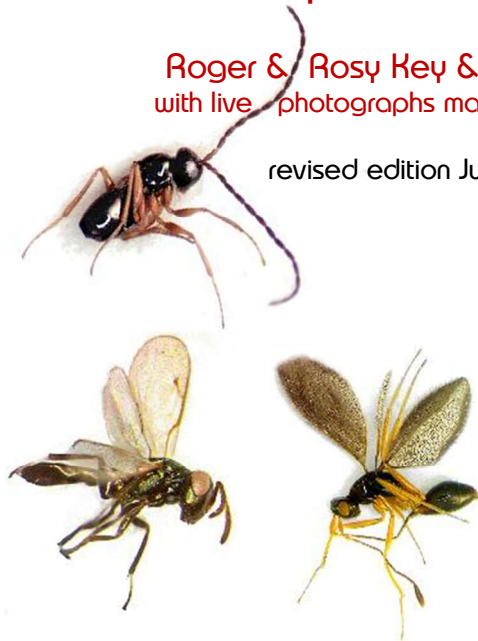


The Parasitoid Wasps of St Helena Island

a summary of current information

Roger & Rosy Key & Steve Compton
with live photographs mainly by Liza Fowler

revised edition June 2026



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(Revised Version. June 2026)

This 2nd version of the report corrects numerous typos and minor inaccuracies in the 1st version, includes a rewritten section on the Chalcidoidea: Eulophidae: Tetrastichinae. and adds two additional unidentified taxa (1 mymarid and 1 eulophid).

Cover Photograph credits

top

Larvae of unidentified species parasitoid (probably a eulophid) developing externally on the caterpillar of African Cotton Leafworm *Spodoptera littoralis*. Photograph by Liza Fowler, Burnt Rock May 2017

2nd & 3rd rows L > R St Helenas' Endemic Species of Parasitica

1 *Kleidotoma mirosutellaris* Cynipoidea: Figitidae Eucilinae, photo Roger Key

2 Darwin's Wasp *Pteromalus ipsea* Chalcidoidea: Pteromilidae, photo Roger Key

3 *Mymarilla wollastoni* Chalcidoidea: Myrmariidae photo Roger Key

4 Ashmoles' Ichneumon *Helenanomalon ashmolei* Ichneumonoidea: Ichneumonidae

5 *Netelia insulicola* Ichneumonoidea: Ichneumonidae photo Liza Fowler,

6 *Macroteleia gracilicornis* Platygastroidea: Scelionidae photo Liza Fowler

7th **Bonaparte's** Ichneumon *Helenanomalon bonapartei* Ichneumonoidea: Ichneumonidae mating pair photo Liza Fowler

8th Bottom picture

Roger & Rosy Key & Liza Fowler setting Malaise Trap in Mulberry Gut in 2022 for parasitoid project - Photo Marisca Fowler

:

One putative endemic, collected by Charles Darwin, would seem to be missing in the line-up - *Cirrospilus nireus* Chalcidoidea: Eulophidae, which was so badly described and, with the type specimen gone AWOL, we can't know if it is a true endemic, or even a true species. We include here an unidentified specimen in the same family and subfamily (Tetrastichinae) from St Helena as the best candidate to be the real McCoy...



About the Authors

Dr Roger Key, now retired, was formerly head of invertebrate conservation at the England statutory conservation agencies English Nature & Natural England and has worked on invertebrates in the UK Territories of South Georgia & St Helena.



Dr Stephen Compton, now retired, was Professor in Applied Entomology at Rhodes University, Grahamstown, South Africa and Reader in Entomology at the University of Leeds in the UK. He has studied Parasitoid Hymenoptera, especially Chalcidoidea, all over the world, but specialized in Asian and African Agaonidae (Fig Wasps).



Mrs Rosy Key, now retired, worked in a number of roles in habitat and species conservation for the UK and English statutory conservation agencies, the Joint Nature Conservation Committee, English Nature & Natural England and has similarly worked on invertebrates in the UK Territories of South Georgia & St Helena.



Ms Liza Fowler is Cloud Forest Invertebrate Specialist for the St Helena National Trust and previously the Education Officer and Invertebrate Specialist on three Darwin Projects. After a childhood spent fossicking for St Helena's bugs she has a very keen eye for finding and photographing scarce species, including some species thought to have been lost from the island.



Help and support from:-



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Introduction

In this report we have tried to come up with a summary of current knowledge on the parasitoid wasps on St Helena, giving an indication of the level of knowledge of each taxonomic group, illustrations wherever possible and list the (verified as far as possible) records on the island.

We've also tried to give an indication of the limitations and difficulties in working on what is a remarkably difficult group of insects. This is not meant to discourage their study – they are a fascinating group to work on and there is much possibility of making important new discoveries and new species and valuable ecological insights – but to give sense of realism that some of their taxonomic groups may continue to defeat even the most enthusiastic potential student of the group.

This **2nd version** of the report corrects numerous typos and minor inaccuracies, including a rewritten section on Chalcidoidea: Eulophidae: Tetrastichinae. and adds two additional unidentified taxa (1 mymarid and 1 eulophid).

PARASITOID WASPS

What are they?

A parasitoid is an organism that has young that develop on or within another organism (the host), eventually killing it, hence having characteristics of both predators and parasites.

Almost all of the species included here are parasitoids, although one species on St Helena is sometimes somewhat closer to being parasitic (up to about 25% of ladybirds that host the braconid wasp *Dinocampus coccinellae* may survive the emergence of the wasp). The eurytomid wasp *Tetramesa* sp is cecidogenic (creates galls) on grass stems, and the megastigmatic wasp *Megastigmus transvaalensis* is granivorous (a seed predator) of wild mango and pepper tree (*Schinus terebinthifolius* & *S.molle*) seeds, tunnelling out and killing the seed within its berry.

Parasitoid wasps are an informal grouping within the Hymenoptera other than sawflies and aculeates with a sting (ants, bees and various groups of insects of many superfamilies or families which include the word 'wasps' as the last part of their English name (e.g. Dauber, Digger, Ichneumon, Jewel, Paper, Parasitic, Potter, Ruby-tailed, Social, Solitary, Spider-hunting, Wood etc etc). They are incredibly rich in species, with probably more than a million species present globally, though the large majority of which remain undescribed. Because of their life style, the majority of either small, or very small members of the Mymaridae (Fairy Flies) include the smallest insects in the world (0.14- mm to 2.0mm) - although a few that parasitise large insect larvae can reach a few centimetres. They are very important ecologically influencing the populations of their host species and economically because of the control they can exert on pest host species.

HISTORY OF STUDY OF ST HELENA PARASITOID WASPS

19th Century

The study of parasitic wasps on St Helena dates back to Darwin's visit to the island on HMS "Beagle" in May 1836 when he collected just ?2 species, both of which were described as endemic by *Frances Walker entomologist at the Natural History Museum in London in 1839.

John Charles Melliss was author of the first major work on the natural history of the island in 1875, Mellis, J.C. 1875 St. Helena: a physical, historical, and topographical description of the island, including its geology, fauna, flora and meteorology. L.Reeve & Co, London. 423pp. (p 179-180 (reproduced in full in appendix 1), included 10 species in his account of the island's fauna of which 8 species had been described as endemic by *Francis Walker.

The illustrations

Although this report includes photographs of as many species as we could produce ourselves or otherwise source, **it is not intended to be used as an identification guide**. The number of species, their tiny size and the specialist knowledge required to identify them means that, except for a very tiny minority of obviously distinctive, conspicuous species, identification is not possible without a detailed knowledge of their anatomy and taxonomy, access to an international collection and advice from international experts in the specific groups of wasps.

The majority of photographic illustrations are of mounted individuals that we took ourselves of specimens caught on St Helena, taken with an OMAZ A35140U microscope camera mounted on an Olympus SZ40/SZPT/MTV-3 microscope/camera mount combination, ToupView v4 and Helicon Focus image capture and image-stacking software. They were initially produced for the S African Waspweb website, in a standardised format (which now has a separate St Helenian section

<https://www.waspweb.org/SaintHelena/index.htm>). They are supplemented by pictures of live specimens that were photographed in the field by Liza Fowler using an Olympus OM Tough TG4 camera.

* Frances Walker was based at the Natural History Museum but was notorious for being prolific but messy. He published an enormous volume of work, but it was often criticized for being poorly organized, lacking clear descriptions, and having poor illustrations, making species identification difficult. His numerous, sometimes hasty, descriptions led to many species being named by him multiple times and created significant confusion in insect taxonomy. He specialized in parasitic Hymenoptera, Diptera and Lepidoptera and created lasting taxonomic headaches. An obituary of him in 1874 starts "More than twenty years too late for his scientific reputation, and after having done an amount of injury almost inconceivable in its immensity..."

Species listed there as endemic to St Helena:-

Ichneumonidae

Ichneumon maculifemur,

Ichneumon diffinis,

Ichneumon latipes,.

Cryptus triangulifer

Pimpla sanctæhelenæ

Paniscus piceus.

Pteromalidae

Pteromalus ipsea

Eulophidae

Cirrospilus nireus

It has proved difficult to determine the true identity of the ichneumonids on the list – most may simply be varying individuals of the genuinely endemic *Echthromorpha atrata* Holmgren, 1868, although *Paniscus piceus* is described as being red-bodied.- possibly therefore *Netelia insulicopa*, which wasn't described until 1913.

Pteromalus ipsea is still regarded as a good species and still regarded as endemic.

Cirrospilus nireus found by Charles Darwin high on St Helena and named by Francis Walker, who is notorious for having described dubious species and it has not been seen since. There is a possibility that it is a synonym of another species. Steve Compton of Leeds University reports that the type specimen appears to have gone missing and the species' description is too vague to be useful - a good example of a '*Nomen Nudum*'. The name '*Cirrospilus*' at the time of the description incorporated many species that included in wide range of genera, so the name implies little more than that the insect belonged to family Eulophidae. Species that might be same as '*C. nireus*' have been found on St Helena in 2017, 2022 & 2023 but, as the definition of the genus has changed since Walker's time, the identity of the species on the island is likely to remain 'enigmatic'.

T. Vernon Wollaston seems to have done very little himself with the Parasitica, although various species he found were described by others to whom he had sent material. *Netelia insulicola* Morley, 1913 and *Macroteleia gracilicornis* Dodd, 1920 were described from his material. Some endemics were named in his honour: *Mymarilla wollastoni* Westwood, 1879, *Scleroderma wollastoni* Westwood, 1881, and *Dendrocerus wollastoni* (Dodd, 1920) (initially considered to be endemic to St Helena but has since been found in numerous parts of continental Africa).

Mid 20th Century

The next significant contribution to the knowledge of the island's Hymenoptera was the Belgian Royal Museum of Central Africa expeditions to St Helena in 1965, 1966 & 1967, Basilewsky, P. (Ed.) 1976. La faune terrestre de l'île de Sainte-Hélène. Troisième partie. *Annales du Musée Royal de l'Afrique Centrale, Zoologie* 215: 1-533, (which included all the Hymenoptera).

Jean Decelle worked on the Ichneumonoidea and Chalcidoidea, Pierre Benoit worked on the Bethyloidea, describing *Sclerodermus insularis* & *sanctæhelenæ*. Paul Dessart of the Royal Institute for Natural Sciences in Brussels worked on the Cynipidoidea, Proctotrupodea, Ceraphronoidea brought back by the expedition and added *Kleidotoma mirosutellaris* (endemic – and initially in a proposed endemic genus *Polbourdouxia* which was eventually synonymised) and also redescribed *Dendrocerus wollastoni* (Megaspilidae)

We assume that the specimens of all these species remain in the Africa Museum at Tervuren in Belgium.

Late 20th Early 21st Century

The next major contributions to knowledge of the islands parasitoid wasps was by Philip and Myrtle Ashmole who visited St Helena 1995/96, 2003 and 2005/06 to study the invertebrates of Prosperous Bay Plain and the central mountains (with Howard Mendel of the NHM). Identification of the parasitoid wasps was mainly by David Notton & John Noyes who identified possible undescribed species that are still yet to be named, and left some species identified only to higher taxon level:- encyrtids from Prosperous Bay Plain & *Baeus*, *Platygaster* & *Synopeas* sp.. Their discoveries also resulted in the later recognition and description of the endemic ichneumonid genus *Helenanomalon* and its two species *H. ashmolei* and *H. bonapartei* by Gavin Broad of the NHM. Philip & Myrtle produced a combined database checklist of all St Helens's invertebrates and their book 'St Helena and Ascension Island, a natural history' included a brief summary of knowledge on the Parasitica at the time.

From 2011 onwards various Darwin and Darwin Plus projects with the St Helena National Trust focussed work on St Helena's invertebrates. These, which included visits to the island by Roger & Rosy Key in 2011, 2013 and 2022, produced a large number of specimens from demonstration of insect hunting techniques. Specimens from 2011 were sent to Simon van Noort of the Iziko Museums in Cape Town, S Africa for identification. The 2021 book 'Terrestrial & Freshwater Invertebrates of St Helena' resulted from these visits and included brief summaries of all the families of parasitoid wasps and included photographs of representative species.

The first of these Darwin Projects started In 2013 and they continue to this day. most of which have included much survey and monitoring of invertebrate populations, in particular by Liza Fowler and David Pryce, which left a large legacy of preserved specimens of parasitoid wasps. These, along with specimens from a broad programme of Malaise trapping in areas away from the endemic vegetation (when pathogenic tree diseases prevented their intended work in the cloud forest project during Roger & Rosy Key's visit in 2022 added up to 1138 specimens and were forwarded to Steve Compton, Reader in Entomology at Leeds University in the UK and form the basis of this report. Liza Fowler's photography added several species to the island list of unidentified new species and have been much used in the production of this report.

LOCATION OF MUSEUMS, INSTITUTIONS AND INDIVIDUALS KNOWN TO HAVE COLLECTIONS OF ST HELENIAN PARASITOID WASPS

United Kingdom

Natural History Museum, London – early collections made by Charles Darwin, Charles Mellis & Vernon Wollaston and more recent ones made by the Philip & Myrtle Ashmole and Howard Mendel. A small collection from Roger & Rosy Key/Steve Compton was passed to Gavin Broad for identification in 2025.

Dr S G Compton, Leeds (collection currently on loan from St Helena National Trust - collections made by Roger & Rosy Key and selected specimens collected by Liza Fowler, David Pryce and other members of the various Darwin projects. Manchester Museum is the likely repository for the collection currently held by Dr Compton (not yet decided).

St Helena

There is a small collection within the St Helena National Trust collection put together from material collected by Liza Fowler and David Pryce from various Darwin Initiative projects. Examples of the more abundant species were passed to Natasha Stephens for return to the island in 2024 and a representative collection from the specimens held by Steve Compton will be repatriated to St Helena for this collection.

The St Helena Government's Agriculture and Natural Resources Division (ANRD) have some specimens of intercepted species and biocontrol species used for display and interpretation purposes.

Belgium

Africa Museum, Royal Museum for Central Africa at Tervuren Collections made by the Belgian expeditions in 1965-1967.

South Africa

Iziko South African Museum, Cape Town. A small, undocumented collection made in 2011 by Roger & Rosy Key while demonstrating entomological technique on St Helena was forwarded to Simon van Noort for identification.

Possible other Locations where specimens are reported to have been sent to, but where it is not known whether or not they were returned after identification.

Belgium

Institute Royal des Sciences Naturelles de Belgium, Brussels. Specimens of Cynipoidea, Chalcidoidea, Proctotrupoidea and Cerophronoidea were sent to Paul Decelle for identification. Holotypes of newly described species were sent to Tervuren, Belgium and Paratypes retained at Brussels but there seems to be no reference to where other, specimens were located, including unidentified ones.

Sweden

Department of Systematic Zoology, Evolutionary Biology Centre, Uppsala, Specimens of Eucolidae were sent to Mattias Forshage for identification.

ST HELENA'S FAUNA OF PARASITOID WASPS

As might be expected in such an isolated location, St Helena has a depauperate fauna when compared with islands closer to continental land masses - a modest English garden would typically support more species than the whole of St Helena. The nearest land from the island is 1293km away - the equally isolated Ascension Island, part of the same UK Overseas Territory as St Helena, which also includes Tristan da Cunha, 2,430 km distant. The nearest continental land mass is in the desert coast of Angola at 1860km, while the nearest point in South America is 3280 km in the dry forest zone of Brazil. Most, perhaps all of St Helena's endemic insect fauna seems to be of African origin, though Mdan Mitrou (pers. Comm to S. Compton 2024) believes that the endemic *Pteromalus ipsea* has affinities with a South American genus.

In this work, we include 8 superfamilies, 25 families, 37 subfamilies, 93 genera and 85 species identified to various levels of confidence. There are also 101 partially identified taxa, 85 identified to genus only, 8 to subfamily only and 7 only to family level. Amongst these 99 unidentified taxa, however, it is likely that there is considerable duplication as we have not been able to associate partially identified taxa from each of the sources of data (the Belgian, Prosperous Bay Plain the cloud forest and other recent surveys, including our own in 2022). This could reduce the total by possibly 30 or more taxa. In additions 3 taxa are attributed to names that are each a 'nomen nudum' – (Latin for "naked name") ie is a scientific name that is invalid because it was published without, or with an inadequate proper description and/or has no holotype specimen or suitable replacement type.

Hence we estimate the current fauna that is represented by specimens in museums to be about 150 species, although this again will be an underestimate, as every survey that has been carried out so far has added additional taxa and there is no reason not to expect that to continue.

Checklist of St Helena's parasitoid Hymenoptera

* = endemic species

indented name = species identified to Family, Subfamily or Genus level

sensu <***> source of species number (sp.!, sp2 etc) given as *sensu* origin of name/number

sensu this work

Key, R.S., Compton, S.G. & Key, R.J.D. The Parasitoid Wasps of St Helena Island
a summary of current information. Unpublished Report to the St Helena National Trust

sensu Belgian Report

Basilewsky, P. (Ed.) 1976. La faune terrestre de l'île de Sainte-Hélène. Troisième partie. Annales du
Musée Royal de l'Afrique Centrale, Zoologie 215: 1-533. [includes Hymenoptera,

sensu Peaks Survey report

Mendel, H., Ashmole, P. & Ashmole, M. 2008. Invertebrates of the Central Peaks and Peak Dale, St
Helena. Report for the St Helena National Trust. 121p.

sensu PBP Survey report

Ashmole, N.P. & Ashmole, M.J. 2004. The invertebrates of Prosperous Bay Plain, St Helena. Report
commissioned by the St Helena Government.

sensu <individual name> author or determiner who coined the name/number

Superfamily: *Ceraphronoidea*

Family: *Ceraphronidae*

Ceraphronidae sp. 1 *sensu* this work

Ceraphronidae sp. 2 *sensu* this work

Ceraphronidae sp. 3 *sensu* this work

Family: *Megaspilidae*

Dendrocerus wollastoni (Dodd, 1920)

Dendrocerus sp. 1 *sensu* this work

Dendrocerus sp. 2 *sensu* this work

Superfamily: *Chalcidoidea*

(Family: *Agaonidae*)

(*Eupristina masoni* Saunders, 1882)

speculated presence?

Family: *Aphelinidae*

Subfamily: *Aphelininae*

Aphelinus abdominalis (Dalman, 1820)

Aphelinus brachypterous sp. 1 *sensu* this work

Aphelinus brachypterous sp. 2 *sensu* this work

Aphelinus brachypterous sp.1, *sensu* Belgian Report

Aphelinus macropterous sp.2 *sensu* Belgian Report

Aphelinus sp.1 *sensu* Peaks Survey Report

Aphelinus sp.2 *sensu* Peaks Survey Report

Aphelinus sp.3 *sensu* Peaks Survey Report

Subfamily: *Coccophaginae*

Encarsia diaspidicola (Silvestri, 1909)

Encarsia formosa Gahan, 1924

Encarsia lounsburyi (Berlese & Paoli, 1916)

Encarsia citrina (Craw, 1891)

Coccophagus ceroplastae (Howard, 1895)

Coccophagus 3 *sensu* this work

Coccophagus 4 *sensu* this work

Coccophagus 5 *sensu* this work

Aphelinidae sp.4 *sensu* Peaks Survey Report

Aphelinidae sp.5 *sensu* Peaks Survey Report

Family: *Calesidae*

Cales noacki Howard, 1907

Family: *Chalcididae*

Subfamily: *Chalcidinae*

Brachymeria podagrica (Fabricius, 1787)

Subfamily: *Haltichellinae*

Oxycoryphe sp. probably *O. edax* (Waterston, 1916)

Family: *Encyrtidae*

Subfamily: *Encyrtinae*

Acerophagus possibly *angelicus* (Howard, 1898)

Acerophagus maculipennis (Mercet, 1923)

Acerophagus sp. *sensu* D.Notton NHM

Acerophagus sp. *sensu* PBP Survey Report

Acerophagus sp.1 *sensu* this work

Acerophagus sp.2 *sensu* this work

Cheiloneurus sp. *sensu* this work

Cheiloneurus (*Procheiloneurus*) sp1 s this work

Cheiloneurus (*Procheiloneurus*) sp2 s this work

Copidosoma koehleri Blanchard, 1940

Copidosoma uruguayensis Tachikawa, 1968

Diversinervus elegans (Silvestri, 1915)

Diversinervus possible unidentified 2nd species

Encyrtus probably *aurantia* (Geoffroy, 1785)

Encyrtus sp. *sensu* J.Noyes NHM 2024

Encyrtus sp. *sensu* Belgian Report

Homalotylus poss *flaminus* (Dalman, 1820)

Metaphycus sp, possibly *stanleyi* Compere, 1940

Microterys nietneri (Motschulsky, 1859)

Syrphophagus africanus (Gahan, 1932)

Syrphophagus sp. *sensu* this work

Tachinaephagus zealandicus Ashmead, 1904

Encyrtinae sp. *sensu* J Noyes NHM

"potentially interesting"

Subfamily: *Tetracneminae*

Anagyrus possibly *pseudococci* (Girault 1915)

Anagyrus sp. *sensu* this work

Coccidoxenoides perminutus Girault, 1915

Gyranoidea poss *aphycoides* (Mercet, 1921)

Rhopus sp.

Tetracnemoidea sp.

Tetracnemus possible sp.nov.

Family: *Eulophidae*

Subfamily: *Entiinae*

Notanisomorphella sp. (or a nearby genus)

Euplectrus platyhypenae Howard, 1885

Subfamily: *Eulophinae*

Diglyphus begini (Ashmead, 1904)

Subfamily: *Tetrastichinae*

'*Cirrospilus nireus*' Walker, 1839 (**nomen nudum*)
??Endemic??
Tetrastichus/Oomyzus sp.1 poss =*Cirrospilus nireus*
Tetrastichus/Oomyzus sp.2 poss =*Cirrospilus nireus*

Oomyzus sokolowski (Kurdjumov, 1912)
Melittobia australica Girault, 1912
Tamarixia dryi (Waterston, 1922)
Eulophid sp. *sensu* Peaks Survey Report

Family: **Eupelmidae**

Eupelmus sp

Family: **Eurytomidae**

Tetramesa sp. 1 *sensu* Peaks Survey Report
Tetramesa sp. 2 *sensu* Peaks Survey Report

Family: **Megastigmidae**

Megastigmus transvaalensis (Hussey 1956)

Family: **Mymaridae**

Alaptus sp.
possibly *Anagrus* (or *Anaphes*) sp.
Anaphes nitens (Girault, 1928)
Anaphes sp. *sensu* this work
**Mymarilla wollastoni* (Westwood, 1879)
Polynema sp. 1
Polynema sp. 2
Polynema sp. 3
possibly *Omyomymar* sp
unidentified 0.37mm species

Family: **Perilampidae**

Perilampus sp. near to *aeneus* (Rossius, 1790))

Family: **Pteromalidae**

Subfamily: **Miscogastrinae**

Cyrtogaster trypherus (Walker 1843)
Miscogastrinae sp. 1 *sensu* Belgian Report
Miscogastrinae sp. 2 *sensu* Belgian Report
Miscogastrinae sp. 3 *sensu* this work

Subfamily: **Metasteninae**

Pachyneuron sp.
Toxeumorpha nigricola (Ferriere, 1936)

Subfamily: **Pteromalinae**

**Pteromalus ipsea* Walker, 1839
Pteromalus sp. 2 *sensu* Belgian Report
Pteromalus sp. 3 *sensu* this work
Pteromalus sp. 4 *sensu* this work

Family: **Spalangiidae**

Spalangia sp. possibly *cameroni* Perkins, 1910

Family: **Signiphoridae**

Signiphora flavella Girault 1913 or *S. flavopalliat*a
Ashmead, 1880
Signiphora sp. 2 *sensu* this work
Chartocerus fimbriae Hayat, 1970

Family: **Trichogrammatidae**

?*Trichogrammatoidea armigera* Manjunath, 1972
Oligosita sp.
Bloodiella sp.
? *Trichogramma* sp.
unidentified *Trichogrammatidae* sp
Trichogrammatidae sp. *sensu* Peaks Survey Report
Trichogrammatidae sp. *sensu* DJ Pryce

Superfamily: **Chrysidoidea**

Family: **Dryinidae**

Subfamily: **Gonatopodinae**

Gonatopus camelinus Kieffer, 1904

Family: **Bethylidae**

Subfamily: **Epyrinae**

**Holepyris atlanticus* Benoit, 1976

Subfamily: **Scleroderminae**

**Sclerodermus insularis* Benoit, 1976
**Sclerodermus sanctaehelenae* Benoit, 1976
**Sclerodermus wollastoni* Westwood, 1881

Superfamily: **Cynipoidea**

Family: **Figitidae**

**Kleidotoma mirosutellaris* (Dessart, 1976)
? *Kleidotoma* sp. 2 *sensu* this work
Leptopilina heterotoma (Thomson, 1862)
Leptopilina sp. 2 *sensu* this work
Rhoptromeris sp. *sensu* Belgian Report
Hexacola nr. *hexatoma* (Hartig, 1841) *sensu* Peaks Survey Report
? *Hexacola* sp. "Hairy" *sensu* this work
? *Hexacola* sp. "Arched" *sensu* this work
Eucoilinae "Ridged Scutellum" *sensu* this work
Eucoilinae Genus/Species indet s. Belgian Report

Superfamily: **Diaprioidea**

Family: **Diapriidae**

Subfamily: **Diapriinae**

Basalys sp.
Trichopria natalensis Sundholm, 1970
Trichopria stomoxydis Huggert, 1977 det DNotton NHM
Trichopria vulgaris Kieffer, 1912
Trichopria ('*Phaenopria*') type A *sensu* this work
Trichopria ('*Phaenopria*') type B *sensu* this work
Trichopria ('*Phaenopria*') type C *sensu* this work
Trichopria ('*Phaenopria*') phototype D (apterous)
sensu this work(? = *Trichopria* sp. 2 (? = manuscript
name '*Dianapria* gen. nov. sp. nov')'
Trichopria sp. 3 *sensu* Peaks Survey Report
Trichopria sp. 4 *sensu* Peaks Survey Report
Trichopria sp. Belgian Report (?= sp.6 - name used by D Pryce in the Species Spreadsheet erroneously attributed to the Belgian Report

Superfamily: **Evanioidea**

Family: **Evaniidae**

Evania appendigaster (Linnaeus, 1758)

Superfamily: **Ichneumonoidea**

Family: **Braconidae**

Subfamily: **Agathidinae**

Austroearinus unicolor (Schrottky, 1902)

Subfamily: **Alysiinae**

Aphaereta minuta (Nees, 1811)
Aphaereta sp. *sensu* this work
? *Aspilota* sp. *sensu* this work

Subfamily: **Aphidiinae**

Aphidius colemani Viereck, 1912
Aphidius camerunensis Mackauer, 1966

Subfamily: **Braconinae**

Habrobracon gelechia (Ashmead, 1889)

Subfamily: **Cheloninae**

Chelonus curvimaculatus Cameron, 1906

Subfamily: *Doryctinae*

Spathius (apterous) sp. 1. *sensu* this work
Spathius (apterous) sp. 2 *sensu* this work
Spathius (winged) sp. 3 *sensu* this work
Doryctinae indet. *sensu* Peaks Survey Report
Doryctinae indet. *sensu* DJ Pryce

Subfamily: *Euphorinae*

Dinocampus coccinellae (Schrank, 1802)
Leiophron sp.
Wesmaelia probably *petiolata* (Wollaston, 1850)

Subfamily: *Microgastrinae*

Apanteles scutellaris Muesebeck, 1921
Apanteles subandinus Blanchard, 1947
Apanteles sp. *sensu* this work
Apanteles poss sp. *nov*
Cotesia vestalis (Haliday, 1834)
(*Cotesia sesamiae* (Cameron, 1906)) (intercepted)
Cotesia spp. *sensu* this work

Microgastrinae sp. *sensu* this work

Subfamily: *Opiinae*

Fopius ceratitivorus Wharton, 1999
Psytalia concolor (Szépligeti, 1910)
Psytalia phaeostigma (Wilkinson, 1927)

Subfamily: *Orgilinae*

Orgilus parvus Turner, 1922
Orgilus lepidus Muesebeck

Subfamily: *Rogadinae*

Tebennotoma sp. –

Family: *Ichneumonidae*

Subfamily: *Anomaloninae*

**Helenanomalon ashmolei* Broad, 2014
**Helenanomalon bonapartei* Broad, 2014
**Helenanomalon* n sp

Subfamily: *Campopleginae*

Campoplex haywardi Blanchard, 1947
Venturia sp. possibly *canescens* (Gravenhorst, 1829)
Diadegma mollipla (Holmgren, 1868)
Diadegma semiclausum (Hellén, 1949)
(*Diadegma surendrai* Gupta, 1972) (nomen nudum)

Diadegma raoi, (nomen nudum)

poss. *D. rapi*, or *pulchripes*)

Eriborus trochanteratus (Morley, 1913)

Subfamily: *Cremastinae*

Temelucha. possibly *minuta* (Morley 1912)

Subfamily: *Diplazontinae*

Diplazon laetatorius (Fabricius, 1781)

Subfamily: *Ichneumoninae*

Diadromus collaris (Gravenhorst, 1829)

Subfamily: *Pimplinae*

**Echthromorpha atrata* Holmgren, 1868
= *E. agrestoria* (Swederus, 1787) ssp *atrata*

Subfamily: *Tryphoninae*

**Netelia insulicola* (Morley, 1913)

Superfamily: *Platygastrioidea*

Family: *Platygastridae*

Platygastr sp. *sensu* Peaks Survey Report

Synopeas sp. *sensu* Peaks Survey Report

Family: *Scelionidae*

Subfamily: *Scelioninae*.

**Macroteleia gracilicornis* Dodd, 1920
? *Aradophagus pulchricornis* Masner & Huggert, 1979

Subfamily: *Telenominae*

Trissolcus sp. *sensu* Belgian Report
Trissolcus sp1 *sensu* this work
Trissolcus sp2 *sensu* this work
Telenomus remus Nixon, 1937
Telenomus sp. *sensu* Belgian Report
Telenomus sp. 1 *sensu* this work
Telenomus sp. 2 *sensu* this work

Subfamily: *Baeinae*

Three morphotypes of male have been found and two of female.

Baeus type 1 *sensu* this work

Baeus type 2 *sensu* this work

Baeus type 3 *sensu* this work

ST HELENA'S ENDEMIC SPECIES

12 species currently accepted as endemic to St Helena, including 2 endemic genera *Mymarilla* & **Helenanomalon*

Atlantic Flatwasp	<i>Holepyris atlanticus</i>	Chrysidoidea	Bethylidae
Island Flatwasp	<i>Sclerodermus insularis</i>	Chrysidoidea	Bethylidae
St Helenian Flatwasp	<i>Sclerodermus sanctaehelenae</i>	Chrysidoidea	Bethylidae
Wollaston's Flatwasp	<i>Sclerodermus wollastoni</i>	Chrysidoidea	Bethylidae
Darwin's Wasp	<i>Pteromalus ipsea</i>	Chalcidoidea:	Pteromildae
Wollaston's Fairyfly	<i>Mymarilla wollastoni</i>	Chalcidoidea:	Mymaridae
	<i>Kleidotoma mirosutellaris</i>	Cynipoidea:	Figitidae
Black Ichneumon	<i>Echthromorpha atrata</i>	Ichneumonoidea:	Ichneumonidae
Ashmoles' Ichneumon	* <i>Helenanomalon ashmolei</i>	Ichneumonoidea:	Ichneumonidae
Bonaparte's Ichneumon	<i>Helenanomalon bonapartei</i>	Ichneumonoidea:	Ichneumonidae
Island Ichneumon	<i>Netelia insulicola</i>	Ichneumonoidea:	Ichneumonidae
	<i>Macroteleia gracilicornis</i>	Platygastridae:	Scelionidae

One species was initially described from St Helena and considered to be endemic but it has subsequently been recorded from several areas of Africa.

Dendrocerus wollastoni

Ceraphronoidea

Megaspilidae

One species that might be endemic was inadequately described and type specimens lost (a 'nomen nudum')

Cirrospilus nireus

Chalcidoidea:

Eulophidae

Additional candidates identified as likely or possible endemics

<i>Helenanomalonn</i> sp	Ichneumonoidea	Ichneumonidae
specimen noted as being different from 2 known <i>Helenanomalonn</i> spp by Gavin Broad (NHM)		
encyrtid sp	Chalcidoidea	Encyrtidae
wasp known from specimens from Prosperous Bay Plain		
<i>Tetracnemus</i> sp	Chalcidoidea	Encyrtidae
Three specimens attracted the attention of J Noyes (NHM) as "potentially interesting" as a possible new endemic species. The specimens are all male but a female is needed in order clarify its taxonomic status.		

Apterous/brachypterous species which just might turn out to be endemic

Flightless species are rather less likely to reach islands and winged species relatively often evolve flightlessness on remote islands,.

<i>Aphelinus</i> sp	Chalcidoidea:	Aphelinidae
(possibly 2 species, or one with two colour forms)		
<i>Eupelmus</i> sp	Chalcidoidea:	Eupelmidae.
<i>Polynema</i> sp 2	Chalcidoidea:	Mymaridae
<i>Trichopria/Phaenopria</i> sp	Diaprioidea:	Diapriidae
<i>Trichopria</i> Morph D, sp 2	Diaprioidea:	Diapriidae
= ' <i>Dianapria</i> sp" (unpublished Manuscript name)		
<i>Spathius</i> sp.	Ichneumonoidea	Braconidae
(?possibly 2 wingless species or one with two colour forms)		

SUGGESTED RARITY STATUS OF ST HELENA'S ENDEMIC SPECIES

Holepyris atlanticus The most widespread of the St Helena flatwasps, in various drylands around the island. However, it would warrant at least Vulnerable or Near Threatened RDB status because of the small size of its world range.

Sclerodermus insularis Only known from its first discovery at Prosperous Bay Plain in 1967. It would warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly studied group – possibly Data Deficient?

Sclerodermus sanctaehelenae Only known from its first discovery at Prosperous Bay Plain in 1967 plus a possible 2nd record from Ruperts in 2017. It would warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly studied group – possibly Data Deficient?

Sclerodermus wollastoni Only known from 3 records, its initial discovery in 1875/76 (not localised), Teutonic Hall in 1965 and Fisher's Valley in 2016, from which little can be inferred about its ecology. It would warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly studied group – possibly Data Deficient?

Pteromalus ipsea Widespread in a variety of habitats, both in the upper forested parts of the island and in lower, drier areas on non-native vegetation and currently seems to be doing well. However, it would warrant at least Vulnerable or Near Threatened RDB status because of the small size of its world range.

Mymarilla wollastoni Confined to the three Peaks Cloud Forest and High Peak and classified as Critically Endangered by IUCN in 2024 (and is possibly the only chalcidoid ever so designated).

<https://apistaging.iucnredlist.org/species/65592578/65592588>

Helenanomalonn ashmolei The scarcer of the two species of this endemic genus, possibly restricted to Prosperous Bay Plain (records elsewhere need confirmation) and, if so, deserves the status Critically Endangered

Helenanomalonn bonapartei The commoner of the two species of this endemic genus, found widely around the mid to higher, more humid levels of the island and not restricted to endemic vegetation. Often attracted to light at night. Probably warrants Vulnerable or Near Threatened RDB status because of the small size of its world range.

Echthromorpha atrata Widespread and common throughout the island. Probably warrants either Least Concern or Near Threatened RDB status because of the small size of its world range.

Netelia insulicola Widespread and not restricted to endemic vegetation but rarely encountered. Attracted to light at night. Warrants at least Vulnerable or Near Threatened RDB status because of the small size of its world range.

Macroteleia gracilicornis All but one records are from the cloud forest of the central mountains, perhaps indicating it might warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly-studied group – possibly Data Deficient?

Kleidotoma mirosutellaris Only recorded 7 times, all either in, or very close to the cloud forest of the central mountains, perhaps indicating it might warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly studied group – possibly Data Deficient?

INCOMPLETELY IDENTIFIED SPECIES

Over the years many difficult species have been identified just to Family, Subfamily or Generic Level. A summary of them is given here.:-

The Belgian expedition

several incompletely identified species were noted in the Belgian expedition project reports:

- two unidentified species of *Diadegma* and possible new genera and species of Braconidae (Ichneumonoidea),
- an unidentified species of *Tetrastichus*, *Spalangia*, *Pteromalus* (2 species), *Pachyneurus*, Miscogasterinae (2 species), *Encyrtus*, *Anagyrus*, *Aphidencyrus* (2 species) *Aphelinus* (2 species) and possible new genus and species of Mymaridae and Eulophidae (all in the Chalcidoidea).
- an unidentified genus/species of Diapriidae, species of *Phaenopria*, *Trichopria*, Baeinae, *Microphanurus*, and *Telenomus* in the Proctotrupeoidea.

We assume that the specimens remain in Belgium and many will be conspecific with later-collected individuals.

Central Peaks and Peak Dale Survey

- Aphelinidae – 1 species identified only to family and 5 morphospecies to the genus *Aphelinus* - sp 1-5
- Braconidae – 1 species to subfamily *Doryctinae*
- Diapriidae – *Trichopria* sp2, sp3, sp4
- Encyrtidae - *Syrphophagus* sp1, unknown genus sp2 & sp3
- Eucolidae – *Hexacola* near *hexatoma*
- Eulophidae – unknown genus sp1
- Eurytomidae – *Tetramesa* sp2
- Ichneumonidae – *Habronyx* sp
- Mymaridae - ?genus – sp1, sp2
- Platygasteridae – *Platygaster* sp1, *Synopeus* sp1
- Trichogrammatidae sp1 & sp2

We assume that the specimens of all these species remain in the Natural History Museum in London and many will be conspecific with later-collected individuals.

This Publication

We're afraid that we have added considerably to the number of incompletely identified species - 59 'morphotypes'

Superfamily: **Ceraphronoidea**

Family **Ceraphronidae**

Ceraphronidae 3 spp

Family **Megaspilidae**

Dendrocerus 2 spp

Superfamily: **Chalcidoidea**

Family **Aphelinidae**

Aphelinus 2 spp.

Coccophagus 3 spp

Family **Encyrtidae**

Acerophagus 2 spp

Acerophagus 2 spp

Cheiloneurus 2 spp

Diversinervus ?1 sp

Encyrtus 1 sp

Syrphophagus 1.sp

Anagyrus 1 sp.

Tetracnemoidea 1p.

Tetracnemus 1sp

Family: **Eulophidae**

Tetrastichus/Omyzus 2 sp

Family: **Mymaridae**

Alaptus 1.sp

Anagrus or *Anaphes* 1 sp

Anaphes 1 sp

Polynema 3 spp

Omyomymar 1 sp

Family: **Pteromalidae**

Miscogastrinae 1 sp .

Pteromalus 2 spp

Family: **Signiphoridae**

Signiphora 1 sp

Family: **Trichogrammatidae**

Oligosita 1 sp .

Bloodiella 1. sp

Trichogramma 1 . sp

Superfamily **Cynipoidea**

Family: **Figitidae**

Kleidotoma 1 sp

Leptopilina 1 sp

?*Hexacola* 3 spp

Superfamily: **Diaprioidea**

Family: **Diapriidae**

Trichopria 3 spp

Aphaereta 1 sp

?*Aspilota* 1 sp

Family **Braconidae**

Spathius 2 spp

Apanteles 2 spp

Microgastrinae 1 sp

Family **Ichneumonidae**

**Helenanomalon* 3 spp

Superfamily **Platygastridae**

Family: **Scelionidae**

Trissolcus 3 spp

Baeus 3 spp

Asension Island and the Tristan da Cunha Archipelago

Rather less work has been done on the parasitoids of the other islands that make up the UK overseas territory to which St Helena belongs. The small size, isolation and relatively much younger ages of both make for a very depauperate fauna with the likelihood of fewer truly endemic species. A brief summary follows of what is known.

On the Tristan da Cunha archipelago, the only known records thrown up by an AI search with Microsoft Copilot were *Aphidius* cf *sonchi* (Braconidae) and *Nedioptera subaptera*, (the genus of which seems to be a *Nomen Nudum*) plus 3 unnamed species found in aerial plankton, all from a Royal Society expedition to the island in 1962. plus record of a *Coccophagus* species (Aphelinidae) deliberately introduced to control the invasive Brown Soft Scale (*Coccus hesperidum*) as part of a conservation program to protect the endemic native tree *Phyllica arborea*. The search also indicated that the Oslo Museum in Norway may have a collection from an expedition there in 1937/38 and that lists of terrestrial invertebrates from the island made by members of the Commonwealth Institute of Entomology may be held by its successor, CABI (Centre for Agriculture and Biosciences International).

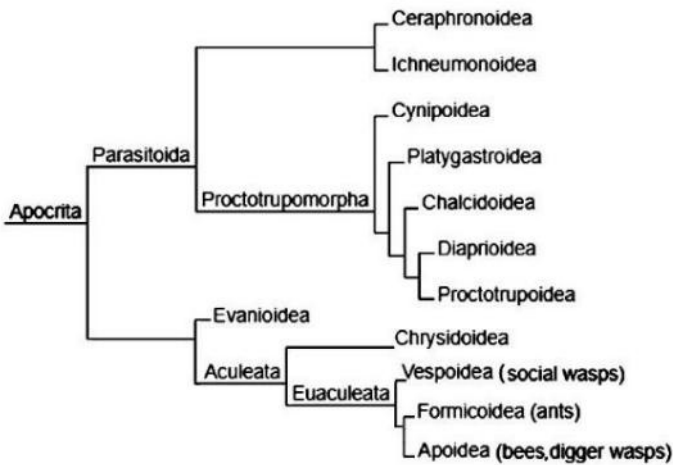
Ascension Island has had a little more entomological survey A similar web search produced a short list of biocontrol agents: *Ageniaspis citricola*, *Anagyrus pseudococchi*, & *Leptomastix dactylopii* (all Encyrtidae, plus *Isodromus timberlakei*, known to be a parasitoid of green lacewing larvae) & *Coccophagus lycimnia* & *Aphytis melinus* (*Aphelinidae*), (plus another encyrtid, the Ichneumon *Diadegma* sp (under its synonym *Horogenes*, two Ensign Wasps *Evannia appendigaster* & *laevigata*, unidentified species each of *Braconidae*, *Ichneumonidae*, *Eulophidae* & *Pteromalidae*,

Adam Sharp’s invertebrate surveys of Ascension in 2022 collected a number of parasitoid wasps, also forwarded to Steve Compton who has found 1 mymarid, 3 scelionids, 1 diapiiid 2 braconids and about 3 encyrtids and probably 6 morphotypes. of flatwasps Bethyridae, Ascension is thought to have endemic species of flatwasps in the genus *Trachepyrus*, first noted 1995/96. It was intended that the collection of Bethyridae from Ascension. would be sent for identification by Dr Celso Azevedo of the Universidade Federal do Espirito Santo, Brazil, but this was stymied by bureaucratic problems in exporting scientific specimens to that country.

