denis, 31.VIII.2016, *Musa* sp.

Noctuidae Latreille, 1809

***Agrotis segetum* (Denis & Schiffermüller, 1775)**

LCOS00004_01 # (3 larvae), det. Nibouche Samuel, col. Costet Laurent, Saint-Louis, Les Makes, 01.XII.2014; ISA13 / ICAB00010_01 # (2 larvae), det. Nibouche Samuel, col. Cabeu Isabelle, Le Tampon, Grand Tampon les Hauts, 17.III.2015, *Fragaria* sp.

Leucania loreyi (Duponchel, 1827)

RTIB00078_01 # (2 larvae), det. Nibouche Samuel, col. Tibère Richard, Sainte Suzanne, Bagatelle, 03.IX.2015, *Saccharum* sp.; 07-DJP-P1-SPOFRU-9 / EPAY00065_01 # (1 leg collected from a glued adult), det. Nibouche Samuel, col. Payet Elisa & Gerville Scholastie, Saint Leu, 13.II.2019, pheromal trapping.

Spodoptera frugiperda (J. E. Smith, 1797)

RFON00006_01 # (5 specimens), det. Nibouche Samuel, col. Fontaine Romuald, La Réunion, 19.IX.2018; RTIB00092_01 # (3 specimens), det. Nibouche Samuel, col. Tibère Richard, Saint-Leu, Le Plate, 01.I.2019, *Zea mays*; C18-1232 / LSV1801802 (1 specimen), det. LSV Montpellier, col. Fontaine Romuald, La Réunion, 13.IX.2018, *Zea mays*.

Hymenoptera Linnaeus, 1758

Aphelinidae Thomson, 1876

Aphelinus maidis Timberlake, 1924

RQ 1792 / FAUN07400, det. Hayat M., col. Quilici Serge, Saint-Louis, Le Gol, 10.XII.1987, *Saccharum* sp., ex Aphididae

Encarsia basicincta Gahan, 1927

70P / FAUN19352, det. Delvare Gérard, col. Borowiec Nicolas, L'Étang-Salé, 06.VII.2006, *Cocos nucifera*, ex *Aleurotrachelus atratus*; 82P / FAUN19361, det. Delvare Gérard, col. Borowiec Nicolas, L'Étang-Salé, 11.X.2006, *Cocos nucifera*, ex *Aleurotrachelus atratus*; 102P / FAUN19457, det. Delvare Gérard, col. Borowiec Nicolas, Le Tampon, La Chatoire, 02.V.2007, *Dictyosperma album*, ex *Aleurotrachelus atratus*; 103P / FAUN19458, det. Delvare Gérard, col. Borowiec Nicolas, L'Étang-Salé, 02.V.2007, *Cocos nucifera*, ex *Aleurotrachelus atratus*; 104P / FAUN19459, det. Delvare Gérard, col. Borowiec Nicolas, L'Étang-Salé, 20.V.2007, *Cocos nucifera*, ex *Aleurotrachelus atratus*; 105P / FAUN194060, det. Delvare Gérard, col. Borowiec Nicolas, Ravine-des-Cafres, Saint-Pierre, 20.V.2007, *Capsicum frutescens*, ex *Aleurotrachelus trachoides*.

Encarsia cubensis Gahan, 1931

106P / FAUN19461, det. Delvare Gérard, col. Borowiec Nicolas, L'Étang-Salé, 02.V.2007, *Cocos nucifera*, ex *Aleurotrachelus atratus*.

Encarsia guadeloupa Viggiani, 1987

FAUN20168, det. Delvare Gérard, col. Borowiec Nicolas, Le Port, 03.IV.2008, *Pritchardia pacifica*, ex *Aleurodicus dispersus*.

Eretmocerus eremicus Rose & Zolnerowich, 1997

PR0038 / FAUN17367, det. Delvare Gérard, col. Fabre F., Saint-Paul, 01.XI.2000, ex *Trialeurodes vaporariorum*.

Marietta carnesi (Howard, 1910)

RQ 893 / FAUN04677 (2 specimens), det. Hayat M., col. Manikom Ronald, Saint-Leu, Colimaçons, 15.VIII.1984, *Pelargonium*, ex *Pseudaulacaspis pentagona* ; RQ 904 / FAUN04812 (1 specimen), det. Hayat M., col. Quilici Serge, Saint-Pierre, Bassin Martin, 28.I.1985, *Citrus sinensis*, ex *Chrysomphalus ficus* ; RQ 964 / FAUN05353 (2 specimens), det. Hayat M., col. Quilici Serge, Saint-Pierre, Bassin Martin, 25.IV.1985, *Mangifera indica*, ex *Aulacaspis cinnamomi* ; RQ 1380 / FAUN05798 (8 specimens), det. Hayat M., col. Quilici Serge, Saint-Denis, 24.IV.1986, *Nerium oleander*, ex *Pseudaulacaspis pentagona* ; RQ 1513 / FAUN06269 (5 specimens), det. Hayat M., col. Quilici Serge, Saint-Pierre, Bassin Martin, 26.II.1986, *Citrus* sp., ex *Pseudaonidia trilobitiformis* ; RQ 1515 / FAUN06343 (22 specimens), det. Hayat M., col. Guyot J., Sainte-Clotilde, 24.VI.1986, *Nerium oleander*, ex *Pseudaulacaspis pentagona*.