Higher taxonomy & evolutionary relationships of St Helena’s Fauna

Wasps with a parasitoid lifestyle are not a fully coherent evolutionary group as the life styles includes the Ensign Wasps (Evanioidea, Evaniidae) and Flat-wasps (Chrysidoidea, Bethyridae) which are phylogenetically members of the ‘Aculeates’ (wasps, ants & bees), but which have retained their parasitoid way of life. The evolutionary tree below (modified from van Noort & Broad, 2024) illustrates the current knowledge of the evolutionary relationships of all the Superfamilies of Hymenoptera that occur on St Helena (excluding the Symphyta (Sawflies and wood-wasps, which form a series of a polyphyletic groups and only include one species on St Helena, the Blue-black Wood-wasp *Sirex noctilio* (Siricoidea)). St Helena’s parasitoid species are all in the ‘Parasitoidea’ Evanioidea and Chrysidoidea.

van Noort, S. & Broad, G 2024, Wasps of the world: A guide to every family. Princeton University Press. Princeton & London. 240pp.



ECONOMIC IMPORTANCE OF ST HELENA’S PARASITOID WASPS

Biocontrol Agents against insect pests and invasive plant species

Introduction of predatory and parasitoid species in order to control other organisms causing economic, nuisance or ecological harm to crops, livestock or ecosystems is an important element of integrated pest management. There is a history of such introductions to St Helena back at least to 1958 when 28 species of parasitoid wasps have been deliberately introduced for biocontrol reasons, the earliest in 1958, when the fairyfly *Anaphes nitens* was successfully introduced to parasitize the eggs of the Eucalyptus snout beetle *Gonioterus scutatus* a woodboring pest of timber plantations. Since then 27 species have been similarly introduced with varying levels of success.

In addition, a further 25 species that are used for biocontrol of pests elsewhere (or unidentified species in genera known to include widely used biocontrol agents) have also been found that seem to have made their own way to St Helena, These include one species that is elsewhere used as control agents against invasive plant species *Megastigmus transvaalensis* against Wild Mango/Brazilian Pepper Tree *Schinus terebbithifolius*

Biocontrol agent species known to have been deliberately introduced:-

Superfamily	Target host	year Introduced	Successful ?
Chalcidoidea			
Aphelinidae			
<i>Encarsia diaspidicola</i>	white peach scale	1979	??
	It was introduced to St Helena in 1999 with “Some success” but appears not to have been subsequently recorded, probably because of difficulty of identification.		
Calesidae			
<i>Cales noacki</i>	whiteflies	2000	?
	It is not clear if it has persisted on St Helena. DJ Pryce made a field observation with no supporting specimen at Lower Farm Lodge on 05/02/2015 and two specimens sent to Steve Compton might be of this species, both from an undated Malaise Trap run on Woody Ridge. <i>Cales noacki</i> is now considered to be a complex of species and it is unclear which will have been imported to St. Helena.		

Encyrtidae				
	<i>Copidosoma koehleri</i>	Diamondback moth	1970s	yes
	<i>Copidosoma uruguayensis</i>	Diamondback moth,.	1970s	no
Eulophidae				
	<i>Diglyphus begini</i>	Cabbage leaf miner,	2000	yes
	<i>Euplectrus platyhypenae</i>	Army Worm moth	1970s	?
	It was regarded unsuccessful. However, a species of <i>Euplectrus</i> , most probably <i>E. platyhypenae</i> was found at Ruperts Valley in 2014 & Diana's Peak in 2017 and at Fishers Valley in 2022			
	<i>Oomyzus sokolowski</i>	Diamondback moth	1975	no
	Three consignments of 160 pupae of Diamondback moth were shipped by CIBC for release by Keith Sim were shipped to the island in this year (CIBC, 1975) but they did not survive			
	<i>Tamarixia dryi</i>	Citrus psyllid, Trioza erytraeae	2000	no
Mymaridae				
	<i>Anaphes nitens</i>	Eucalyptus snout beetle	1958	yes
Trichogrammatidae				
	<i>Trichogrammatoidea armigera</i>	Cotton Bollworm moth	1975	yes
	"Four consignments containing about 3500 <i>Helicoverpa armigera</i> eggs parasitised with this species sent to the island by CIBC for release by Keith Sim sent in this year" (CIBC, 1976, p. 86). A complication is that cultures and consignments containing trichogrammatids can often be contaminated with additional species. Steve Compton tentatively identified it from specimens sent in 2023.			
Ichneumonoidea				
Braconidae				
	<i>Apanteles scutellaris</i>	Potato tuber moth,	1970	?
	several individuals on <i>Apanteles</i> sp have been recorded since 2013, but it not known whether any of them are this species			
	<i>Austroearinus unicolor</i>	Potato tuber moth	1970	no
	<i>Chelonus curvimaculatus</i>	Potato tuber moth	1970	no
	<i>Cotesia vestalis</i>	Diamondback moth	1999	yes
	<i>Fopius ceratitivorus</i>	Medfly	2002	yes
	<i>Habrobracon gelechiae</i>	Potato tuber moth	1970	no
	<i>Orgilus lepidus</i>	Potato tuber moth	2002	??
	<i>Orgilus parvus</i>	Potato tuber moth	2002	yes
	<i>Psytalia concolor</i>	Medfly	2002	??
	<i>Psytalia phaeostigma</i>	Pumpkin fly	2002	??
	uncertain, possible sighting - specimen needs verification			
Ichneumonidae				
	<i>Campoplex haywardi</i>	Potato tuber moth.	1970	no
	<i>Diadegma mollipla</i>	Diamondback potato tuber moths	1965	yes
	(<i>Diadegma semiclausum</i>	Diamondback moth.	2013	??)
	This species was used at Scotland in 2013 to demonstrate biocontrol of Diamondback moth (display photographed by Roger Key), but is not mentioned in ANRD, 2013, 'The history of Biological Control on St Helena'			
	(<i>Diadegma</i> sp	Diamondback moth.	1070is	??
	An unnamed species reportedly released in 1970- Simmonds 197 (Report on a visit to St. Helena – March 4-23, 1973. Commonwealth Institute for Biological Contr72. ol, Slough. 45 pp), reports the release of <i>Diadegma raoi</i> Gupta a <i>nomen nudum</i> and its identity is very unclear			
	<i>Eriborus trochanteratus</i>	Potato tuber moth.	1970	no
	<i>Temelucha</i> sp.	Potato tuber moth	1970	? the two
	(the two 2015 records do not appear to be this species)			
Platygastroidea				
Scelionidae				
	<i>Telenomus remus</i>	Army Worm	1975	yes
Biocontrol agents that seem to have made their own way to St Helena				
A further 25 species that are used for biocontrol of pests elsewhere in the world (or unidentified species in genera known to include widely used biocontrol agents) have also been found on the island:-				
Superfamily		Target host	1st St Helena Record	
Cerafronoidea				
Megaspilidae				
	<i>Dendrocerus spp</i>	aphids	1876	
Chalcidoidea				
Aphelinidae				
	<i>Aphelinus abdominalis</i>	crop aphids	2022	
	<i>Coccophagus ceroplastae</i>	soft scale insects	2017	
	<i>Encarsia citrina</i>	armoured scale insects	2017	
	<i>Encarsia formosa</i>	whiteflies	2013	
	<i>Encarsia lounsburyi</i>	armoured scale insects	1995	

It was first recorded on St Helena in 1995 and was Identified by IIE for ANRD, but there is no record of it having been deliberately introduced to St Helena as a biocontrol agent

Encyrtidae			
<i>Acerophagus maculipennis</i>	mealybugs		
2013			
<i>Anagyrus</i> possibly <i>pseudococci</i>	mealy bugs		2017
<i>Coccidoxenoides perminutus</i>	Citrus mealybug		2017
<i>Diversinervus elegans</i>	black scale <i>Saissetia oleae</i>		2013
<i>Encyrtus</i> probably <i>aurantia</i>	soft scale insects		2018
<i>Gyransoidea</i> poss <i>aphycoides</i>	scale insects & mealybugs		2017
<i>Metaphycus stanleyi</i>	soft scale insects	???	
is included in the St Helena records as present on the island with no other data – the source is given as ‘ANRD Archive’ and determined by “IIE for ENRD”			
<i>Microterys nietneri</i>	soft scales & mealybugs		2019
Eurytomidae			
<i>Tetramesa</i> sp.	invasive grasses		2014
Megastigmidae			
<i>Megastigmus transvaalensis</i>	Wild Mango/Brazilian Pepper Tree		2020
Mymaridae			
<i>Polynema</i> sp	Hemiptera - various		2011
not all species are biocontrol agents			
Signiphoridae			
<i>Signiphora flavella/flavopalliata</i>	armoured scale insects		2017
Spalangidae			
<i>Spalangia</i> sp poss <i>cameroni</i>	muscid filth flies		2013
Trichogrammatidae			
<i>Trichogramma</i>	moth's eggs Tineidae		2017
Diaprioidea			
Diapriidae			
<i>Trichopria</i> spp	Drosophilid flies		1876
<i>Trichopria stomoxydis</i>	stable fly		1965
species has been trialled as a control agent but is not thought to have much promise			
Ichneumonoidea			
Braconidae			
<i>Aphidius colemani</i>	many species of aphid		1995
<i>Cotesia sesamiae</i>	stalk borer moth		2013
not established – intercepted in Sweetcorn from South Africa, by Biosecurity at Jamestown wharf, so it would be worthwhile checking the true identity of St Helenian specimens of <i>Cotesia</i> sp. occasionally.			
Ichneumonidae			
<i>Venturia</i> sp poss <i>canescens</i>	Mediterranean flour moth		2006
single specimen – identified from photo			
Platygastroidea			
Platygastridae			
<i>Synopeas</i> sp.	gall midges		2006

Invasive Parasitoid wasps?

One species on St Helena seems to have the possibility of having a negative effect on St Helena's economy or wildlife. *Dinocampus coccinellae* (Schrank, 1802) Ichneumonoidea Braconidae is an obligate parasitoid of ladybird beetles (Coccinellidae). Ladybirds are important biocontrol agents of various plant pests and the wasps arrival on St Helena may have consequences for their effectiveness. It has been known to parasitise the Harlequin Ladybird *Harmonia axyridis* (an invasive species of generalist predator whose diet includes other ladybird species), and so the balance is unclear as to whether the species will have a positive or negative effect on the island's fauna and economy..

With so many species arriving from overseas, whether by intentional introduction or as ‘hitch-hikers’, there is a strong possibility that some of the incoming species will have included endemic species in the repertoire of invertebrate hosts and potentially had negative effects of their populations. Certain biocontrol agents are not 100% species-specific in their host range, some targeting a whole family of species, or species from a particular ecological niche, regardless of their taxonomic affiliation (e.g. leaf miners on a particular family of plants). This would, however, be very difficult to prove.

It would be most useful if anyone with projects that include rearing endemic species would retain for identification any parasitoids that emerge from them.

STUDYING PARASITOID WASPS ON ST HELENA

Identification

As can be seen from the checklist and species accounts, very many taxa recorded on St Helena have only been incompletely identified, sometimes only at the level of family, subfamily or genus, or with 'possibly, probably' or 'near to' preceding the name. The identification of many should be regarded as, at best, only provisional.

The biggest barrier to studying the parasitoid species is their bewildering diversity and number of species and the great difficulty in identifying them all. A very few species of larger, usually characteristically coloured or patterned species can be identified in the field or from photographs, but most require mounted specimens, a high quality/resolution microscope and access to technical literature, a reference collection and an expert. The identification literature is largely widely scattered, highly technical and assumes a working knowledge of the group being discussed. For some groups, no satisfactory literature exists at all. Compared with most groups of insects, most families are also studied by a very small number of experts, scattered around the world, fewer now than before as, for decades, taxonomy has not been a priority area for funding and so the remaining taxonomists have very limited time and resources to spend on requests for assistance with identification problems. A list of known world experts is given for each family, researched using Microsoft Copilot AI, accessed December 2025 - February 2026 and the experts have not been asked for permission to be included on the list – so please approach them courteously if seeking help from them..

Ecological Knowledge

With so many species and so many levels of ecological niche specialism, the range in the depth of ecological knowledge of individual species varies from:-

1. very well known (many, although not all of the for the species used as biocontrol agents which have usually been thoroughly researched before being adopted for the purpose)
2. a reasonable idea of what the host range might be from comparison with related species (e.g. 'large moth caterpillars', leaf mines, a particular plant species or family)
3. a vague idea of rough habitat association ('mainly in dry places', 'only in the cloud forest', 'in damp litter')
4. almost or completely non-existent information beyond where collected

The use of emergence traps can add significantly to this knowledge, but even discovering what a host species might be in just the $\frac{1}{4}\text{m}^2$ footprint of the trap can be very challenging. Rearing of wild-caught immature stages of potential host species and keeping everything that emerges from them also has the potential to add greatly to the knowledge. Very few of the records of parasitoid wasps from the island are based on rearing them from their hosts.

ACKNOWLEDGEMENTS

Many thanks to many individuals and organizations who have helped with work on these species in many different ways – from facilitating access to sites to study the faunas, organizing permission, accommodation and transport on the island, identifying or helping with identification of species and making us so welcome on St Helena.

Organizations

St Helena National Trust
Agriculture & Natural Resources Dept of the St
Helena Government
Darwin Initiative
Natural History Museum, London

St Helena

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with help and support from:-



and finally:-

a huge thank-you to the unknown staff at St Helena, Schiphol and Leeds airports, who diligently followed up retrieved our misdirected luggage which included all our specimens from 2022 as well as many archived from the earlier Darwin projects, much to our great relief and without whom this document would have been very short...

APPENDIX 1

Parasitica included in Mellis, J.C. 1875 St. Helena: a physical, historical, and topographical description of the island, including its geology, fauna, flora and meteorology. L.Reeve & Co, London. 423pp. (direct transcript)

Fam. Evaniadæ.

Evania, Fabr.

E. lævigata, Latr.—A black, bob-tailed Fly, inhabiting the warm low lands of Jamestown, Ladder Hill, &c., where it is likely to meet with cockroaches, as it selects those creatures as a living depository for its eggs. As this curious little insect is very much less objectionable than the Cockroach, and is not very abundant, the St. Helenians, especially the residents of Jamestown, would do well to encourage it. It may often be seen crawling over the trunks of trees in Maldivia gardens, and even in the houses in the town and at Ladder Hill. It inhabits, also, many parts of Africa and of Asia.

Fam. Ichneumonidæ.

Ichneumon, Linn.

****I. maculifemur***, Walk.—A black-bodied Ichneumon Fly, the body being four to four and a half lines in length. This as well as the following species is somewhat commonly found on the high land, inhabiting damp places. My specimens were taken at The Hermitage, where, amongst the Moon plants, they fly about during the day time and evening in considerable numbers.

****I. diffinis***, Walk.—Another black-bodied Fly, but smaller in size, measuring only four lines.

****I. latipes***, Walk.—A still smaller species, having a shiny black body, measuring only two and three-quarter lines in length.

Cryptus, Fabr.

****C. triangulifer***, Walk.—An insect very similar to the last, and about the same size, with a black body. The specimens were taken with the Ichneumon flies.

Pimpla, Fabr.

****P. sanctæ helenæ***, Walk.—A large black-bodied Ichneumon Fly, perhaps more abundant than any of those before mentioned. Frequently it is seen in houses at night, and generally about gardens on the high land as evening approaches. The length of the body is from five and a half to seven and a half lines, and it is easily recognised by its being the largest of those flies which have a black body. It selects the large green caterpillars of *Plusia aurifera* in which to deposit its eggs; and many chrysalides which I watched with much care, hoping to see the rightful occupant emerge, yielded only one of these troublesome creatures.

Paniscus, Grav.

****P. piceus***, Walk.—A large red-bodied Ichneumon Fly, more abundant still than any of the aforementioned. The length of the body is from seven to nine lines. On the high land, at night, these flies come into the houses in considerable numbers and behave in a very disagreeable manner; they dash into your face with unpleasant force, and I have often seen them extinguish the flame of a candle by tumbling into it one on the top of another, until they literally choke it out.

Fam. Braconidæ.

Alysia, Latr.

A. cephalotes, Hal.—An extremely minute Ichneumon Fly, taken at The Hermitage on the high land, and not abundant. It also inhabits Madeira.

Fam. Chalcidæ.

Pteromalus, Swederus.

****P. ipsea***, Walk.—A small green Fly, taken by Mr. Darwin from the high central land, and, with the following species, described by Mr. Walker in his "Monographia Chalciditum," vol. ii. p. 97.

Cirrospilus, Westwood.

****C. nireus***, Walk.—A species about the size of a pin's head.

APPENDIX 2

Google Translation of Basilewsky, P. (Ed.) 1976. La faune terrestre de l'île de Sainte-Hélène. Troisième partie. Annales du Musée Royal de l'Afrique Centrale, Zoologie 215: 1-533.

Pierre Basilewsky's Introduction to the Hymenoptera, (edited to include only the references to Parasitica)

15. HYMENOPTERA INTRODUCTION

Only twenty species of the important order Hymenoptera were reported from St. Helena. The two oldest known apart from the honey bee, are the Chalcidoidea : *Cirrospilus nireus* and *Pteromalus ipsea* described by WALKER in 1839 from specimens collected by Charles Darwin during the passage of the HMS "Beagle" in May 1836. It should be noted that these two species not since seem been have been found again on Saint Helena and that their provenance is perhaps false, as for certain Coleoptera from Darwin's "Saint Helenian" collections (Terrestrial fauna of the island of Saint Helena, 1st part, p. 50).

The material collected in April 1853 by the Swedish expedition of the frigate "Eugénie" gave rise to the description of the Ichneumonide, *Echthromorpha atrata* by HOLMGREN in 1868.

The collections carried out by MELLISS enabled him to quote in 1875 the. Braconid, *Alysia cephalotes* Haliday, the Evaniid, *Evania laevigata* Olivier,. The Ichneumonids named by WALKER were not described.

The material collected by TV Wollaston in 1875-1876 and deposited in the British Museum gave rise to the description of the mymarid, *Mymarilla wollastoni* Westwood, 1879, the bethylid, *Scleroderma wollastoni* Westwood, 1881, ichneumonid, *Paniscus insulicola* Morley, 1913, from sphecid, *Pison wollastoni* Turner, 1916, scelionid, *Macroteleia gracilicornis* Dodd, 1920 and megaspilid, *Conostigmus wollastoni* Dodd, 1920. These materials also made it possible to indicate the presence of *Bassus laetatorius* (Fabricius), Ichneumonid (MORLEY, 1914).

In 1958, the Mymarid, *Anaphoidea* (= *Patasson*) *nitens* Girault was deliberately introduced to control the Eucalyptus Weevil (Wallace, 1960).

The material from the two Belgian zoological expeditions brings the number of species collected on the island to 58. Knowledge of these 58 species remains fragmentary, however. If the megaspilids, the bethylids, could be treated by specialists, the other groups could only be the subject of a more superficial, more incomplete and less rigorous study which constitutes only a approach and which only aims to draw, in the future, the attention of specialists to material likely to interest them.

Mr. P. Dessart, of the Royal Institute of Natural Sciences of Belgium, who was good enough to examine the Cynipoidea, Chalcidoidea and Proctotrupoidea, finds here the thanks he deserves for his good collaboration.

The 58 species now known from the island fall into 18 families. Fifteen species seem, with some doubt, to be considered endemic. They are grouped into 9 families: Cynipidae (1 species), Ichneumonidae (2), Eulophidae (1?), Pteromalidae (1?), Mymaridae (1 or 2?), Scelionidae (2), Megaspilidae (1), Bethylidae (4) and Sphecidae (1) . Only two of these species are referred to endemic genera *Polbourdouxia* (Cynipid) and *Mymarilla* (Mymarid). Two other endemic genera may need to be created for a flightless Scelionid and for a flightless Mymarid . The other endemics belong to genera that are fairly widely distributed or that mainly include particular species in isolated islands (*Echthromorpha* and *Pison*).

The Parasitoid Wasps of St Helena Island

a summary of current information

Superfamily. Family and Species Accounts
Lists of Records to 2025

Alphabetically in order of Superfamily, Family, Subfamily, Genus, Species

Superfamily Ceraphronoidea

The Ceraphronoidea are a small superfamily that includes only two families and a total of some 800 described species, though many further species are still undescribed. The biology of the species is poorly known, but most are believed to be parasitoids or hyperparasitoids. The two families are unified by several characters, including their reduced venation and their possession of two tibial spurs on the fore tibia.

Ceraphronoidea: Family Ceraphronidae ?3 Species, status unknown

Possibly 3 species of Ceraphronidae have been recorded on St Helena, but none are identified even to Genus. This is a small family with 14 genera and about 360 known species world-wide, though a great many species are still undescribed. It is a poorly known group, though most are believed to be parasitoids, especially of flies, and a few are hyperparasitoids. Many are found in the soil, and of these, a number are wingless.

Ease of Identification.

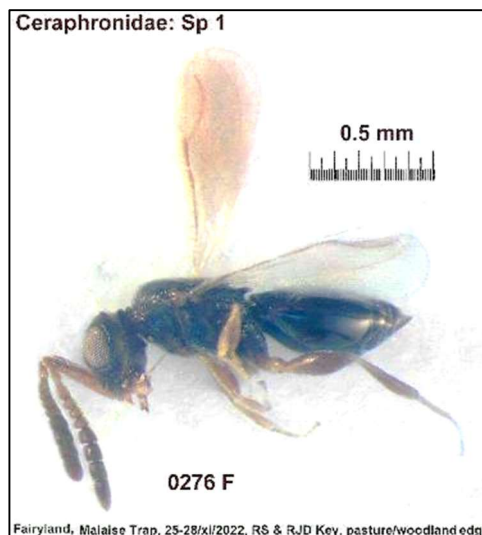
The family is small and difficult with very few specialists – Dr. István Mikó, University of New Hampshire, USA and Dr Gavin Broad of the Natural History Museum are two of the very few people world-wide who has worked on them recently.

Ceraphronidae unidentified species 1

This is the most widespread species.

Status: Unknown

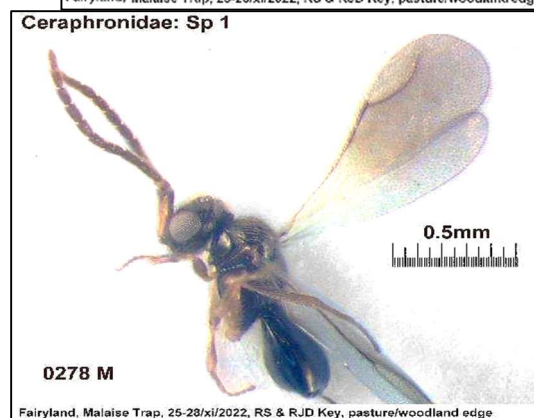
Beale's	13-20/ii/2017	
Burnt Rock	13-20/iii/17	LJ Fowler
Ginger Patch	3-10/vii/2017	
Heart-shaped Waterfall	13-20/iii/17	
Teutonic Hall	05/11/2022	R&R Key
Fairyland	25-28/xi/2022	R&R Key



Ceraphronidae unidentified species 2

known from a single specimen

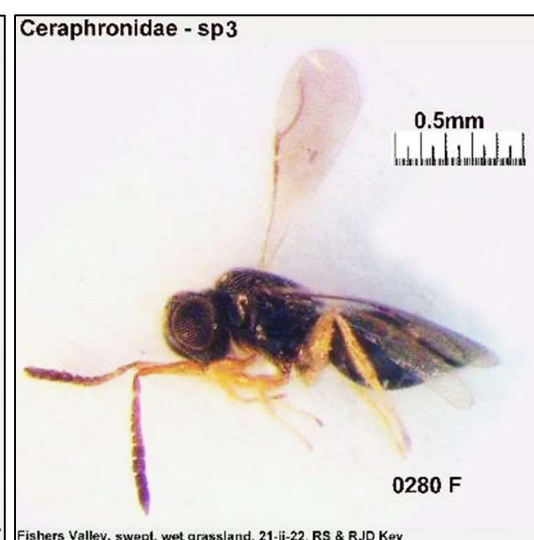
Diana's Peak	1-15/v/2017	DJ Pryce/LJ Fowler
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Ceraphronidae unidentified species 3

known from a single specimen

Fisher's Valley	21/ii/22	R&R Key
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Ceraphronoidea: Family Megaspilidae

?2 or 3 Species

1 formerly considered to be endemic, 2 status unknown

A small family with 13 genera in two subfamilies and about 450 known species worldwide, with many species still undescribed. This poorly known group are believed to be parasitoids, especially of Hemiptera Sternorrhyncha, and a few hyperparasitoids. Many are found in the soil, and of these, a number are wingless. Members of one subfamily are easily distinguished from the closely related Ceraphronidae by having a large stigma in the wing. Others have a stigma similar to Ceraphronidae, but they can be distinguished from them by having a mid leg with two tibial spurs and (usually) notaular grooves in the mesoscutum. They almost always have a longitudinal groove down the mesoscutum, but a few ceraphronids also have this groove. The largest genus is *Dendrocerus*.

Ease of Identification.

The family is small and difficult with very few specialists – Dr. István Mikó, University of New Hampshire, USA, Dr. Andrew Polaszek & Dr Gavin Broad, Natural History Museum, London. Dr. Matthew Buffington USDA Systematic Entomology Laboratory, USA. Dr. Carlos Henrique Marchiori Instituto Federal Goiano, Goiás, Brazil.

Genus *Dendrocerus*.

Dendrocerus species are either primary parasitoids of Neuroptera and Diptera or hyperparasitoids wasps of some Coleoptera and Hemiptera, especially of aphids, where they have been shown slightly to reduce the efficacy of parasitoid biocontrol agents targeted at aphids. Species of *Dendrocerus* occur in all parts of the world except Antarctica with 120 described species worldwide.

Dendrocerus sp 1

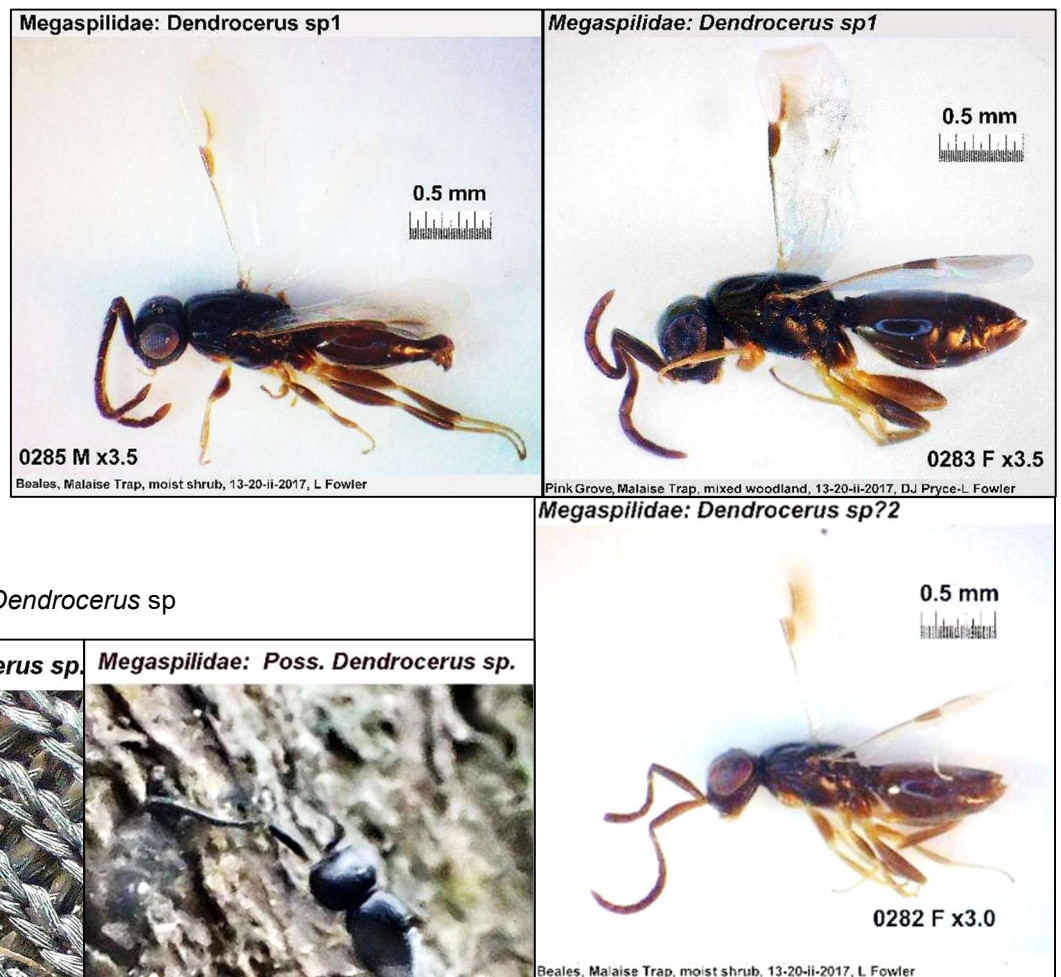
Status: Unknown

Beale's 13-20/ii/2017 DJ Pryce
Peak Dale 13-20/ii/2017 DJ Pryce
Pink Grove 13-20/ii/2017 DJ Pryce

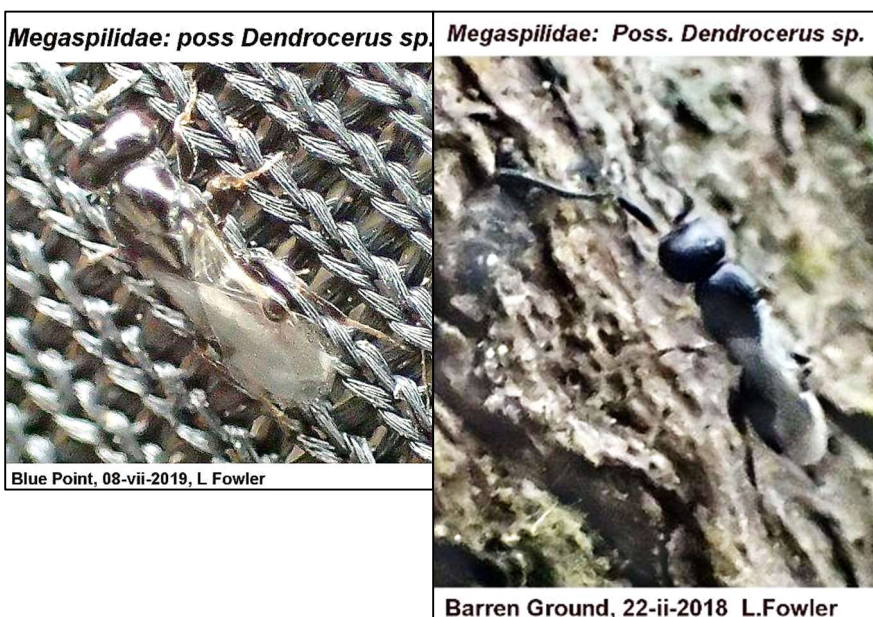
Dendrocerus sp 2

Status: Unknown

Beale's 13-20/ii/2017
LJ Fowler
Peak Dale 13-20/ii/2017 DJ
Pryce



Live specimens of possible *Dendrocerus* sp



***Dendrocerus wollastoni* (Dodd, 1920)**

(syn. *Conostigmus wollastoni* Dodd, 1920)

This species was initially described from St Helena and considered to be endemic but it has subsequently been recorded from several areas of Africa. No confirmed photograph

Status: Unknown

Plantation	1876	Wollaston, Thomas Vernon, Mr
St Helena	1876	Wollaston, Thomas Vernon, Mr
Longwood	1967	Second Belgian Expedition
Peak Dale Gumwoods	1967	Second Belgian Expedition)
Deep Valley, Gumwood site	2006	P&M Ashmole
Peak Dale	2006	P&M Ashmole

What follows is a Google translation of the redescription of the species by Dessart 1977 ex Basilewsky, P. (Ed.) 1976. La faune terrestre de l'île de Sainte-Hélène. Troisième partie. Annales du Musée Royal de l'Afrique Centrale, Zoologie 215: 1-533. [Embioptera, Neuroptera, Diptera, Siphonaptera, Hymenoptera, Psocoptera, Mallophaga, Thysanoptera, Hemiptera]

5. Superfam . CERAPHRONOIDEA

by P. DESSART

(Royal Belgian Institute of Natural Sciences, Brussels)

Family MEGASPILIDAE

Only one species of Ceraphronoidea was known from Saint Helena. It belongs to the family Megaspilidae , subfamily Megaspilinae . She was found by Belgian zoological expeditions. It is endemic to the island.

Gen. *Dendrocerus* Ratzeburg

Dendrocerus , Ratzeburg, 1852, Ichneum. Forstins ., 3, p. 180.

Dendrocerus , Dessart , 1972, Mem . Soc. king . Belgian Ent ., 32, pp. 7-24.

Dendrocerus wollastoni (Dodd), comb. Nov. (Figs. 133-135)

Conostigmus Wollastoni , Dodd, 1920, Trans. ent . Soc. London, 1919-1920, pp. 367, 636.

Conostigmus Wollastoni , Masner , 1965, Bull. Brit. Mus. [Nat. Hist.], Ent ., Suppl. 1, p. 19.

In 1965, L. MASNER , in view of the typical material, pointed out that this species most probably belonged to the genus *Lygocerus* Förster , 1856; it is also our opinion, except that the aforementioned genus has fallen into synonymy with *Dendrocerus* Ratzeburg , 1852. If L. MASNER did not formally propose the transfer, it is doubtless because all the characters usually present in *Dendrocerus* Ratzeburg are not united in the species of Saint Helena. In particular, if the ocelli are obviously in a broad-based isosceles triangle, the notaulices , on the other hand, are not abruptly bent, which is why, apparently, A. DODD classified the species among the *Conostigmus* . In addition, the wing pubescence is very reduced, the fringe of the forewings could easily pass unnoticed, but A. DODD does not seem to have been interested in it. This character is unmistakably reminiscent of *Dendrocerus punctipes* (Boheman , 1832) which we have redescribed elsewhere (DESSART , 1972, p. 213). In our review of the genus *Dendrocerus* Ratzeburg (lc .), we observed that practically none of the characters usually present in this taxon had an absolute value: this is the case in particular of the abrupt bend of the notaulices and of the wing fringe which may be lacking. In the absence of the male, whose appearance of the antennae could help to fix the belonging' generic, and moreover subgeneric , it is among the *Dendrocerus* Ratzeburg that the species here discussed seems best in place.

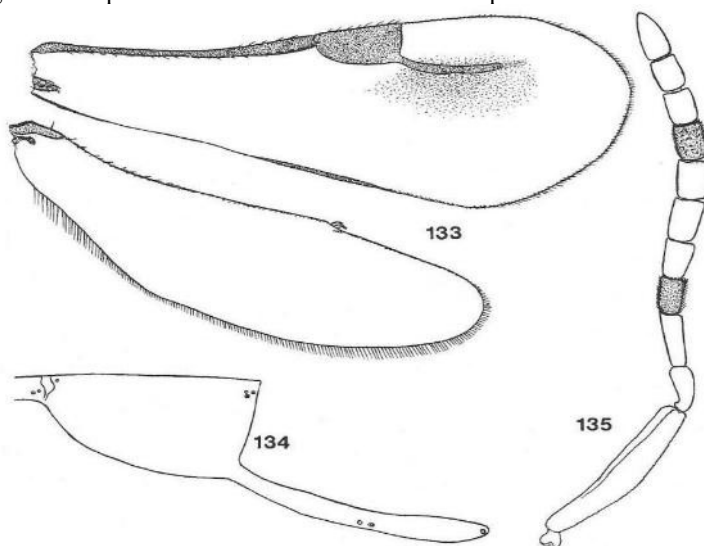
Material collected in 1967 was compared with the lectotype and the single paralectotype at the British Museum [Natural History], London. As we have at our disposal only the paralectotype , amputated of its antennae, it is on recent material that the following redescription is based.

Fig. 133-135. – *Dendrocerus wollastoni* (Dodd, 1920), comb.

Nov. , ♀ . – 133. Straight wings (x 66). 134. Radius and stigma (x 162). – 135. Right antenna (x 66).

FEMALE (unknown male).

Colouring : Head and mesosoma brown-black, metasoma brown-brown, with lightened gastroceles; antennae brown, base of scape faintly thinned; mandibles brown, with reddish apex; much lighter palps, reddish eyes; the legs are relatively light, compared to the body, gradually darkening from anterior to posterior; the anteriors and the medians have the hips and the dorsal surface of the femur and the tibia slightly darkened – the medians more than the anteriors – the posteriors are lightened only on the



trochanter, the extreme base of the tibia and the tarsus; however, onychiums are dark on all legs; tegulae brown; forewings with a smoky macule around – especially below – the radius; brown veins; hind wings hyaline.

Head : Shaved integument, a little coarser towards the base of the face; short but very dense pubescence; unmarked preoccipital lunula ; a longitudinal preoccipital furrow , stopping a very short distance from the anterior ocellus; posterior ocelli flanked by the usual smooth lunula, but no trace of a transverse line or furrow between them; face without true supraclypeal depression , with only small impression above (back) of toruli ; these project very little, united by a slightly convex transverse hull; in profile the face is distinctly convex, but in dorsal view it is subplanar ; eyes with present but very short pubescence; orbits in a narrow furrow, deeper and more marked towards the temple than towards the face; in profile, the preoccipital carina (flanked by foveoli) is seen stopping at the level of the lower edge of the eye: there the genal curvature makes a sharp bend towards the mouth; eyes: major axis and minor axis: 340 □ and 280 □ ; minimum facial interocular space: 305 □ (less than half head width: 47%); ocelli in isosceles triangle with very broad base: ; anterior ocellus diameter: 38 □ .

Antennae : scape with the ventral groove very long, slender ($L / l = 455 \square / 96 \square = 4.74$), somewhat shorter (455) than the next 4 articles combined (531) ; distinctly elongated pedicel, but also distinctly shorter than the 3rd segment , which is the slenderest of the flagellum ($L / l = 166 \square / 59 \square = 2.81$); the following flagellomere lengthen from the 2nd (4th article) to the 4th (6th article), then gradually shorten until the penultimate ; the 6th article is also the widest; the pubescence is short but dense.

Mesosoma : The whole back is regularly reticulated, slightly chagrined, including the propodeum ; mesoscutum , axillae and scutellum with short but dense pubescence; the mesoscutum is relatively wide in front, with the anterior angles very marked, as in the most typical species of the genus; on the other hand, the notaulices do not form a clear bend and are regularly curved towards the shoulders; posteriorly they become parallel and are separated, at the level of the posterior transcutal sulcus , by 177 We distinguish the 4 usual small smooth lines but they are not very marked; the axillo -scutellar furrows meet medially at the posterior transcutal furrow; the scutellum is moderately rounded: transversely, the curvature increases slightly towards the flanks but so little that the ridge (line of change of curvature) only appears under a certain angle of observation; longitudinally, the curvature is quite pronounced at the apex which is therefore ellipsoidal: but the peripheral hull is no longer distinct there; the metanotum is in a deep furrow, limited posteriorly by a very clear, almost lamellar carina; the lateral carinae which delimit the medioposterior portion of the propodeum are largely straight and converge (by forming approximately a right angle) towards the foveolus metanoto-propodeal which they reach by being only separated by about thirty microns; medially, at the back of the scutellum, there is therefore a deep foveolus limited posteriorly by a thin partition (with a straight apex in the specimen redescribed here, sometimes concave) from which radiate, on each side, the metanotal carina and the carina propodeal ; on each lateral portion of the propodeum , one observes, in front of the stigma, which is transverse, a transverse series of some foveoli . The flanks are fairly uniformly reticulated (finely chagrined), with the usual foveal furrows (Y-furrow on the side of the pronotum, prepectus furrow , mesopleuro metapleural furrow , furrows bordering the hips); there is no sternaulus , which, if present, would be visible in profile; but if we observe the insect on the ventral side, we see, on either side of the ventral median furrow (contact zone of the mesopleuria), a longitudinal line extending from the median hip to the posterior hip . The entire flank is pubescent, but the pubescence is easily observed only downwards ; the ventral portion of the mesopleurum is longer pubescent.

Wings : The pubescence is exceptionally short and gives the forewings a brighter appearance, common to all species thus constituted, such as *Trichostereis glatira* (Boheman , 1832) and *Dendrocercus punctipes* (Boheman , 1832). However, the fringe, albeit very short (17 □ , less than 3% of the maximum width) is present in the forewings (it is nil in the above examples); it is shorter (35 □ towards the apex) than normal on the hindwings (Fig. 133). The stigma appears slightly variable, rather giving the impression of being semi-oval (as opposed to semicircular and semi-elliptical), with the distal edge very slightly convex; $L/w=224\square\square / 131\square = 1.71$; the radius is hardly longer than the stigma ($L \text{ radius} / L \text{ stigma} : 276\square\square / 224\square = 1.23$).

Metasoma : It begins with a well individualized neck, traversed by some 6 stronger hulls, interspersed with some weaker ones; apart from the finely reticulated gastroceles, all the tergites are smooth and shiny; the gastroceles are vaguely triangular and located at the mid-length of the greater tergite.

Measurements (in □ , except ratios).

Antennas:	I	II	III	IV	V	VII	VII	VIII	IX	X	XI
Length in □	455	138	166	110	117	131	117	110	104	97	141
Length in □	96	52	59	62	72	76	72	70	66	64	60
Length in %	100	30	36	24	26	29	26	24	23	21	31
Width in %	21	11	13	14	16	17	16	15	15	14	13
Length Width	4.74	2.65	2.81	1.77	1.62	1.72	1.62	1.57	1.58	1.52	2.35

Antennae (total length):	1686	height:	545
Body (overall length):	2175	Metasomatic collar width:	190
Head length:	365	Spline length:	110
height: Mesosoma	645	Large tergite length:	555
length: width:	480-520	Fore wings length:	1470
height: Mesoscutum	785	Radius width:	580
length:	555	length:	276
Axillary feature + scutellum:	570	Stigma length:	224
Scutellum length:	315	width:	131
width :	330	long. /	
	305	width:	

	width rounded portion :	340	Radius/stigma	long. /	1.71
Metanotum + sleep portion. Propodeum :		315	Subapical	width:	1.23
Metanotum + long. total propodeum :		30	Hind wings	marginal lashes :	
Metasoma	length:	115		17 length: width:	1295
	width:	1025	Proximal marginal lashes		370
		580	:	79	
				distal:	
					35

AFFINITIES .

The species closest to *D. wollastoni* (Dodd) is undoubtedly *D. punctipes* (Boheman , 1832) first described from Sweden, but since found in Madeira, Sweden and Germany (DESSART , 1972, pp. 213 -223). This last species is distinguished by the following characters: notaulices more bent in front and slightly converging in back; scutellum flatter, without distinct flanks and flatter at the apex; mesosoma narrower in front, with less angular shoulders; forewings totally devoid of fringe and more largely smoky; face less domed in profile, more rounded in front.

Dendrocerus propodealis Dessart , 1973 also has subrectilinear lateral propodeal carinas , but these end in the metanoto-propodeal carina being very widely separated; moreover, the wings of this species are hyaline, the vertex is provided with a posterior interocellar furrow , etc. In the absence of a male, it is not possible to determine with certainty to which subgenus *Dendrocerus* belongs *Wollastoni* (Dodd).

LOCATION .

The species is only known from Saint Helena. The typical material (2 ♀♀) deposited in the British Museum bears no label specifying the location of the collection. The two Belgian zoological expeditions collected 5 ♀♀ .

SAINT HELENA . Southwest : Between Luffkins and Peak Gut, 1800 ft , 8-18.V.1967 (4 ♀♀ on *Commidendron robusta*).
Northeast :

Longwood, 7.IV.1967 (1 ♀ on *Commidendron robusta*).

It is interesting to note that, in these two localities, *Dendrocerus wollastoni* (Dodd) was found on the same endemic plant.

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Superfamily: Chalcidoidea

Chalcid or Jewel Wasps (from Greek khalkos 'copper', for their metallic colour). They are generally small wasps, from 0.3mm -5 mm in St Helenian species, mainly being less than 3 mm. The body is often metallic in colour. The wings may be developed, reduced or absent. The wings have reduced venation or sometimes none at all. The superfamily contains some 22,500 known species, and an estimated total diversity of more than 500,000 species, so most have yet to be discovered and described. Recent taxonomic revision has considerably increased the number of known families.

Most are parasitoids, their hosts including insects, spiders, ticks and mites, pseudoscorpions and even gall-forming nematodes. Some species parasitise a wide range of hosts, while others have a narrow host range. They attack host life stages ranging from eggs to adults. The superfamily includes primary, secondary and tertiary parasitoids, as both solitary and gregarious ecto- and endoparasitoids. Some Encyrtidae larvae are predatory on coccid eggs. Various species are used as biological pest control agents, including on St Helena. Other life styles are known, with herbivorous species in the (St Helenian) families of Eurytomidae, Eulophidae, Pteromalidae, Megastigmatidae. (modified from Wikipedia accessed 27/06/2025)

Families Recorded on St Helena - Aphelinidae, Calesidae, Chalcididae, Encyrtidae, Eulophidae, Eupelmidae, Eurytomidae, Megastigmatidae, Mymaridae, Perilampidae, Pteromalidae, Signiphoridae, Spalangidae, Trichogrammatidae

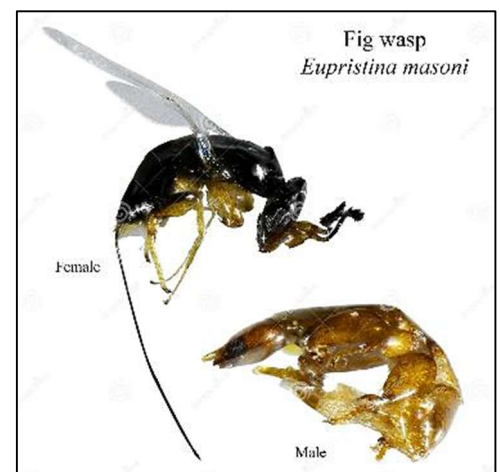
(Chalcidoidea: Family: Agaonidae Fig wasps possibly 1 species)

These wasps exclusively pollinate fig species *Ficus* spp, with a very intimate co-evolution between fig tree and a specific pollinator species of fig-wasp. The tree produces its flowers inside the tree's berry-like 'fruit' (called 'syconia' and actually an expanded inverted fleshy receptacle), and the female 'deliberately' pollinating a proportion of the flowers and ovipositing in others where the larvae develop within. Although St Helena has 5 introduced species of fig, no fig wasp have ever been found on the island.

(*Eupristina masoni* Saunders, 1882)

One fig species, however, the Banyan *Ficus benghalensis*, seem to be able to ripen fruit and produce fertile seed, leading to successful regeneration from seedlings at Ladder Hill and Cook's Bridge, apparently without their assistance (Lambdon, P. 2012. The flowering plants and ferns of St Helena, Pisces Publications,). However, the Banyan is thought to be usually exclusively pollinated by the fig wasp *Eupristina masoni* which has not, so far, been discovered on the island. Ripe figs collected from Sandy Bay in November 2022 showed no sign of the presence of wasps. We recommended that Banyan fig fruits from the self-seeding populations at Ladder Hill and Cook's Bridge are checked for fig wasps. in summer.

Status: Not known if present.



Ficus benghalensis fruit with *Eupristina masoni* galls in situ

Chalcidoidea: Family Aphelinidae

possibly as many as 12 Species,

Aphelinidae are a moderate-sized family of tiny parasitic wasps, with about 1100 described species in around 28 genera. The majority are primary parasitoids on Hemiptera, though other hosts are used and some use eggs, some pupae, and others are hyperparasites. Males and females can even have different hosts and different life histories. They are found throughout the world in virtually all habitats and are extremely important as biological control agents. *Cales noacki*, *Encarsia diaspidicola*, *Encarsia formosa* & *Encarsia lounsburyi* have all been deliberately introduced to St Helena as biocontrol agents against various Hemiptera plant parasites.

Ease of Identification. A difficult family and most specimens need to be sent to an international specialist to identify them to species. There are few world authorities on the family – they include Dr. John Heraty & Dr. Roger A. Burks (University of California, Riverside), Dr Andrew Polaszek (Natural History Museum, London), Prof. George Japoshvili (Agricultural University of Georgia, Tbilisi), & Dr. M. Hayat (Muslim University in Uttar Pradesh, India).

Aphelinidae Subfamily: Aphelininae

Aphelinus abdominalis (Dalman, 1820)

A biocontrol agent, probably originating from temperate Europe used to control several aphid species that are pests of agricultural crops, including the potato aphid *Macrosiphum euphorbiae* and Glasshouse Potato Aphid *Aulacorthum solani*. It is now used all over the world but appears not to have been recorded as being deliberately introduced to St Helena for biocontrol purposes. All specimens found have been female.

Status: Biocontrol agent. Not deliberate introduction. Established

Ginger Patch	30/10/2022	R&R Key
High Peak Dell	28-30/x/2022	R&R Key
Hutt's Gate	01/11/2022	R&R Key
New Ground, Sapper Way	09/11/2022	R&R Key
Teutonic Hall	05/11/2022	R&R Key
Thompson's Wood 1	4/11/2022	R&R Key
Well Spring, Mt Actaeon	29/11/2022	R&R Key



Aphelinus spp 1 or 2 brachypterous species

Two forms of a brachypterous species have been found in collections forwarded to Steve Compton from the cloud forest and nearby Teutonic Hall. These are likely to be conspecific with the brachypterous species recorded as *Aphelinus* sp.1 in the Belgian Expedition Report. The Belgians also report dark and light forms of a brachypterous species (see below) but attribute the paler specimens as having faded in alcohol. All specimens found have been female.

Status: 1 or 2 Potential endemic species

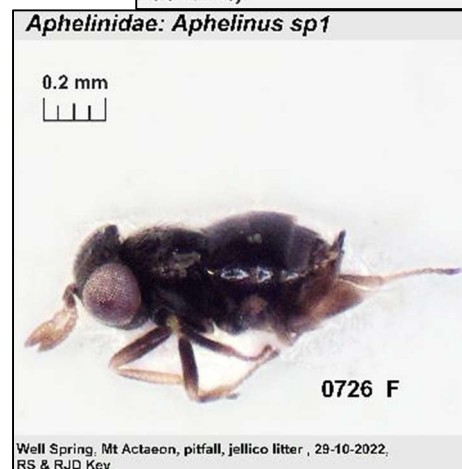
***Aphelinus* sp. 1 dark** a brachypterous dark form (possibly endemic as is known only from the cloud forest).

Diana's Peak	1-15/v/2017	R&R Key
Well Spring, Mt Actaeon	29/10/2022	R&R Key

***Aphelinus* sp. 2 Yellow** a possible 2nd brachypterous species/form that is more yellow – in the cloud forest and elsewhere.

Beale's	13-20/ii/2017	Liza Fowler
Button-up Corner	09/11/2022	R&R Key
Fairyland	28/11/2022	R&R Key
Mt Actaeon	26/10/2022	R&R Key
Osborne's	13-20/ii/2017	Liza Fowler
Teutonic Hall	05/11/2022	R&R Key
Thompson's Wood	14/11/2022	R&R Key

Brachyptery is rare within the genus *Aphelinus* and for example in North Western Europe loss of flight ability is only recorded in *Aphelinus asychis* Walker. This species displays the same range of colouration as the brachypterous individuals from St. Helena and they may be the same species. *Aphelinus asychis* has been widely introduced for the biocontrol of aphid pests including South Africa. However, populations of this species normally contain a mixture of fully-winged and rarer brachypterous individuals, whereas no fully-winged examples are known from St. Helena.



***Aphelinus* sp - records from other sources**

Unidentified Species of *Aphelinus* are included in the **1960s Belgian Expedition Report** and the **2006 Peaks survey** - which need comparing with the above and with each other. In the St Helena Species Dictionary Spreadsheet they are included as ***Aphelinus* sp.1 & *Aphelinus* sp.2** Faune Terrestre
***Aphelinus* sp.1, *Aphelinus* sp.2 & *Aphelinus* sp.3** Peaks Report

Excerpt from Google translation of The Belgian Report “Faune Terrestre”

Among the material collected by the Belgian expeditions, D. Annecke reported two species to the genus *Aphelinus* .
(D.P. Annecke was an entomologist at the Plant Protection Research Institute, Pretoria, R.S.A.(RSK))

***Aphelinus* sp . 1**

Micropterous species.

Teutonic Hall, 1500-1800 ft , 15-30.XI.1965 (3 ex.). Plantation House, 1700 ft , 6.XII.1965 (2 copies). Thompson's Wood, 1700-1800 ft , 23.XI.1965 (1 ex.). To these specimens determined by D. Annecke , one can undoubtedly add some paler specimens, discoloured by a stay in alcohol, all coming from: High Peak, 2400-2600 ft , 27.II.1967 (2 ex.) and III.1967 (3 ex.).

***Aphelinus* sp . 2**

Macropterous species.

Upper Fisher's Valley, 1700 ft , 11-13.XI.1965 (1 ex.). High Central Ridge, Cabbage Tree Road, 2500 ft, 8.XII.1965 (1 ex.) and 2500 ft, III.1967 (1 ex.). Thompson's Wood, 1700-1800 ft , 23.XI.1965 (5 ex.).

To this series determined by D. Annecke , we can add some pale forms High Peak, 2400-2600 ft , 27.II.1967 (2 ex.). High Central Ridge, Cabbage Tree Road, 2500 ft , 21-31.I. 1967 (1 ex., humus or rotten wood).e

These specimens are presumed to be held either at the Africa Museum in Tervuren, Belgium, or maybe at the Plant Protection Research Institute, Pretoria, R.S.A (which still exists)

The 3 species of *Aphelinus* included in the 2006 Peaks survey:-

***Aphelinus* sp.1** Peaks Report Site 2 Diana's Peak, Site 5 High Peak

***Aphelinus* sp.2** Peaks Report Site 2 Diana's Peak, Site 4 Cabbage Tree Road

***Aphelinus* sp.3** Peaks Report Site 1 Cuckold's Point

These specimens are presumed to be held at the NHM, London.

Aphelinidae Subfamily: Coccophaginae

***Encarsia diaspidicola* (Silvestri, 1909)**

Encarsia diaspidicola is a biocontrol agent used for control of white peach scale. It originates in Samoa and has been very widely introduced to control this pest. It was introduced to St Helena in 1999 with “Some success” but appears not to have been subsequently recorded, probably because of difficulty of identification. No image specifically of this species could be found on the web

Status:: Biocontrol agent. Deliberate introduction. Uncertain

***Encarsia formosa* Gahan, 1924**

Encarsia formosa is a biocontrol agent used for control of whiteflies. It originates in tropical North America and has been very widely introduced to control whitefly, especially in greenhouses. There seems to be no record of it having been deliberately introduced to St Helena and the first record dates from 2013.

Status: Biocontrol agent. Not deliberate introduction. Established
DJ Pryce listed a number of records, most of which are unsupported by voucher specimens:-

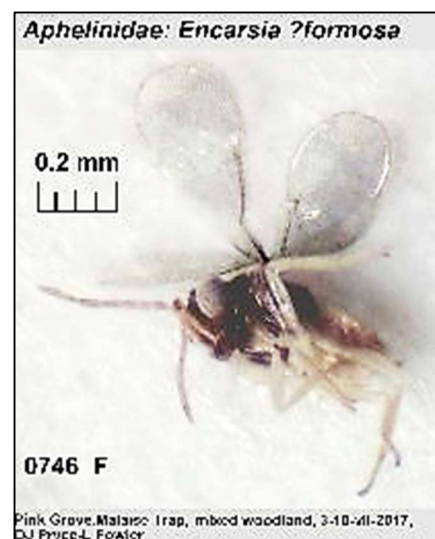
Scotland	22/10/2013
Harpers Polytunnels	23/10/2013
Rupert's Hill, in loop of Haul Road	25/12/2013
Rupert's Valley, near church	09/05/2014
Harper's Reservoir, below dam	25/01/2016
Levelwood Reservoir	29/01/2016

Specimens sent to Steve Compton and provisionally identified as this species:-

Burnt Rock	13-20/iii/17	LJ Fowler
Heart-shaped Waterfall	26/11/2022	R&R Key
Pink Grove control	3-10/vii/2017	DJ Pryce



Encarsia formosa

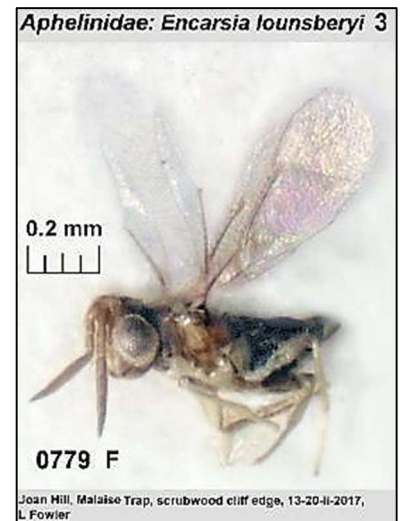


***Encarsia lounsburyi* (Berlese & Paoli, 1916)**

Encarsia lounsburyi is a biocontrol agent used for control of armored scale insects (Homoptera: Diaspididae) that is native to parts of Africa and Macaronesia,. Identified by IIE for ANRD, but there is no record of it having been deliberately introduced to St Helena as a biocontrol agent. No image specifically identified as this species could be found on the web. Specimens identified as *Encarsia* near *lounsburyi* were abundant amongst the collection forwarded to Steve Compton.

Status: Biocontrol agent. Not deliberate introduction. Probably established

Beale's	13-20/iii/2017	DJ Pryce
Burnt Rock	16-19/i/17	LJ Fowler
Diana's Peak: Perkin's Gut	8-15/v/2017	DJ Pryce
Diana's Peak,	13-20/iii/2017	DJ Pryce
Fisher's Valley - lower	13-20/iii/2017	LJ Fowler
Heart-shaped Waterfall	8-15/v/2017	LJ Fowler
Joan Hill	13-20/ii/2017	LJ Fowler
Millennium Forest	3-10/vii/2017	DJ Pryce
Peak Dale	10-17/iv/2017	LJ Fowler
Pink Grove control	3-10/vii/2017	DJ Pryce
Pipe Path	10-17/iv/2017	DJ Pryce

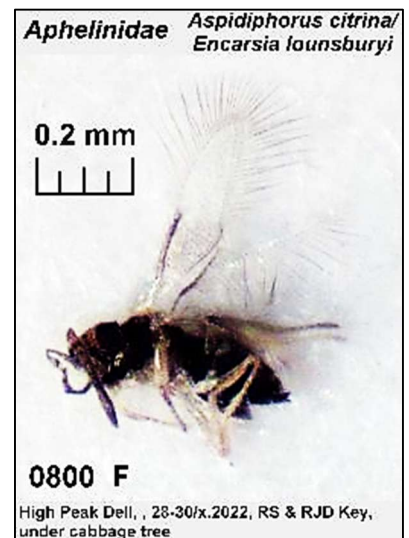


***Encarsia citrina* (Craw, 1891)**

Encarsia citrina was originally described from the United States, where it was first recorded and described in association with diaspid scale insects. It has since been introduced to various regions—including the Galápagos Islands and parts of Europe—for biological control of armored scale insects (family Diaspididae). Its known targets include *Abgrallaspis cyanophylli* (cyanophyllum scale) *Aonidiella citrina* (yellow scale) *Aspidiotus nerii* (oleander scale) and *Pinnaspis aspidistrae* (fern scale). There is no record of it being deliberately introduced to St Helena as a biocontrol agent. **Status:** Biocontrol agent. Not deliberate introduction. Established

Specimens sent to Steve Compton and identified as probably of this species (though very similar to *E. lounsburyi*)

Diana's Peak: Perkin's Gut	13-20/ii/2017	DJ Pryce
Fairyland	25-28/11/2022	R&R Key
Ginger Patch	30/10/2022	R&R Key
High Peak Dell	28-30/x.2022	R&R Key
Mulberry Gut	12.15/xi/2022	R&R Key



***Coccophagus* species**

Specimens in the collection forwarded to Steve Compton included perhaps as many as five species of this genus. They are parasitoids of scale insects and some species are used against pest species. There is no record of any of them having been deliberately introduced to St Helena as biocontrol agents.

***Coccophagus ceroplastae* (Howard, 1895)**

Coccophagus ceroplastae originates from North America and has since been introduced to many parts of the world for biological control purposes. Three, seemingly different forms, keyed out to this species, which indicates there may be more species present. It is a biocontrol agent primarily used to control soft scale insects (Family Coccidae), particularly those in the genus *Ceroplastes*. It parasitizes the later instars (typically 2nd and 3rd) of these scale insects, making it a valuable agent in integrated pest management, especially in citrus orchards. There is no record of it having been deliberately introduced to St Helena as a biocontrol agent.

Status: Biocontrol agent. Not deliberate introduction. Established



form - 6 white leg black tarsus
 form - 6 white leg black tarsus
 form - 7 clear wings
 form - 8 maculate
 form - 8 maculate

Diana's Peak
 Pipe Path
 Fisher's Valley - lower
 New Bridge, Jamestown
 Rupert's

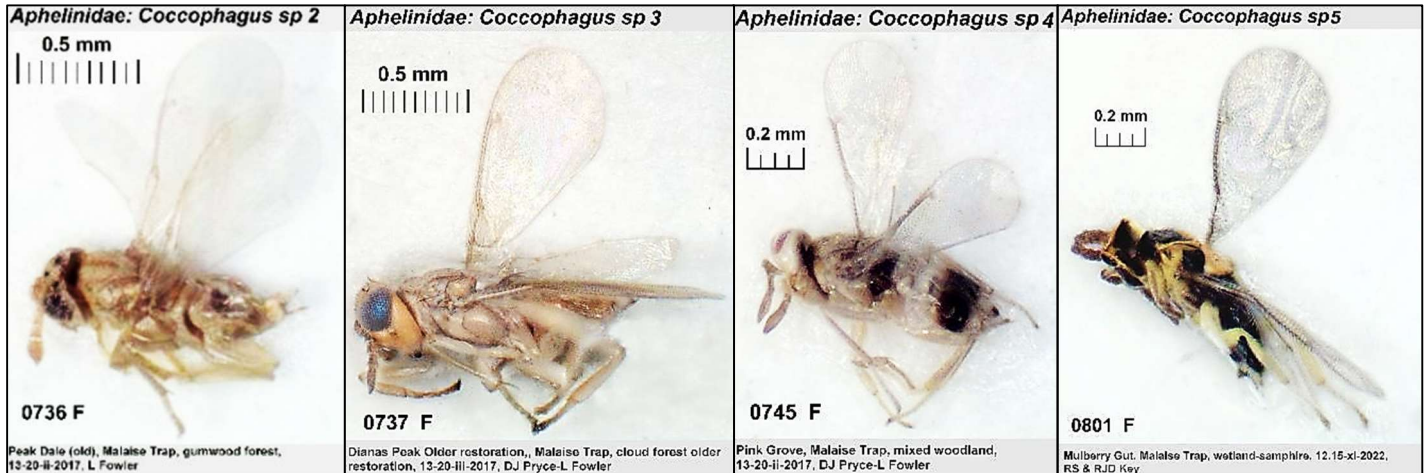
31/vii- 7/v/2017
 13-20/iii/2017
 13-20/iii/2017
 10/11/2022
 8-15/v/2017

DJ Pryce
 DJ Pryce
 DJ Pryce
 R&R Key
 DJ Pryce

***Coccophagus* spp. (continued)**

Four other morphospecies of *Coccophagus* have been suggested and await examination by a specialist

Status: Unknown



***Coccophagus* 3 - grey-brown**

Diana's Peak Old restrn.	13-20/iii/2017	DJ Pryce
High Hill	8-15/v/2017	DJ Pryce

***Coccophagus* 4 - barred thorax & abdomen**

Burnt Rock	16-19/i/17	LJ Fowler
Diana's Peak	10-17/iv/2017	
Millennium Forest	3-10/vii/2017	DJ Pryce
Pink Grove control	13-20/ii/2017	DJ Pryce
Pipe Path	13-20/iii/2017	DJ Pryce

***Coccophagus* 5 - bright yellow/black**

Mulberry Gut	12.15/xi/2022	R&R Key
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***Aphelinidae* spp**

Two species of *Aphelinidae* ("det DG Notton/JS Noyes"), unidentified even to genus are included in the 2006 Peaks Report as separate from the genus *Aphelinus* and need comparing with the species above.

The specimens are presumed to be held at the NHM, London. **Status:** Unknown

***Aphelinidae* sp.4**

Site 1 Cuckold's Point
 Site 3 Mt Actaeon

***Aphelinidae* sp.5**

Site 1 Cuckold's Point

Chalcidoidea: Family Calesidae

1 Species

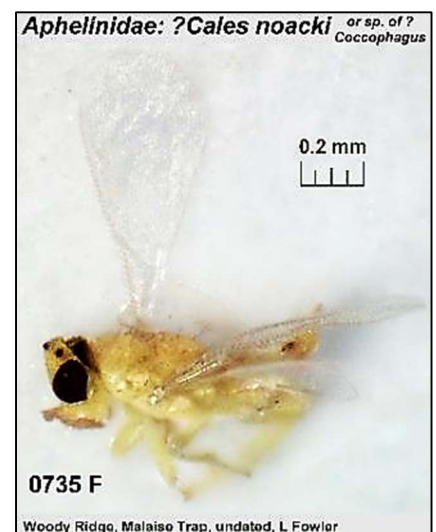
Calesidae is a small, family of chalcid wasps, previously classified as subfamily Calesinae, in the family Aphelinidae. These tiny wasps (length less than 1 mm) are parasitoids of other small insects, mainly whiteflies.

Ease of Identification. Specimens need to be sent to one of the few international specialist to identify them to species. Dr Andrew Polaszek (Natural History Museum, London) and Dr Jason Mottern (USDA/APHIS).

***Cales noacki* Howard, 1907**

This species was introduced into St Helena in 2000 as a biocontrol agent for whiteflies. Originally from S America it is now widely used to control woolly whitefly (*Aleurothrixus floccus*) on citrus. *Cales noacki* is now considered to be a complex of species (Mottern, J. L., & Heraty, J. M. (2014). Revision of the *Cales noacki* species complex (Hymenoptera, Chalcidoidea, Aphelinidae). Systematic Entomology, 39(2), 354-379. doi:10.1111/syen.12060 and so it is unclear which was imported to St. Helena. It is also not clear if it has persisted on St Helena. DJ Pryce made a field observation with no supporting specimen at Lower Farm Lodge on 05/02/2015 and two specimens sent to Steve Compton *might* be of this species, both from an undated Malaise Trap run on Woody Ridge. **Status:** Biocontrol agent. Deliberate introduction. Possibly established

Lower Farm Lodge	05/02/2015	DJ Pryce
Woody Ridge.	undated	DJ Pryce/LJ Fowler



Chalcidoidea Family: Chalcididae

2 Species

The Chalcididae are a moderate-sized family within the Chalcidoidea, composed mostly of parasitoids and a few hyperparasitoids. The family is apparently polyphyletic, though the different subfamilies may each be monophyletic, and some may be elevated to family status in the near future. As presently defined, there are over 85 genera and over 1460 species worldwide. They are often black with yellow, red, or white markings, rarely brilliantly metallic, with a robust mesosoma and very strong sculpturing. The hind femora are often greatly enlarged, with a row of teeth or serrations along the lower margin.

Ease of Identification. The two species on St Helena are distinctive enough to be separated using photographs although *Oxycoryphe edax* still needs confirmation of its identification. Simon van Noort at Iziko Museum, Cape Town can help. Dr. Gérard Delvare (CIRAD, France) is the main world authority on the family.

Chalcididae: Subfamily: Chalcidinae

Brachymeria podagrica (Fabricius, 1787)

see <https://pubmed.ncbi.nlm.nih.gov/37004576/>

Brachymeria podagrica is a parasitoid of large fly larvae/maggots (Sarcophagidae & Calliphoridae) in decaying material, especially in dead animals. It has a world-wide distribution. It has only been recorded twice on St Helena, first in fish-baited traps on Horse Point Plain by the Belgian Expedition in 1967 and then swept from pepper tree at Ladder Hill Fort by R & R Key in 2022. It was formerly known on St Helena under the synonym *Chalcis sodalis* **Status:** Uncertain origin. Established.

Horse Point Plain	Feb-April 1967	Belgians
Ladder Hill	02/11/2022	R&R Key



Chalcididae: Subfamily Haltichellinae

Oxycoryphe sp. probably *O. edax* (Waterston, 1916)

Very little seems to be known about *Oxycoryphe* species. Two species are known from Africa, and 14 from S.E. Asia. They are described as being parasitoids of Lepidoptera larvae, although the type of *O. edax* was reared from the pupa of Tsetse fly (Diptera: Glossinidae). It has also been reared from the pupa of False Codling Moth (Lepidoptera: Tortricidae). Known from 4 records, all by Liza Fowler.

Status: Uncertain origin. Established.

Burnt Rock	13-20/ii/2017	LJ Fowler
Fisher's Valley	5-12/vi/2017	LJ Fowler
Burnt Rock	02/12/2014	LJ Fowler
Burnt Rock	19/03/2016	LJ Fowler



Chalcidoidea: Family Encyrtidae

about 27 Species (possibly ?1 endemic)

An enormous family with >3710 described species so far in over 450 genera and many more remaining undescribed. The larvae of the majority are primary parasitoids on Hemiptera, though other hosts are attacked, and the life history can be variable, some attacking eggs, others larvae, and some are hyperparasites. Some are polyembryonic, in which a single egg multiplies clonally in the host and produces large numbers of identical adult wasps. Encyrtids are extremely important as biological control agents but a few have been identified as an ecological threat to populations of indigenous species. (modified from Wikipedia accessed 27/06/2025)

Ease of Identification. An enormously diverse and speciose family and often very difficult to identify. John Noyes who set up the Universal Chalcidoidea Database, has been vital for work on the St Helena fauna. There are very few experts on the family, most being in Universities in China or Russia or are retired. Most workers on the family have concentrated on their use in biocontrol.

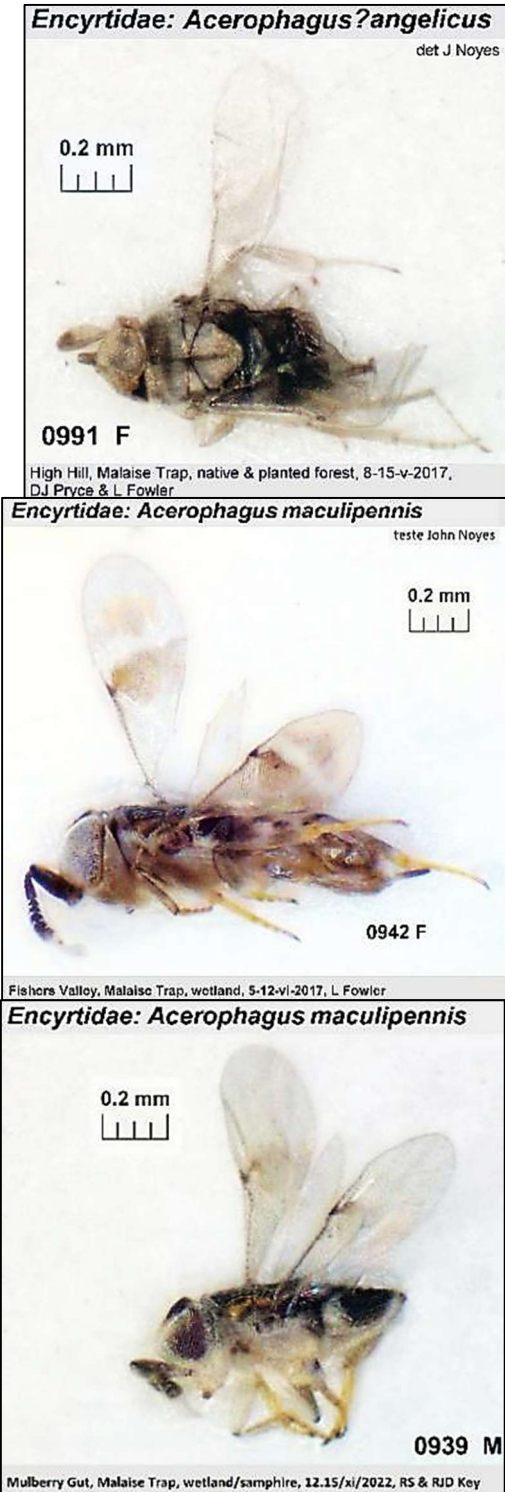
Encyrtidae: Subfamily: Encyrtinae

Acerophagus spp. A genus with >100 species worldwide, most species parasitizing on Mealybugs (Pseudococcidae) with a few on other species of Hemiptera Sternorrhyncha

Acerophagus possibly **angelicus** (Howard, 1898)
One specimen from a Malaise Trap on High Hill in 2017 was tentatively identified as this species by John Noyes in 2024. It is a known parasitoid of grape mealybug, but does not appear to have been used as a biocontrol agent
High Hill 8-15/05/2017 DJ Pryce/LJ Fowler

Acerophagus maculipennis (Mercet, 1923)
This species is used as a biocontrol agent for mealybugs (Pseudococcidae), mainly in greenhouses all over the world. There is no record of it having been introduced to the island for this purpose.

Beale's Malaise Trap	13-20/ii/2017	
Blue Point Scrubwoods	06/03/2013	R&R Key
Burnt Rock	13-20/iii/17	LJ Fowler
G Benjamin Arboretum	04/03/2013	R&R Key
Heart-shaped Waterfall	13-20/iii/17	
Millennium Forest	02/11/2022	R&R Key
Mulberry Gut	12.15/xi/2022	R&R Key
Peak Dale (old)	13-20/ii/2017	
Pink Grove	3-10/vii/2017	DJ Pryce
Burnt Rock	16-19/i/17	LJ Fowler

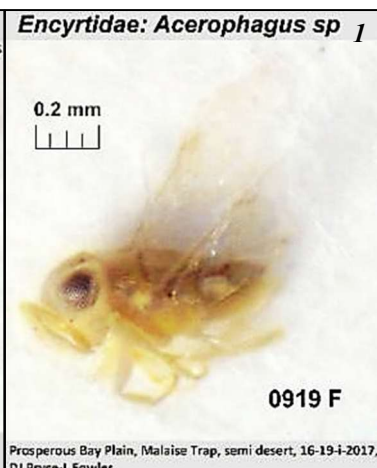


Acerophagus sp.1 At least one, possibly two species of yellow/orange *Acerophagus* were in collections from Malaise traps at Fishers Valley and Prosperous Bay Plain sent to Steve Compton, **Status:** Uncertain origin. Established.

Fisher's Valley
21-24/xi/2022
R&R Key

Prosperous Bay
Plain
6-19/ii/2017
DJ Pryce

Encyrtidae: sp. indet



Acerophagus sp. 2 One greyish species, determined as an *Acerophagus* by John Noyes at the NHM was collected in a Malaise trap at Burnt Rock in 2017
Status: Uncertain origin. Established.

Burnt Rock

16-19/ii/17

LJ Fowler

Acerophagus sp

A species of *Acerophagus* sp is listed in the records from "Prosperous Bay Plain, Stony Area (Ashmoles' Site 14)" between October & December 2003. It is unclear which species, if any, it is of the other species included here

Prosperous Bay Plain Site 14

Oct-Dec 2003

P&M Ashmole

Cheiloneurus sp.

A large genus of > 140 species some of which are known to be parasitoids on mealybugs(*Pseudococcidae*), although they do not seem to be used as biocontrol agents,

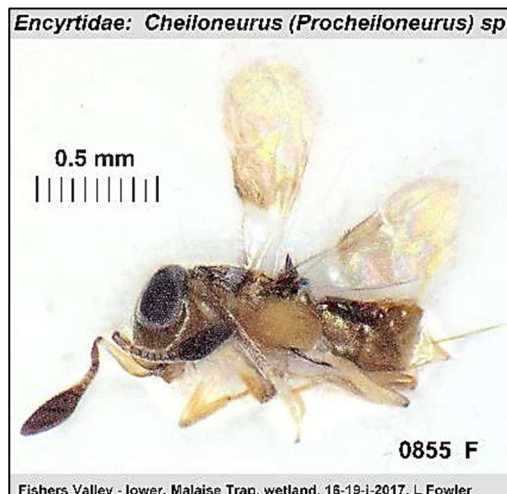
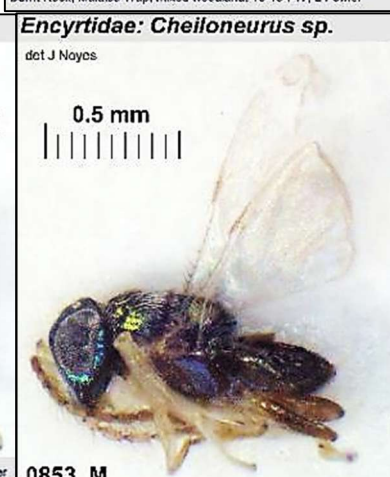
Status: Uncertain origin. Established.

Joan Hill 13-20/ii/2017 DJ Pryce

Pipe Path 10-17/iv/2017 DJ Pryce

Cheiloneurus (Procheiloneurus) sp possibly 2 species: sp1 & sp2

Procheiloneurus is a subgenus of about 40 species of the genus *Cheiloneurus*, with around 280 species some of which are known to be parasitic on scale insects. Two unknown species, one yellowish grey, the other black have been found on St Helena and det to this genus by J Noyes at the NHM.
Status: Uncertain origin. Established.



1	Fisher's Valley (lwr)	13-20/iii/2017	DJ Pryce/ LJ Fowler
1	Lemon Valley	07/11/2022	R&R Key
2	Button-up Corner	09/11/2022	R&R Key

***Copidosoma koehleri* Blanchard, 1940**

Hosts – gelechiid & tortricid moths, This species was released on St Helena in the early 1970s as a control agent for the potato tuber *Phthorimaea operculella* moth (nb DJ Pryce erroneously states diamondback moth). It was known still to be present in 1998 and 2017.

Status:: Biocontrol agent. Deliberate introduction. Established
 St Helena 1998 ANRD det G.L.Prinsloo
 Pink Grove 13-20/02/2017 DJ Pryce

***Copidosoma uruguayensis* Tachnikawa, 1968**

This species was released on St Helena in the early 1970s at the same time as *Copidosoma koehler* as a control agent for the potato tuber moth. It appears not to have been seen since. No image of this species could be sourced **Status::** Biocontrol agent. Deliberate introduction. Apparently not established

***Diversinervus elegans* (Silvestri, 1915)**

A distinctively patterned species with 2 tufts of black bristles on it's thorax. Its hosts include a very wide range of soft scale insects (Coccidae). It is used as as a biocontrol agent for black scale *Saissetia oleae* on citrus fruit. In addition, there were specimens of a possible other species of *Diversinervus*, (of which there are 12 known) found by Liza Fowler at Burnt Rock in 2017

St Helena	03/06/1967	Belgian Expeditions
Prosperous Bay Plain,	31/12/2003	P&M Ashmole
Peak Dale Gumwoods	20/04/2011	R&R Key
Prince Andrew School	21/03/2013	R&R Key
Prosperous Bay Plain,	20/03/2014	DJ Pryce
Fisher's Valley, Site 3	15/01/2016	DJ Pryce
French's Gut, upper	29/02/2016	DJ Pryce
Peak Dale	10-17/iv/2017	
Pink Grove	13-20/ii/2017	DJ Pryce
Heart-shaped Waterfall	13-20/iii/17	
Ladder Hill	02/11/2022	R&R Key
Mulberry Gut	12-15 xi 2022	R&R Key

possible 2nd species

Burnt Rock	19/01/2017	LJ Fowler
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***Encyrtus* sp.**

Originally a huge genus but many species have been transferred to other genera, still leaving 90 + species. Hosts – a very wide range of insect taxa, but especially amongst the Hemiptera Sternorrhyncha – aphids, scales etc.

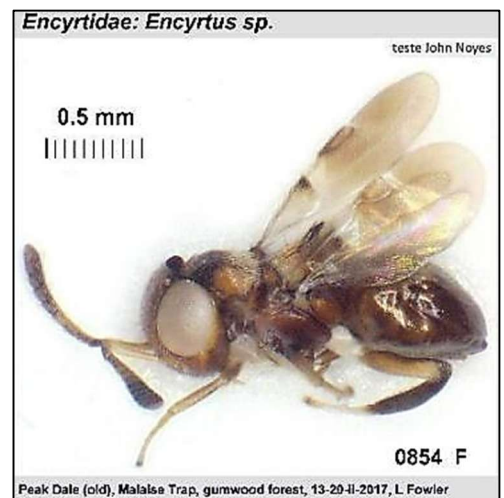
The Belgian expedition in 1967 recorded wasps as *Encyrtus* sp from Cason's Gate, Sandy Bay, Lemon Grove, and most interestingly, from Teutonic Hall in the dead wood of Thorn Tree *Erythrina caffra* with Cossonine weevils.

One specimen, confirmed as 'true' *Encyrtus* by J Noyes in 2024
 Peak Dale 20 02/2017 Liza Fowler on

***Encyrtus* probably *aurantia* (Geoffroy, 1785)**

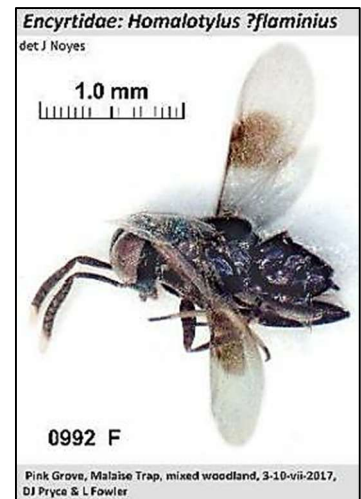
A specimen of what may be the relatively distinctive species *Encyrtus aurantii*. has been photographed 3 times but no specimens for confirmation. It is a parasitoid used in biocontrol, mainly of soft scale insects, all over the world

New 3' cloud forest	2024.	Liza Fowler
Millennium Forest	2018	Liza Fowler.
Joan Hill	08/01/2025	Natasha Stevens



***Homalotylus* sp. poss *flaminus* (Dalman, 1820)**

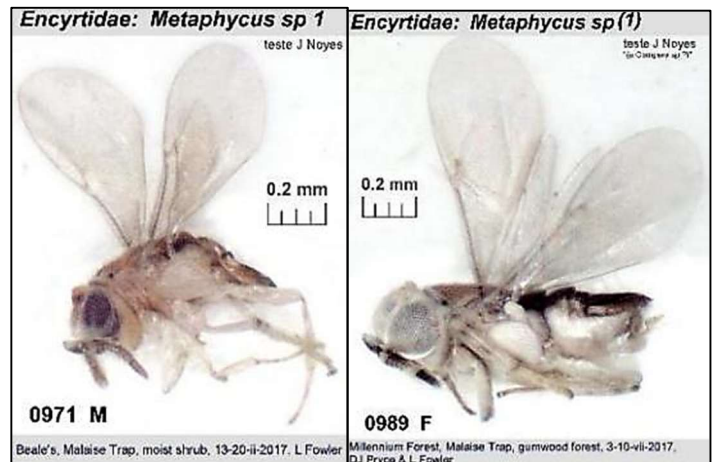
Parasitoids (solitary or gregarious) of ladybird (Coccinellidae, Coleoptera) larvae, emerging from prepupae. Records of scale insects as hosts are incorrect (Noyes, 2010). A worldwide species, widely distributed in Africa. A single specimen was Malaise trapped at Pink Grove 03-10/07/ 2017 DJ Pryce det J Noyes.



***Metaphycus* sp. possibly *stanleyi* Compere, 1940**

A very large genus with 480+ species worldwide and with a wide diversity of hosts in the Sternorrhyncha, including aphids whiteflies and various groups of scale insects. *Metaphycus stanleyi* is included in the St Helena records as present with no other data – the source is given as ‘ANRD Archive’ and determined by IIE for ENRD’. It is a parasitoid of Coccidae and is widely used in biocontrol of soft scale insects, mainly in greenhouses. **Status:** Biocontrol agent. Not deliberate introduction. Established

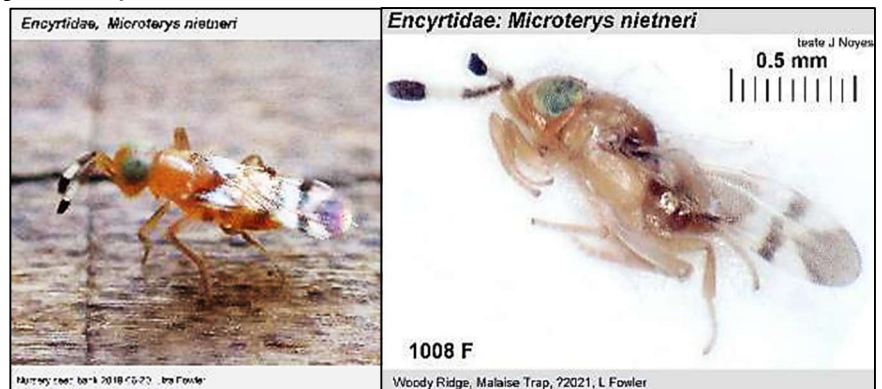
Beale's	13-20/ii/2017	
Diana's Peak	13-20/iii/2017	DJ Pryce
Ginger Patch	3-10/vii/2017	
Heart-shaped Waterfall	13-20/iii/17	
Pipe Path	10-17/iv/2017	DJ Pryce
Millennium Forest	3-10/vii/2017	DJ Pryce
Mulberry Gut	12.15/xi/2022	R&R Key
Thompson's Wood	14/11/2022	R&R Key
Ladder Hill	02/11/2022	R&R Key



***Microterys nietneri* (Motschulsky , 1859)**

First photographed by Liza Fowler in the nursery seed bank in 2019 and provisionally identified by Norbert Maczey, confirmed by J Noyes (NHM). It is a biocontrol agent for soft scales and mealy bugs Coccidae & Pseudococcidae and very widely used across the world. **tatus:** Biocontrol agent. Not deliberate introduction. Established

Nursery seed bank	20./6/2019	LJ Fowler
Woody Ridge	2021 /6/2019	LJ Fowler



***Syrphophagus africanus* (Gahan, 1932)**

Parasitoid of aphids – known only from Africa. It has been reared from Peach-potato aphid *Myzus persicae* feeding on Aubergine. A specimen was identified by J Noyes (NHM). **Status:** Uncertain origin. Established.