Chalcididae Latreille, 1817

Antrocephalus* aff. *dividens (Walker, 1860)

RQ 2151 / FAUN08559 (1 specimen), det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, Bassin Martin, 29.V.1989, *Citrus sinensis*.

Encyrtidae Walker, 1837

Acerophagus* cf. *nubilipennis Dozier, 1926

RQ 4827 / FAUN21922 (9 specimens), det. Delvare Gérard, col. Fontaine Olivier, La Possession, 29.X.2010, *Manihot esculenta*, ex *Paracoccus marginatus*.

Blepyrus insularis (Cameron, 1886)

RQ 3704 / FAUN15521, det. Delvare Gérard, col. Quilici Serge, Saint-Leu, Piton-Saint-Leu, 31.III.1998, *Annona squamosa*, ex Pseudococcidae.

Cheiloneurus carinatus Compere, 1938

RQ 1493 / FAUN06258, det. Delvare Gérard, col. Quilici Serge, Saint-Denis, La Bretagne, 19.III.1986, *Dombeya acutangula*, ex Pseudococcidae.

Cheiloneurus orbitalis Compere, 1938

RQ 604 / FAUN03674 (10 specimens), col. Quilici Serge, Saint-Benoît, 21.XI.1983, *Citrus* sp., ex Chrysopidae; RQ 1756 / FAUN07360, det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, Bassin Martin, 15.XI.1987, *Citrus* sp., ex Chrysopidae; RQ 1796 / FAUN07407, det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, Bassin Plat, 14.XII.1987, *Citrus* sp., ex Chrysopidae; RQ 1822 / FAUN07409 (58 specimens), det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, Bassin Plat, 15.I.1988, *Citrus* sp., ex Chrysopidae ; RQ 1834 / FAUN07414 (5 specimens), det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, Bassin Plat, 19.I.1988, *Citrus aurantiifolia*, ex Chrysopidae.

Coelopencyrtus taylori (Annecke & Doult, 1961)

FAUN18012, det. Delvare Gérard, col. Caplong Philippe, Saint-Paul, Savannah, 25.II.2003, ex *Xylocopa fenestrata*.

Encyrtus aurantii (Geoffroy, 1785)

RVA 377 / FAUN14699, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Leu, 10.VII.1997, ex Coccidae.

Exoristobia dipterae (Risbec, 1951)

RQ 2894 / FAUN12534, det. Delvare Gérard, col. Montagneux B., Sainte-Marie, La Ressource, 02.XII.1993, *Solanum melongena*, ex *Neoceratitis cyanescens* ; RQ 3103 / FAUN13809, det. Delvare Gérard, col. Quilici Serge, La Réunion, 19.X.1995, ex *Neoceratitis cyanescens*.

Isodromus timberlakei Annecke, 1963

RQ 459 / FAUN03037 (2 specimens), det. Delvare Gérard, col. Quilici Serge, Le Tampon, 17.II.1983, *Citrus* sp., ex Chrysopidae ; RQ 604 / FAUN03676 (10 specimens), det. Delvare Gérard, col. Quilici Serge, Saint-Benoît, 21.XI.1983, *Citrus* sp., ex Chrysopidae; RQ 1755 & RQ 1758 / FAUN07359 & FAUN07362, det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, 15.XI.1987, *Citrus* sp., ex Chrysopidae ; RQ 1825 / FAUN07413, det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, 15.I.1988, *Citrus* sp., ex Chrysopidae; RQ 1793 / FAUN07403, det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, 14.XII.1987, *Citrus* sp., ex Chrysopidae.

Lamennaisia cf. ambigua (Born, 1834)

RVA 1302 / FAUN16539, det. Delvare Gérard, col. Vayssières Jean-François, La Possession, 10.XII.1999, *Cycas* sp., ex Coccidae.

Leptomastidea abnormis (Girault, 1915)

N° 10 / FAUN14134, det. Delvare Gérard, col. Kreiter P., La Réunion, 20.IX.1996, *Solanum auriculatum*, ex Pseudococcidae.

Metaphycus decussatus Annecke & Prinsloo, 1977

FAUN13381, det. Delvare Gérard, col. Goebel Régis, Saint-Denis, la Bretagne, 15.IX.1994, *Saccharum* sp., ex *Pulvinaria elongata* ; FAUN13581, det. Delvare Gérard, col. Goebel Régis, Saint-Benoît, 15.III.1995, ex *Pulvinaria elongata*.

Metaphycus stanleyi Compere, 1940

RQ 942 / FAUN05336, det. Delvare Gérard, col. Garin S., La Saline les Bains, 11.III.1985, *Abelmoschus esculentus*, ex *Parasaissetia nigra*.

Syrphophagus cf. nigrocyaneus Ashmead, 1904

R12 / FAUN16553, det. Delvare Gérard, col. Guilloux Thomas, Le Tampon, Bras-de-Pontho, 19.X.1999, *Brassica oleracea*, ex *Episyrphus* sp.

Eulophidae Westwood, 1829

***Aprostocetus minutus* (Howard, 1881)**

FAUN13583, det. Delvare Gérard, col. Goebel Régis, Saint-Benoît, 15.III.1995, ex *Pulvinaria elongata* ; RQ 874 / FAUNo4660, det. Delvare Gérard, col. Quilici Serge, Saint-Denis, 07.I.1985, *Citrus* sp., ex *Coccus viridis* ; RQ 1402 / FAUNo5819 (24 specimens), det. Delvare Gérard, col. Quilici Serge, Saint-Denis, 29.V.1985, *Citrus* sp., ex *Coccus viridis* ; RQ 400 / FAUNo2930, det. Delvare Gérard, col. Quilici Serge, Sainte-Suzanne, 14.X.1982, *Eugenia brasiliensis* ; RQ 395 / FAUNo2949, det. Delvare Gérard, col. Quilici Serge, Sainte-Suzanne, 14.X.1982, *Citrus clementina*, ex *Icerya seychellarum*.

***Aprostocetus*, cf. *pallipes* (Dalman, 1820)**

RV 2072 / FAUNo9871, det. Delvare Gérard, col. Vercambre Bernard, Saint-Louis, Le Gol, 20.II.1980.

***Chrysocharis caribea* Bouček, 1977**

N° 4 / FAUN12053, det. Delvare Gérard, col. Marinot E., Les Aviron, Le Tévelave, 11.V.1993, ex *Liriomyza* sp.; FAUNo9996, col. Bordat Dominique, La Réunion, 15.IX.1989.

***Cirrospilus* cf. *dodoneae* (Risbec, 1952)**

RQ 3002 / FAUN13571, det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, Bassin-Plat, 20.IV.1995, *Citrus* sp., ex *Phyllocnistis citrella*.

***Diglyphus isaea* (Walker, 1838)**

RVA 1291 / FAUN16528, RVA 1292 / FAUN16529, RVA 1293 / FAUN16530, det. Delvare Gérard, col. Vayssières Jean-François, Salazie, Mare à Vieille Place, 02.XII.1999, *Cucumis melo*, ex *Liriomyza huidobrensis* ; PR 006/ FAUN17073, det. Delvare Gérard, col. Fabre F., Saint-Pierre, Bassin Martin, 05.V.2000, *Solanum lycopersicum*, ex *Liriomyza* sp.

***Euplectrus laphygmae* Ferrière, 1941**

RVA 392 / FAUN14713, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Pierre, Bassin Martin, 15.V.1997, *Solanum lycopersicum*, ex *Helicoverpa armigera*.

Pteromalidae Dalman, 1820

***Anisopteromalus calandrae* (Howard, 1881)**

RV 272 / FAUNo2681, det. Delvare Gérard, col. Vercambre Bernard, Saint-Denis, 15.V.1982, foodstuffs, ex Silvanidae.

***Halticoptera circulus* (Walker, 1833)**

RVA 1289 / FAUN16526, det. Delvare Gérard, col. Vayssières Jean-François, Salazie, Mare à Vieille Place, 02.XII.1999, *Cucurbita maxima*, ex *Liriomyza huidobrensis* ; RVA 1290 / FAUN16527, det. Delvare Gérard, col. Vayssières Jean-François, Salazie, Mare à Vieille Place, 02.XII.1999, *Cucurbita pepo*, ex *Liriomyza huidobrensis* ; RVA 1292 / FAUN16529, det. Delvare Gérard, col. Vayssières Jean-François, Salazie, Mare à Vieille Place, 02.XII.1999, *Cucumis sativus*, ex *Liriomyza*

huidobrensis ; FAUN09075, det. Delvare Gérard, col. Bordat Dominique, Saint-Paul, L'Hermitage, 16.XI.1989, *Phaseolus vulgaris*, ex *Ophiomyia* sp.

Scutellista caerulea (Fonscolombe, 1832)

P2 / FAUN21924, det. Delvare Gérard, col. Fontaine Olivier, La Possession, 29.X.2010, ex Coccoidea.

Spalangiiidae Haliday, 1833

Spalangia cameroni Perkins, 1910

FAUN02398, det. Delvare Gérard, col. Vercambre Bernard, Saint-Paul, Saint-Paul, 12.VI.1980, ex *Physiphora* sp. ; FAUN02400, det. Delvare Gérard, col. Vercambre Bernard, Saint-Denis, La Bretagne, 30.VI.1980, ex *Stomoxys niger* ; FAUN02401, RV 57, det. Delvare Gérard, col. Vercambre Bernard, Saint-Denis, La Bretagne, 30.VI.1980, ex *Stomoxys niger* ; FAUN02412, det. Delvare Gérard, col. Barre, Sainte-Marie, 30.IX.1980, ex *Stomoxys calcitrans* ; FAUN02424, det. Delvare Gérard, col. Barre, Saint-Paul, Savannah, 29.X.1980, ex *Musca* sp.; FAUN02425, det. Delvare Gérard, col. Barre, La Réunion, 01.X.1980, ex *Musca* sp.