Cason's	06/05/2021	LJ Fowler
Diana's Peak: Perkin's Gut	13-20/ii/2017	DJ Pryce
Fisher's Valley	5-12/vi/2017	
Pink Grove control	13-20/ii/2017	DJ Pryce
Ladder Hill	02/11/2022	R&R Key
Cotton Fields	1995	ANRD Archive

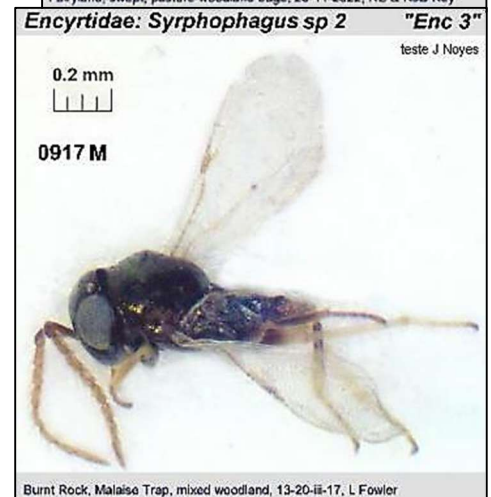
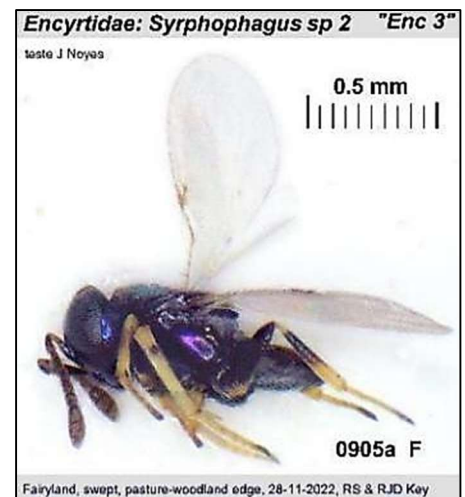


***Syrphophagus* sp.**

A second species of *Syrphophagus* was found in large numbers at a diversity of sites across St Helena amongst samples sent to Steve Compton for identification. They were confirmed as being different from *S. africanus* by J Noyes (NHM). The genus *Syrphophagus* has 85+ species that are mainly parasitoids of aphids but also psyllids and coccids..

Syrphophagus sp. were recorded at Cuckold's Point and Mount Actaeon in 2005 in the Peaks Survey Report. Two species of encyrtid were recorded by the Belgian expedition in 1967 and in the Peaks Report (Mendel & Ashmole 2008), simply as Encyrtid sp 1 & 2. These were interpreted as *Aphidencyrtus* by DJ Pryce. It is a junior synonym of *Syrphophagus*.

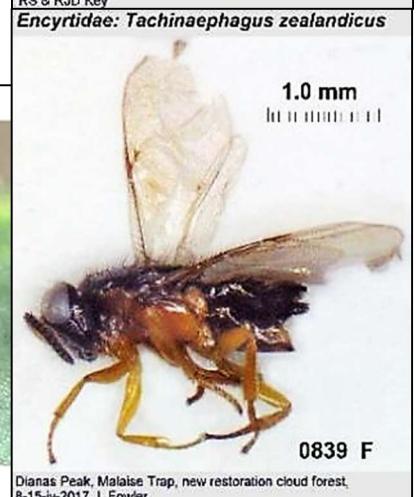
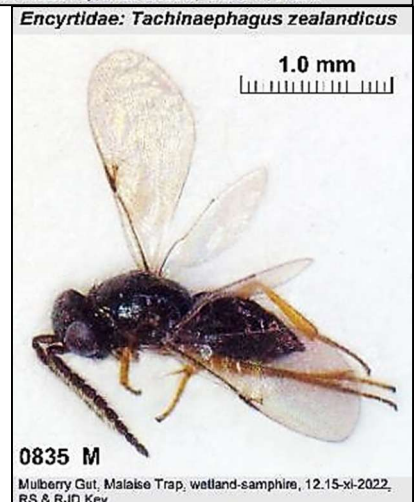
Beale's	13-20/ii/2017	DJ Pryce
Diana's Peak	13-20/iii/2017	DJ Pryce
Fisher's Valley	5-12/vi/2017	DJ Pryce
Millennium Forest	3-10/vii/2017	DJ Pryce
Upper Grape Vine Gut,	5-12/vi/2017	DJ Pryce
Blue Hill	2021	LJ Fowler
Burnt Rock	16-19/i/17	LJ Fowler
Barren Ground ant trial	09/11/2022	R&R Key
Bottom Woods	01/11/2022	R&R Key
Button-up Corner	09/11/2022	R&R Key
Fairyland	28/11/2022	R&R Key
Fisher's Valley	21-24/xi/2022	R&R Key
Ginger Patch	30/10/2022	R&R Key
Heart-shaped Waterfall	26/11/2022	R&R Key
Ladder Hill Fort	08/11/2022	R&R Key
Lemon Valley	07/11/2022	R&R Key
Mulberry Gut	12.15/xi/2022	R&R Key
New Ground, Sapper Way	09/11/2022	R&R Key
Teutonic Hall	05/11/2022	R&R Key
Thompson's Wood	14/11/2022	R&R Key



***Tachinaephagus zealandicus* Ashmead, 1904**

First found in Malaise trap samples from various sites around the island in 2017. The hosts of *Tachinophagus* species are calyptrate flies in the families Anthomyiidae, Calliphoridae, Muscidae & Tachinidae but related species have been recorded also using tephritid flies.

Diana's Peak	8-15/iv/2017	DJ Pryce
Joan Hill	13-20/ii/2017	
Mount Pleasant	13-20/ii/2017	
Cason's	03/05/2021	LJ Fowler
New Gound	08/11/2022	R&R Key
Barren Ground	09/11/2022	R&R Key
Mulberry Gut	12.15/xi/2022	R&R Key
Teutonic Hall	05/11/2022	R&R Key



Encyrtinae sp.

Two specimens, from Malaise traps and originally determined as *Syrphophagus* sp. attracted the attention of J Noyes (NHM) as "potentially interesting" as a possible new species. he could not definitively identify it to genus. Both specimens are male and a female is needed to clarify its status and to describe the species if necessary.

Status: Potential endemic species

Prosperous Bay Plain

16.19/01/2017

DJ Pryce/LJ Fowler

Encyrtidae: genus indet

"potentially interesting"
J Noyes

0.2 mm



0963 M

Prosperous Bay Plain, Malaise Trap, semi desert, 16-19-i-2017,
DJ Pryce & L Fowler

Encyrtidae: genus indet

"potentially interesting"
J Noyes

0.2 mm



0962 M

Prosperous Bay Plain, Malaise Trap, semi desert, 16-19-i-2017,
DJ Pryce & L Fowler

Encyrtidae: Subfamily: Tetracneminae

Anagyrus possibly *pseudococci* (Girault 1915)

Anagyrus pseudococci is a commercially available and very widespread biocontrol agent against mealy bugs. First recorded in 2017 from Beale's and Burnt Rock and identified by John Noyes of the NHM. **Status:** Biocontrol agent. Not deliberate introduction.

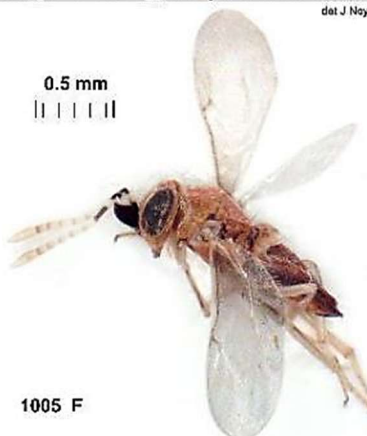
Established

Beale's	13-20/iii/2017	DJ Pryce
Burnt Rock	13-20/iii/17	LJ Fowler
Pipe Path	10-17/iv/2017	
Fisher's Valley	21/11/2022	R&R Key
Broad Gut, Sandy Bay	27/11/2022	R&R Key

Encyrtidae: *Anagyrus ?pseudococci*

det J Noyes

0.5 mm



1005 F

Sandy Bay, Broad Gut, swept, on wild mango, 27-11-2022, RS & RJD Key

Encyrtidae: *Anagyrus ?pseudococci*

det J Noyes

0.2 mm



0949 M

Burnt Rock, 2021-12-12, L Fowler

Anagyrus sp.

At least one other, unidentified, species of *Anagyrus* has been collected on St Helena. This is a large, difficult genus with > 290 species. Their hosts include a very wide range of insect higher taxa but with most on

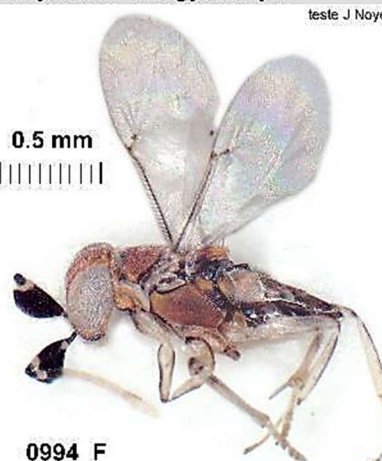
Hemiptera: Sternorrhyncha **Status:** Unknown

Great Stone Top	18/04/1967	Belgians
Prosperous Bay Plain	20/04/2014	DJ Pryce,
Burnt Rock	13-20/iii/17	LJ Fowler
Fisher's Valley	21/11/2022	R&R Key
Heart-shaped Waterfall	26/11/2022	R&R Key
Mulberry Gut	14/11/2022	R&R Key
New Bridge, Jamestown	10/11/2022	R&R Key
Sandy Bay, Broad Gut	27/11/2022	R&R Key

Encyrtidae: *Anagyrus* sp.1

teste J Noyes

0.5 mm



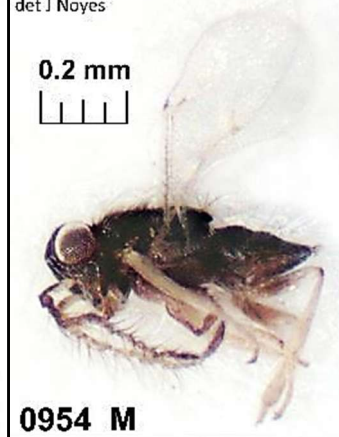
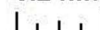
0994 F

Mulberry Gut, swept, wetland, 14-11-2022, RS & RJD Key

Encyrtidae: *Anagyrus* sp (male)

det J Noyes

0.2 mm



0954 M

Burnt Rock, Malaise Trap, mixed woodland,
13-20-iii-17, L Fowler

Coccidoxenoides perminutus Girault, 1915

Parasitoids of armoured scales (Diaspididae) and Mealy Bugs (Pseudococcidae). It is used as a biocontrol against Citrus Mealybug but is often ineffective. It was first found on St Helena in 2017.

Status: Biocontrol agent. Not deliberate introduction. Established

Burnt Rock	16-19/i/17	LJ Fowler
Pink Grove	13-20/ii/2017	DJ Pryce
Mulberry Gut	12.15/xi/2022	R&R Key

Gyranoidea poss aphycoidea (Mercet, 1921)

The genus *Gyranoidea* has >45 species. A European species, a parasitoid on Scale insects in the Eriococcidae and Mealybugs (Pseudococcidae) and has been assessed as a potential biocontrol species.

Status: Potential Biocontrol agent. Not deliberate introduction. Established
It is known on St Helena from specimens and a series of photographs by Liza Fowler.

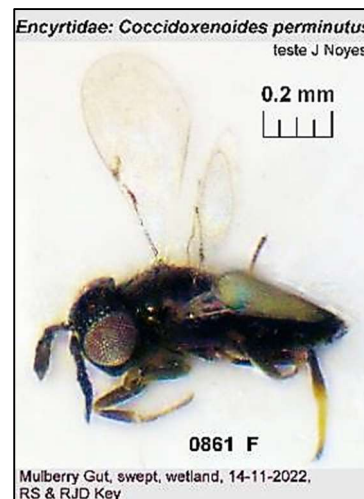
Ginger Patch	3-10/vii/2017	DJ Pryce / LJ Fowler
Beale's	13-20/iii/2017	DJ Pryce
Burnt Rock	12/12/2021	LJ Fowler



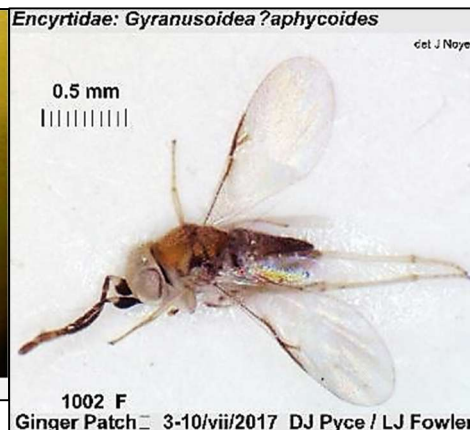
Burnt Rock, 2021-12-12, L. Fowler



Burnt Rock, 2021-12-12, L. Fowler



Mulberry Gut, swept, wetland, 14-11-2022, RS & RJD Key



Ginger Patch 3-10/vii/2017 DJ Pryce / LJ Fowler

Rhopus sp

A genus of >70 species parasitoids predominantly on Mealybugs (Pseudococcidae), but a few species also on other Hemiptera Sternorrhyncha. It is known only from a few specimens in the drier parts of the island.

Prosperous Bay Plain	2003	P&M Ashmole det J Noyes,
Rupert's	6-10/vii/2017	DJ Pryce
Rupert's	13/11/2022	R&R Key

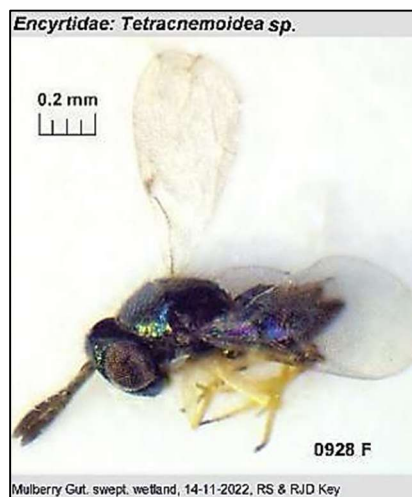


Rupert's, Malaise Trap, 6-10/vii/2017, semi desert. DJ Pryce & L. Fowler

Tetracnemoidea sp.

A small genus of 17 known species, including parasitoids mainly on mealybugs (Pseudococcidae) but a few on soft scales (Coccidae).

Heart-shaped Waterfall	20/3/2017	DJ Pryce
Mulberry Gut	14/11/2022	R&R Key



Mulberry Gut. swept. wetland, 14-11-2022, RS & RJD Key



Heart-shaped Waterfall, Malaise Trap, wetland, 13-20-iii-17, L. Fowler

Tetracnemus possible sp. nov.

possible Endemic Species

A small genus of about 36 known species with hosts mealybugs (Pseudococcidae) and soft scales (Coccidae) as hosts. Three specimens attracted the attention of J Noyes (NHM) as "potentially interesting" as a possible new endemic species. The specimens are all male but a female is needed in order clarify its taxonomic status.

Status: Potential endemic species

Cason's
New Gound
Woody Ridge

03/05/2021
08/11/2022
?2021

LJ Fowler
R&R Key
LJ Fowler

Encyrtidae: *Tetracnemus sp.* possible endemic

det. J Noyes

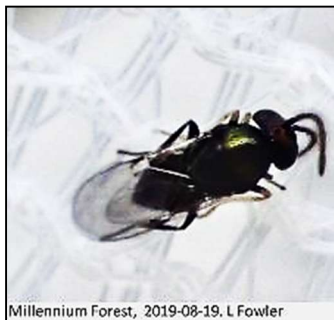
0.2 mm



0965 M

Cason, Malaise Trap, 03-05-2021, L. Fowler

Photos of indeterminate species of Encyrtidae



Millennium Forest, 2019-08-19, L. Fowler



High Peak Doll, 12/019/06/25, L. Fowler



New Ground, Sapper Way, garden L. Fowler



Mt Vesey/High Peak, 2020-01-24, L. Fowler

Other references to indeterminate species of Encyrtidae

Finally, unidentified specimens of Encyrtidae, dubbed Encyrtidae, sp. 2 & sp 3 were found at Diana's Peak and Cuckold's Point in the 2005 Peaks survey, and identified as such by D. Notton at the NHM . The specimens are likely to be in the NHM.

Chalcidoidea: Family Eulophidae

?9 Species

Introduction

A large family of hymenopteran insects, with around 4,300 described species in about 300 genera. The majority are primary parasitoids on a huge range of arthropods at all stages of development, although the larvae of a few species feed on plants. They are one of two families with some species that are known to parasitize thrips. Many species are used as biocontrol agents of a range in insect pests and species that gall *Eucalyptus* are considered as pests. Most species are small or very small, but the presence of four segmented tarsi is a defining feature.

Ease of identification

A difficult family and most specimens need to be sent to an international specialist to identify them to species. World authorities include Christer Hansson Sweden Lund University, Serguei V. Triapitsyn USA UC Riverside Entomology Research Museum (biological control species,) Michael Gates USA USDA Systematic Entomology Laboratory. Zdeněk Laštůvka Czech Republic Mendel University

Eulophidae: Subfamily: Entiinae

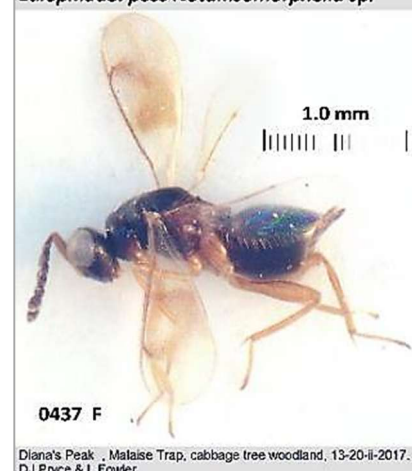
Notanisomorphella sp (or a nearby genus)

Notanisomorphella (if this species turns out to be in the genus) is a small genus with only 14 described species. These have hosts as varied as leaf mining beetles, spider eggs, gracillariid & Lyonetiid moths as well as being hyperparasites of braconid and other eulophid wasps. **Status:** Unknown

Plantation House 01/03/2013
Diana's Peak 13-20/ii/2017
Fairyland swept 28/11/2022

R&R Key
DJ Pryce
R&R Key

Eulophidae: poss *Notanisomorphella sp.*



0437 F

Diana's Peak . Malaise Trap, cabbage tree woodland, 13-20-ii-2017.
DJ Pryce & L. Fowler

***Euplectrus platyhypenae* Howard, 1885**

Although polyphagous on many moth species, this species is used as a biocontrol agent, mainly against 'army worm' moths *Spodoptera* spp. Unlike most parasitic wasps used as biocontrol agents, it is an ectoparasitoid, meaning that it lays its eggs on the cuticle of its host caterpillar, which continues to feed and develop while the wasp larvae consume it from the outside. It was introduced to St Helena in 1975 to try and control the invasive pest Army Worm moth *Spodoptera littoralis*. "Three consignments, each of about 70 adults and 500 pupae of this species were sent to the island by the Commonwealth Institute of Biological Control and released in this year by Keith Sim (see CIBC, 1976, p. 86). It was regarded unsuccessful. However, species of *Euplectrus*, most probably *E. platyhypenae*, has been found at various localities.

Status:: Biocontrol agent. Deliberate introduction. Probably established

St Helena	28-May-1975	ANRD
Rupert's Valley, near church	23/05/2014	DJ Pryce
Diana's Peak: Perkin's Gut	2017	DJ Pryce
Fisher's Valley	21-24/xi/2022	R&R Key

Eulophidae: Subfamily Eulophinae

***Diglyphus begini* (Ashmead, 1904)**

A parasitoid of leaf-mining flies. Commercially widely used as a biocontrol agent. Introduced to St Helena in 2000 to control the Cabbage leaf miner, *Liriomyza brassicae*. Release was regarded as successful. **Status::** Biocontrol agent. Deliberate introduction. Established

all R&R Key

Bottom Woods	01/11/2022
Fairyland	25-28/11/2022
Ginger Patch	30/10/2022
Heart-shaped Waterfall	26/11/2022
Hutt's Gate	01/11/2022
Lemon Valley	07/11/2022
Mulberry Gut	15/11/2022
New Gound	08/11/2022
Rupert's	13/11/2022
Teutonic Hall	05/11/2022
Thompson's Wood	11-14/x/2022

Eulophidae: Subfamily Tetrastichinae

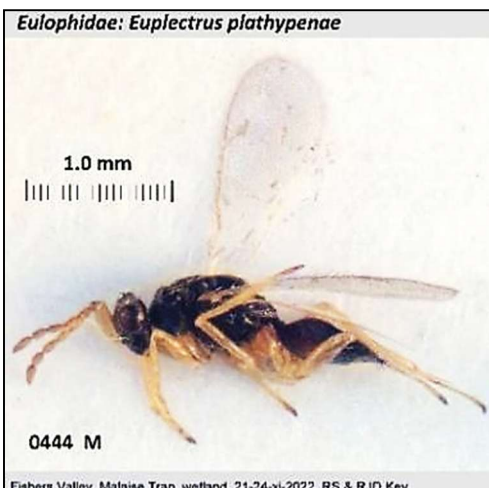
Oomyzus* and *Tetrastichus

species are notoriously difficult to differentiate, using characters based on subtle variations in the relative positions and dimensions of various body parts, none of which are definitive. *Oomyzus* species were formerly included in *Tetrastichus*. In the Universal Chalcidoidea Database the genus *Oomyzus* includes 29 described species listed, while *Tetrastichus* has 533 (many of which will belong to what are now considered genera distinct from *Tetrastichus*). This one of most difficult groups of Chalcidoidea with probably hundreds more undescribed species. The two genera share the character of having one seta on their submarginal veins, but the species on St Helena does not fit easily into either genus. The Belgian expeditions recorded simply '*Tetrastichus*' sp from Deep Valley, Lemon Tree Gut, so which genus was represented remains unclear. Examination of the specimens at the museum in Belgium would clarify which of the two more recently collected species is represented. The species identified as being near *Oomyzus* and *Tetrastichus* does not appear to be the introduced *Oomyzus sokolowski* (overleaf)..

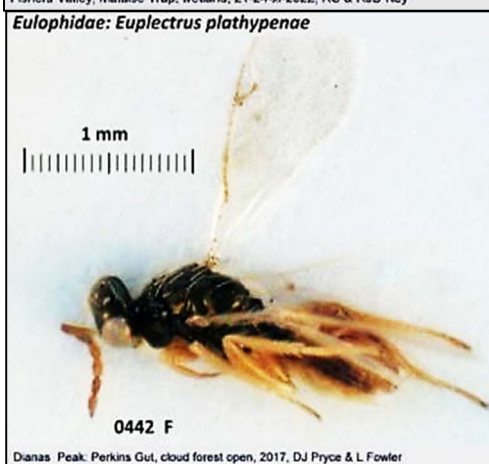
***Tetrastichus/Oomyzus* sp.1 & sp 2**

These are more elongate than the species that might possibly be *Cirrospilus nireus*, (see below) with a larger gastral petiole and the male with a black club. Species 1 is more widespread around the island than species 2 (continued overleaf)

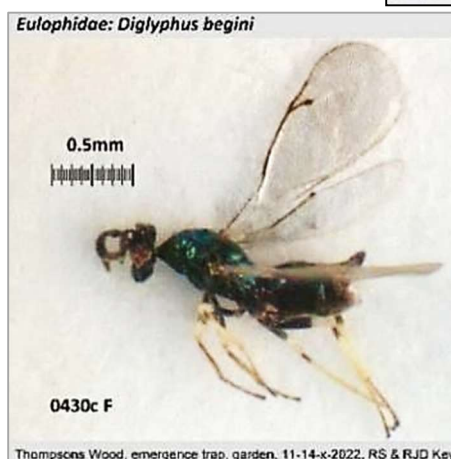
Prince Andrew's School	03/03/2013	R&R Key
Burnt Rock	13-20/iii/17	LJ Fowler



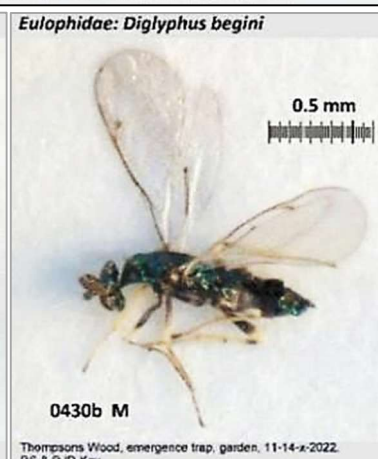
Fishers Valley, Malaise Trap, wetland, 21-24-xi-2022, RS & RJD Key



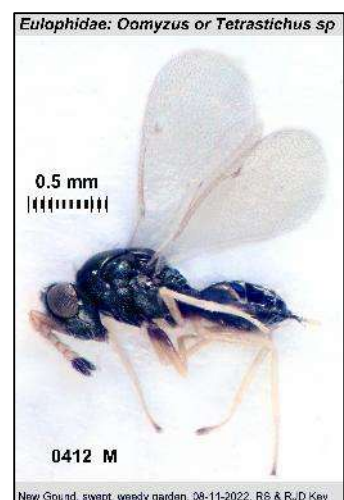
Dianas Peak: Perkins Gut, cloud forest open, 2017, DJ Pryce & L Fowler



Thompsons Wood, emergence trap, garden, 11-14-x-2022, RS & RJD Key



Thompsons Wood, emergence trap, garden, 11-14-x-2022, RS & RJD Key



New Gound, swept, weedy garden, 08-11-2022, RS & RJD Key

Rupert's	8-15/v/2017	LJ Fowler
Burnt Rock	16-19/i/2017	LJ Fowler
Heart-shaped Waterfall	5-12/5/v/2017	LJ Fowler
Button-up Corner	09/11/2022	R&R Key
Fisher's Valley	21-24/xi/2022	R&R Key
New Gound	08/11/2022	R&R Key
Mulberry Gut	14/11/2022	R&R Key
Rupert's	13/11/2022	R&R Key
Fisher's Valley	21-24/xi/2022	R&R Key
Heart-shaped Waterfall	13/07/2023	C Wainwright

***Oomyzus sokolowski* (Kurdjumov, 1912)**

Oomyzus sokolowski is a parasitoid of lepidopteran caterpillars feeding on Brassicaceae and was introduced in 1975 to try and control the Diamondback moth, *Plutella xylostella*. The introduction was regarded as unsuccessful:- "Three consignments of 160 pupae of *Plutella xylostella* were shipped by CIBC for release by Keith Sim in this year (CIBC, 1975) but they did not survive". It is therefore not clear whether any insects were actually released on the island. The description of *Oomyzus sokolowski* does not fit the species of *Tetrastichus*/*Oomyzus* described above, and the assessment that the introduced *O. sokolowski* did not survive may be correct. No illustration of the species could be found. **Status::** Biocontrol agent. Deliberate introduction. Not established

***Melittobia australica* Girault, 1912**

Melittobia australica is a parasitoid of various families of solitary and social bees, wasps including Apidae, Megachilidae, Pompilidae, Crabonidae, Sphecidae & Vespidae, ants and calyptate flies in the Calliphoridae & Sarcophagidae. It is known from scattered warm-temperate countries from central America to New Zealand. **Status:** Unknown

Ruperts	8-15/v/2017	DJ Pryce/LJ Fowler
Jamestown SHNT Office	undated	LJ Fowler

***Tamarixia dryi* (Waterston, 1922)**

This species is used as a biocontrol agent against pests in the Psylloidea. It was introduced to St Helena in 2000 to control the Citrus psyllid, *Trioza erythrae*, and was regarded as successful. However its continuing presence has not been confirmed in entomological surveys undertaken on St Helena since.

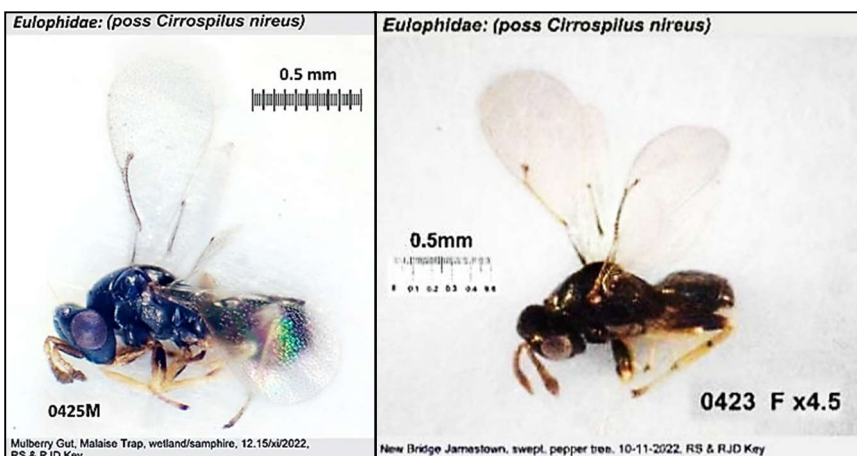
Status:: Biocontrol agent. Deliberate introduction. Uncertain whether it survived.

'*Cirrospilus nireus*' Walker, 1839 (nomen nudum*) ??Endemic??**

Better thought of as ***Eulophidae* sp** (possible Endemic Species??)

Named by **Francis Walker (see introduction: history of study on page 3) at the NHM in 1839 from a specimen collected by Charles Darwin in the central mountains in 1836. Unfortunately the type specimen was apparently lost before it could be described in detail and the true identity of '*C. nireus*' may never be confirmed. The genus *Cirrospilus* was used in very broadly when the species was described, and can only be used realistically to indicate that '*C. nireus*' was a species of *Eulophidae*, not that it belongs to the genus *Cirrospilus* in the modern sense. The eulophid fauna of St Helena is unusually small and the only species that vaguely fits the original description, because of its dark legs, are the

tetrastichine species illustrated here and an unidentified eulophid known only from photographs by L. Fowler.

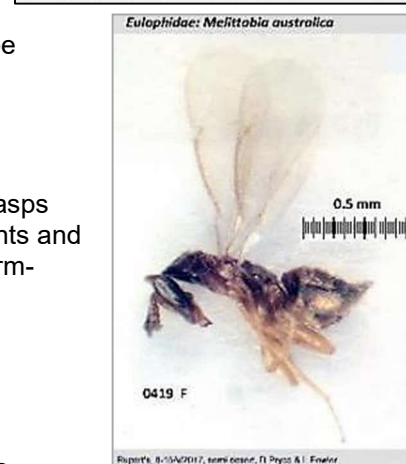
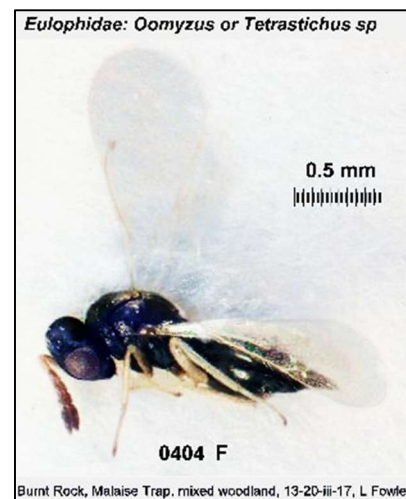


Button-up Corner	09/11/2022	R&R Key
Mulberry Gut	15/xi/2022	R&R Key
New Bridge	10/11/2022	R&R Key

****** a *nomen nudum* (Latin for "naked name") is a proposed scientific name for an organism that is invalid as it was published without, or with an inadequate description or has no holotype specimen, lacking the necessary details for scientific acceptance. Hence a "bare" name that cannot be used until it is formally described according to taxonomic rules and holotype designated.

Unidentified Eulophid sp (D. Notton)

An unidentified species of eulophid was recorded at High Peak in 2005 by the Peaks Survey, identified as such by David Notton. The specimen(s) are presumed to be held at the NHM, London.



Tamarixia dryi
AGROTEC, Portugal

Unidentified Eulophid (L.Fowler)

An unidentified species with maculate wings, probably in the Eulophidae (based on the antennal characters), was photographed by Liza Fowler on the Peaks in 2006 and 2019. The 2006 specimen appears to be short-winged.



Mt Actaeon/Diana's Peak 06/06/2006 LJ Fowler
Perkin's Gut 11/06/2019 LJ Fowler



Chalcidoidea Family: Eupelmidae 1 Species ?Possible Endemic?

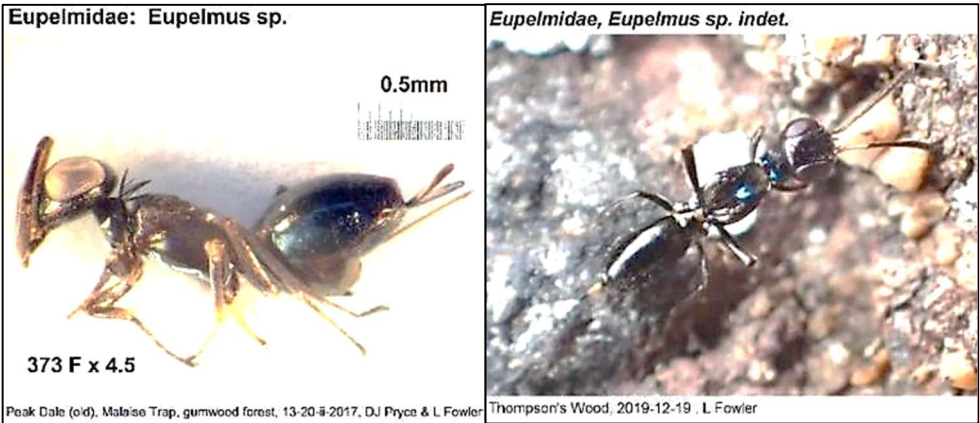
Eupelmidae are variable in appearance but have the unusual tendency of the body to arching strongly upwards when dead. The life history varies considerably: the larvae of the majority are primary parasitoids, commonly on beetle eggs or larvae, though there many other hosts, including spiders. and others are hyperparasites
modified from Wikipedia accessed 27/06/2025)

Ease of Identification

Being wingless and with a characteristic tuft of bristles on the pronotal 'neck' (arrowed, left) the one species on St Helena is distinctive enough to be identified to family using photographs. Identification to species requires examination by a specialist. Recent work has shown that what were once considered a single species are actually species complexes.. Recent experts on the group are. Dr. Lucian Fusu (Alexandru Ioan Cuza University, Romania).and Dr. Gary A.P. Gibson (Canadian National Collection of Insects).

Eupelmus sp ?Possible Endemic?

Originally recorded as *Eupelmus ?swezeyi* (Crawford, 1915) the Belgian expedition report, it is unlikely that it would be that species, which is only known from Hawaii as a parasitoid of eurytomid wasps. 38 species are currently known from Africa (Waspweb 2025) and 340+ known worldwide. Dessert recorded it as emerging from the endemic beetle *Xyletomerus insulanus* (Coleoptera Ptinidae) from branches of Samphire *Suaedea fruticosa* at Horse Point in 1967. This, combined with its wingless condition, suggests that it just might be endemic to St Helena, although it has a wide tolerance of habitat types from the cloud forest to some of the driest parts of the island. All specimens found so far are female.



Peak Dale (old)	13-20/ii/2017	DJ Pryce	Lemon Tree Gut	09/01/1966	1 st Belgian Expedition
Eastern Arid Area	1994-2003	P & M Ashmole	Cuckold's Point	2005-2006	Peaks Survey
Fisher's Valley	14/12/1965	1 st Belgian Expedition	Broad Gut, Sandy Bay	22/04/2011	R&R Key
valley south of Horse Point,	27/03/1967	2 nd Belgian Expedition			
Thompson's Wood	19/12/2019	LJ Fowler			

Chalcidoidea: Family Eurytomidae

?2 Species, status unknown

This large family contains over 1600 described species, with many more remaining undescribed. The larvae of many eurytomids are phytophagous (feeding in stems, seeds, or galls), while others are parasitoids, though often of hosts found within plant tissues. They are found throughout the world in virtually all habitats. A few are considered pests while others are being examined for possible use in the biocontrol of invasive grasses.. Most are unusual among chalcids in being dull and not metallic. They are heavily punctured, with a very thick, collar-like pronotum. (modified from Wikipedia accessed 27/06/2025)

Ease of Identification

The species on St Helena can be recognised fairly easily to family level from their relatively large size and non-metallic elongate appearance. Identification to species can only be undertaken by a specialist and may be problematic as there have been shown to be cryptic species. Clarke J. M. van Steenderen at Centre for Biological Control, Department of Zoology and Entomology, Rhodes University, Grahamstown has recently published on African *Tetramesa* and might be able to help.

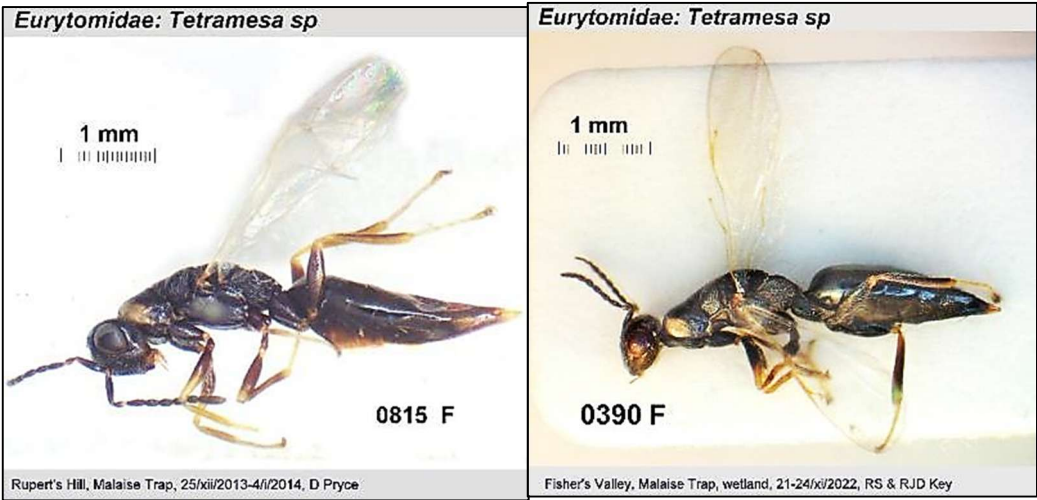
Tetramesa sp. 1 & *Tetramesa* sp. 2

Tetramesa is a large genus of over 200 species of phytophagous wasps. They are gall inducers on various grass species (Poaceae), but the galls are often inconspicuous. Most *Tetramesa* species are highly host-specific, meaning they are restricted to a single host species or a closely related group of grasses and so can potentially be used as biological control for invasive grasses. The genus *Tetramesa* is known from all continents except Antarctica and just 4 species were recorded from the African region (Waspweb 2025) prior to recent work* that identified at least 10 additional cryptic species specific to various African grasses, including one associated with the invasive Giant Rat's Tail Grass *Sporobolus natalensis* which is problematic in central St Helena. The origin of the St Helena specimens is unknown..

https://www.researchgate.net/publication/376265270_Phylogenetic_analyses_reveal_multiple_new_stem-boring_Tetramesa_taxa_Hymenoptera_Eurytomidae_implications_for_the_biological_control_of_invasive_African_grasses

The list of species of Hymenoptera in the Peaks survey of 2005/6 includes two species of *Tetramesa* (sp1 & sp2) det. By JS Noyes, but includes locality data for only sp2 Diana's Peak and Mt Actaeon. The specimens are presumably in the NHM London. Single specimens of one species were found in Malaise traps at Ruperts Hill in 2014 by DJ Pryce, and Fishers Valley in 2022 by R & R Key. Their host grass has not been identified.

Diana's Peak	2005/2006	Peaks Report
Mt Actaeon	2005/2006	Peaks Report
Fisher's Valley	21-24/xi/2022	R&R Key
Rupert's Hill	25/xii/2013-4/i/2014	DJ Pryce



Chalcidoidea: Family Megastigmidae

1 Species

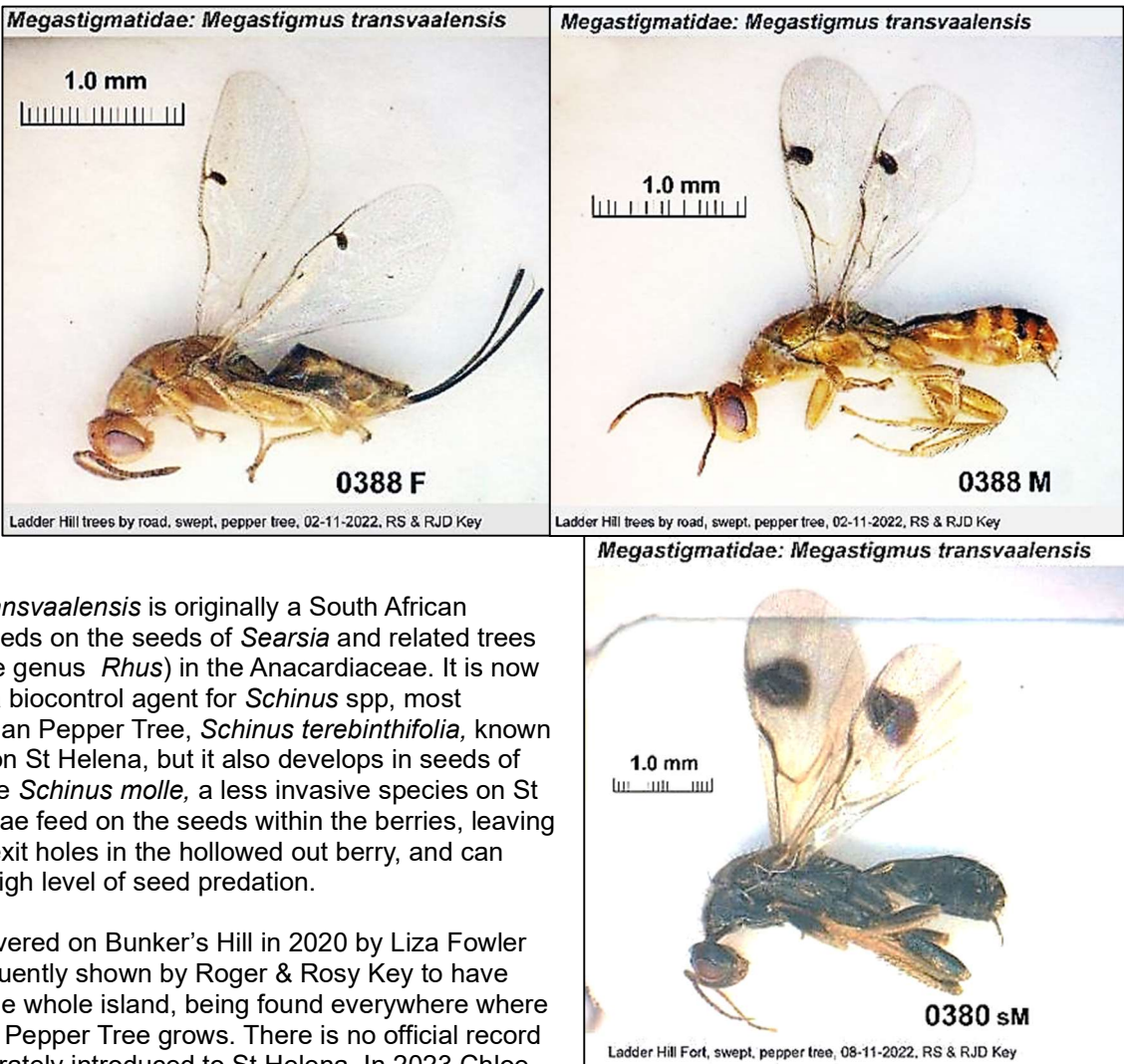
Megastigmidae is a family of chalcid wasps in the order Hymenoptera. There are about 12 genera and more than 170 described species. It was formerly considered a subfamily of the family Torymidae. Most species are phytophagous, developing in seeds all around the world. Some species are highly metallic and associated with galls on trees. (modified from Wikipedia accessed 27/06/2025)

Ease of Identification

A very distinctive species on St Helena, *Megastigmus* can be most easily recognized by the enlarged stigma in their fore wing and long ovipositor of the female. The males are dimorphic, with small males similar in colour and size to the reddish brown females, but there are also larger 'super-males' with black bodies and a relatively much larger and darker stigma on the forewing.