Spalangia nigroaenea Curtis, 1839

RQ 3105 / FAUN13811 (8 specimens), det. Delvare Gérard, col. Goebel M., Saint-Denis, La Bretagne, 19.X.1995, ex *Neoceratitis cyanescens* ; FAUN02398, det. Delvare Gérard, col. Vercambre Bernard, Saint-Paul, 12.VI.1980, ex *Physiphora* sp.; FAUN02402, det. Delvare Gérard, col. Vercambre Bernard, Saint-Paul, Petite France, 30.VI.1980, ex *Stomoxys calcitrans* ; FAUN02412, det. Delvare Gérard, col. Barre, Sainte-Marie, 30.IX.1980, ex *Stomoxys calcitrans* ; FAUN02424, det. Delvare Gérard, col. Barre, Saint-Paul, Savannah, 29.X.1980, ex *Musca* sp.; FAUN02425, det. Delvare Gérard, col. Barre, La Réunion, 01.X.1980, ex *Musca* sp.; FAUN2426, RV 83, det. Delvare Gérard, col. Barre, Saint-Paul, Petite France, 05.XI.1980, ex *Stomoxys calcitrans*.

Spalangia sulcifera Bouček, 1963

RQ 3104 / FAUN13810, det. Delvare Gérard, col. Montagneux B., Saint-Denis, La Bretagne, 19.X.1995, ex *Neoceratitis cyanescens* ; RVA 412 / FAUN14732, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Pierre, Bassin Plat, 15.V.1997, ex *Dacini*; RV 25 / FAUN01557, det. Delvare Gérard, col. Vercambre Bernard, Saint-Denis, La Bretagne, 15.V.1980, ex *Stomoxys calcitrans* ; RVA 1046 / FAUN15632, det. Delvare Gérard, col. Vayssières Jean-François, La Possession, 12.XI.1997, *Citrullus lanatus*, ex *Dacus ciliatus*.

Ichneumonoidea Latreille, 1802

Braconidae Nees, 1811

Apanteles aff. acutissimus Granger, 1949

FAUN11751, det. Delvare Gérard, col. Vercambre Bernard, Saint-Denis, 04.IV.1997, *Momordica charantia*, ex *Diaphania* sp.; RVA 389 / FAUN14710, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Pierre, Bassin Plat, 21.I.1997, *Cucurbita maxima*, ex *Diaphania indica* ; RVA 388 / FAUN14709, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Pierre, Mont-Vert les

Bas, 04.IV.1997, *Cucumis sativus*, ex *Diaphania indica* ; RVA 391 / FAUN14712, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Pierre, Bassin Martin, 21.VIII.1997, *Citrullus lanatus*, ex *Diaphania indica* ; RVA 924 / FAUN15424, det. Delvare Gérard, col. Vayssières Jean-François, La Possession, 22.X.1997, *Cucumis melo*, ex *Diaphania indica* ; RVA 925 / FAUN15425, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Paul, Saint-Gilles, 04.XI.1997, *Citrullus lanatus*, ex *Diaphania indica*.

***Apanteles aff. discretus* Granger, 1949**

N°608 / FAUN15163, det. Delvare Gérard, col. Attié Marc, Saint-Leu, La Chaloupe, 03.XII.1995, ex *Ischnurges* sp.

***Apanteles aff. insignicaudatus* Granger, 1949**

RV 7 / FAUN01555, det. Delvare Gérard, col. Vercambre Bernard, Petite Île, Piton Goyave, 03.XI.1974, *Cynara cardunculus*, ex *Tebenna micalis* ; RVA 709 / FAUN15209, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Pierre, Mont-Vert les Hauts, 18.XI.1997, *Cynara cardunculus*, ex *Tebenna micalis* ; RVA 717 / FAUN15217, det. Delvare Gérard, col. Vayssières Jean-François, La Plaine des Cafres, Piton Hyacinthe, 15.XII.1997, *Cynara scolymus*, ex *Tebenna micalis*.

***Apanteles cf. insignicaudatus* Granger, 1949**

R 1 / FAUN16542, det. Delvare Gérard, col. Guilloux Thomas, Le Tampon, Bras de Pontho, 02.XI.1999, *Brassica oleracea*, ex *Plutella xylostella*.

***Apanteles cf. medioexcavatus* Granger, 1949**

RVA 478 / FAUN14768, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Pierre, Ravine des Cabris, 21.I.1997, *Momordica charantia*, ex Lepidoptera; PR 025 / FAUN17092, det. Delvare Gérard, col. Fabre F., Saint-Pierre, Ravine des Cabris, 11.I.2000, *Cucumis melo*, ex *Diaphania indica* ; PR 013 / FAUN17081, det. Delvare Gérard, col. Fabre F., Saint-Leu, 20.IV.2000, *Cucurbita* sp., ex *Diaphania indica*.

***Euscelinus cf. sarawacus* Westwood, 1882**

RVA 413 / FAUN14733, det. van Achterberg K., col. Vayssières Jean-François, Saint-Benoît, Sainte-Anne, 05.XII.1997, *Litchi chinensis*, ex Cerambycidae.

***Microplitis cf. hova* Granger, 1949**

RVA 717 / FAUN15217, det. Delvare Gérard, col. Vayssières Jean-François, La Plaine des Cafres, Piton Hyacinthe, 15.XII.1997, *Cynara scolymus*, ex *Tebenna micalis*.

***Opius melanagromyzae* Fischer, 1966**

C22-753B / LSV2200599, det. Rousse Pascal, col. Tisserand Gaëlle, La Réunion, 16.V.2022, *Vigna unguiculata* ssp. *sesquipedalis*, ex Agromyzidae.

***Phanerotoma aff. pygmaea* Széligeti, 1913**

FAUN04667, det. Delvare Gérard, col. Quilici Serge, Saint-Pierre, Bassin Plat, 28.XII.1984, *Citrus aurantiifolia*.

Ceraphronidea Haliday, 1833

Ceraphronidae Haliday, 1833

***Aphanogmus reticulatus* Parr, 1960**

FAUN13377, det. Delvare Gérard, col. Goebel Régis, Saint-André, 06.VII.1994, *Saccharum* sp., ex *Cotesia* sp.

Cynipoidea Latreille, 1802

Figitidae Thomson, 1862

***Nordlanderia pallida* Quinlan, 1986**

RVA 521 / FAUN14788, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Denis, 20.VIII.1997, *Allium cepa*, ex *Liriomyza* sp.; RVA 528 / FAUN14793, det. Delvare Gérard, col. Vayssières Jean-François, Saint-André, 02.IX.1997, *Brassica rapa*, ex *Liriomyza* sp.; RVA 552 / FAUN14801, det. Delvare Gérard, col. Vayssières Jean-François, Saint-Denis, 25.IX.1997, *Brassica rapa*, ex *Liriomyza* sp.

Platygastroidea Haliday, 1833

Scelionidae Haliday, 1839

***Telenomus cf. demodoci* Nixon, 1936**

FAUN18011, det. Delvare Gérard, col. Attié Marc and Morel Gilles, Saint-Denis, 14.III.2003, *Duranta erecta*, ex *Acherontia atropos*.

***Telenomus remus* Nixon, 1937**

FAUN13629, det. Delvare Gérard, col. Goebel Régis, Saint-Denis, 15.IV.1995, ex *Spodoptera mauritia mauritia* ; FAUN14026, RG-R, det. Delvare Gérard, col. Goebel Régis, Saint-Denis, 15.IV.1996, ex *Spodoptera mauritia mauritia*.

Diptera Linnaeus, 1758

Dolichopodidae Latreille, 1809

***Medetera grisescens* de Meijere, 1916[§]**

MAJQ00145_01 # (1 specimen), det. Nibouche Samuel, col. Jacquot Maxime, La Réunion, 20.VIII.2014; MAJQ00149_01 # (1 specimen), det. Nibouche Samuel, col. Jacquot Maxime, La Réunion, 29.VIII.2013.

Ephydriidae Zetterstedt, 1837

***Hydrellia pubescens* Becker, 1926**

RQ 4150 / FAUN16923 (2 specimens), det. Martinez M., col. Quilici Serge, Salazie, 14.II.2000, *Nasturtium officinale* ; RQ 4151 / FAUN16924 (8 specimens), det. Martinez M., col. Quilici Serge, Salazie, 13.IV.2000, *Nasturtium officinale*.

Muscidae Latreille, 1802

***Coenosia attenuata* Stein, 1903**

SDER00147_01 # (2 specimens), det. Nibouche Samuel, col. Dervin Sébastien, Saint-Pierre, Bassin Martin, 10.V.2015, *Solanum melongena*.

Sphaeroceridae Macquart, 1835

Pullimosina heteroneura (Haliday, 1836)

RV 256 / FAUN02695 (1 specimen), det. Deeming J.C., col. Vercambre Bernard, Saint-Joseph, Grand Coude, 10.X.1982, *Phaseolus vulgaris*.

Tachinidae Fleming, 1821

Paradrino halli (Curran, 1939)

RV 10 / FAUN01559, det. D'Aguilar, col. Vercambre Bernard, Sainte-Marie, 26.X.1979, *Saccharum* sp., ex *Leucania pseudoloreyi*.