Megastigmus transvaalensis (Hussey 1956)

1 species



Megastigmus transvaalensis is originally a South African species which feeds on the seeds of *Searsia* and related trees (previously in the genus *Rhus*) in the Anacardiaceae. It is now widely used as a biocontrol agent for *Schinus* spp, most especially Brazilian Pepper Tree, *Schinus terebinthifolia*, known as Wild Mango on St Helena, but it also develops in seeds of Pink Pepper Tree *Schinus molle*, a less invasive species on St Helena. The larvae feed on the seeds within the berries, leaving very distinctive exit holes in the hollowed out berry, and can achieve a very high level of seed predation.

It was first discovered on Bunker's Hill in 2020 by Liza Fowler and was subsequently shown by Roger & Rosy Key to have spread across the whole island, being found everywhere where Wild Mango and Pepper Tree grows. There is no official record of it being deliberately introduced to St Helena. In 2023 Chloe Wainwright, a St Helenian Masters student at the University of Leeds in the UK, undertook research on this species and found varying levels of seed predation at different points on the island. Thesis title:- The impact of the seed chalcid, *Megastigmus transvaalensis*, as a biocontrol agent of the invasive *Schinus terebinthifolia* (Brazilian Peppertree) on St. Helena Island.

Bunker's Hill	19/06/2020	Liza Fowler	Shark's Valley	20/11/2022	R&R Key
Bottom Woods	01/11/2022	R&R Key	Sandy Bay, Broad Gut	27/11/2022	R&R Key
Button-up Corner	09/11/2022	R&R Key	Blackfield Gut	20/vi/23	Chloe Wainwright
Fisher's Valley	28/10/2022	R&R Key	Heart-shaped Waterfall	13/07/2023	Chloe Wainwright
Ladder Hill	02/11/2022	R&R Key	Mulberry Gut	20/vi/23	Chloe Wainwright
Lemon Valley	28/10/2022	R&R Key	Hollow Crescentt	iv/2013	Chloe Wainwright
Mulberry Gut	12/11/2022	R&R Key			
New Bridge, Jamestown	10/11/2022	R&R Key			
Rupert's (3 sites)	13/11/2022	R&R Key			

Chalcidoidea Family: Mymaridae 'Fairy Flies' 9 Species - at least 1 endemic

Mymaridae are commonly known as fairyflies and consists of < 120 genera with about 1600 described species. They are very tiny insects, from 0.14 to about 1.0 mm long, including the world's smallest insect. They are usually non-metallic black, brown, or yellow. The females' antennae are distinctively clubbed whereas males have thread-like antennae. Their wings are usually slender with long marginal bristles, while some may be brachypterous or apterous. All are parasitoids of insect eggs and several are successful biocontrol agents. Being so small, they are more easily collected by Malaise or emergence trapping as they are so easily overlooked in sweep samples. Based on the material that is available, including a unique endemic genus, this is the parasitoid family where new endemic taxa are most likely to be found.

Modified from Wikipedia 1/7/2025

Ease of Identification. A very difficult group and specimens need to be sent to an international specialist to identify them. There are very few world authorities on the family – they include John Huber and Jennifer Read, Canadian National Collection of Insects Ottawa; Canada, Serguei Triapitsyn, University of California, Riverside and Carlos Henrique Marchiori, Instituto Federal Goiano, Goiânia, Brazil.

Alaptus sp.

There are about 45 species in the genus *Alaptus*. Like most mymarids, they are egg parasitoids. Their hosts include a range of insect families primarily from Psococoea and other Sternorrhyncha) but also Coleoptera & Lepidoptera.

Beale's	13-20/ii/2017	DJ Pryce
Burnt Rock	16-19/ii/17	DJ Pryce
Burnt Rock	13-20/iii/17	DJ Pryce
Diana's Peak	31/vii- 7/v/2017	DJ Pryce
Fisher's Valley	5-12/vi/2017	DJ Pryce
High Hill	8-15/v/2017	DJ Pryce
Millennium Forest	3-10/vii/2017	DJ Pryce
Mount Pleasant	5-12/vi/2017	DJ Pryce
Mulberry Gut	12.15/xi/2022	R&R Key
Peak Dale (old)	13-20/ii/2017	DJ Pryce
Perkin's Gut	8-15/v/2017	DJ Pryce
Pink Grove	3-10/vii/2017	DJ Pryce
Pipe Path	10-17/iv/2017	DJ Pryce
Prosperous Bay Plain	16-19/i/2017	DJ Pryce
Rupert's	6-10/vii/2017	DJ Pryce
Woody Ridge	?	DJ Pryce

Mymaridae: ?*Alaptus* sp.



Fishers Valley - lower, Malaise Trap, wetland, 13-20-iii-2017, L Fowler

Mymaridae: ?*Alaptus* sp.



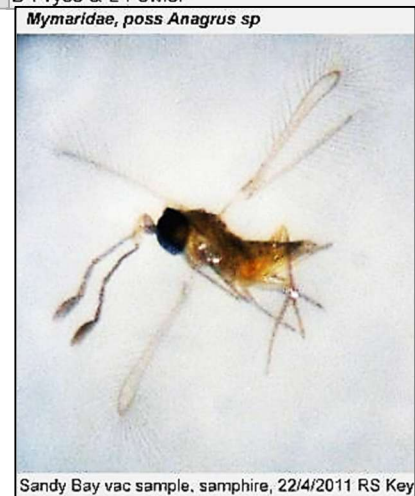
Ruperts Valley, semi desert, 6-10-vii-2017, D Pryce & L Fowler

possibly *Anagrus* or *Anaphes* sp

Anagrus is genus with just under 100 described species. They are egg parasites of an extraordinarily wide range of orders of insects (even dragonflies), but most species targeting Hemiptera, especially hoppers in the Cicadellidae and Delphacidae.

Status: Unknown

Sandy Bay 22/iv/2011 R&R Key

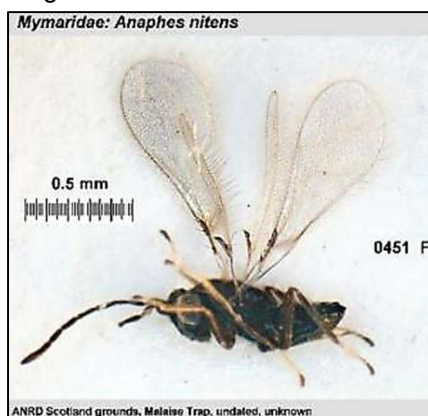


Sandy Bay vac sample, samphire, 22/4/2011 RS Key

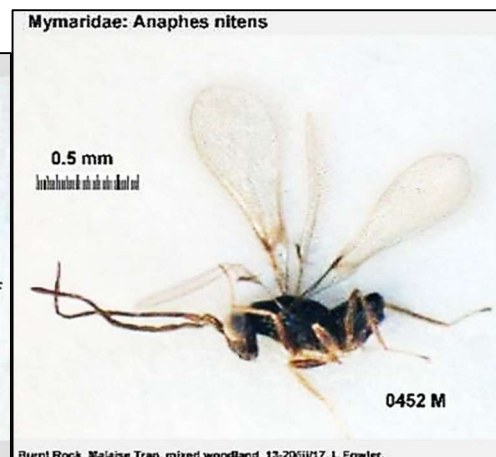
Anaphes nitens (Girault, 1928)

This species was successfully introduced for the biocontrol for Eucalyptus snout beetle (*Gonipterus scutellatus*); in 1958. It is thought to be specific to this host. **Status:** Biocontrol agent. Deliberate introduction. Established

Diana's Peak	2005	Peaks Report
Mount Actaeon	2005	Peaks Report
Burnt Rock	2017	LJ Fowler
Diana's Peak	2017	
Scotland	?	
Woody Ridge	?	
Prosperous Bay Plain		
	2014	DJ Pryce
Rupert's Hill	2013	DJ Pryce
Button-up Corner	2022	R&RKey



ANRD Scotland grounds, Malaise Trap, undated, unknown



Burnt Rock, Malaise Trap, mixed woodland, 13-20/iii/17, L Fowler,

Anaphes sp

Anaphes is genus of at least 20 species world-wide. A second (or third) species, with a yellowish body has turned up several times in Malaise Traps at various places on the island. Its identity is unknown.

Status: Unknown

Mount Pleasant 5-12/vi/2017 DJ Pryce
Osborne's 3-10/vii/2017 DJ Pryce
Diana's Peak 13-20/ii/2017 DJ Pryce
Perkin's Gut 13-20/ii/2017 DJ Pryce
Blue Hill 2021 LJ Fowler

R&R Key:-
Barren Groundl 09/11/2022
Fisher's Valley 21/11/2022
Mulberry Gut 12.15/xi/2
Sapper Way 09/11/2022

Mymaridae: poss *Anaphes* sp.



Mymaridae: poss *Anaphes* sp.



Mymarilla wollastoni (Westwood, 1879)

A monotypic genus, unique to St Helena, although three other species have erroneously been ascribed to *Mymarilla*, *M. wollastoni* is the sole included species. Nothing is known about its ecology other than that it has only been found in the cloud forest around the three peaks and on High Peak. It has been swept from low herbage, pitfall trapped and Malaise trapped in tree fern thicket. It was also once observed on the lower foliage of black cabbage tree (RSK 2013).

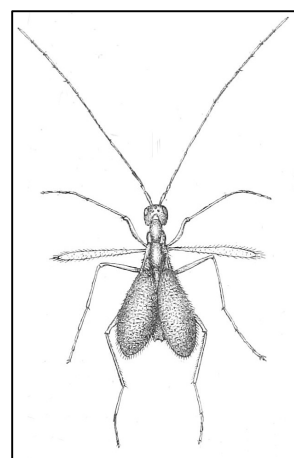
M. wollastoni has unusually modified wings and is almost certainly flightless. A redescription of the species and discussion of the origin of its peculiar wing form is given by: Huber, J.T. 2013 Redescription of *Mymarilla* Westwood, new synonymies under *Cremnomymar* Ogloblin (Hymenoptera, Mymaridae) and discussion of unusual wings. Zookeys 345 47-72.

(see <https://pmc.ncbi.nlm.nih.gov/articles/PMC3817442/pdf/ZooKeys-345-047.pdf>)

Status: Endemic species. It was classified as Critically Endangered by IUCN in 2024 (and is possibly the only chalcidoid ever so designated).

<https://apistaging.iucnredlist.org/species/65592578/65592588>

Endemic Species



Westwood's Original Illustration of Wollaston's 1870s specimen

Mymaridae, *Mymarilla wollastoni*



Diana's Peak, 2018/03/02, L Fowler

Mymaridae, *Mymarilla wollastoni*



Diana's Peak, 2018/03/02, L Fowler

Mymaridae: *Mymarilla wollastoni*



Diana's Peak, Malaise Trap, tree ferns, 13-20-ii-2017, L Fowler

St Helena
Cabbage Tree Road
High Peak
'High Central Ridge'
Cuckold's Point
Diana's Peak
Diana's Peak

1875 or 6
01/03/1967
17/12/2005
2013
30/06/2013
13-20/ii/2017
03/02/2018

TV Wollaston
Belgian Expedition
Peaks Survey
R&R Key
DJ Pryce
LJ Fowler
LJ Fowler

Mymarilla wollastoni (Westwood 1879)

Mymar wollastoni : Westwood 1879: 585 (original description).

Mymar wollastoni [sic]: Dalla Torre 1898: 427 (catalogue, unjustified emendation).

Mymarilla wollastoni : Annecke and Doutt 1961: 31 (redescription).

Mymarilla wollastoni : Subba Rao 1976: 90 (diagnosis), 91 (figure).

Lectotype female in OUMNH (not examined), designated by Annecke and Doutt (1961), with catalogue number HYME0029 and labeled: "Holotype", "det. D.P. Annecke 25.vii.1960".

Description. Because only one species of *Mymarilla* is known, the generic and specific features are both described in the species description. **Female.** Body length 2125 (n=1). Body entirely smooth and shiny except for a few small punctures on pronotum. Colour. Head black except mandibles, mesosoma, metasoma medially, and clava; flagellum, and metasoma basally and apically dark brown; scape, pedicel, mandibles, legs, petiole, and ovipositor brownish yellow; all body setae almost white; wings brown behind venation, membrane beyond venation translucent but membrane around each microtrichia black, so wings generally appearing dark. Head. (Figs 3-6) 1.46 × as wide as long, and 1.17 × as wide as high (406/227/347) (n=1), in lateral view with anterior surface slightly depressed between toruli then, at level of ventral margin of eye, receding to mouth (Fig. 5). Face measured from eye to eye below toruli about as long as wide, flat above toruli but forming a shallow circular depression medially below toruli; subantennal groove and pits between toruli absent. Torulus about 1.5 × its diameter from thin transverse trabecula and about mid height of eye. Preorbital groove against eye almost to ventral margin of eye (Fig. 5), then extending almost straight to anterolateral angle of mouth margin. Eye (Fig. 5) in lateral view 0.75 × as long as high, not extending to back of head dorsally and separated by more than its own length from back of head ventrally. Malar sulcus absent and malar space almost 0.6 × eye height. Gena narrow dorsally, very wide ventrally. Vertex in lateral view almost flat, sloping anteriorly, forming an obtuse angle to face (separated by transverse trabecula), smoothly merging posteriorly with occiput. Mid ocellus flat in shallow depression, not projecting above surface of vertex and 2 × diameter of small lateral ocellus. Ocelli in high triangle, with POL (168), 1.9 × LOL, and LOL (89) 3.0 × OOL (30). Mandibles normal, overlapping medially when closed, with 3 teeth. Antenna. Scape about 3.9 × as long as wide, with both inner and outer surfaces apparently smooth, and with radicle short but distinct; pedicel slightly shorter than fl1, about 0.41 × scape length; funicle 6-segmented; clava unsegmented, slightly longer than scape. Number of mps of funicle segments and clava uncertain (not clearly visible on card mounted specimen). Measurements (n=1) length/width: scape 267/69, pedicel 109/50, fl1 129/20, fl2 267/20, fl3 198/30, fl4 149/30, fl5 149/30, fl6 149/30, clava 317/80. Mesosoma. About 2.67 × as long as wide, about 1.80 × as long as high, and 1.48 × as wide as high (n=1). Pronotum (Fig. 3) in dorsal view clearly visible, shorter than wide (218: 267), strongly convex, with almost vertical sides flaring outward ventrally and almost horizontal at junction with propleura; pronotum in lateral view strongly triangular. Propleura (Fig. 4) in dorsolateral view tightly pressed to pronotum laterally and anteriorly, and fused to each other at neck, and, in dorsal view (Fig. 3), slightly extending lateral to pronotum. Neck long (90), clearly separating head from pronotum. Prosternum triangular, strongly appressed laterally to propleura, without median longitudinal line, anterior apex not visible but perhaps closed anteriorly. Mesonotal spiracle (Fig. 6) small, at end of short tube, midway between posterolateral angle of mesoscutum and anterior apex of notaulus. Mesoscutum (Fig. 3) smooth and shiny, in lateral view slightly convex, in dorsal view short (99), about 0.4 × as long as pronotum and 0.4 × as long as wide, with slightly diverging, almost straight notauli, each ending anteriorly in a distinct pit. Axillae not advanced (Figs 3, 4, 9, 10). Mesoscutellum (Fig. 3) almost as long as pronotum (267: 246), slightly overlapping metanotum, without trace of frenal line (frenum therefore not distinguishable). Prepectus (Figs 6, 9, 10) triangular, about 3 × as long as dorsal width. Mesopleuron tightly appressed to prepectus, convex, not divided by suture into mesepisternum and mesipimeron. Metanotum small, triangular, separated from propodeum by wide groove. Metapleuron with a large metapleural pit at junction with mesoepisternum. Propodeum (Figs 3, 4, 7, 10) evenly convex, without carinae, with a large pit at anterior margin just anterior to spiracle, with a slightly upturned nucha covering anterior apex of petiole, and with propodeal seta almost at posterior margin. Spiracle small, round, separated by several diameters from anterior margin of propodeum. Wings. Fore wing (Figs 1, 7, 8) deeply convex, with the anterior and posterior margins strongly curving downward, the wing height in lateral view about 0.7 × wing width in dorsal view. Wing behind submarginal vein very narrow, with strongly convex hind margin, abruptly widening beginning at parastigma, generally oval in dorsal view. Entire surface to wing base covered in long microtrichia, those behind venation appressed and those beyond venation semi-erect to erect. Fore wing length 1792 (n=1), width 640, length/width 2.8, venation length 287, about 0.18 × forewing length. Submarginal vein black basally, brown apically, and much wider basally than apically; parastigma + stigma black, oval about 1.7 × as wide as base of submarginal vein. Costal cell extremely narrow. Hind wing (Fig. 1) flat to slightly convex, with long marginal setae and erect microtrichia similar to those on forewing, and wing membrane extending almost to base of wing but very narrow behind venation. Hind wing length ca. 1535, width 77, venation black, length about 0.3 × wing length. Legs. Long and slender (Figs 1, 7). Metasoma. Petiole length 180, slightly longer than metacoxa, about 6 × as long as wide. Gaster (Fig. 1) smooth and shiny, narrowly oval in cross section (as seen in posterior view), wider dorsally, almost knife-like ventrally at ovipositor. Gt1 about 0.57 × gaster length (870) and almost completely covering gs1 so petiole apparently attached to tergum, gt2-gt5 progressively shorter, gt6 and syntergum (gt7 + gt8) each about as long as gt2. Spiracle present on gt6, small. Ovipositor length ca. 770, slightly down turned apically, as long as gaster but not exerted beyond gaster, about 1.2 × metatibia length (640). **Male.** Colour as in female but body dark brown (possibly due to fading), scape brownish yellow, pedicel light brown, flagellum dark brown. Body length 1843-1894 (n=2). Fore wing length 1664 (hind wing not measurable on pinned specimens), with the edges almost meeting ventrally in one specimen, giving the appearance of a hirsute cigar when seen end on in posterior view (Fig. 7). Antenna. Scape about 3.8 × as long as wide, with both inner and outer surfaces apparently smooth. Measurements (n=1) length/width or length for flagellomeres: scape 218/59, pedicel 99/45, fl1 277, fl2 267, fl3 248, fl4 248, fl5 223, fl6 228, fl7 198, fl8 198, fl9 178, fl10 198, fl11 198; total flagellum 2461. Fl6 length/width about 6.0, with perhaps 8 mps (not clearly visible on card mounted specimen). Metasoma. Gaster length 742-793 (n=2), in lateral view truncate apically.

Material examined. SAINT HELENA. Centre. High Central Ridge, Cabbage Tree Road, 2500', iii.1967, J. Decelle, N. & J. Leleup (2 males, MRAC); High Peak, 15°58.7'S, 5°44.0'W, ca.752m, xii.2005-1.2006, N.P. & M.J. Ashmole, H. Mendel, E.A. Thorpe, pitfall trap (1 female, BMNH).

Habitat. Westwood (1879) stated that the specimens were swept from low herbage. Annecke and Doutt (1961) suggested that the wings may be used for floating on air currents. Whether individuals are capable of this, let alone normal flight, is uncertain. The greatly reduced mesoscutum suggests that the flight muscles are so reduced they would be incapable of powered flight. The collection of one female in a pitfall trap suggests that *Mymarilla wollastoni* lives near the ground.

Polynema species

A large genus with over 220 species described world-wide, recognisable by their elongate petiole and very short stigma. Egg parasitoids. Mainly of Hemiptera, especially Auchenorrhyncha/ Sternorrhyncha although a few have been recorded from anthocorid mirid, nabid and reduviid Heteroptera. There are also records of them as parasitoids of small flies, weevils and thrips and perhaps some may be hyperparasitoids of other small Parasitica, including other Chalcidoidea. At least three possible species have been found on St Helena, none identified beyond genus. A few species have been used as biocontrol agents, mainly of Hemiptera, including against capsid bugs (Miridae) and scale insects. None are recorded as having been used as such on St Helena. A number of individuals of both sexes have been found that are apterous or brachypterous.

Polynema (Sp 1)

Status: Unknown

Beale's	13-20/iii/2017	DJ Pryce
Diana's Peak	31/vii- 7/v/2017	DJ Pryce
Millennium Forest	3-10/vii/2017	DJ Pryce
Osborne's	3-10/vii/2017	DJ Pryce
Cason's	06/05/2021	LJ Fowler
Perkin's Gut	8-15/v/2017	DJ Pryce
Cuckold's Well Spring	29/10/2022	R&R Key
Fisher's Valley	21/11/2022	R&R Key
Ginger Patch	30/10/2022	R&R Key
Mulberry Gut	06/11/2022	R&R Key

Polynema (Sp 2 - wingless)

Status: Unknown

Cuckold's Point	19/04/2011	R&R Key
Ginger Patch	30/10/2022	R&R Key

Polynema (Sp 3 with an apparently notched costal margin to wing)

Status: Unknown

Peak: Perkin's Gut	8-15/v/2017	DJ Pryce
Diana's Peak	31/vii- 7/v/2017	DJ Pryce
Cuckold's Well Spring	29/10/2022	R&R Key

Possibly Omyomymar sp

A small genus with only 17 described species. Known from N & S America, India & SE Asia and Australia, nothing is known of their host preferences. On St Helena, two specimens may be of this genus.

Status: Unknown

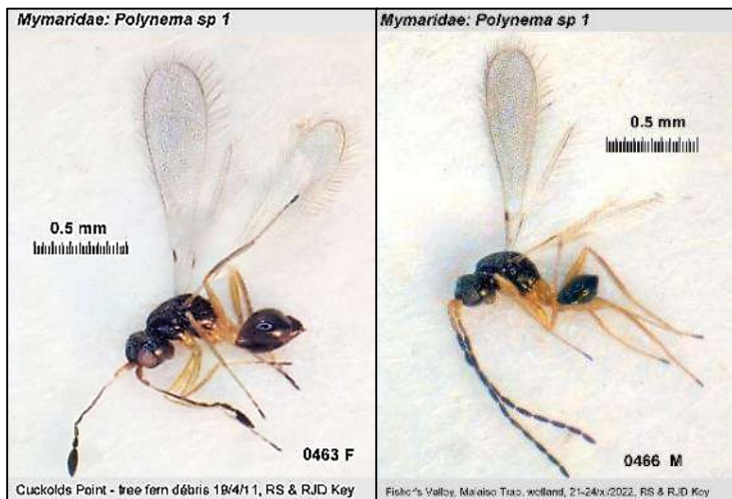
Osborne's	3-10/vii/2017	LJ Fowler
Fisher's Valley	21-24/xi/2022	R&R Key

Mymaridae: ? Omyomymar sp.

0.75mm

0484 F

Osbornes, Malaise Trap, cloud forest, 3-10-vii-2017.
L. Fowler



Mymaridae: ?Polynema sp.



Ginger Patch, emergence trap, cloud forest, 30-10-2022
RS & RJD Key

Mymaridae, poss Polynema sp.



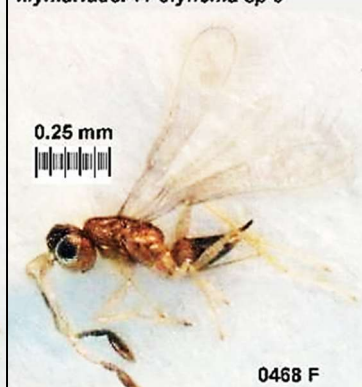
Cuckold's Point - tree fern debris 19/4/2011
RS & RJD Key

Mymaridae: ?Polynema sp 3



Diana's Peak, Malaise Trap, now restoration cloud forest,
31/vii- 7/v/2017, DJ Pryce & I. Fowler

Mymaridae: ?Polynema sp 3



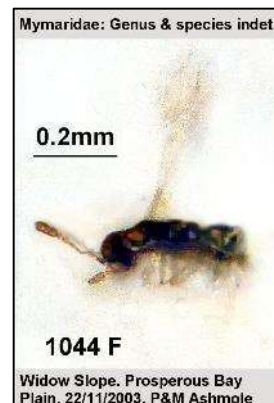
Diana's Peak: Perkin's Gut, Malaise Trap, cloud forest,
8-15/vi/2017, DJ Pryce

Mymaridae – very tiny species - genus & species unidentified

At 0.37mm long, this is the smallest known species of insect known on St Helena and photographing it is realistically beyond the ability of the equipment used in this project. Only a single specimen was found on and could not be identified. even to genus.

Widow's Slope, Prosperous Bay Plain 22/11/2003

P & M Ashmole



Chalcidoidea: Family: Perilampidae

1 Species, status unknown

The Perilampidae are a small family with about 220 species, many of which develop as hyperparasitoids. Six genera are described worldwide. They are often very strongly sculptured and brilliantly metallic and robust with a small, triangular metasoma. An unusual feature is that the free-living first-instar larvae (called "planidia") gain access to the host, rather than the egg-laying females. Those species which are hyperparasitoids burrow into a secondary host's body and seek out endoparasitoid larvae, such as those of tachinid flies or ichneumonoid wasps. Perilampids are not known to be an invasive/problematic/potential threat elsewhere. The genus *Perilampus* there are at least 27 species known from the African region. (modified from Wikipedia accessed 27/06/2025)

Ease of Identification

Can fairly easily be identified to family from its robust 'humped' appearance by comparison of specimen with a reliably identified photo, but specimens need to be sent to museum/university/specialist to identify to species. The World authority on the family Perilampidae is Dr. Christopher Darling, Senior Curator Emeritus of Entomology at the Royal Ontario Museum and professor at the University of Toronto. Simon van Noort at the Cape Town Museum may be able to help.

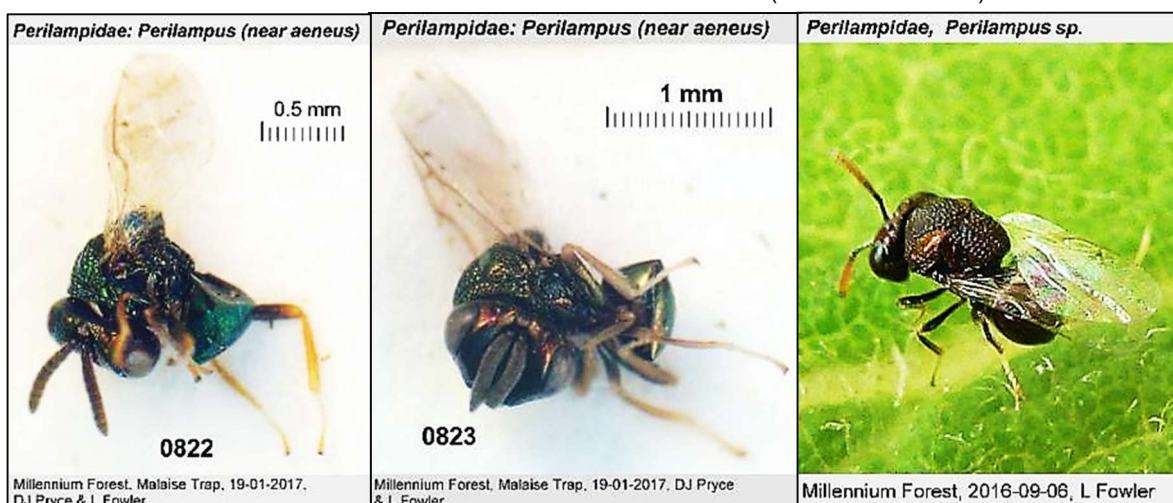
Perilampus sp – (near to *P. aeneus* (Rossius, 1790))

P. aeneus (if that is what this species turns out to be) is thought to be associated with Curculionidae (Coleoptera), Tenthredinidae (Hymenoptera), and Tortricidae (Lepidoptera); presumably as a hyperparasitoid, but other species are parasitoids or hyperparasitoids of a wide variety of insect taxa with various levels of specialisation. Known only from three specimens

Status: Uncertain origin. Established.



Perilampus aeneus Josef Dvořák.
(not from St Helena)



Millennium Forest 19/01/2017
Millennium Forest 06/09/2016

DJ Pryce
LJ Fowler

Chalcidoidea: Family: Pteromalidae possibly 9, but at least 7 species, 1 Endemic

The family Pteromalidae has recently (2022) been split into 24 distinct families, but all the species known from St. Helena belong to sub-families that have been retained within the current, slimmed-down concept of Pteromalidae.

Pteromalids (in the current sense) are usually metallic wasps of varying body size and build (slender to quite robust). Their tarsi usually have five segments and antennae consisting of eight to thirteen segments (including up to 3 anelli). There are both solitary and gregarious species, with ectoparasitoids and endoparasitoids, including hyperparasitoids. A small number of species are known to be phytophagous. They are often used as biological control agents. Modified from Wikipedia, accessed July 2025

Ease of Identification

A very large and difficult group. Specimens need to be sent to an international specialist to identify them to species. There are few world authorities on the family – Prof. Dr. Mircea-Dan Mitroiu and Prof. Lucian Fusu at Alexandru Ioan Cuza University, Iași, Romania, Roger A. Burks University of California, Riverside, USA, Gary Gibson, Agriculture and Agri-Food, Govt. of Canada & P.M. Sureshan, Zoological Survey of India, Kolkata, India

Pteromalidae: Subfamily: Miscogastrinae

A large subfamily with about 490 species in about 50 genera, mainly parasitoids of leaf-mining or stem-burrowing Diptera. Two unidentified species were recorded by the Belgian Expedition in 1965, but some caution is necessary because of changes in sub-family concepts since their report. (Google translations from the French follow:).

Miscogastrinae sp. 1

Represented by 4 females with 2 typical antennal anelli and 6 funicular segments with sensory ridges.

Status: Unknown

Lower Fisher's Valley 26/01/1967
Scotland 14/01/1966

Miscogastrinae sp. 2

"Four specimens, including a female with 2 typical antennal anelli followed by a larger segment, darker and devoid of sensory crests, probably a third anellus, an arrangement found in males with longer pubescent antennae".

Status: Unknown

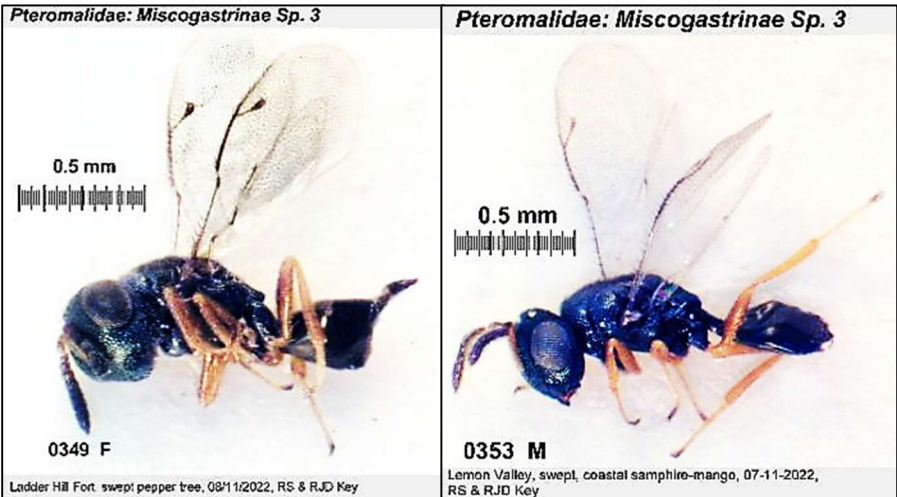
Teutonic Hall Nov 1965

The following species may be the same as one of the above. Without comparing them with specimens in Belgium, it is impossible to know.

Miscogastrinae sp. 3

Specimens found at 7 localities in 2022

Status: Unknown

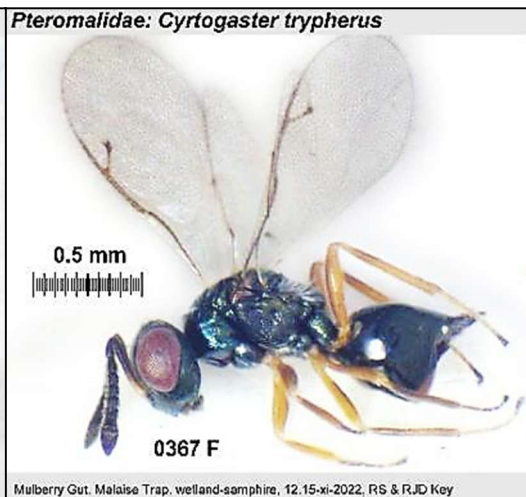
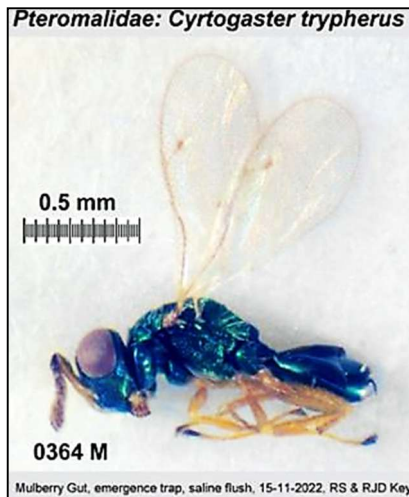


Fisher's Valley	22/02/2013	R&R Key
Diana's Peak	2016	LJ Fowler
Ladder Hill Fort	08/11/2022	R&R Key
Lemon Valley	07/11/2022	R&R Key
Mulberry Gut	14/11/2022	R&R Key
Rupert's	13/11/2022	R&R Key
Teutonic Hall	05/11/2022	R&R Key

***Cyrtogaster trypherus* (Walker 1843)**

This originally North American species is a parasitoid of small flies, including leaf mining species and mud dwelling species, such as ephydriids. It first turned up in 2022 in large numbers in Malaise and emergence traps over a saline flush at Mulberry Gut and in a Malaise trap at Fisher's Valley, both sites where there were large numbers of ephydriids. Also recorded at light at night at Teutonic Hall. Now widely distributed across the globe, it has been used for the biocontrol of frit flies (*Oscinella frit*, Chloropidae) that can damage cereal crops.

Fisher's Valley	21-24/xi/2022	R&R Key
Mulberry Gut	15/11/2022	R&R Key
Teutonic Hall	12/11/2022	R&R Key

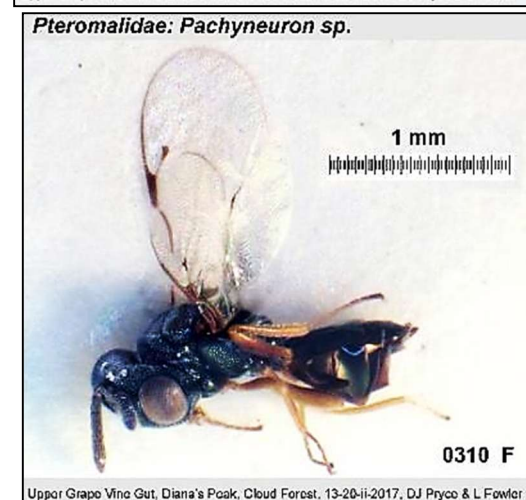
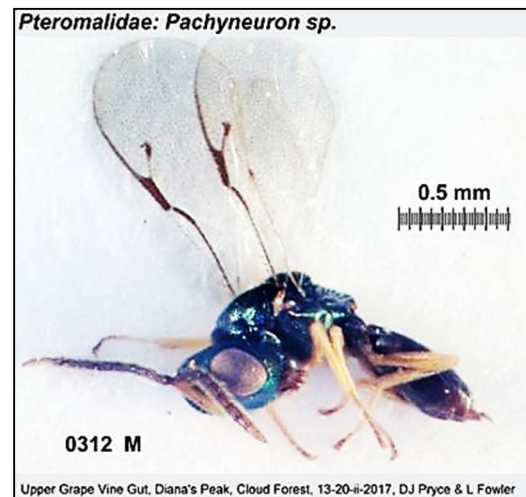


Pteromalidae: Subfamily: Metasteninae

***Pachyneuron* sp.**

A fairly large genus of >60 species which are parasitoids of a very wide range of insect taxa, but particularly Hemiptera Sternorrhyncha, leaf and stem mining flies, hoverflies, ladybirds, and various families of small moths. A number of species are used as biocontrol agent of pests that are present on St Helena, particularly aphids, but other species utilize *Trioza erytrae* and the fly *Liriomyza brassicae*. Some are hyperparasitoids of other parasitoid wasps and flies. At least one species of the genus was noted by the Belgian expedition in 1967 and seen again subsequently. More than one species may be present on the island.

Expedition	Cabbage Tree Road	01/03/1967	Belgian
Expedition	Lower Fisher's Valley	22/02/1967	Belgian
Expedition	High Peak	01/02/1967	Belgian
Expedition	Mount Actaeon	22/05/2014	DJ Pryce
	Upper Grape Vine Gut	8-15/v/2017	DJ Pryce
	Fisher's Valley	5-12/vi/2017	DJ Pryce
	Rupert's	13/11/2022	R&R Key



***Toxeumorpha nigricola* (Ferriere, 1936)**

An African species, a parasitoid of leaf-mining fly and moth larvae, including the Med Fly *Ceratitis capitata* (a pest species on St Helena) for which it is being considered for a biocontrol agent on the Azores. It has been recorded as parasitizing larvae of moths in the genus *Leucoptera* (Lyonetidae), of which St Helena had an endemic species, *Leucoptera auronivea*, recorded only in 1875 and which is presumed extinct. It was first identified by Dr. Mircea-Dan Mitroiu from specimens collected on Flax on Diana's Peak by Liza Fowler in the Darwin Plus survey in 2016.

Diana's Peak 2016 LJ Fowler



Toxeumorpha nigricola not from St Helena
photo (CC BY)

Pteromalidae: Subfamily: Pteromalinae

Pteromalus ipsea Walker, 1839

First collected by Charles Darwin in July 1836 "High up on St Helena", it was not recognised again until Philip & Myrtle Ashmole found one specimen at "Peak Dale Gumwoods" in 1995. It subsequently turned up on the Peaks Survey in 2006/7 and afterwards.

The Belgian expeditions recorded two species which they attributed to the genus *Pteromalus*.

(Google translation of the French follows).

"We place here, with some doubt, females belonging to two species presenting most of the characters of the genus, with however very particular antennae: they have indeed 13 segments, including 2 anelli, like a large number of genera of the family, but here the anelli are uneven, the first being yellow and typical, that is, tiny, while the second would easily pass for a funicular article, being much more elongated and dark brown like all the following segments. It can't possibly be *Pteromalus ipsea* Walker, 1839, described from Saint Helena, after a male specimen. This species is also to be placed in another genus because, in the brief description, it is said: "*parapsidum suturae bene determinatae*" (translation notauli (a pair of longitudinal, grooves on the mesoscutum well defined); moreover the antennae of this male would be brown with the green scape, whereas the females in question have the antennae entirely brown with the exception of the first anellus"

Despite their reservations, their *Pteromalus* sp. 1 fits *P. ipsea* as currently understood. *Pteromalus ipsea* has not been redescribed since its original, very inadequate description by Francis Walker in 1839. The holotype (a male) is apparently lost. SG Compton is of the opinion, based on discussion with Mircea-Dan Mitroiu in 2023 that it probably should not be included in the genus *Pteromalus* and may need a new genus to be erected to accommodate it.

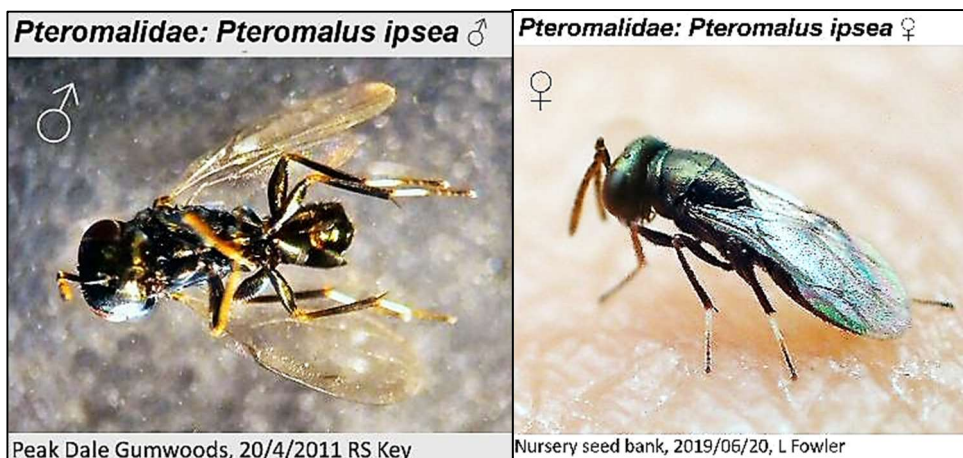
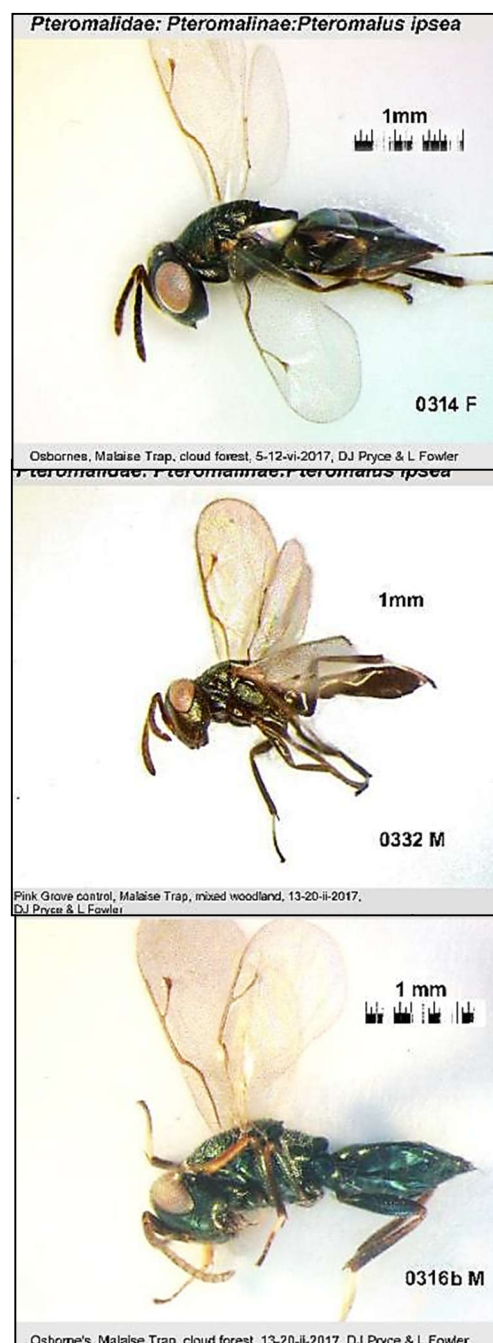
Steve Compton adds:- "Despite what they say, one description of the antennae fits what is accepted now as *Pteromalus ipsea* but they mention two species, while not saying how they differ. Only examination of their specimens will clarify things. The specimens are presumably at the Africa Museum in Tervuren in Belgium. Examination of these specimens is needed to confirm the host association (which is almost unique among parasitica on St. Helena) and to establish whether the second *Pteromalus* recorded by the Belgians corresponds to the species collected more recently".