DISCUSSION

The list includes 101 taxa new to Reunion Island. Five of these taxa were identified using the barcoding technique. Hymenoptera and Hemiptera are the most represented orders, with 45 and 27 taxa respectively. Several invasive pest species of major economic or environmental importance and of recent introduction were identified between 2012 and 2020, such as *Spodoptera frugiperda*, *Tuta absoluta*, *Scirtothrips dorsalis*, *Echinothrips americanus*, *Erionota torus*, *Icerya purchasi*, *Amrasca biguttula* or *Sipha flava*. These introductions illustrate the vulnerability of Reunion Island to biological invasions and the current rate of introduction of exotic insects to the island.

ACKNOWLEDGMENTS. – This work received financial support from the Epibio project, co-financed by the European Union (ERDF Interreg V), the Reunion region and CIRAD. The authors would like to thank Thibault Ramage for his critical review of the list and Gérard Delvare for his contribution to the Hymenoptera list. Specimens collected after 2019 have been subject to a declaration for access to genetic resources and the sharing of benefits arising from their utilization, within the framework of the Convention on Biological Diversity and the Nagoya Protocol (reference ABSCH-IRCC-FR-248772-1).

AUTHORS CITED

FOLMER O., BLACK M., HOEH W.R., LUTZ R. & VRIJENHOEK R., 1994. – DNA primers for amplification of mitochondrial cytochrome c oxidase subunit I from diverse metazoan invertebrates. *Molecular Marine Biology and Biotechnology*, **3**: 294-299.

GARGOMINY O., TERCERIE S., RÉGNIER C., RAMAGE T., DUPONT P., DASZKIEWICZ P. & PONCET L., 2021. – TAXREF v15, taxonomic framework for France: methodology,

- implementation and dissemination. Muséum national d'Histoire naturelle, Paris. UMS PatriNat report (OFB-CNRS-MNHN). 63 pp.
- GERMAIN J.-F., CHATOT C., MEUSNIER I., ARTIGE E., RASPLUS J.-Y. & CRUAUD, A., 2013. – Molecular identification of *Epirrix* potato flea beetles (Coleoptera: Chrysomelidae) in Europe and North America. *Bulletin of Entomological Research*, **103**: 354-362. <https://doi.org/10.1017/S000748531200079X>
- HEBERT P. D., CYWINSKA A., BALL S. L. & DEWAARD J. R. 2003. – Biological identifications through DNA barcodes. *Proceedings of the Royal Society of London. Series B: Biological Sciences*, **270**: 313-321. <https://doi.org/10.1098/rspb.2002.2218>
- INRAE-CBGP, 2022, "Arthemis database", <https://doi.org/10.15454/TBGRIB>, [online database accessed 2022-10-25]
- LEGROS V., ROCHAT J., REYNAUD B., & STRASBERG D., 2020. – Known and unknown terrestrial arthropod fauna of Reunion Island, Indian Ocean. *Journal of insect conservation*, **24**: 199-217. <https://doi.org/10.1007/s10841-019-00188-0>
- PALMA-JIMÉNEZ M. & BLANCO-MENESES M., 2016. – First Record of Morphological and Molecular Identification of Mealybug *Pseudococcus Jackbeardsleyi* (Hemiptera: Pseudococcidae) in Costa Rica. *Universal Journal of Agricultural Research*, **4**: 125-133. <https://doi.org/10.13189/ujar.2016.040403>
- PARK D.-S., SUH S.-J., OH H.-W. & HEBERT P.D.N., 2010. – Recovery of the mitochondrial COI barcode region in diverse Hexapoda through tRNA-based primers. *BMC Genomics*, **11**: 423. <https://doi.org/10.1186/1471-2164-11-423>
- POVEDA-MARTÍNEZ D., AGUIRRE M. B., LOGARZO G., CALDERÓN L., DE LA COLINA A., HIGHT S., TRIAPITSYN S., DIAZ-SOLTERO H. & HASSON E. 2019. – Untangling the *Hypogeococcus pungens* species complex (Hemiptera: Pseudococcidae) for Argentina, Australia, and Puerto Rico based on host plant associations and genetic evidence. *PloS ONE*, **14**: e0220366. <https://doi.org/10.1371/journal.pone.0220366>
- POVEDA MARTÍNEZ D., AGUIRRE M. B., LOGARZO G., HIGHT S. D., TRIAPITSYN S., DIAZ SOTERO H., DINIZ VITORINO M. & HASSON, E. 2020. – Species complex diversification by host plant use in an herbivorous insect: The source of Puerto Rican cactus mealybug pest and implications for biological control. *Ecology and evolution*, **10**: 10463-10480. <https://doi.org/10.1002/ece3.6702>

- RATNASINGHAM S. & HEBERT P.D.N., 2013. – A DNA-Based Registry for All Animal Species: The Barcode Index Number (BIN) System. *PLoS ONE*, **8**: e66213.
<https://doi.org/10.1371/journal.pone.0066213>
- SIMON C., FRATI F., BECKENBACH A., CRESPI B., LIU H. & FLOOK P., 1994. – Evolution, weighting, phylogenetic utility of mitochondrial gene sequences and a compilation of conserved polymerase chain reaction primers. *Annals of the Entomological Society of America*, **87**: 651–701.
<https://doi.org/10.1093/aesa/87.6.651>
- SUJEEVAN R., & HEBERT P., 2007. – BOLD: the Barcode of life data system (<http://www.barcodinglife.org>). *Molecular ecology notes*, **7**: 355-364.
<https://doi.org/10.1111/j.1471-8286.2007.01678.x>

Table I. Primers used for barcoding.

Portion of the gene sequenced	Forward Primer	Primer Reverse	Reference	Orders, families
COI-5P	LCO1490puc_t1 LCO1490Hem1_t1 LCO1490Hem1_t1	HCO2198puc_t1 HCO2198Hem1_t1 HCO2198Hem2_t1	Germain <i>et al.</i> (2013)	Thysanoptera (part), Aleyrodidae (part)
COI-5P	LCO1490	HCO2198	Folmer <i>et al.</i> (1994)	diverse
COI-5P	PcoF1	Lep-R1	Park <i>et al.</i> (2010); Hebert <i>et al.</i> (2004)	Monophlebidae
COI-3P	C1-J-2183 (aka Jerry)	C1-N-2568	Simon <i>et al.</i> (1994); Palma-Jiménez & Blanco-Meneses (2016)	Pseudococcidae

Table II. List of 101 taxa new for Reunion Island.

Order	Number of taxa	Family	Taxa
Trombidiformes	3	Eriophyidae	<i>Aceria tulipae</i> Keifer, 1938
			<i>Aculus fockeui</i> (Nalepa & Trouessart, 1891)
			<i>Aculus schlechtendali</i> (Nalepa, 1890)
Blattodea	2	Kalotermitidae	<i>Allotermes paradoxus</i> Wasmann, 1910
		Rhinotermitidae	<i>Coptotermes formosanus</i> Shiraki, 1909
Hemiptera	26	Cicadellidae	<i>Amrasca biguttula</i> (Ishida, 1913)
			<i>Balclutha viridinervis</i> Matsumura, 1914
		Delphacidae	<i>Distantinus amyclas</i> (Fennah, 1972)
			<i>Liburnia krugeri</i> (Muir, 1929)
			<i>Toya suzezensis</i> (Matsumura, 1910)
		Anthocoridae	<i>Cardiastethus capensis</i> Carayon, 1961
		Pentatomidae	<i>Piezodorus rubrofasciatus</i> (Fabricius, 1775)
		Rhyparochromidae	<i>Elasmolomus transversus</i> (Signoret, 1861)
		Aleyrodidae	<i>Aleurothrixus porteri</i> Quaintance & Baker, 1916
			<i>Aleurotulus anthuricola</i> Nakahara, 1989
			<i>Asiothrixus antidesmae</i> Takahashi, 1933
			<i>Bemisia afer</i> (Priesner & Hosny, 1934)
		Aphididae	<i>Aphis odinae</i> (van der Goot, 1917)
			<i>Aphis solanella</i> Theobald, 1914
			<i>Greenidea ficicola</i> Takahashi, 1921
			<i>Schizaphis graminum</i> (Rondani, 1852)
			<i>Sipha flava</i> (Forbes, 1885)
			<i>Smynthuroides betae</i> Westwood, 1849
		Diaspididae	<i>Aulacaspis rosae</i> (Bouché, 1833)
			<i>Diaspis bromeliae</i> (Kerner, 1778)
		Monophlebidae	<i>Icerya purchasi</i> Maskell, 1879
		Pseudococcidae	<i>Dysmicoccus neobrevipes</i> Beardsley, 1959
			<i>Hypogeococcus pungens</i> Granara de Willink, 1981
			<i>Palmicultor palmarum</i> (Ehrhorn, 1916)
			<i>Phenacoccus solani</i> Ferris, 1918
			<i>Pseudococcus cryptus</i> Hempel, 1918
Thysanoptera	10	Thripidae	<i>Ceratothripoides brunneus</i> Bagnall, 1918
			<i>Echinothrips americanus</i> Morgan, 1913
			<i>Neohydatothrips samayunkur</i> (Kudo, 1995)
			<i>Scirtothrips dorsalis</i> Hood, 1919
			<i>Stenchaetothrips biformis</i> Bagnall, 1913
			<i>Trichromothrips xanthus</i> (Williams, 1917)
			<i>Thrips nigropilosus</i> Uzel, 1895
		Phlaeothripidae	<i>Ananthakrishnana euphorbiae</i> Priesner, 1931
			<i>Androthrips ramachandrai</i> Karny, 1926
			<i>Dolichothrips indicus</i> (Hood, 1919)
Neuroptera	1	Hemeroptidae	<i>Psectra</i> cf. <i>iniqua</i> (Hagen, 1859)
Coleoptera	4	Curculionidae	<i>Hypothenemus birmanus</i> (Eichhoff, 1878)
			<i>Hypothenemus obscurus</i> (Fabricius, 1801)
			<i>Xylosandrus crassiusculus</i> (Motschulsky, 1866)