Little is known of its ecology and the widely scattered records, from the Cloud Forest to the lower, much drier parts of the island, do not hint at any particular habitat. The Belgians' report their *Pteromalus* sp 1 at Teutonic Hall in 1967 were "deux d'entre eux «ex branches de Solanacée attaquée par Anthribides et chenilles" ex branches of Solanaceae (presumably they were referring to the invasive non-native *Solanum mauritianum*) attacked by Anthribids and caterpillars"

Status: Endemic species - Widespread in a variety of habitats, both in the upper forested parts of the island and in lower, drier areas on non-native vegetation and currently seems to be doing well. However, it would warrant at least **Vulnerable or Near Threatened RDB status** because of the small size of its world range.

(continued overleaf)

Endemic Species



Original specimen of *Pteromalus ipsea*

St Helena

Jul 1836 C Darwin

as ? *Pteromalus* sp. 1 *sensu* Belgian report

Teutonic Hall	15-30/11/1965	Belgians
Teutonic Hall	22-31/01/1967	Belgians
Teutonic Hall	20-22/04/1967	Belgians
High Peak	23-27/02/1967	Belgians
Cabbage Tree Road	Mar/1967	Belgians
Cason's Gate	03.04.1967	Belgians
between Luffkins & Peak Gut	10-13/04/1967	Belgians

Specimens seen by the current authors

*Deep Valley Gumwoods	06/05/1995	P&M Ashmole
Cabbage Tree Road	12/2006-01/2007	Peaks Survey
Cuckold's Point	12/2006-01/2007	Peaks Survey
High Peak	12/2006-01/2007	Peaks Survey
Mount Actaeon	12/2006-01/2007	Peaks Survey
Burnt Rock	06/03/2015	LJ Fowler
Burnt Rock	13-20/ii/2017	LJ Fowler
Beale's	13-20/iii/2017	DJ Pryce
Diana's Peak	31-vii/7-viii/2017	DJ Pryce
Fisher's Valley	2017	DJ Pryce
Millennium Forest	3-10/vii/2017	DJ Pryce
Mount Pleasant	13-20/ii/2017	DJ Pryce
Osborne's	13-20/ii/2017	DJ Pryce
Peak Dale	13-20/ii/2017	DJ Pryce
Pink Grove control	8-15/v/2017	DJ Pryce
Fisher's Valley	21/11/2022	R&R Key

*there's some confusion with this location – the specimen was in a container labelled 'Deep Valley Gumwoods' but the Ashmoles Diary for 06/05/1995, which includes specimen 1087 ('tiny Parasitica') records a visit to Peak Dale Gumwoods on that day, not Deep Valley Gumwoods.

Pteromalus sp. 2 *sensu* Belgian report

NE of Cason's Gate, 2100 ft, 12.I.1966 (1 ex.). High Peak, 2400-2600 ft, III.1967 (1 ex.); IV.1967 (2 copies). High Central Ridge, Cabbage Tree Road, 2500 ft, III.1967 (1 ex.). East: Lower Fisher's Valley, 1000 ft, 6.V.1967 .

Pteromalus sp 3

12 specimens of a different species of, or near to, *Pteromalus* were found by Roger & Rosy Key in the lower parts of the island in 2011, 2013 and 2022.

Status: Unknown

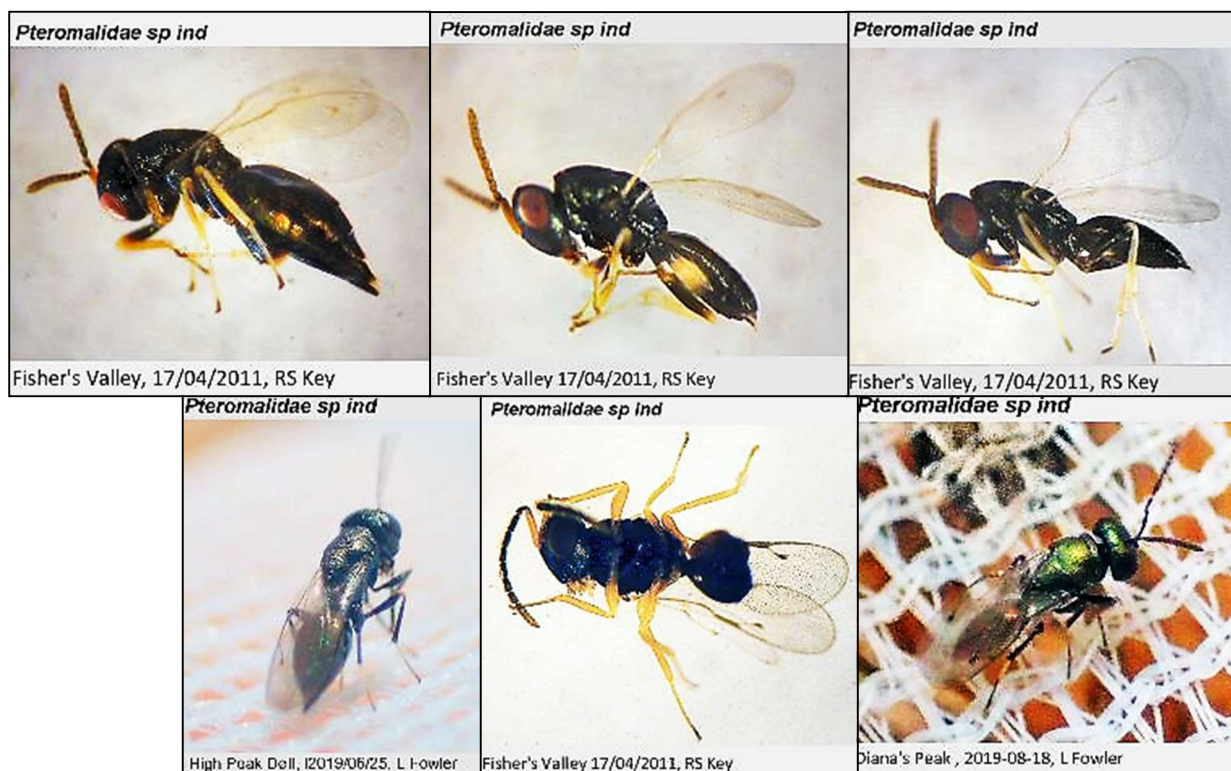
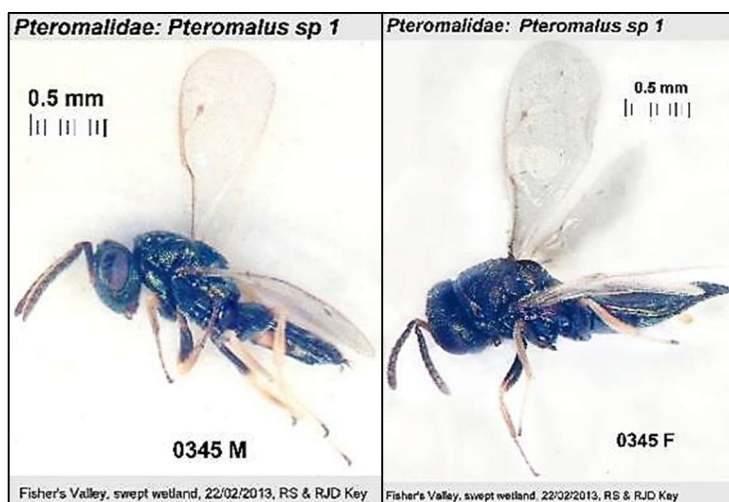
Fishers Valley	17/04/2011	RS/RSD Key
Fishers Valley	22/02/2013	RS/RSD Key
Gregory's Battery	24/02/2013	RS/RSD Key
Fishers Valley	21-24/xi/2022	RS/RSD Key
Ladder Hill Fort	08/11/2022	RS/RSD Key

Pteromalus sp 4

A possible additional species of *Pteromalus* turned up together with sp. 1 in Fishers Valley in 2013. It is in poor condition and is likely to represent a dwarf individual of *Pteromalus* sp. 3. Not illustrated

Fisher's Valley 22/02/2013 RS/RSD Key

Numerous other photos have been taken of unidentified *Pteromalidae* – reproduced here.



Chalcidoidea: Family Spalangiidae

1 Species

Spalangiidae is a family of chalcid wasps that are parasitoids of flies, including those breeding in dung. *Spalangia* species such as *S. cameroni* have been used for the biological control of House flies (*Musca domestica*) and stable flies (*Stomoxys calcitrans*) (Diptera: Muscidae), both of which are present in St. Helena. *Spalangia* were moved from the family Pteromalidae to create the family Spalangiidae in 2022 and they are now believed to be more closely related to the 'planidial' chalcid clade (Eucharitidae + Perilampidae + Chrysolampidae + Eutrichosomatidae) (modified from Wikipedia accessed 27/06/2025)

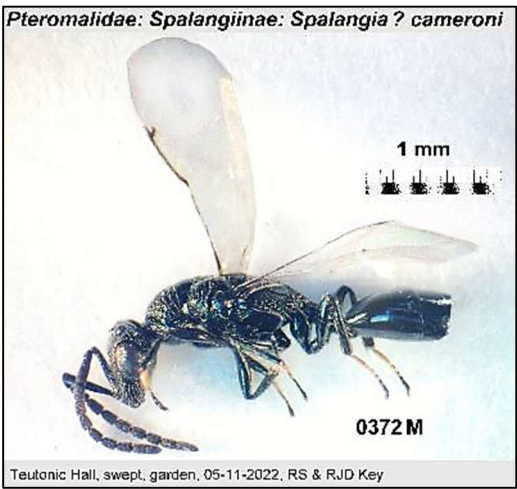
Ease of Identification

This distinctive antennal placement and the prognathous head (where the head is held with the mouthparts projecting forwards) make it easy to recognise the family on St Helena but identification to species can only be undertaken by a specialist. 10 species are known from Africa (Waspweb 2025). Simon van Noort of the Iziko Museums of South Africa in Cape Town may be able to help.

Spalangia sp. possibly *cameroni* Perkins, 1910

There are four records from St Helena, two of which are photographs by Liza Fowler

Burnt Rock	12/03/2015	LJ Fowler(photograph)
Burnt Rock	0/04/2017	LJ Fowler(photograph)
Alarm Forest	13/03/2013	R&R Key
Teutonic Hall	05/11/2022	R&R Key



Chalcidoidea: Family: Signiphoridae

2 or 3 Species

A small family of parasitic wasps in the superfamily Chalcidoidea with <80 species ranging in size from 0.2 to 1.5 mm. They are usually black, brown, or yellowish, occasionally with salmon pink or white details, but never metallic. Cuticle sculpturing is very light when compared to families such as the Eurytomidae or Chalcididae. The antennal club is long, unsegmented, and preceded by one to four ring-like segments and the wings have medium to long marginal setae. Most species are parasitoids of scale insects, mealybugs, aphids, psyllids and flies (chamaemyiids, gall-making chloropids, and drosophilid predators of scale insects). Some are hyperparasitoids of other parasitoids and are thought maybe to reduce the effectiveness of some biocontrol attempts. Modified from Wikipedia 1/7/2025

Signiphora flavella Girault 1913 or *S. flavopalliata* Ashmead, 1880

Both species are parasitoids of scale insects (Diaspididae). There are >45 species in the genus *Signiphora*, with several used for biocontrol of scale insects. Most are Neotropical in origin. **Status:** Unknown

Burnt Rock	13-20/ii/2017	LJ Fowler
Diana's Peak: Perkin's Gut	8-15/v/2017	DJ Pryce
Pipe Path	10-17/iv/2017	DJ Pryce
Fisher's Valley	21-24/xi/2022	R&R Key
Mulberry Gut	12-15/xi/2022	R&R Key

Signiphora sp 2

A possible second species of *Signiphora* was Malaise-trapped at Heart Shaped Waterfall in 2017 by Liza Fowler. It differs in coloration, particularly of the antennae. **Status:** Unknown

Heart-shaped Waterfall	8-15/v/2017	LJ Fowler
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Signiphoridae: Signiphora *? flavella or flavopalliata*



Signiphoridae: Signiphora sp.



Chartocerus fimbriae Hayat, 1970

The only reference to this species is as an "Entry in Ashmole's database, no further information" input by DJ Pryce in 2015. The Universal Chalcidoidea Database has it as only known from India but four other species of the genus are known from Africa. It is a parasitoid of species each of mealy bugs and soft scales, Its inclusion in the list is enigmatic!

Status: Unknown



The image is of *Chartocerus subaenus* from the Global Biodiversity Information Facility GBIF

Trichogrammatidae are parasitic on the eggs of other insects. In order to complete development their adult size can be no larger than a single insect egg, and multiple individuals may even develop in a single egg making the emerging adults a fraction of the size of their hosts. Trichogrammatidae are therefore among the smallest known insects, ranging in size from 0.2 – 1.5 mm. Certain genera such as *Trichogramma* are known to parasitize eggs of several insect orders, whereas other genera are apparently restricted to a single host order.

Reproduced from <https://hymenoptera.ucr.edu/research/trichogrammatidae>

Ease of Identification

Identifiable to family on St Helena from a combination of extremely tiny size, broad wings and only three tarsal segments on each leg. All identifications given here, even to genus, need to be treated with caution. Identification of species is very difficult, World authorities Dr Andrew Polaszek, Natural History Museum, London, Dr. Fernando L. Consoli (University of São Paulo, Brazil), - Dr. Sergei V. Triapitsyn (University of California, Riverside).

? *Trichogrammatoidea armigera* Manjunath, 1972

Trichogrammatoidea armigera is an egg parasitoid of the pest species Cotton Bollworm moth *Helicoverpa armigera* and used around the world as a biocontrol agent. In 1975 "Four consignments containing about 3500 *Helicoverpa armigera* eggs parasitised with this species sent to the island by CIBC for release by Keith Sim sent in this year" (CIBC, 1976, p. 86). A complication is that cultures and consignments containing trichogrammatids can often be contaminated with additional species. Steve Compton tentatively identified the following from specimens sent in 2023.

Burnt Rock	16-19/i/17	LJ Fowler
Burnt Rock	13-20/iii/17	LJ Fowler
Ginger Patch	3-10/vii/2017	
Mount Pleasant	5-12/vi/2017	
Upper Grape Vine Gut	10-17/iv/2017	

Oligosita sp.

Five specimens of species of this genus were included in Parasitica sent to Steve Compton from Malaise Trapping at Diana's Peak in February and May 2017. Species of this genus are egg parasitoids of a range of Hemiptera, including cicadellid hoppers and have been considered for using as biocontrol agents.

Status: Unknown

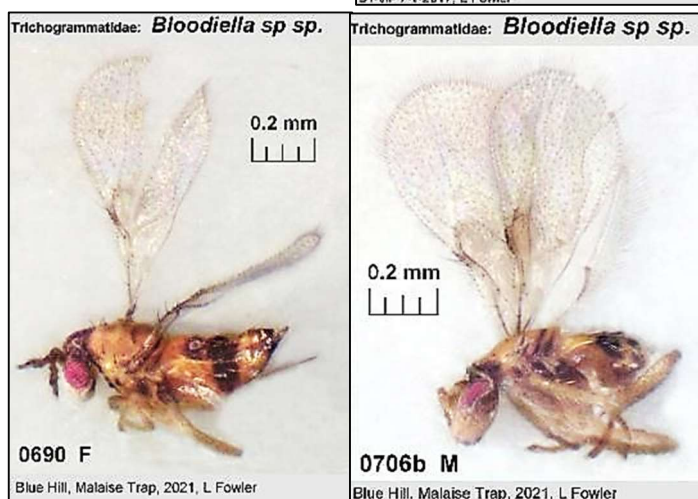
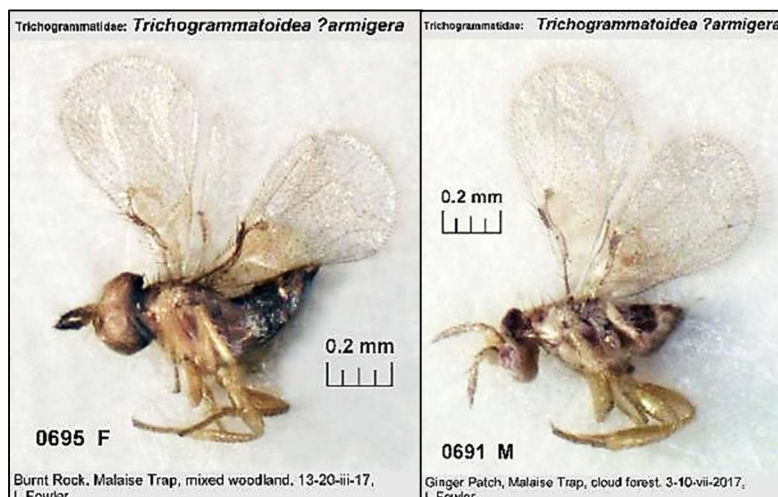
Diana's Peak	Feb 2017	D.Pryce/LJ Fowler
Diana's Peak	May 2017	D.Pryce/LJ Fowler

Bloodiella sp.

6 specimens of species of this genus were included in Parasitica sent to Steve Compton from Malaise Trapping and one specimen swept off pepper tree in 2022. Some species of this genus are known to be egg parasitoids of chrysomelid beetles.

Status: Unknown

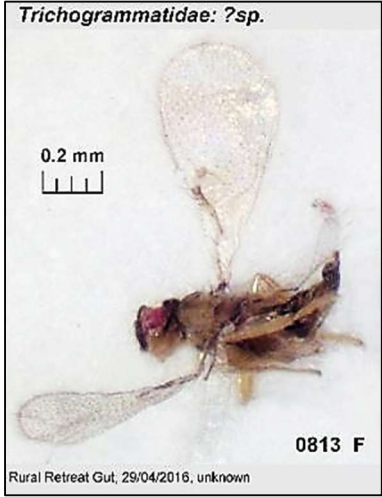
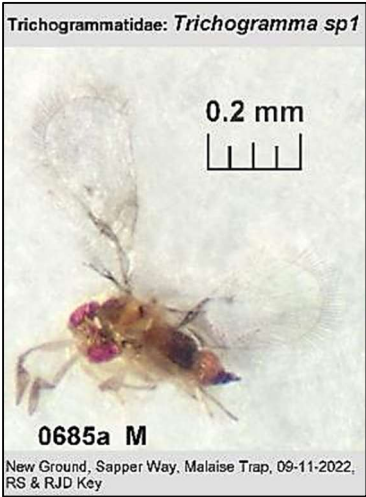
Blue Hill	2021	LJ Fowler
Cason's	03/05/2021	LJ Fowler
Woody Ridge	? ?	
Jamestown, Newbridge	0/11/2022	R&R Key



?Trichogramma sp.

A genus of 230+ species of minute egg parasitoids varying from quite specific to very polyphagous. Some species have been used as biocontrol agents for moth eggs, including against clothes moths in the family Tineidae. Large numbers of specimens, probably of a species in this genus, were amongst samples sent to Steve Compton from Malaise trapping in 2017 and 2022 **Status:** Unknown

Perkin's Gut	8-15/v/2017	DJ Pryce
Diana's Peak	3-10/vii/2017	DJ Pryce
Fisher's Valley	5-12/vi/2017	LJ Fowler
Fisher's Valley	21-24/xi/2022	R&R Key
Joan Hill	13-20/ii/2017	LJ Fowler
Pink Grove control	3-10/vii/2017	DJ Pryce
Pink Grove control	3-10/vii/2017	DJ Pryce
Rupert's	8-15/v/2017	LJ Fowler
Mulberry Gut	12.15/xi/2022	&R Key
New Ground, Sapper Way	09/11/2022	&R Key



Trichogrammatidae sp

One or possibly two species of Trichogrammatidae were noted from the Peaks Survey by DG Notton at the NHM. DJ Pryce found a specimen from Rural Retreat Gut but the specimen subsequently proved impossible to identify.

Status: Unknown

Cuckold's Point	2005	Peaks Survey.
Diana's Peak	2005	Peaks Survey.
High Peak	2005	Peaks Survey.
Rural Retreat Gut	2016	DJ Pryce

Superfamily Chrysidoidea

Members of this superfamily are, evolutionarily, members of the **Aculeata**, along with the ants, solitary and social wasps and bees. They are 'less 'derived''' than the rest of the aculeates and their lifestyles are more similar to the parasitic Hymenoptera, from which they are believed to be derived. Two families are present on St Helena, with one containing four species, all endemic and and the other represented by a single cosmopolitan species that has probably only recently arrived on the island.

Chrysidoidea: Family Dryinidae Pincer Wasps

1 Species

A fairly small (about 1900 described species worldwide) family of solitary wasps. The larvae are parasitoids of the nymphs and adults of Auchenorrhyncha (homopteran true bugs). Many species have a marked sexual dimorphism, with males totally different from the females in size and shape of the body. Males have wings while females are often wingless and resemble worker ants. The ovipositor is retractable and not visible when retracted. Females may also have their front legs modified to form a pinching apparatus which they use to restrain their hosts during oviposition. The female dryinid injects an egg into the host insect with her ovipositor. The larvae are legless or have only vestigial legs. It feeds on the internal structures of the host, and as it grows larger it begins to protrude from the body. A hardened sac develops (called a "thylacium") around its body for protection. The host is eventually killed and the larva then leaves its dead body and spins a cocoon before pupating.

Modified from Wikipedia accessed July 2025

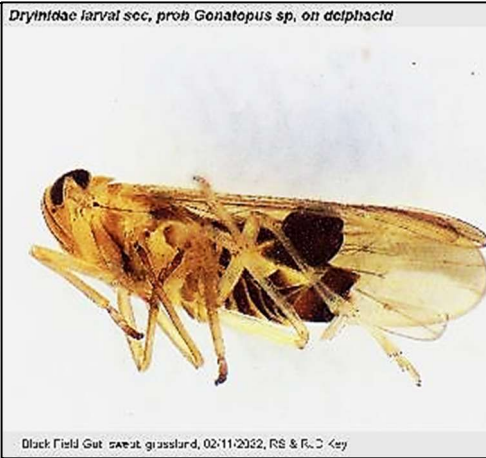
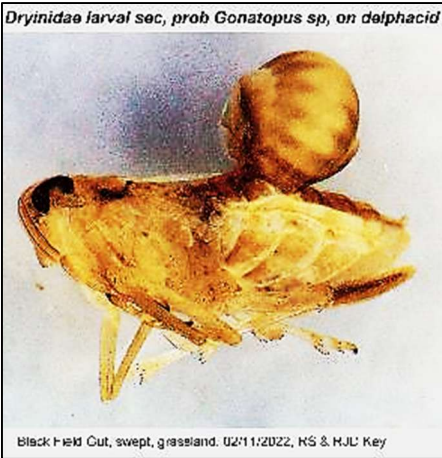
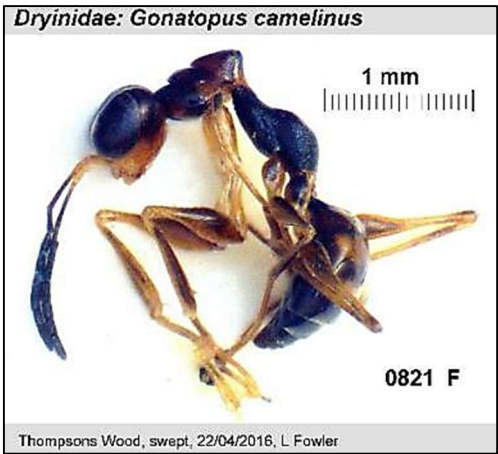
Ease of identification Easily recognised to Family/Genus level, but the genus is very large, which makes identification of species difficult. Specialists on the group are few: - Massimo Olm (University of Tuscia, Italy), Christoph Bückle amd Eberhard Karls University of Tübingen, Germany who has specialised in the African Fauna.

Dryinidae: Subfamily: Gonatopodinae

Gonatopus camelinus Kieffer, 1904

Gonatopus is a genus with >440 species world-wide and we are grateful to Massimo Olmi from the University of Tuscia, Italy for identifying our species so quickly. *G. camelinus* is mainly a west Palaearctic species, with a distribution extending from Spain to the Middle East and the Canaries. It parasitises immature hoppers in the family Delphacidae, including mainly species living on grasses. Parasitised delphacids with the characteristic external larval sac were first noted at Fishers Valley in 2013 and the first adults (2 females) were found at Thompson's Wood by Liza Fowler the same year. A male was misidentified as a chalcidoid wasp (very easily done!) was caught in a Malaise Trap at Pink Grove in 2017. Sweeping the long grass at Black Field Gut and trapping at Fisher's Valley in 2022 produced very large numbers of delphacids (likely to be *Distantinus anacreon*, det. S Foster), with larval sacs.

Status: Uncertain origin. Established.



*Fisher's Valley
Thompson's Wood
Pink Grove
*Fisher's Valley
*Fisher's Valley
*Black Field Gut

Feb 2013
22/04/2016
15/05/2017
Feb 2013
Nov 2022
Nov 2022

R&R Key
LJ Fowler
DJ Pryce ((male assumed to be this species)
R&R Key
R&R Key
R&R Key

Family Bethylidae Flat Wasps 4 Endemic Species

A family of about 2200 described species world-wide, mainly parasitoids of the larvae of beetles and moths. Adult females may be winged or apterous, a trait which can vary both between and within species. Females are flattened, with an elongated appearance with a roughly oblong head and forward-set compound eyes are larger than males of the same species. Males are always winged but are less flattened and have smaller heads. Females are able to sting in self-defence and can produce surprisingly severe symptoms for such a small wasp which, in the case of an allergic response, may require medical attention.

As basal aculeates, they show feeding habits similar to both parasitoid and predatory wasps. Females crawl onto prey and sting them several times to paralyze it, then first. Most species then drag their prey to a crevice or hole. Some species practice maternal care in which adult females guard and clean their young. The time devoted to this care ranges by species from a few days after eggs are laid to the entirety of larval development.

modified from Wikipedia accessed July 2025

Ease of Identification

Another difficult group World authorities:- Celso O. Azevedo, Universidade Federal do Espírito Santo, Brazil , - Gordon Gordh (University of California, Riverside, Ca), A. Hawkins, (University of Puerto Rico, Rio Piedras, PR 1986)

Bethylidae: Subfamily: Epyrinae

Holepyris atlanticus Benoit, 1976

Holepyris spp. are parasitoids of beetle larvae living in concealed situations, including the families Cucujidae, Curculionidae and Tenebrionidae. Some are parasitoids of stored product pests and are used as biocontrol agents. The ecology of St Helena's one species is unknown, other than it has a preference for the drier parts of the island. **Status:** Endemic species. The most widespread of the St Helena flatwasps, in various drylands around the island. However, it would warrant at least Vulnerable or Near Threatened RDB status because of the small size of its world range.

Prosperous Bay Plain	25/02/1967	Belgian Expedition
South West Point	08/03/1967	Belgian Expedition
Government Garage	09/12/2003	P&M Ashmole
Prosperous Bay Plain	27/02-20/03/2014	DJ Pryce
Rupert's Valley	09-30/05/2014	DJ Pryce
Burnt Rock	13-20/iii/17	LJ Fowler
Joan Hill	13-20/ii/2017	DJ Pryce
Rupert's	5-12/vi/2017	DJ Pryce



Bethylidae: Subfamily: Scleroderminae

Sclerodermus spp. are known to be parasitoids of saproxylic beetle larvae, including the families Cerambycidae, Scolytidae, Anobiidae, and Bostrichidae. Very little is known of the specific ecology of the St Helenian species. There has been a similar radiation of this subfamily on Ascension Island, But species from the two islands appear not to have been compared..

Sclerodermus insularis Benoit, 1976

Known only from its original discovery on Prosperous Bay Plain in 1967, where it found in dead samphire twigs (*Suedia fruticosda*) "in the company of endemic wood-boring Coleoptera".. **Status:** Endemic species. Only known from its first discovery at Prosperous Bay Plain in 1967. It would warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly studied group – possibly Data Deficient?

Prosperous Bay Plain	25/02/1967	Belgians
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Sclerodermus sanctaehelenae Benoit, 1976

Known only from its original discovery on Prosperous Bay Plain in 1967 until another possible record from Ruperts in 2017 (det SG Compton.). "Same biotope as the previous species." **Status:** Endemic species. It would warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly studied group – possibly Data Deficient?

Prosperous Bay Plain	25/02/1967	Belgians
Rupert's Malaise Trap	13-20/ii/2017	DP/LF det SGC



***Sclerodermus wollastoni* Westwood, 1881**

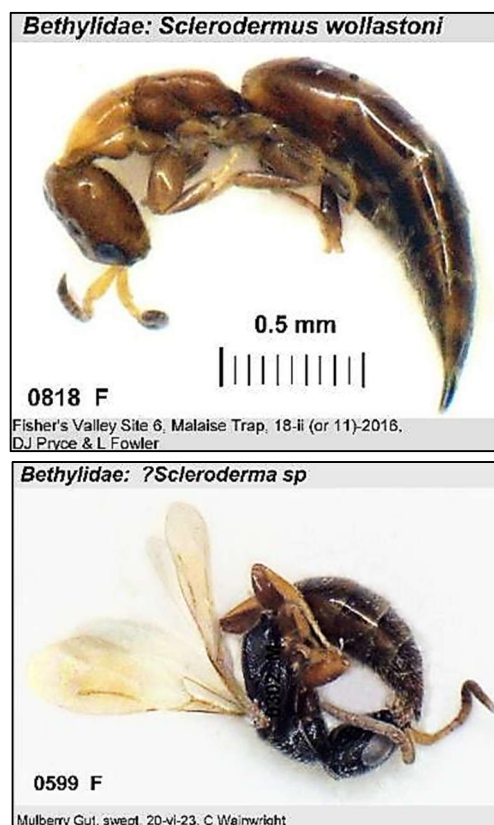
]Known since the 19th Century but very few records. **Status:** Endemic species. Only known from 3 records, its initial discovery in 1875/76 (not localised), Teutonic Hall in 1965 and Fisher's Valley in 2016, from which little can be inferred about its ecology. It would warrant at least Vulnerable to Critically Endangered RDB status. However it is in a very poorly studied group – possibly Data Deficient?

St Helena	1875/1876	TV Wollaston
Teutonic Hall	15-30/11/1965	Belgian Expedition
Fisher's Valley	11/01/2016	DJ Pryce teste S

Compton

***Sclerodermus* sp. Unidentified specimens**

Blue Hill	2021	LJ Fowler
Pink Grove control	13-20/ii/2017	DJ Pryce
Pink Grove control	8-15/v/2017	DJ Pryce
Mulberry Gut	20/vi/23	Chloe Wainwright



Unchecked Google Translation of Bethylidae section of Basilewsky, P. (Ed.) 1976. La faune terrestre de l'île de Sainte-Hélène. Troisième partie. Annales du Musée Royal de l'Afrique Centrale, Zoologie 215: 1-533.

6. Superfam . BETHYLOIDEA

by PLG . BENOIT

(Royal Museum for Central Africa, Tervuren)

Family BETHYLIDAE

Only one species of *Bethylidae* was known from Saint Helena. Belgian zoological expeditions collected four. All four are endemic.

Gen. _ ***Scleroderma*** Klug

SPECIES TABLE (wingless females)

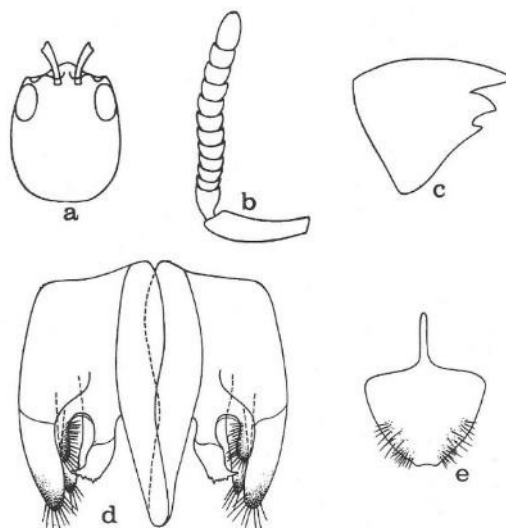
1. Tridentate mandibles. Eyes/postocular part ratio = 1/2.7. Shining head, imperceptibly chagrined. Dorsum thoracal with a little more pronounced chagrined sculpture. Pro- and mesonotum brownish yellow. Horizontal plane of the propodeum : width. / long. = 1 / 1.37 ... ***wollastoni*** Westwood
- Bidentatejaws 2
2. Pro-, mesonotum , antennae and legs yellow. Eye/postocular part ratio = 1/2.1. Head and thorax shiny, imperceptibly chagrined. Horizontal plane of the propodeum : width. / length.= 1 / 0.90***insularis*** n. sp .
- Completely black. Eyes/postocular part ratio = 1 / 1.9. Head, thorax and abdomen dull, densely chagrined. Horizontal plane of the propodeum : width. /long.=1/1.1***sanctae-helenae*** n. sp .

***Scleroderma wollastoni* Westwood (fig. 136)**

Scleroderma Wollastoni , Westwood, 1881, Trans. ent . Soc. London , p. 122, pl. 5, fig. 2.

SAINT HELENA : No locality specified (Wollaston). Type ♀ at Hope Department of Entomology, Univ. Oxford and Many Paratypes . Teutonic Hall, 15-30.XI.1965 , 2 ♀♀ wingless.

♀ *wingless* . Head and thorax dark brown except pro- and mesonotum of a brownish yellow. Antennae yellowish brown. Brown legs. Abdomen



black. Clypeus tectiform, slightly advanced in a blunt point. Mandibles tridentate, teeth progressively weaker from top to bottom. Articles of antennal funiculus slightly thickened; all but the last broader than long; the pedicel as long as the first four segments of the funicle. Shiny head, very finely chagrined. Eyes/postocular part ratio (YP index) = 1 / 2.7. Eyes/total head length ratio (YT index) = 1 / 3.4. The eyes slightly set apart from the base of the mandibles. Minimum width ratio of the forehead between the eyes / width of the head behind the eyes (frontal index) = 1 / 2. Ratio width of the head behind the eyes / total length of the head (cephalic index) = 1 / 1.1. Pronotum shiny, slightly chagrined; slightly flared towards the back and therefore the PL index close to 1/1. Proportion width of the pronotum at the posterior edge/length of the pronotum (pronotal index) = 1/1.2. Gleaming propodeum, covered with a fine and uniform embossed sculpture; the horizontal plane shows no basal constriction. Propodeal index = 1 / 1.37. All weep finely chagrined but shining. Femurs and tibiae thickened. All tibiae with a terminal pectineal spur. Metatarsals II arcuate, ventrally bearing a row of fine cilia (sensory?) absent on the other metatarsals. Simple claws.

Fig. 136. – *Scleroderma Wollastoni* Westwood. – *a*, head. *b*, antenna of the female. *c*, mandible. *d*, genitalia of male. *e*, subgenital sternitis.

♂ *holoptera*. Completely black. Eyespots present. Complete wings. Articles of antennal funiculus all longer than wide; the pedicel slightly thickened and barely longer than the first segment of the funicle. Head dull, densely chagrined. YP index = 1 / 1.5. YT index = 1 / 2.6 (*). Pronotum dull, chagrined; PL index = 1 / 1.8; hint

(*) The head being slightly damaged on the left side, it is not possible to measure the frontal index nor the cephalic index.

pronotal = 1 / 0.75. Gleaming propodeum, imperceptibly chagrined, widened at the base but without previous constriction; propodeal index = 1 / 1.25.

genitalia, fig. 136d. _

Length: ♀, 2.4mm; ♂, 2.3mm.

***Sclerodermus insularis* n. sp. (Fig. 137)**

SAINT HELENA. Is: Prosperous Bay Plain, 25.II.1967, ♀ wingless holotype and 2 ♀♀ wingless paratypes, in the Royal Museum for Central Africa. Brown head. Antennae yellow. Pro- and mesonotum yellow, the rest of the thorax and the abdomen brownish. Yellow legs.

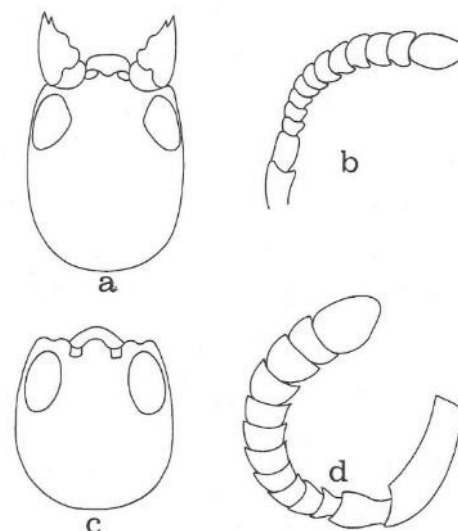


Fig. 137. – *Sclerodermus insularis* n. sp. – *a*, head. *b*, antenna of the female. – *Scleroderma sanctaehelenae* n. sp. – *c*, head. *d*, antenna of the female.

Clypeus with slightly curved anterior border, without median point. Mandibles bidentate, with lower tooth longer than upper. Articles of the antennal funiculus enlarged; all but the last fully twice as wide as long; the pedicel narrower and reduced in size, barely a quarter longer than the first funicular article. Shiny top of head, with embossed carving barely perceptible at 100x magnification. YP index = 1 / 2.3. YT index = 1 / 3.7. Frontal index = 1 / 1.8. Cephalic index = 1 / 1.16. Pronotum sculpted like the head. Pronotal index = 1 / 1. Propodeum shiny but with fine reticulated sculpture; the horizontal plane has a distinct subbasal constriction. Propodeal index = 1 / 0.9. Length: 1.3mm.

Note: This species was collected from *Suaeda twigs fruticosa* in the company of endemic wood-boring Coleoptera.

***Scleroderma sanctaehelenae* n. sp.**

SAINT HELENA. East: Prosperous Bay Plain, 25.II.1967, ♀ wingless holotype and 7 ♀♀ wingless paratypes, in the Royal Museum for Central Africa. Completely black. Clypeus tectiform, with straight anterior edge. Mandibles bidentate, the lower tooth slightly longer than the upper. Articles of the antennal funiculus enlarged; the first flares upwards and is little wider at the top than long, then the articles are all but the last almost twice as wide as they are long. The pedicel as long as the first three segments of the funicle. Head dull, densely chagrined and strongly domed. YP index = 1 / 1.5. YT index = 1 / 2.7. Frontal index = 1 / 2.0. Cephalic index = 1 / 1.08. Pronotum sculpted like the head, slightly longer than wide and slightly flared at the posterior edge; PL index = 1 / 1.1. Pronotal index = 1 / 1.33. Propodeum gradually narrowed towards the base, without subbasal constriction; the matt surface, evenly embossed. Propodeal index = 1 / 1.1. All the dull, saddened weepers. Legs conforming to generic standards with pectinate tibial spurs. Length: 2.9-3.1mm.

Note: Same biotope as the previous species.

Holepyris atlanticus n. sp. (figs. 138-139)

SAINT HELENA . Is : Prosperous Bay Plain, 25.II.1967 , ♂ holotype. Southwest : West Point , 8.III.1967 , ♀ allotype , at the Royal Museum for Central Africa.

Black; the antennae brownish, the scape and two first segments of the funiculus lighter than the following. Coxas and femora blackish; tibiae and tarsi light brown.

♂ . Mandibles bidentate. Trilobed clypeus , the median lobe narrower and more prominent than the lateral lobes. Hairy eyes. The sections of the antennal funiculus somewhat shorter than the scape. Scape : 166 $\square$. Length and width of sections 1 to 5 of the funicle in m 133 / 53; 113 / 53; 123 / 53; 123 / 53; 123 / 53. From the third the articles carry two then three tyloids . Dorsal face of the alutaceous head in isodiametric meshes . YP index = 1/1. YT index = 1 / 2. Frontal index = 1 / 1.5. Cephalic index = 1 / 1.11. Clean occipital rim all around. Pronotum with carina at the anterior edge, sculpted like the head, regularly flared towards the back; pronotal index : 1 / 0.65. Notelets absent. Scutellum with the usual basal sulcus. Horizontal plane of the propodeum with a complete median keel and two incomplete discal keels, reaching halfway up the dorsum ; the space between the hulls is alutaceous; the space between the discal and lateral keels transversely striated; propodeal index = 1 / 1.05. Vertical plane without median carina, alutaceous. All weep densely alutaceous. Wing: the basal vein is widely separated from the pterostigma ; the radial has four sensory pores on its distal half. Parameres long hairy distally. Cuspid with long ventral toe with few strong bristles; dorsal toe absent.

♀ . Identical to the male, except the antennae whose funicular articles are more stocky: the first s n. sp. is a little shorter than the two following joined together. Scape : 215 $\square$. Length and width of articles 1 to 5 of the funicle in: 83 / 49; 49 / 56; 60 / 56; 60 / 59; 60/62, then the articles are sub-squared except the penultimate (103/50). The propodeum entirely streaked across. Wings reaching tip of tergite 3.

Length: ♀ , 3.0mm; ♂ , 2.7mm.

Note : The holotype was obtained by breaking dead branches of *Suaeda fruticosa* . The allotype is from dead twigs of *Commidendron rugosum* (*Aster glutinosa*). In both cases they lived in the company of endemic wood-boring Coleoptera.

Affinities : Due to the complete absence of notaules , this species is related to the African species of this genus; in the American species they are present more or less clearly on the basal half of the mesonotum . Among the African species currently listed, only *H. clytus* Benoit and *H. plebegus* Benoit present the vertical plane of the propodeum without a median keel. Both species have unidentate mandibles. In the first the propodeum is stretched in length and sculpted into small cells. In the second the grainy sculpture of the head is mixed with a spaced punctuation , the propodeum is also longer and the wings are slightly smoky.

LIST OF ABBREVIATIONS USED

YP	index :	ratio of eye length to postocular part length.
YT	index :	ratio of eye length to head length.
Frontal index	:	ratio of minimum width of the forehead between the eyes/width of the head above the eyes.
Cephalic index	:	ratio of the width of the head above the eyes to the length of the head.
Pronotal	index :	width ratio of the pronotum at the posterior edge / length of the pronotum on the midline.
Propodeal	index :	width ratio of the propodeum at the level of the spiracles / length of the propodeum on the midline.