Order	Number of taxa	Family	Taxa
		Nitidulidae	<i>Cybocephalus binotatus</i> Grouvelle, 1908
Lepidoptera	5	Gelechiidae	<i>Tuta absoluta</i> (Meyrick, 1917)
		Hesperiidae	<i>Erionota torus</i> Evans, 1941
		Noctuidae	<i>Agrotis segetum</i> Denis & Schiffermüller, 1775
			<i>Leucania loreyi</i> Duponchel, 1827
			<i>Spodoptera frugiperda</i> (J. E. Smith, 1797)
Hymenoptera	Aphelinidae	<i>Aphelinus maidis</i> Timberlake, 1924	
		<i>Encarsia basicincta</i> Gahan, 1927	
		<i>Encarsia cubensis</i> Gahan, 1931	
		<i>Encarsia guadeloupeae</i> Viggiani, 1987	
		<i>Eretmocerus eremicus</i> Rose & Zolnerowich, 1997	
		<i>Marietta carnesi</i> (Howard, 1910)	
	Chalcididae	<i>Antrocephalus</i> aff. <i>dividens</i> (Walker, 1860)	
	Encyrtidae	<i>Acerophagus</i> cf. <i>nubilipennis</i> Dozier, 1926	
		<i>Blepyrus insularis</i> (Cameron, 1886)	
		<i>Cheilonurus carinatus</i> Compere, 1938	
		<i>Cheilonurus orbitalis</i> Compere, 1938	
		<i>Coelopencyrtus taylori</i> (Annecke & Doutt, 1961)	
		<i>Encyrtus aurantii</i> (Geoffroy, 1785)	
		<i>Exoristobia dipterae</i> (Risbec, 1951)	
		<i>Isodromus timberlakei</i> Annecke, 1963	
		<i>Lamennaisia</i> cf. <i>ambigua</i> (Born, 1834)	
		<i>Leptomastidea abnormis</i> (Girault, 1915)	
		<i>Metaphycus decussatus</i> Annecke & Prinsloo, 1977	
		<i>Metaphycus stanleyi</i> Compere, 1940	
		<i>Syrphophagus</i> cf. <i>nigrocyanus</i> Ashmead, 1904	
	Eulophidae	<i>Aprostocetus minutus</i> (Howard, 1881)	
		<i>Aprostocetus</i> cf. <i>pallipes</i> (Dalman, 1820)	
		<i>Chrysocharis caribea</i> Bouček, 1977	
		<i>Cirrospilus</i> cf. <i>dodoneae</i> (Risbec, 1952)	
		<i>Diglyphus isaea</i> (Walker, 1838)	
		<i>Euplectrus laphygmae</i> Ferrière, 1941	
	Pteromalidae	<i>Anisopteromalus calandrae</i> (Howard, 1881)	
		<i>Halticoptera circulus</i> (Walker, 1833)	
		<i>Scutellista caerulea</i> (Fonscolombe, 1832)	
	Spalangiidae	<i>Spalangia cameroni</i> Perkins, 1910	
		<i>Spalangia nigroaenea</i> Curtis, 1839	
		<i>Spalangia sulcifera</i> Bouček, 1963	
	Braconidae	<i>Apanteles</i> aff. <i>acutissimus</i> Granger, 1949	
		<i>Apanteles</i> aff. <i>discretus</i> Granger, 1949	
		<i>Apanteles</i> aff. <i>insignicaudatus</i> Granger, 1949	
		<i>Apanteles</i> cf. <i>insignicaudatus</i> Granger, 1949	
		<i>Apanteles</i> cf. <i>medioexcavatus</i> Granger, 1949	
		<i>Euscelinus</i> cf. <i>saravacus</i> Westwood, 1882	
		<i>Microplitis</i> cf. <i>hova</i> Granger, 1949	
		<i>Opius melanagromyzae</i> Fischer, 1966	
		<i>Phanerotoma</i> aff. <i>pygmaea</i> Szépligeti, 1913	
	Ceraphronidae	<i>Aphanogmus reticulatus</i> Parr, 1960	

Order	Number of taxa	Family	Taxa
		Figitidae	<i>Nordlanderia pallida</i> Quinlan, 1986
		Scelionidae	<i>Telenomus cf. demodoci</i> Nixon, 1936
			<i>Telenomus remus</i> Nixon, 1937
Diptera	5	Dolichopodidae	<i>Medetera grisescens</i> de Meijere, 1916
		Ephydriidae	<i>Hydrellia pubescens</i> Becker, 1926
		Muscidae	<i>Coenosia attenuata</i> Stein, 1903
		Sphaeroceridae	<i>Pullimosina heteroneura</i> (Haliday, 1836)
		Tachinidae	<i>Paradrino halli</i> (Curran, 1939)