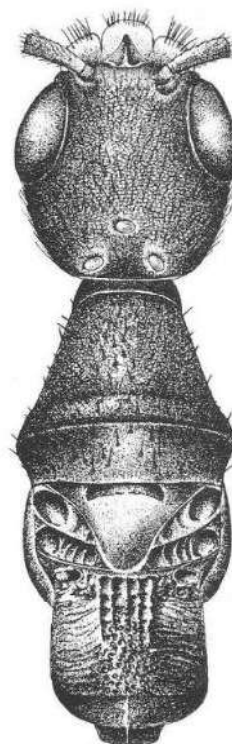


Fig. 138. – *Holepyris atlanticus*
Head and thorax of the female.

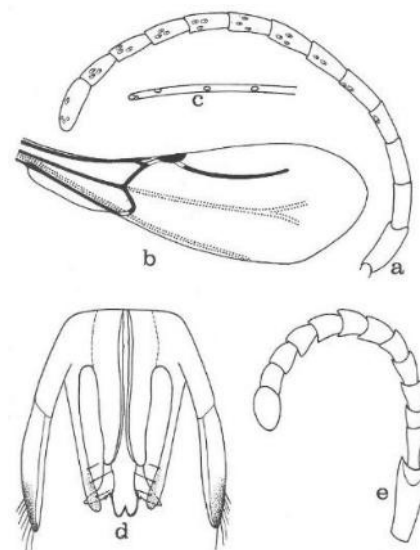


Fig. 139. – *Holepyris* n . sp . – a , antenna of the male. b , wing. c , detail of end of radial rib. d , genitalia of male. e , antenna of the female.

Superfamily Cynipoidea

The Cynipoidea are a moderate-sized hymenopteran superfamily with seven extant families. The most familiar members of the group are the gall-formers in the Cynipidae, though the majority of species are parasitoids or hyperparasitoids. They are typically glossy, dark, smooth wasps with somewhat laterally compressed bodies and somewhat reduced wing venation. With the exception of the Cynipidae it is a poorly known group as a whole, though there are nearly 3000 known species in total, and a great many species are still undescribed.

Cynipoidea: Family: Figitidae ? 8-11 Species

The full diversity of this family is not yet known, but about 1400 species have been described in over 130 genera. The largest subfamily, Eucoilinae (previously considered as a separate family Eucoilidae), has over 1000 described species, probably just a fraction of the total. modified from Wikipedia January 2026.
All species known from St Helena belong to one subfamily the Eucoilinae.

Ease of identification

Another particularly difficult group - needing to an international specialist to identify them to species. Relatively few people working on them:- Mattias Forshage Swedish Museum of Natural History (who has worked on St Helenian specimens) , Göran Nordlander, Swedish University of Agricultural Sciences, Matthew L. Buffington, Smithsonian Institution, Washington, Juli Pujade-Villar, Dept Animal Biology, Universitat de Barcelona, José Luis Nieves-Aldrey, Museo Nacional de Ciencias Naturales, Madrid,

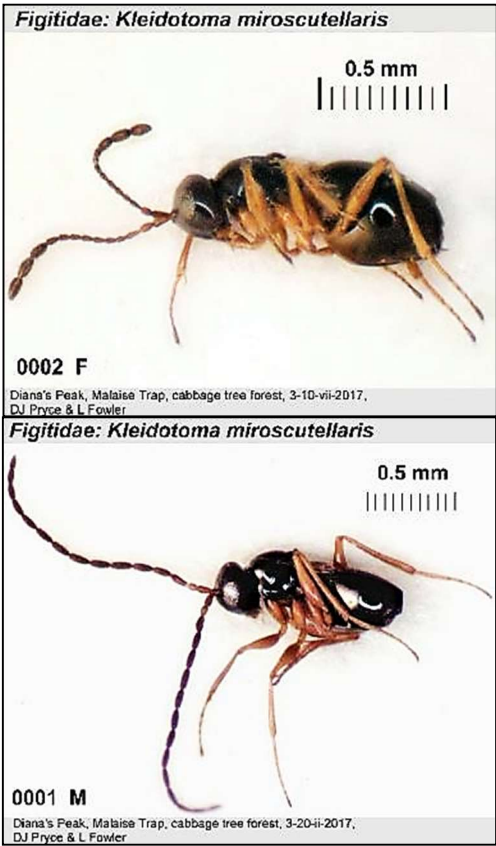
Subfamily: Eucoilinae

Kleidotoma miroscutellaris (Dessart, 1976)

Note the spelling. This species is often mistakenly referred to as *Kleidotoma* **micro**scutellaris'.Originally described in the genus *Polbourdouxia* erected specifically for this species.
A flightless species which is highly likely to be endemic and recorded only from the central mountains and cloud forest, down to Teutonic Hall. Nothing is known of its ecology but the whole subfamily are known to be parasitoids of 'higher' flies. The genus *Kleidotoma* are generally parasitoids of flies (Drosophilidae, Sepsidae, Ephydriidae) living in concealed and decomposing habitats such as plant debris, dung, carrion, fruit, fungi, grass, litter aquatic plants etc. (Waspweb accessed July 2025). **Status:** Endemic species. This species has not been assessed for Red List status and, given this species' restriction to the environs of the Cloud Forest, it would certainly deserve consideration as Vulnerable if not Critically Endangered.

Cabbage Tree Road	01/1966	Belgians
High Central Ridge	06-Dec-1965	Belgians
High Peak	31-Mar-1967	Belgians
Teutonic Hall	28-Feb-1967	Belgians
Upper Legg's Gut south	30-Jun-2013	DJ Pryce
Diana's Peak	13-20/ii/2017	DJ Pryce
Diana's Peak	3-10/vii/2017	DJ Pryce

Endemic Species



Unchecked Google Translation of Bethliidae section of Basilewsky, P. (Ed.) 1976. La faune terrestre de l'île de Sainte-Hélène. Troisième partie. Annales du Musée Royal de l'Afrique Centrale, Zoologie 215: 1-533.

Gen. _ *Polbourdouxia* Nov.

A series of 14 specimens, of both sexes, does not seem to us to be able to be placed in any of the genera of *Eucoilinae* described so far. The most obvious character is brachypterism , already noted in other genera of the subfamily. The forewings are strongly ciliated on the dorsal side, devoid of veins, slightly domed and not extending beyond the basal felted ring of the metasoma . But the most remarkable character is the dorsal aspect of the mesosoma : the prothorax is more developed than

normal and the scutellum very reduced. At first glance, the insect's back appears to consist of a single, smooth, domed sclerite with a typical cupula behind. In fact, one can distinguish the limit between the pronotum and the mesoscutum, in the form of an obsolete furrow, in a horseshoe, whose anterior summit passes notably behind the neck: the pronotum therefore extends quite a long way in the region median and there is slightly domed; in front, one can hardly distinguish a kind of transverse lunule: it is perhaps this portion called "truncation", which is well developed in the other genera, but practically contiguous to the mesoscutum and not clearly distant, as it is the case here.

As for the scutellar cupule, it is, in relation to the whole of the mesosoma, of normal size for the subfamily; but it stands in a small sloping subcircular area (which it overlooks at the rear); the anterior half of this rounded sclerite is separated from the preceding sclerite by a very distinct edge; the posterior half is slightly raised, the boundary between the flanks and the dorsal disc forming a semi-circular rim continuing the anterior semi-circumference. Inside the disc, on either side of the cup, there are three longitudinal keels and, at the very front, tiny foveae. A decapitated specimen was clarified with KOH: thus treated, it suggests the trace, otherwise totally invisible, of a transverse line located between this cupular scutellar zone and the level of the tegulae: there has therefore been a disappearance of the usual furrow transverse mesoscuto -scutellar and the scutellar disc has reduced, becoming circular.

The antennae show the normal numbers of segments for the subfamily: 15 in the male, 13 in the female; this one has a club of three articles.

We voluntarily limit the generic diagnosis to these three characters, considering that only the possible discovery of other species would make it possible to distinguish the truly generic characters from the specific or sexual characters included in the specific description which follows.

We dedicate this new genre to Mr. Pol BOURDOUX, our godfather, who was able to arouse our interest in the natural sciences from our early childhood and who guided our first steps in Entomology. This generic name is feminine.

The type species of the genus is *Polbourdouxia miroscutellaris* sp. n., described later.

In the worldwide gender dichotomous table published by LH. WELD (1952: 107, 203), *Polbourdouxia* is close to the genus *Agroscopa* Förster, 1869: like him, he has the wings reduced and devoid of ribs (but not "clear"), the scutellar cupula protruding from the apex of the scutellum, the disc of the latter longitudinally striated; it is easily separated from it by the reduction of the scutellar disc and the disappearance of the posterior transverse mesoscuto -scutellar furrow.

***Polbourdouxia miroscutellaris*, sp. nov. (figs. 125-132)**

HOLOTYPE ♂.

Colouring: Head, mesosoma and metasoma nearly black brown; antennae dark brown; mouthparts and legs light brown; tegulae brown; wing stumps (at least the front ones) brownish; Propodeal and metasomatic feltings of a very pale beige.

Head: When looking at the head from above, perpendicular to the ocellar triangle, the insertion of the antennae is located level with the silhouette, the toruli slightly prominent; when viewed exactly from the front (so as to discover a maximum surface), the insertion of the antennae is located very high on the face, at the level of the upper edge of the eyes. Integument smooth and shiny, subglabrous, except for a few bristles on the face and the clypeus and a fringe of pubescence on the posterior edge of the cheeks, facing the pronotum. Eyes relatively small (major axis/minor axis: $147 \square \square / 94 \square \square$), hairless, not prominent; ocellar triangle: POL / LOL / OOL = $54 \square \square / 40 \square \square / 100 \square$ (this last data is the real value, not the apparent value in dorsal view). The profile of the head is subtriangular. Antennae of 15 articles; the 13 flagellomeres are traversed by longitudinal sensory ridges; the sexual flagellomer is the first (third antennal article), it is slightly twisted towards the base.

Mesosoma: Pronotum, mesoscutum and scutellum: see generic diagnosis. Metanotum indistinct. Propodeum invaded by a pubescence which hides the appearance of the integument, except for a median zone (limited by a pair of longitudinal keels) which is finely foveolate. Side of the pronotum, lateral portion of the mesopleurum and metapleura polished and shiny, separated from each other by very fine furrows; lateral portion of the mesopleurum with a complete longitudinal carina; ventral portion delimited by a second keel and distinctly pubescent; a pubescent area also between the middle and posterior hips; the felted propodeum contrasts sharply with the glabrous metapleura.

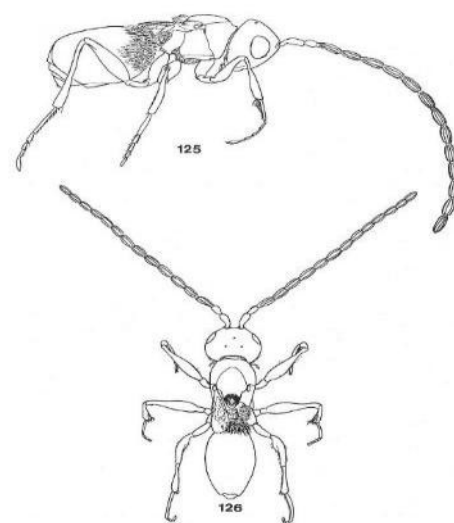


Fig. 125-126. – *Polbourdouxia miroscutellaris* gen. nov., sp. n., holotype ♂ (x 53). – 125. Straight profile. – 126. Dorsal view.

Wings : Forewings reduced to stumps not extending beyond basal metasomatic felting; they are brownish, domed, devoid of venation and partially covered, on the dorsal side, with long bristles, probably compressed; the frenal groove is located along the posterior portion of the apical edge (unless this is an artifact due to some flattening of the domed wing in the microscopic preparation); the right hind wing was lost while trying to detach it; the left is seen by transparency under the forewing: it does not reach the posterior limit of the propodeum .

Legs : Slender, they do not appear to present any very striking particularity; the medial side of the medial tibiae is more densely pubescent apically .

Metasoma : Basal felting present. The 2nd tergite occupies almost the entire back: in dorsal view, the 3rd tergite is barely visible at the posterior end, very sloping compared to the previous one, so that the following tergites are only visible in profile. The genitalia were not dissected.

ALLOTYPE ♀ Differs practically from the male only by the genitalia and the antennae. These have 13 articles, of which the last 3, larger and traversed by sensory ridges, form a distinct club (fig. 132).

VARIABILITY . The species varies in size which is between 1.00 mm and 1.84 mm for males and between 1.02 mm and 1.32 mm for females.

BIOLOGY .Unknown; one specimen was obtained from "humus or rotten wood", by Berlese extraction .

MATERIAL AND LOCALITIES .Holotype ♂ : High Central Ridge, 2600-2700 ft , II.XII.1965 , prep . microscope no. 7103 / 051.Allotype ♀ :High Peak, 2400-2600 ft, III.1967 , prep . microscope no. 7110 / 192.Paratypes : 10♂♂ and 2♀♀ . _ 8 of these ♂♂ were harvested at the same time as the allotype ♀ ; 2♂♂ and 2♀♀ are from : Teutonic Hall, 1500-1800 ft , II.1967 (2♂♂) ; High Peak, 2400-2600 ft , III.1967 (1♀) ; High Central Ridge, Cabbage Tree Road, 2500 ft , 21-31.I.1967 (1♀) (humus or rotten wood). This type material is deposited in the collections of the Royal Museum for Central Africa, in Tervuren, with the exception of 4 paratypes , deposited in the collections of the Royal Institute of Natural Sciences of Belgium, in Brussels.

REFERENCES

- QUINLAN, J., 1967. – The brachypterous genera and species of *Eucoilidae* (Hymenoptera), with descriptions and figures of some type species. – *Process. R. ent. Soc. London* , (B), 36, 1-2, pp. 1-10, 26 figs.
- WELD, LH ., 1952. – *Cynipoidea* (*Hym.*), 1905-1950, being a supplement to the Dalla Torre and Kieffer monograph – the *Cynipidae* in *Das Tierreich* , Lieferung 24, 1910 and bringing the systematic literature of the world up to date, including keys to families,

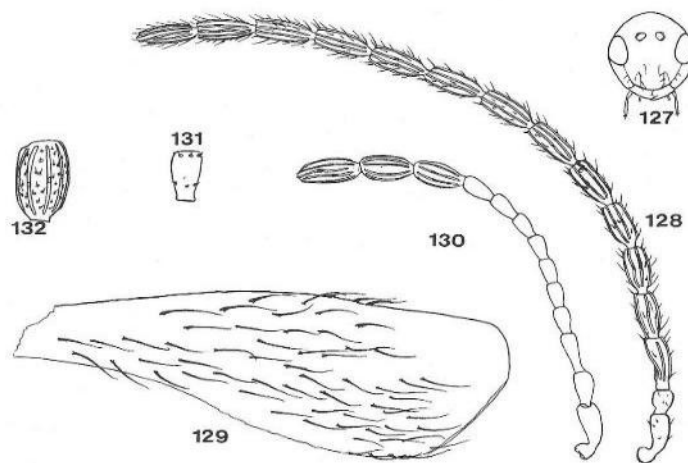
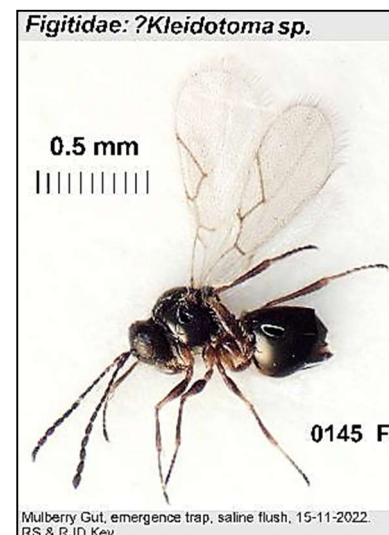


Fig. 127-132. *Polbourdouxia mirosutellaris* gen. nov., sp. not. – 127. Head of holotype ♂ , front view (x53). 128. Right antenna of the same (x88). 129. Right fore wing of the same (x312). 130. Right antenna of female allotype (x88). 131. Fifth right antennal article of the same (x162). 132. Second right antennal article of the same (x162)

?*Kleidotoma* sp.2 (“marginal cell open S9 9”)

An additional, winged, species, probably also in the genus of *Kleidotoma*, was found at Fisher's Valley, Mulberry Gut and Sharks Valle by Roger & Rosy Key in November 2022. All 7 specimens were female.

Fisher's Valley	21-24/xi/2022	R&R Key
Mulberry Gut	15/11/2022	R&R Key
Mulberry Gut	06/11/2022	R&R Key
Sharks Valley	20/11/2022	R&R Key



***Leptopilina heterotoma* (Thomson, 1862)**

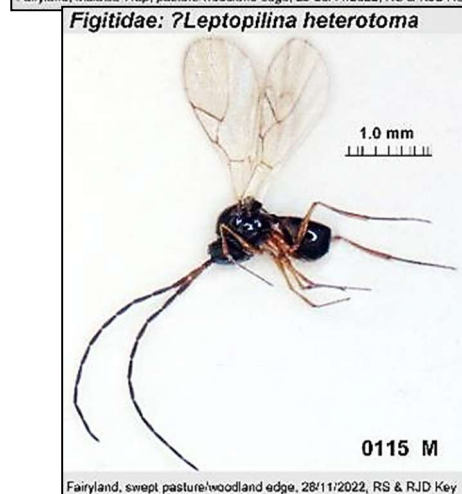
This species was first identified from the island by David Notton from specimens from the 2005 Peaks Survey and it has been turning up fairly regularly ever since. However, not all the records were identified by experts in the group, and similar (so far unidentified) species have subsequently been found with which this species could be confounded.

L. heterotoma is predominantly a parasitoid of flies in the Drosophilidae, of which there are three endemic species on St Helena, especially those in the genus *Drosophila* but also other drosophilids such as *Zaprionus* spp. It is much used as a laboratory teaching subject, along with *Drosophila melanogaster*, to illustrate host/parasitoid relationships

		col..	det.
Cabbage Tree Road	2005/2006	Peaks Survey	DG Notton
Diana's Peak	2005/2006	Peaks Survey	DG Notton
High Peak	2005/2006	Peaks Survey	DG Notton
Cuckold's Point	2005/2006	Peaks Survey	DG Notton
Mount Actaeon	22/05/2014	DJ Pryce	DJ Pryce
Fairyland-Peak Gut	14/03/2015	LJ Fowler	DJ Pryce
Fisher's Valley	13/01/2015	DJ Pryce	DJ Pryce
French's Gut, upper	25/02/2016	DJ Pryce	DJ Pryce
Levelwood Reservoir	29/01/2016	DJ Pryce	DJ Pryce
Alarm Forest	13/03/2013	R&R Key SG Compton	
Perkin's Gut	13-20/ii/2017	DJ Pryce	SG Compton
Ginger Patch	13-20/ii/2017	DJ Pryce	SG Compton
Grape Vine Gut -	12/vi/2017	DJ Pryce	SG Compton
Thompson's Wood	2021	LJ Fowler	SG Compton
Cason's 0	3/05/2021	LJ Fowler	SG Compton
Well Spring, Mt Actaeon	29/10/2022	R&R Key SG Compton	
Fairyland	28/11/2022	R&R Key SG Compton	

***Leptopilina* sp 2**

A possible additional species of *Leptopilina* was Malaise trapped at Mount Pleasant in 2017



'*Rhoptromeris* sp.'

Rhoptromeris is quite a large, worldwide genus with at least 34 species known from Africa. Those minority where the ecology is known are parasitoids of chloropid flies on grasses and in fungi (Waspweb July 2025). The report of the Belgian Museum expeditions in 1965-1967 states (in Google translation) "Most Cynipidae are of the genus *Rhoptromeris*". Of the 96 specimens, almost all are from Teutonic Hall"

The genus has not turned up in any successive surveys. Given the superficial similarity of wasps in the Euciliniinae it would be informative to compare the specimens at the Belgian Museum with those of other taxa found in subsequent years.

Teutonic Hall	15-30.XI.1965	Belgian Expedition
Teutonic Hall	II-V.1967.	Belgian Expedition
Cason's Gate	3.IV.1967.	Belgian Expedition

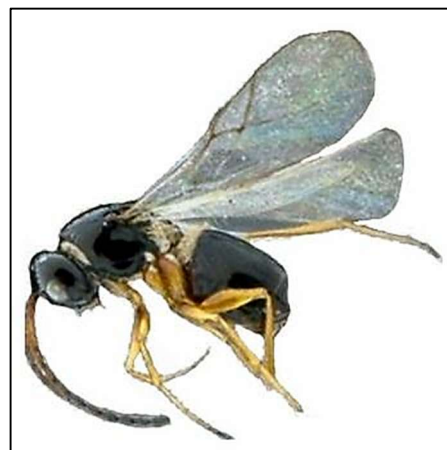


***Hexacola near hexatoma* (Hartig, 1841)**

Specimens from Cuckold's Point were identified as being '*Hexacola near hexatoma*', (a UK/European species) by David Notton, (NHM) and Mattias Forshage (Swedish Museum of Natural History).

Cuckold's Point 2005/2006

Peaks Report



Hexacola sp. (M) not from St Helena

***Hexacola* / *Eucoilinae* spp.** Possibly 3 eucoilinae taxa/morphospecies (2 close to *Hexacola*) were very tentatively separated by SG Compton from specimens from St Helena in 2024.

?*Hexacola* sp. "Hairy"

Beale's	13-20/iii/2017	DJ Pryce
Perkin's Gut	13-20/ii/2017	DJ Pryce
Diana's Peak	10-17/iv/2017	DJ Pryce
Grape Vine Gut	10-17/iv/2017	DJ Pryce
Pink Grove	3-10/vii/2017	DJ Pryce
Cason's	03/05/2021	LJ Fowler
Fairyland	28/11/2022	R&R Key
Teutonic Hall	05/11/2022	R&R Key
Thompson's Wood	14/11/2022	R&R Key

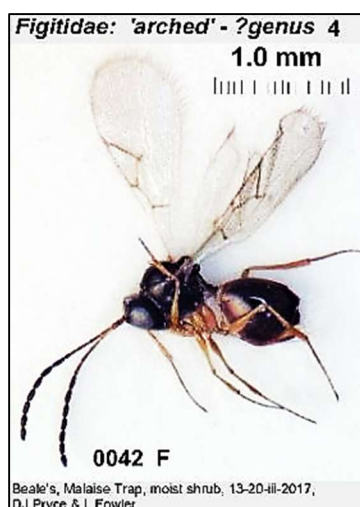


?*Hexacola* sp. "Arched"

Beale's	13-20/iii/2017	DJ Pryce
Diana's Peak	31/vii- 7/v/2017	DJ Pryce
Grape Vine Gut	3-10/vii/2017	DJ Pryce
Perkin's Gut	8-15/v/2017	DJ Pryce

Eucoilinae Genus? Ridged Scutellum

Perkin's Gut	13-20/2/2017	DJ Pryce
--------------	--------------	----------



Eucoilinae Genus & Species indet

Finally, there is an entry in the Report of the 1965-67 Belgian Museum expedition report that suggests the possibility of a genus new to science , but which seems never to have been followed up. (Google translated)

"Using the dichotomous key produced by LD Weld (1952: 108), we arrived, for two specimens with a longitudinally ribbed scutellum, at a certain "**new genus B**", of which Weld knows representatives in the Americas, from Argentina to the United States. We do not know if this genus was named and more fully defined later.

Teutonic Hall	15-30.XI.1965	Belgian Expedition
Teutonic Hall,	20-22.IV.1967	Belgian Expedition

WELD , LH ., 1952. – Cynipoidea (Hym .), 1905-1950, being a supplement to the Dalla Torre and Kieffer monograph – the Cynipidae in Das Tierreich , Lieferung 24, 1910 and bringing the systematic literature of the world up to date, including keys to families, and subfamilies and lists of new generic , specific and variety names. – Ann Arbor, pp. 1-351, ill..

The specimens are presumably in the Africa Museum in Tervuren.



Superfamily: Diaprioidea

A superfamily fairly recently separated from the Proctotrupeoidea

Family: Diapriidae: 'Shelf Wasps'

up to ??13 Species

but probably fewer

The Diapriidae are a ubiquitous family averaging 2–4 mm, never exceeding 8 mm. There is considerable diversity of form, with aptery (lack of wings) fairly common, sometimes in both sexes. Nearly all species exhibit noticeable sexual dimorphism, with males and females often mistaken for separate species. The wings, when present, show characteristically reduced venation. A defining feature is the antenna's insertion on a prominent, elevated "shelf" above the clypeus. They are parasitoids of larvae and pupae of a wide range of insects, especially flies particularly in fungi in damp places. About 2,300 described species in around 200 genera.

Modified from Wikipedia accessed July 20225 & diapriid@gmail.com

Diapriidae: subfamily Diapriinae

(All of the St Helenian species are in this subfamily)

Ease of Identification.

See <http://www.diapriid.org/projects/1/public/site/diapriid/home> & diapriid@gmail.com Yet another difficult family which was much revised in 2002 and now has on-line keys to some groups although not to those present on St Helena. Specimens need to be sent to an international specialist to identify them to species. There are few world authorities on the family – Lubomir Masner, Agriculture and Agri-Food Canada, José García, Museo Zoología, Venezuela, Victor Kolyada (Moscow State University), James Dennis (University of Toronto) & Joe Gillespie University of Maryland.. More than any other group of parasitica on the island, this family have been identified independently by different workers, who have each used different naming systems for morphotypes that they have differentiated. As a result it will only be possible to address their true diversity once specimens currently at the NHM London, the African Museum in Tervuren, Belgium and those worked on by Dr SG Compton of Leeds University, are compared by an expert in the group.

Basalys sp.

A world-wide genus of parasitoids with at least 25 species thought to be present in Africa, with many remaining to be described. Species have been shown to be parasitoids of various small flies including phorids in fungi, various weevils and one species has been found in ant's nests

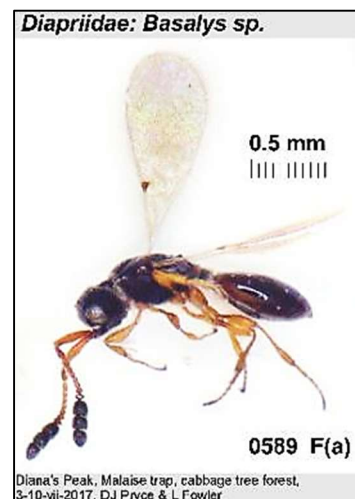
The records spreadsheet compiled by DJ Pryce includes a single record attributable to the Belgian Expedition:- Fisher's Valley, Dec 1965 det DG Notton. However, no mention of the genus can be found in the Belgian Expedition Report and it is unclear how this record has been derived.

A specimen of a species of *Basalys* did, however, turn up amongst specimens collected by DJ Pryce & LJ Fowler:

Diana's Peak

3-10/vii/2017

DJ Pryce LJ Fowler



Trichopria species & morphotypes (including its '*Phaenopria*' junior synonym)

We have retained inclusion of the generic title '*Phaenopria*' for some of the species, even though this name is currently considered a synonym of *Trichopria* and is not given subgeneric status. This is because the small differences in the scutellum between the two had been considered sufficient for them to be regarded as distinct genera and do provide an initial means of separating out groups of species.

Various names have been used in association with specimens of this genus from St. Helena, including an unpublished manuscript suggestion that one of them may represent a new, likely endemic, genus and species on St Helena. The group is clearly diverse on the island and there is the possibility that radiation has taken place. The taxa therefore merit detailed attention.

Some species of the genus have been used elsewhere for biocontrol of drosophilid flies but there are no records of deliberate introductions to the island.

Trichopria ('*Phaenopria*') morphotype A

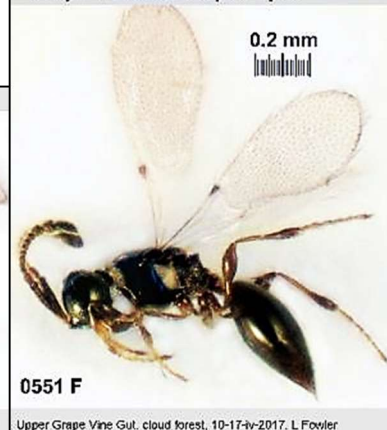
small black + 3 segmented club) sexes provisionally associated

Upper Grape Vine Gut	10-17/iv/2017	DJ Pryce
Upper Grape Vine Gut	13-20/ii/2017	DJ Pryce
Osborne's	13-20/ii/2017	DJ Pryce
Pink Grove control	3-10/vii/2017	DJ Pryce
Diana's Peak	13-20/iii/2017	DJ Pryce
Ginger Patch	25/ix/x/2017	DJ Pryce
Cason's	03/05/2021	LJ Fowler
Ladder Hill	02/11/2022	R&R Key
Bottom Woods	02/11/2022	R&R Key
Fairyland	28/11/2022	R&R Key
Teutonic Hall	05/11/2022	R&R Key
Thompson's Wood	14/11/2022	R&R Key

Diapriidae: *Phaenopria* sp A



Diapriidae: *Phaenopria* sp A

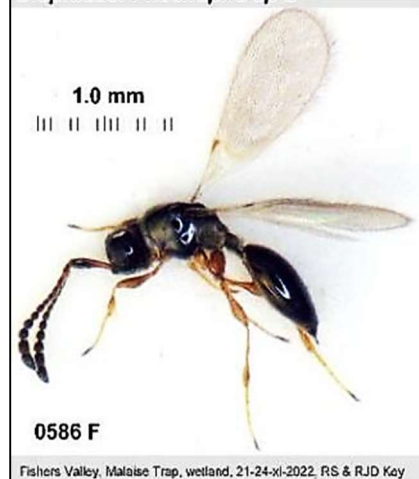


Trichopria ('*Phaenopria*') morphotype B

(sexes provisionally associated?)

Perkin's Gut	13-20/ii/2017	DJ Pryce
Diana's Peak	1-15/v/2017	DJ Pryce
Diana's Peak	3-10/vii/2017	DJ Pryce
Grape Vine Gut	10-17/iv/2017	DJ Pryce
Diana's Peak	10-17/iv/2017	DJ Pryce
Thompson's Wood	2021	LJ Fowler
Fisher's Valley	21-24/xi/2022	R&R Key

Diapriidae: *Phaenopria* sp B



Diapriidae: *Phaenopria* sp B



Trichopria ('*Phaenopria*') morphotype C

(unassociated males with long antennal setae)

Perkin's Gut	13-20/iii/2017	DJ Pryce
Diana's Peak	8-15/iv/2017	DJ Pryce
Pink Grove	3-10/vii/2017	DJ Pryce
Upper Grape Vine Gut	10-17/iv/2017	DJ Pryce
Cason's	06/05/2021	Liza Fowler
Fisher's Valley	1-24/xi/2022	R&R Key

Diapriidae: *Phenopria* sp C



Trichopria ('*Phaenopria*') morphotype D (apterous)

Potential endemic species (as below)

name used by SG Compton

This is almost certainly the same as the indeterminate genus included in the Belgian expedition report (Google translation follows) 'Two specimens, well characterized by its total apterism and by a large oval dorsal sclerite probably representing the fused mesoscutum and scutellum ; antennae of the male of 14 articles, the 4th being the sexual article , indented and spurred on the lower face (at the apex, on the external side); antennae of the female of 12 articles, including a club of 3 articles. Overall reddish colour.

High Central Ridge,	11.XI.1965	Belgian Expedition
Teutonic Hall,	II.1967	Belgian Expedition
Diana's Peak	13-20/iii/2017	DJ Pryce/LJ Fowler
Well Spring Mt Actaeon	29/10/2022	R&R Key

Although no mention of aptery is given in the records entered by David Pryce, based on its unusual thoracic features, this is likely to be the same species as the next:-

Diapriidae: *Phenopria* sp D



***Trichopria* sp 2 (? = manuscript name '*Dianapria* gen. nov. sp. nov') Potential endemic species**
(as above)

DJ Pryce included the following in the spreadsheet of St Helena records for the 4 specimens "Currently (2015-09-09) sitting under the manuscript name '*Dianapria* gen. nov. sp. nov.' at the Natural History Museum, London." This name appears never to have been described or published. This was presumably added by David Notton who examined the specimens from the 1960s Belgian Expeditions and the 2005/06 Peaks Survey. From the choice of name, we might assume that Notton thought them to be possible endemics.

St Helena	05/09/1875	20/02/1876	TV Wollaston
High Central Ridge	11/12/1965	11/12/1965	Belgian Expedition
Teutonic Hall	01/02/1967	28/02/1967	Belgian Expedition
Diana's Peak	17/12/2005	14/01/2006	Peaks Survey

***Trichopria natalensis* Sundholm, 1970** det David Notton NHM

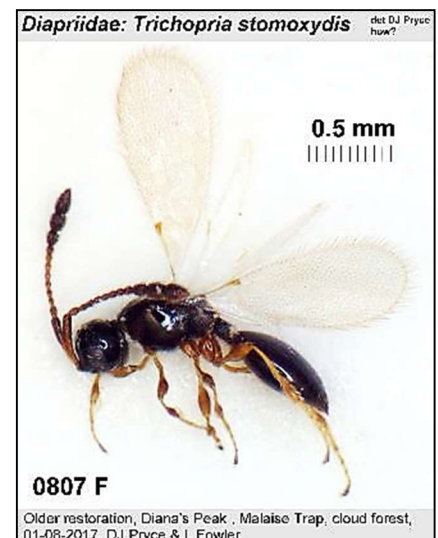
Little seems to be known of this species other than that it was described from South Africa. It has not been possible to source an image of the species.

Fisher's Valley	xi/1965	Belgian Expedition
Thompson's Wood	23/11/1965	Belgian Expedition
Cuckold's Point	xii 2005/ i 2006	Peaks Survey
High Peak	xii 2005/ i 2006	Peaks Survey
Cuckold's Point	xii 2005/ i 2006	Peaks Survey
Osbornes	xii 2005/ i 2006	Peaks Survey

***Trichopria stomoxydis* Huggert, 1977** det David Notton NHM

This is a gregarious endoparasitoid of the stable fly *Stomoxys calcitrans* (a nuisance, biting species which occurs on St Helena), and against which it has been trialled as a biocontrol agent

Mount Ross, Bate's Branch	22/11/1965	Belgian Expedition
Thompson's Wood	10/04/1967	Belgian Expedition
High Central Ridge	iv/1967	Belgian Expedition
Mount Actaeon/Diana's Peak	09/05/1967	Belgian Expedition
Teutonic Hall	31/05/1967	Belgian Expedition
(Actaeon Road	22/05/2014	DJ Pryce)
		det as <i>stomoxydis</i> -how?

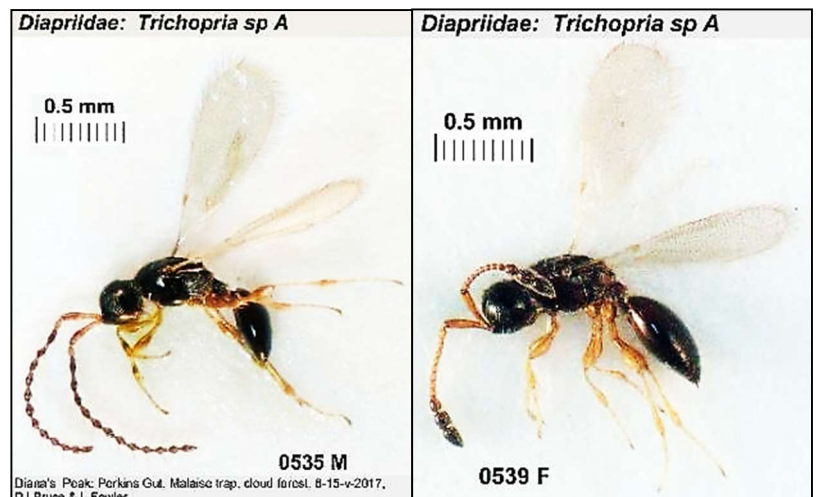


***Trichopria vulgaris* Kieffer, 1912** det David Notton NHM

A species about which almost nothing is published, other than it was described from the Seychelles Islands, There seem to be no other records.

Teutonic Hall	xi/1965	Belgian Expedition
Thompson's Wood	iv1967	Belgian Expedition

***Trichopria* morphotype A** (clearly 3 segmented club) name used by Dr SG Compton



Perkin's Gut	13-20/iii/2017	DJ Pryce	Osborne's	3-10/vii/2017	DJ Pryce
Perkin's Gut	8-15/v/2017	DJ Pryce	Peak Dale	13-20/ii/2017	DJ Pryce
Diana's Peak	8-15/v/2017	DJ Pryce	Pink Grove	8-15/v/2017	DJ Pryce
Diana's Peak	3-10/vii/2017	DJ Pryce	Upper Grape Vine Gut	10-17/iv/2017	DJ Pryce
Diana's Peak,	13-20/iii/2017	DJ Pryce	Upper Grape Vine Gut	3-10/vii/2017	DJ Pryce
Ginger Patch	13-20/ii/2017	DJ Pryce	Fairyland	25-28/11/2022	R&R Key
Mount Pleasant	13-20/ii/2017	DJ Pryce	Fisher's Valley	22/02/2013	R&R Key
Osborne's	10-17/iv/2017	DJ Pryce			

***Trichopria* sp.3** (name used by David Notton NHM in Peaks Survey Report)
 Cuckold's Point ix/2005-11/2006 Peaks Survey

***Trichopria* sp. 4** (name used by David Notton NHM in Peaks Survey Report)
 Cuckold's Point xii 2005/ i 2006 Peaks Survey

***Trichopria* sp.** name used by Paul Dessart in the Belgian Expedition Report
 (= ***Trichopria* sp.6**) name used by David Pryce in the Species Spreadsheet and erroneously attributed to the Belgian Expedition Report

lower Fisher's Valley	xi/1965	Belgian Expedition
lower Fisher's Valley	19/12/1965	Belgian Expedition
lower Fisher's Valley	26/01/1967	Belgian Expedition
High Central Ridge	iii/1967	Belgian Expedition
Prosperous Bay Plain	26/11/1965	Belgian Expedition
High Peak	iii/1967	Belgian Expedition

Superfamily Evanioidea

Previously thought of as primitive Aculeates (Bees Wasps Ants), recent DNA analysis indicates that they are closer to the Ceraphronoidea and hence 'true' Parasitica. Of the three families, only one is found on St Helena. They all share the same distinctive attachment of the gaster attached very high above the hind coxae on the propodeum

Evanioidea: Family Evanidae Ensign Wasps/Flap-arse wasps, Bob-tailed flies 1 Species

Known as Ensign wasps, Lightshade wasps, Hatchet wasps, or Flap-arse wasps. There are about 20 extant genera with >400 described species, found all over the world except in the polar regions. Adults have a relatively small, laterally compressed gaster with a long, one-segmented, tube-like petiole attached very high above the hind coxae on the propodeum. When active, these wasps jerk the metasoma up and down constantly, hence their common names. They are parasitoids on cockroaches with larvae that develop inside cockroach oothecae (egg-cases).

Modified from Wikipedia accessed July 2025.

Ease of Identification

Unmistakable, from both appearance and behaviour.

Evania appendigaster (Linnaeus, 1758) Blue-eyed Ensign Wasp or Flap-arse

A familiar species around the island, mainly in lower, drier areas, often on house walls, bare ground, tree bark etc. although there are surprisingly few actual records. **Status:** Uncertain origin. Established.

Jamestown	1860-71	JC Melliss
Ladder Hill	1869-71	JC Melliss
Manati Bay	25/04/2011	R&R Key
Jamestown, SHNT office	v/2013	DJ Pryce
Lower Sapper Way	27/06/2013	LJ Fowler
Prince Andrew School	21/03/2013	DJ Pryce
High Point" ?(High Peak/Hill?)	9/3/2013	C Hilman
Sapper Way	27/06/2013	LJ Fowler.
Pink Grove	15/03/2014	DJ Pryce
Millennium Forest_	2016-03-16	LJ Fowler

the following account of the species found on St Helena is from

<http://evanioidea.info/public/site/evanioidea/home/about>

Its native range is not known, but it likely originated in Asia. Today it occurs throughout the tropics and subtropics and in many temperate regions. As with the rest of its family, the blue-eyed ensign wasp is a parasitoid known for specializing on cockroach eggs.

This wasp reproduces by laying eggs into egg cases, or oothecae, of cockroaches. The wasp larvae use the cockroach eggs as a food source. Host cockroaches include the American cockroach (*Periplaneta americana*), Australian cockroach (*P. australasiae*), brown cockroach (*P. brunnea*), Oriental cockroach (*Blatta orientalis*), white margined cockroach (*Melanozosteria soror*), and harlequin cockroach (*Neostylopyga rhombifolia*). [2] The complete life cycle of the species is summarized on a video available online. [3]

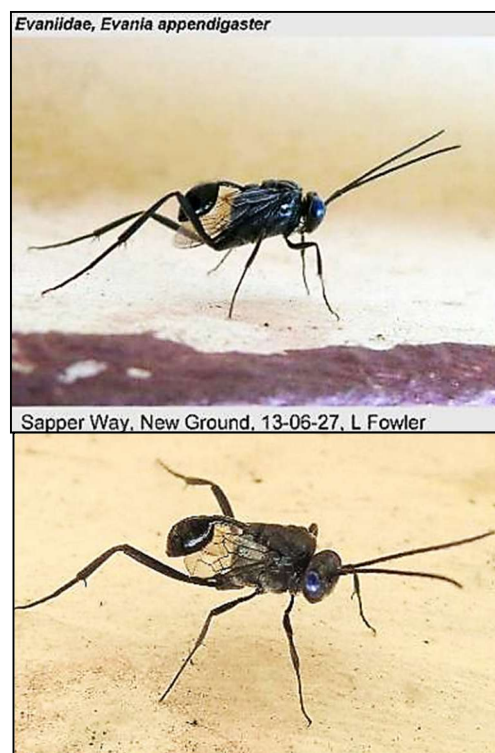
"the Evaniid left the inside wall of the confining glass, ran over the Blattid ootheca, crawled over the surface momentarily as she actively vibrated her antenna and finally settled upon it with the long axis of her body parallel with the long axis of the egg mass as it lay upon its right side. Lying upon her right side she extended her ovipositor and crawling slightly forward she punctured the ootheca in the fifth egg cell of the left side, remaining in position for about fifteen minutes. She then left the egg mass and resting upon the inside wall of the tumbler actively cleaned the ovipositor, wings and antennae." [4]

A 1957 account describes the "peculiar" egg-laying behaviour, "the female lies on her side and, with legs braced against the ootheca, penetrates the tough integument of the egg-capsule after about half-an-hour's hard labour." [5] The process apparently requires "a good deal of hard work and much wriggling of the abdomen." [1]

Other authors describe it as a seven-step process. The wasp lands on the ootheca and drums on it with her antennae. During step two, she extends her ovipositor and taps on the ootheca in several places for up to ten minutes, apparently searching for an appropriate site. After a rest period she begins "drilling", repeatedly inserting her ovipositor. Step five is the actual oviposition stage, in which wasps "just sit on ootheca and lay eggs". [2] Steps six and seven are the withdrawal of the ovipositor and departure, respectively. [2]

One egg is deposited in each cockroach egg capsule, and the wasp larva consumes all the eggs within it. [5] The larva proceeds through five instars during development, stages which are distinguished by the changes in the unique mandibles. The first instar has mandibles with small, sharp teeth which it must use to open the tough cockroach eggs. [1][5] During the next two instars, the larva has longer mandibles which are "shaped like a gauntlet glove with three teeth. The final two instars have thicker mandibles with a long, blunt upper tooth and a narrow, curving lower tooth. [1]

When the larva reaches about 8 millimeters in length it pupates. Upon maturity it cuts a hole in the egg capsule and exits. The adult wasp lives for two or three weeks. It may spend some time on plants such as parsley and fennel. [1]



Evanidae, Evania appendigaster

Sapper Way, New Ground, 13-06-27, L Fowler

Superfamily: Ichneumonoidea

A superfamily with just two families, Ichneumonidae and Braconidae, the two largest families within Hymenoptera: It may have as many as 100,000 species, many not yet described. It is defined by fusion of the costal and radial veins of the fore wing, and almost all species have more than 11 antennal segments. It contains a great deal of diversity, with species ranging from 1 to 130 mm long. Most are slender, often, though not always, with a laterally compressed gaster/abdomen and the females of many species have extremely long ovipositors. The two families are distinguished from each other primarily by details of wing venation. Modified from Wikipedia accessed Jan 2028

Ichneumonoidea: Family Braconidae

about 26 species, 0 endemic

The second-largest family in the Order Hymenoptera, with about 17,000 recognized species and many thousands more undescribed species. They are mainly parasitoids of insects, but some even cause plant galls. Most Orders of insects are parasitised, with Lepidoptera and Coleoptera particularly favoured. Many species of braconids are used in biocontrol programmes. modified from Wikipedia accessed July 2025

Ease of Identification. Very few species are distinctive enough to be easily recognised in the field or from photographs. World experts include Dr Gavin Broad, Natural History Museum, London, Dr Mark Shaw National Museum Scotland. Dr Michael Sharkey, Hymenoptera Institute, California. Dr Kacie Athey University of Illinois. Dr José. Fernández Triana, Canada Agriculture and Agri Food. Dr Spencer. Monckton Biological Survey of Canada. Angélica Penteado-Dias: Universidade de São Carlos Brazil.. Prof. Donald Quicke, Mahidol University Thailand

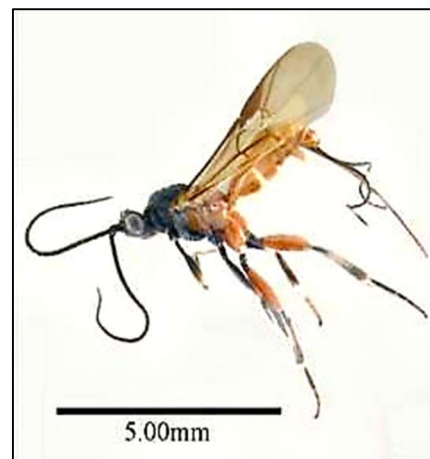
Braconidae: Subfamily: Agathidinae

Austroearinus unicolor (Schrottky, 1902)

syn. *Agathis unicolorata* (Shenefelt 1976)

A species which has been introduced in many warmer parts of the world as a biological control agent against the potato tuber moth, *Phthorimaea operculella*. It was Introduced (as *Agathis unicolorata*) between 1970 & 1972, along with another 14 species of parasitoid to try and control Potato tuber moth *Phthorimea operculella*. It seems not to have been seen since.

Status: Biocontrol agent. Deliberate introduction. Apparently not established



Austroearinus sp (not *A. unicolor*)
not from St Helena

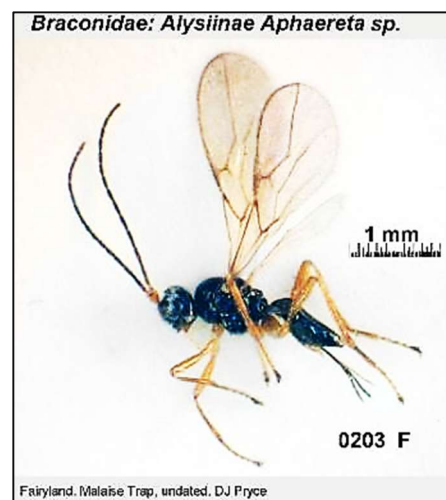
Braconidae: Subfamily: Alysiinae

Aphaereta minuta (Nees, 1811)

A very polyphagous parasitoid of the larvae and puparia of a very wide variety of fly families, from very small species of calyptrates to large calyptrates. This species appears to have a mainly Holarctic distribution and seems not to have been recorded from Africa (Waspweb 2025), but their identity was confirmed by G. Broad at the NHM in 2006.

Status: Uncertain origin. Established.

The Hermitage	860-71	JC Melliss
High Central Ridge 1	6-11-1965	Belgian Expedition
Mount Eternity	20-Dec-1965	Belgian Expedition
Mount Ross	22-11-1965	Belgian Expedition
Cuckold's Point	12/2005-01/2006	Peaks Survey
Diana's Peak	12/2005-01/2006	Peaks Survey
Osbornes	12/2005-01/2006	Peaks Survey



Aphaereta sp

A medium sized genus with at least 40 described species, all of which are probably parasitoids of fly larvae and puparia. Specimens have not been identified to species. All may be *Aphaereta minuta* but leg colour differences suggest more than one species. **Status:** Uncertain origin. Established.

Pig Hill Cliff Caves	27-Jun-2013	DJ Pryce	Scotland	17/11/2022	ANRD staff
Burnt Rock	4/12/2015	LJ Fowler	Teutonic Hall	12/11/2022	R&R Key
Harper's Reservoir	29-Jan-2016	DJ Pryce	Thompson's Wood	11-14/x/2022	R&R Key
French's Gut, upper	29-Feb-2016	DJ Pryce	Well Spring, Mt Actaeon	29/10/2022	R&R Key
Prosperous Bay Plain	1/4/2016	DJ Pryce	Barren Ground	09/11/2022	R&R Key
Rural Retreat	09/05/2016	LJ Fowler	Blackfield Gut	02/11/2022	R&R Key
Mount Pleasant	24-31/x/2017	DJ Pryce	Fairyland	25-28/xi/2022	R&R Key
Osborne's	13-20/ii/2017	DJ Pryce	Fisher's Valley	21/11/2022	R&R Key
Diana's Peak	3-10/vii/2017	DJ Pryce	Ginger Patch	30/10/2022	R&R Key

?*Aspilota* sp

A large, world-wide genus with about 260 known species. They are thought to be mainly or exclusively parasitoids of flies in the family Phoridae living in decaying plant and fungal material. One male, possibly of this genus, was found by Philip & Myrtle Ashmole

Status: Unknown

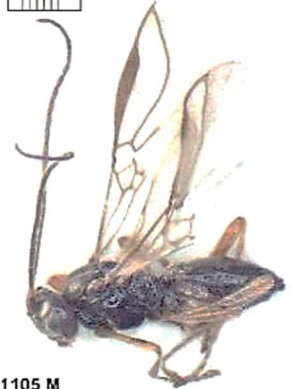
Deep Valley Gumwoods

06/05/1995

P&M Ashmole

Braconidae, Alysiinae: ?*Aspilota* sp.

0.5 mm



1105 M

Deep Valley Gumwoods, 06-05-1995, off Gumwood, P&M Ashmole

Braconidae: Subfamily: Aphidiinae

A subfamily that primarily parasitize aphids members of which are frequently used in biological control programs. The developing larva consumes the aphid from within, eventually killing it and forming a dry "mummy", usually leaving a conspicuous exit hole as the adult emerges.

***Aphidius colemani* Viereck, 1912**

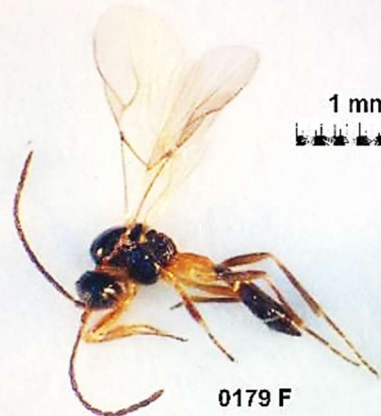
An originally oriental species, widely used in biocontrol of many species of aphids across the world. There seems to be no record of it having been deliberately introduced for this purpose on St Helena.

Status: Biocontrol agent. Not deliberate introduction. Established
det G Broad NHM:-

Peak Dale Gumwoods	Apr-1995	P&M Ashmole
Cabbage Tree Road	12/2005-01/2006	Peaks Survey
Mount Actaeon	12/2005-01/2006	Peaks Survey
Diana's Peak	12/2005-01/2006	Peaks Survey
det SG Compton		
Fisher's Valley	15-Jan-2016	DJ Pryce
French's Gut, upper	29-Feb-2016	DJ Pryce
Harper's Reservoir	29-Jan-2016	DJ Pryce
Diana's Peak	31/vii- 7/v/2017	DJ Pryce
Fisher's Valley	13-20/iii/2017	DJ Pryce
Upper Grape Vine Gut	10-17/iv/2017	DJ Pryce
Ginger Patch	10-17/iv/2017	DJ Pryce
Barren Ground ant trial	09/11/2022	R&R Key
Button-up Corner	09/11/2022	R&R Key
Fairyland	25-28/x/22	R&R Key
Fisher's Valley	21/11/2022	R&R Key
Ginger Patch	30/10/2022	R&R Key
Hutt's Gate	01/11/2022	R&R Key
New Gound	08/11/2022	R&R Key
Sharks Valley	20/11/2022	R&R Key
Teutonic Hall	05/11/2022	R&R Key
Thompson's Wood	14/11/2022	R&R Key

Braconidae: Aphidiinae *Aphidius* ?*colemani*

1 mm

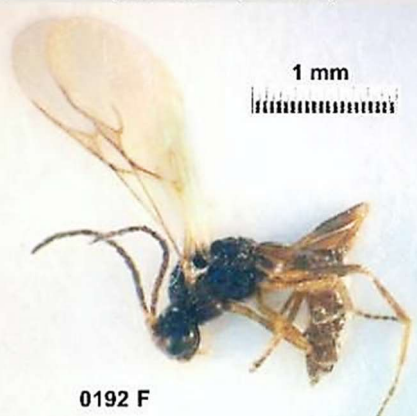


0179 F

Fairyland, swept, pasture-woodland edge, 28-10-2022, RS & RJD Key

Braconidae: Aphidiinae *Aphidius* sp ?not *colemani*

1 mm



0192 F

Bottom Woods, swept, dry scrub, 01-10-2022, RS & RJD Key

***Aphidius camerunensis* Mackauer, 1966**

An African species.- det G Broad NHM

Status: Unknown

Diana's Peak	12/2005-01/2006	Peaks Survey
Mount Actaeon	12/2005-01/2006	Peaks Survey
Bottom Woods	01/10/2022	R&R Key det SGC

Braconidae: Subfamily: Braconinae

***Habrobracon gelechia* (Ashmead, 1889)**

This is a polyphagous parasitoid, native to North America, reared from over 30 different lepidopteran host species. It has been introduced worldwide as a biological control agent for Potato tuber moth *Phthorimaea operculella*, and the pink bollworm, *Pectinophora gossypiella*. It was Introduced between 1970 and 1972, along with another 14 species of parasitoid, to try and control *Phthorimaea operculella*. It does not seem to have been found since.

Status: Biocontrol agent. Deliberate introduction. Apparently not established

Habrobracon sp (not *gelechia*)
not from St Helena



Braconidae: Subfamily: Cheloninae

Chelonus curvimaculatus Cameron, 1906

Cheloninines are unusual in that they have the dorsal segment of the gaster fused into a rigid 'boat shaped' 'carapace (reminiscent of a tortoise, hence the name). This species, probably native to S Africa, has been used as a biological control agent for various species of moth pests and was introduced as a biological control agent against Potato tuber moth *Phthorimaea operculella*, between 1970 and 1972 along with another 14 species. It does not seem to have been found since. **Status:** Biocontrol agent. Deliberate introduction. Apparently not established



Chelonus curvimaculatus not from St Helena

Braconidae: Subfamily: Doryctinae

Spathius sp (wingless species) ?possibly 2 spp 1&2

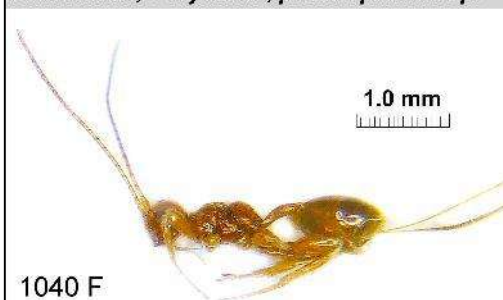
Photographs of wingless doryctine braconids from Prosperous Bay Plain (undated, DJ Pryce) BP & Dry Gut were identified by Gavin Broad as 'almost certainly in this genus'. Differences in coloration suggest there *might* be two species. *Spathius* are parasitoids of beetle larvae and some specialise on saproxylic species of weevils and buprestids. The genus is known to have at least 10 micropterous species, the nearest species, geographically, to St Helena being *Spathius canariensis* on the Canaries, and *Spathius apotanus* *Spathius cursor* in South Africa and *Spathius pedestris* in Madeira.

Status: Unknown

Holdfast Tom	22/11/2003	P&M Ashmole
Prosperous Bay Plain	undated	DJ Pryce
Sandy Bay, Broad Gut	22/04/2011	RS&RJD Key

There are an additional 2 specimens photographed by Philip Ashmole in 2005/6 but are unlabelled.

Braconidae, Doryctinae, poss. *Spathius* sp.



1040 F

Holdfast Tom, on Samphire. 22/11/2003 P&M Ashmole

Braconidae, Doryctinae, poss *Spathius* sp.



Broad Gut, Sandy Bay, samphire, 22/04/2011 RS/RJD Key vac sample



Spathius spp P&M Ashmole 2005/6-

Spathius sp 3. (winged spp)

There are also three specimens of full-winged doryctines that may also be of this genus, two of which were swept off Pepper Tree *Schinus molle* in 2022.

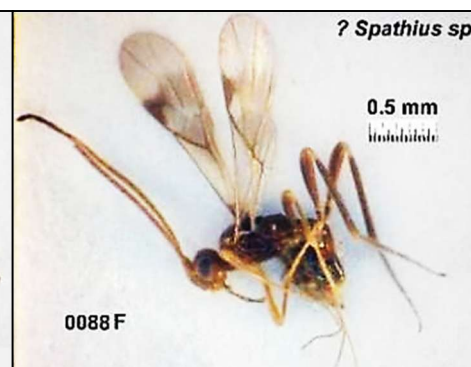
Status: Unknown

Jamestown, New Bridge	10/11/2022	RS&RJD
Key		
Ruperts	13/11/2022	RS&RJD
Key		
Fairyland Malaise Trap	28/11/2022	RS&RJD Key



0093 F

Ruperts, swept, pepper tree, 13-11-2022, RS & RJD Key



0088 F

New Bridge, Jamestown, swept pepper tree, 10-11-2022, RS & RJD Key

Doryctinae indet.

Other records of unidentified doryctines in Species Records' spreadsheet (Pryce. 2017) (not illustrated)

Peak Dale Gumwoods	2005-2006	P&M Ashmole
Rupert's Valley, near church	30-May-2014	col/det DJ Pryce

also – see comment under *Tebennatoma* sp (below)



0089 M

Fairyland, Malaise trap, pasture-woodland edge, 25-28-xi-2022, RS & RJD Key

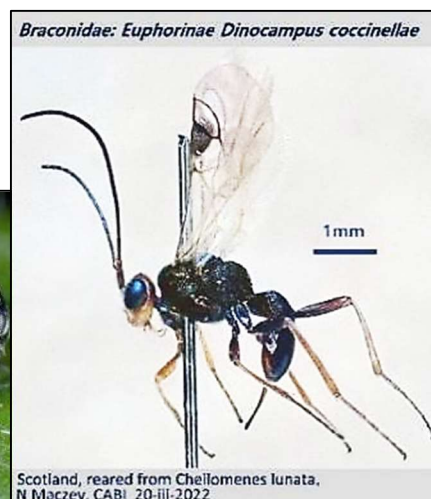
Braconidae: Subfamily: Euphorinae

Dinocampus coccinellae (Schränk, 1802)

A specific predator of adult ladybird beetles (Coccinellidae) that has been recorded from more than 50 species, including members of 6 of the genera known from St Helena. Nearly all *D. coccinellae* are female offspring of unfertilized eggs, although males are also occasionally found. The female wasp injects an egg and a virus (*D. coccinellae* paralysis virus) into the ladybird and the larvae develops in the body of the living ladybird. The virus eventually paralyses the beetle, forcing it to 'stand guard' over the wasp's cocoon. Remarkably, as many as 25% of ladybirds revive and emerge from paralysis once the cocoon has been emptied. pupates in a silk cocoon attached under the often 'cementing' it to a plant stem. The adult emerges leaving a characteristic circular exit hole in the cocoon.



cocoon under ladybird



Eventually it emerges, and ladybird,

Ladybirds are important biocontrol agents of various plant pests and the wasps arrival on St Helena may have consequences for their effectiveness. It has been known to parasitise the Harlequin Ladybird (a generalist predator whose diet includes other ladybird species, and so the balance is unclear as to whether the species will have a positive or negative effect on the island's fauna and economy. Modified from Wikipedia accessed Sept 2025, **Status:** Unknown - so far only one St Helena record:

Scotland 2022 Norbert Maczey
reared from *Cheilomenes lunata* with typical cocoon underneath

Leiophron sp.

A genus of nearly 220 species parasitoids of which 20 are known from Africa (Waspweb 2025).

A specimen from an unknown locality on St Helena was Identified by CABI for ANRD in 1998. They are parasitoids of immature mirid and lygaeid bugs.

Status: Unknown



Leiophron sp (not from St Helena) Waspweb 2025

Wesmaelia probably *petiolata* (Wollaston, 1850)

A genus relatively easily identified with its very elongate petiole. Identified by Gavin Broad at NHM London as *Wesmaelia* sp "maybe the widespread *W. petiolata*" The species is known to be a parasitoid of *Nabis capsiformis* which is a common invasive species on St Helena.. They are known to be attracted to light at night

Status: Uncertain origin. Established.

Osbornes 13-20/ii/2017 LJ Fowler
Osbornes 12/vi/2017 LJ Fowler
Jamestown SHNT office 7/06/2018 LJ Fowler

Braconidae: Subfamily: Microgastrinae

Apanteles is a huge genus with >630 described species worldwide. Parasitoids of caterpillars. At least some of the species produce conspicuous groups of silk cocoons on the outside of their hosts. They are important biocontrol agents. *Apanteles* species are generally considered highly host-specific, especially compared to many other parasitoids, although 100% exclusivity to a single host species is rare and some species will sometimes develop on other species of moth caterpillar than what is considered to be their primary host,.

Two species have been introduced to St Helena between 1970 & 1972 along with another 12 species of parasitoid to try and control the Potato tuber moth. *Phthorimea operculella* "Some success but most did not survive" (ANRD, 2013. The history of Biological Control on St Helena). Individual *Apanteles* specimens occasionally turn up on St Helena (see below) but have not reliably been identified to species. (continued overleaf)



0092 F

Osborne's, Malaise trap, cloud forest, 13-20-ii-2017, L. Fowler

Apanteles scutellaris

Muesebeck, 1921

A (possibly S American?) species that was introduced between 1970-72 to control the Potato tuber moth *Phthorimea operculella* but there seems to be little evidence as to how successful it is in the role.

Status: Biocontrol agent.
Deliberate introduction.
Unknown

Apanteles subandinus

Blanchard, 1947

Like the previous species this is used as biocontrol the Potato tuber moth *Phthorimea operculella*

Status: Biocontrol agent. Deliberate introduction. Unknown

***Apanteles* sp**

behind Plantation House iii 2013 R&R Key
(ex cocoons on moth pupa (indet, but unlikely to be *Phthorimea operculella* from that location) - emerged 12/3/2013)

Pink Grove	13-20/ii/2017	DJ Pryce
Fisher's Valley	13-20/iii/2017	DJ Pryce
Bottom Woods	01/11/2022	R&R Key
Ladder Hill	02/11/2022	R&R Key
Rupert's	13/11/2022	R&R Key

***Apanteles* poss. sp. nov.**

Dr Gavin Broad of the Natural History Museum has indicated that a specimen of *Apanteles* from a batch of specimens sent to the Natural History Museum in 2025 may be an undescribed species. Not illustrated.

***Cotesia vestalis* (Haliday, 1834)**

(syn *Cotesia plutella* (Kurdjumov, 1912))

Cotesia is a large genus with almost 330 species worldwide. They parasitise a wide range of butterfly and moth species with various degrees of specificity. *Cotesia vestalis* is used as a biocontrol agent used against the Diamondback moth *Plutella xylostella* and seems able to detect volatile organic compounds emitted by plants in the cabbage family in response to herbivore damage. *C. vestalis* was introduced to St Helena in and is regarded as having been successful. Concern has been expressed about the presence of large numbers of this species potentially parasitizing & threatening indigenous Lepidoptera in the cloud forest. However 'Nasturtium' *Tropaeolum majus* is abundant in all of the guts around the cloud forest and it an alternative foodplant for *Plutella xylostella*.

Status:: Biocontrol agent. Deliberate introduction. Established

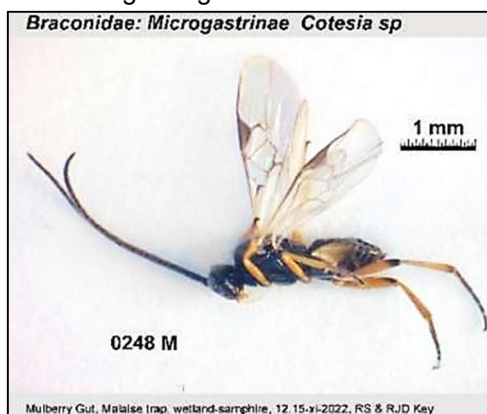
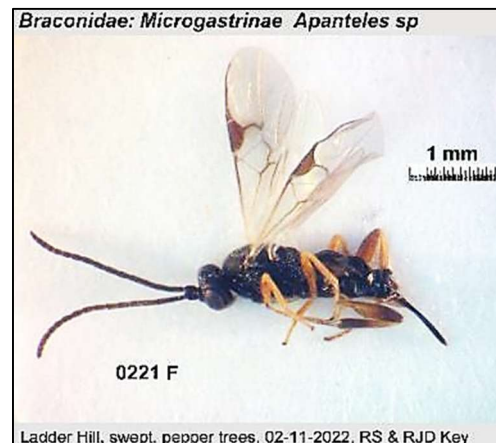
Confirmed *Cotesia vestalis* records (all det G Broad, NHM)

Cabbage Tree Road, Cuckold's Point, Diana's Peak, High Peak Mount Actaeon all 12/2005-01/2006 Peaks Survey

(*Cotesia sesamiae* (Cameron,1906)) Intercepted not established

A specimen of this species, a biocontrol agent against the stalk borer moth *Chilo partellus* was intercepted during biosecurity checks of Sweetcorn from South Africa at Jamestown wharf in June 2013. It would be worthwhile checking the true identity of St Helenian specimens occasionally

Status: Biocontrol agent. Not deliberate introduction.



Cotesia spp

Plantation House	01/03/2013	R&R Key
Bilberry Field Gut	24/02/2013	R&R Key
Brook Hill Farm	23-Oct-2013	SL Bargo
Fisher's Valley	22/02/2013	R&R Key
Pr Andrew's Scool	03/03/2013	R&R Key
Sandy Bay	06/03/2013	R&R Key
Three Peaks Ridge	07/03/2013	R&R Key
Rupert's Valley	15-May-2014	DJ Pryce
Fisher's Valley	20-Jan-2015	DJ Pryce
Scotland building	19-Feb-2015	LJ Fowler
French's Gut, lower	04-Mar-2016	DJ Pryce
French's Gut, upper	29-Feb-2016	DJ Pryce
Harper's Reservoir	29-Jan-2016	DJ Pryce
Levelwood Resv	02-Feb-2016	DJ Pryce
Ginger Patch	15-20 i 2017	DJ Pryce
Half Tree Hollow	08-May-2017	DJ Pryce
Mount Pleasant	17-21/i/2017	DJ Pryce
Osborne's	5-12/vi/2017	DJ Pryce

Cason's	2021	LJ Fowler
Barren Ground	09/11/2022	R&R Key
Bottom Woods	02/11/2022	R&R Key
Fisher's Valley	21/11/2022	R&R Key
Ginger Patch	20/10/2022	R&R Key
Hutt's Gate	01/11/2022	R&R Key
Ladder Hill Fort	08/11/2022	R&R Key
Lemon Valley	07/11/2022	R&R Key
Millennium Forest	02/11/2022	R&R Key
Mulberry Gut	14/11/2022	R&R Key
Mulberry Gut	12-15/xi/2022	R&R Key
New Bridge	10/11/2022	R&R Key
Broad Gut	27/11/2022	R&R Key
Sharks Valley	20/11/2022	R&R Key
Teutonic Hall	12/10/2022	R&R Key
Thompson's Wood	14/11/2022	R&R Key

unknown Microgastrinae sp

A very distinctive looking black braconid, identified by Steve Compton as a probable microgastrine, with a large dark wing macula and apex, with white banded antennae and with the bases of the tibiae white, is known from two specimens on St Helena Its identity is unknown.

Status: Unknown

indoors SHNT Office, Jamestown
Button-up Corner

02/05/2018, LJ Fowler
09/11/2022, RS&RJD Key
swept off pepper tree.

Braconidae: Subfamily: Opiinae

Fopius ceratitivorus Wharton, 1999

Fopius is a genus of around 35 described species that are parasitoids on the larvae of tephritid flies.

F. ceratitivorus was

Introduced in 2002 as a biocontrol agent against Medfly, *Ceratitus capitata*. In 2013 it was described as 'still dispersing' (ANRD, 2013, The history of Biological Control on St Helena). It is a variably coloured species varying from orange to black with various orange patches Since release, there have been two possible sightings:-

Status: Biocontrol agent.

Deliberate introduction.

Uncertain if established

Braconidae, Opiinae, poss *Fopius ceratitivorus*



New Ground, Sapper Way garden 2013/12/31, L Fowler

Braconidae: unidentified braconid sp 2

? *Fopius* sp



no data - coded MT S40, 2021

Sapper Way garden 31/12/2013 LJ Fowler

One black specimen with an orange head was sent to Steve Compton from St Helena with the data label "MT S40 2021" and no other data. This might be *Psytalia phaeostigma*? The specimen is with NHM, but the *P. phaeostigma* photo has very different venation, It more resembles *Fopius* sp.

***Psytalia* spp.** A genus of about 75 species of parasitoids, mainly associated with flies in the family Tephritidae, Two species were introduced in 2002 as biocontrol agents: In 2013 they were both described as 'still dispersing' (ANRD, 2013, The history of Biological Control on St Helena). There seem to have been no subsequent confirmed observations. **Status:** Biocontrol agent. Deliberate introduction. Apparently not established

Psytalia concolor (Szépligeti, 1910)

against Medfly, *Ceratitus capitata*.

Psytalia phaeostigma (Wilkinson, 1927)

against Pumpkin fly, *Dacus ciliatus*



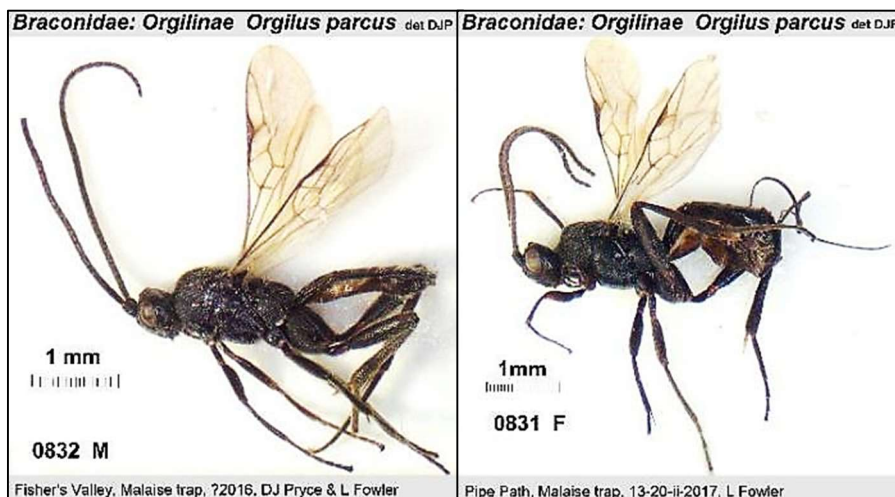
Braconidae: Subfamily: Orgilinae

Orgilus parvus Turner, 1922 & *Orgilus lepidus* Muesebeck, spp

A genus of >280 described species world-wide. They are parasitoids of moth caterpillars, mainly in the families Coleophoridae, Gelechiidae Pyralidae, Tortricidae and Oecophoridae. Two species of *Orgilus* were introduced to St Helena between 1970 & 1972 along with another 12 species of parasitoid to try and control the Potato tuber moth *Phthorimea operculella*. "Some success but most did not survive" (ANRD, 2013, The history of Biological Control on St Helena). 3 individual *Orgilus* specimens have turned up on St Helena and are probably all *Orgilus parvus* (*O lepidus* is brownish)

Status:: Biocontrol agent. Deliberate introduction. Established

Fisher's Valley,	20/01/2015	DJ Pryce
Pipe Path	20/02/2017	LJ Fowler
Millennium Forest	18/08/2019	LJ Fowler
New Gound	08/11/2022	R&R Key



Braconidae: Subfamily: Rogadinae

Tebennotoma sp. –

There are 8 described species of the genus. Their ecology seems to be unknown but their closest relatives are parasitoids of moth caterpillars,

Peak Dale Gumwoods 12/2005-01/2006 det G.Broad NHM

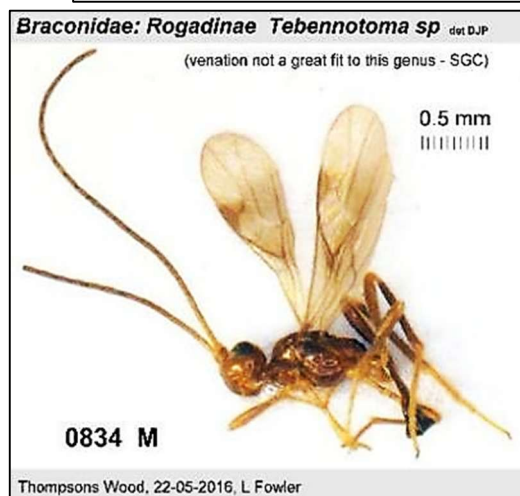
[DJ Pryce, Species List spreadsheet 2016]: "A specimen identified to this genus "*Tebennotoma* " from Peak Dale is present in the Natural History Museum collection; it is quite probably the 'Doryctinae sp.' of the Peaks Report, but does not have the sample number to confirm this.[DP]". This seems a bit weird - *Tebennotoma* is in a different subfamily. Two specimens from the SHNT collection, labelled *Tebennotoma* sp det DJ Pryce were sent to Steve Compton who has commented "the venation is not a great fit to this genus." In the Records spreadsheet:-

Status: Unknown

Scotland	19-Feb-2015	col/det DJ Pryce
Fisher's Valley	29-01-2016	col/det DJ Pryce
Thompson's Wood	22/05/2016	col/det DJ P
Scotland	16-Jun-2016	col/det DJP

There are two photos identified as being in this genus (presumably by David Pryce) from

Peak Dale	19/12/20i6	LJ Fowler
Man & Horse	26/01/2016	LJ Fowler



Ichneumonidea: Family Ichneumonidae 14+ species, 3 (?4) Endemic

These are one of the most diverse groups within the Hymenoptera with roughly 25,000 described species but this likely represents less than a quarter of their true richness Ichneumonid wasps, with very few exceptions, are parasitoids of the immature stages of holometabolous insects and spiders. They are important as regulators of insect populations in natural and semi-natural systems, making them useful agents for biological control. They generally inject venom along with the egg, but only larger species (such as some in the genera *Netelia*) with relatively short ovipositors use it as a sting in defence. Modified from Wikipedia. Accessed July 2025

Ease of Identification

A fairly difficult family and most species need identification or at least confirmation by an expert on the family. A few species, however, are quite distinctive and can easily recognised in the field or from photographs. Experts in the family include Dr. Gavin Broad (Natural History Museum, UK), Dr. Seraina Klopstein (Natural History Museum Bern, Switzerland), Dr. Matthias Riedel (Fallingbostel, Germany), Dr. Daniell. Fernandes (University of São Carlos, Brazil), Dr. David. Wahl (American Entomological Institute, USA):Dr. Ilari E. Sääksjärvi (Univ of Turku, Finland).

Ichneumonidae: Subfamily: Anomaloniinae

Helenanomalon spp

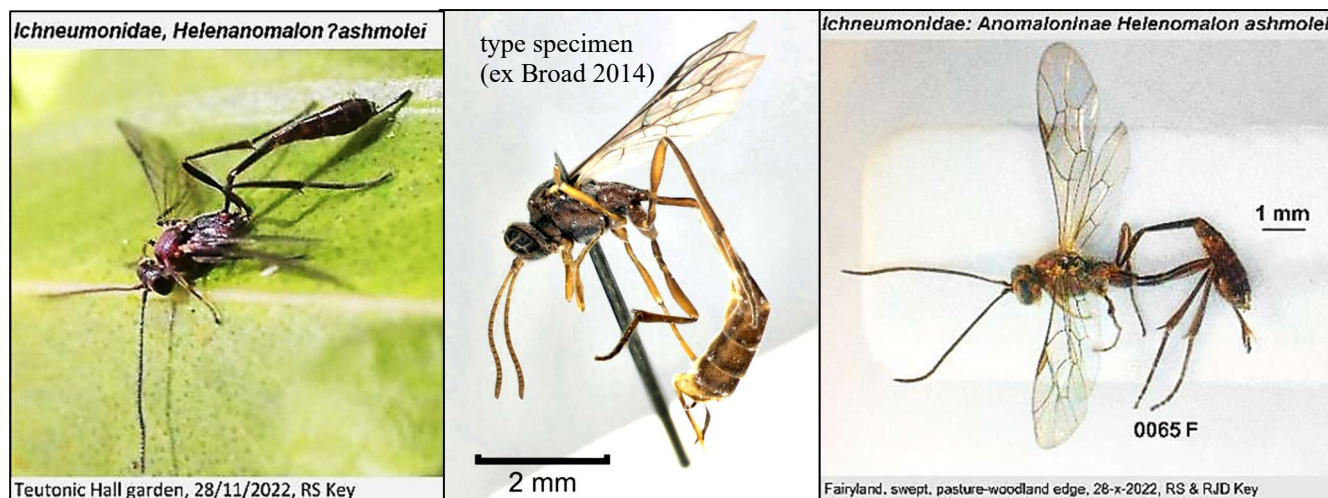
An endemic genus of two species, initially considered by the Belgian Expedition report as belonging to either *Habronyx* or *Baryhpa* and described in their own genus ***Helenanomalon*** by Gavin Broad in 2014. (Broad GR (2014) A new, endemic genus of Anomaloniinae (Hymenoptera, Ichneumonidae) from St Helena. J. Hymenoptera Res 41: 31–45. <https://jhr.pensoft.net/article/4390/>) on the basis of specimens of one sex of each species, although since this initial draft of this report was written additional specimens sent to Gavin Broad at the Natural History Museum, include specimens probably of the missing genders of ?both species. Nothing is known of their specific ecology. They are placed in the tribe Gravenhorstiini, where most species are parasitoids of the caterpillars of Lepidoptera. Because their large size their hosts must also be large.

Endemic Genus

Helenanomalon ashmolei Broad, 2014

Seemingly the rarer of the two species, initially known only from Prosperous Bay Plain, suggesting a preference for the drier parts of the island. Recent photographs and specimens, that still need confirmation, suggest that there might be overlap in the distribution of the two species. Known only from female specimens.

Endemic Species



Confirmed records

Prosperous Bay Plain
Prosperous Bay Plain
Prosperous Bay Plain

5-Feb-1967
29-Apr-1967
1994-2003

Belgians
Belgians
P&M Ashmole

recordsneeding confirmation,

Ginger Patch
Fairyland
Teutonic Hall

16-19-Feb-2017
25-28-Oct-2022
05-Nov-2022

R&R Key
R&R Key

Helenanomalon bonapartei Broad, 2014

A fairly common species around the mid to higher, more humid levels of the island, not restricted to endemic vegetation. Often attracted to light at night.

Endemic Species

Knollcombes
Teutonic Hall
Upper Fisher's Valley
Luffkins
High Peak
Peak Dale
Sandy Bay School
Fairyland-Peak Gut

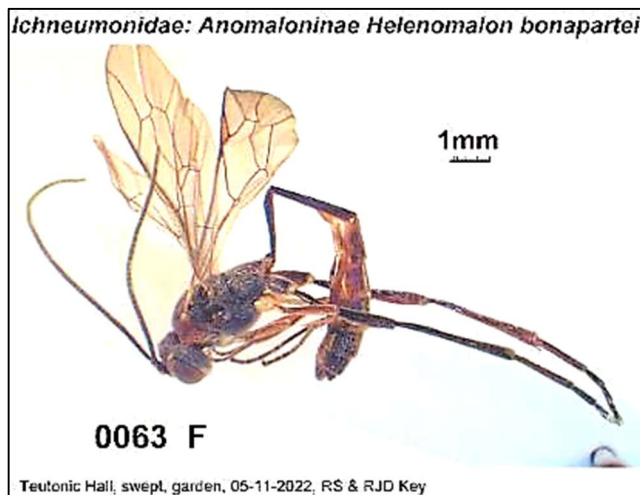
16/10/1957
IV & V.1967 .
XI.1965 .
15.I.1966
12/2005-01/2006
24-Jan-2006
2014-06
14-Mar-2015

Wallace, C.R.
Belgian Exped^o
Belgian Exped^o
Belgian Exped^o
P&M Ashmole
P&M Ashmole
LJ Fowler
LJ Fowler,,

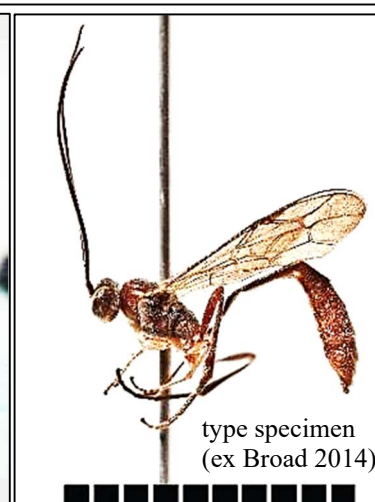
Fairyland
Harper's Reservoir,
Pink Grove
Fairyland
Peak Dale
Sandy Bay Ridge
Fairyland

2015-03-15
02-Feb-2016
22-May-2016
2017_05_07
2019-09-05
03/01-2016
28-10-2022

LJ Fowler
DJ Pryce
DJ Pryce
LJ Fowler,
LJ Fowler,
LJ Fowler,
R&R Key



Helenomalon bonapartei (continued)



Helenomalonn sp 3

Since this initial draft of this report was written additional specimens sent to Gavin Broad at the Natural History Museum, include specimens probably of the missing genders of ?both species, plus possibly an additional, undescribed, species. (No photograph)

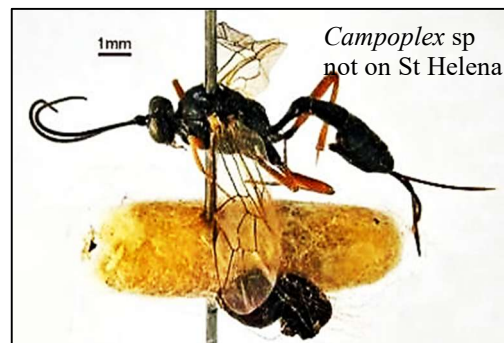
Endemic Species

Ichneumonidae: Subfamily: Campopleginae

Campoplex haywardi Blanchard, 1947

South American species Introduced between 1970 & 1972 along with another 14 species of parasitoid to try and control Potato tuber moth *Phthorimea operculella*. It has not been seen since. *Campoplex* has >200 species that target Lepidoptera larvae as their hosts. No image of *C. haywoodi* could be sourced.

Status: Biocontrol agent. Deliberate introduction. Apparently not established



Venturia sp. possibly *canescens* (Gravenhorst, 1829)

A specimen identified as possibly *Venturia* sp. was photographed at Millennium Forest on 2018_03_27 by Liza Fowler and provisionally identified to this genus by Gavin Broad at the Natural History Museum. There are almost 150 described species, most being parasitoids of moth caterpillars, especially of stem boring species or ones living inside fruit. The photograph quite strongly resembles *Venturia canescens* (Gravenhorst, 1829) which is used in the biocontrol of some moth caterpillars, notably the pyralid *Ephestia kuehniella* which occurs on St Helena and is associated with stored foodstuffs. There appears to be no record of it having been deliberately introduced to the island.

Status: Biocontrol agent. Not deliberate introduction. Established

Millennium Forest 2018-03-27

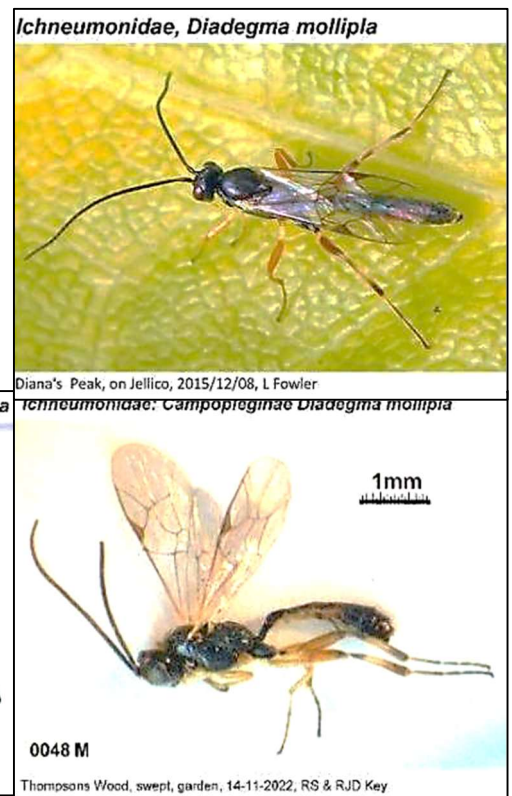
LJ Fowler



***Diadegma mollipla* (Holmgren, 1868)**

A parasitoid of the diamondback moth (*Plutella xylostella*) and the potato tuber moth (*Phthorimaea operculella*) that originated in South Africa. Surprisingly, its host range appears to be restricted to these two unrelated species. The determination of *Diadegma* species is difficult as *D. mollipla* is morphologically variable and numerous sibling *Diadegma* species also develop on *P. xylostella*. *D. mollipla* was one of the species introduced between 1970 & 1972 along with another 14 species of parasitoid to try and control *Phthorimaea operculella*. There are, however, numerous records of its presence on the island before then, abundant throughout the island. *Diadema* is a large genus with over 250 species worldwide.

Status:: Biocontrol agent.
Deliberate introduction.
Established



Teutonic Hall, 11.1965	Belgian Expedition	DPLUS0029	
Bradleys 25-11-1965	Belgian Expedition	10 10-Oct-2016	DJ Pryce
Wrangham's 22-11-1965	Belgian Expedition	Fisher's Valley 15-Jan-2016	DJ Pryce
Fisher's Valley 24-11-1965	Belgian Expedition	French's Gut, lower 04-Mar-2016	DJ Pryce
Cason's Gate 03-Apr-1967	Belgian Expedition	French's Gut, upper 29-Feb-2016	DJ Pryce
High Central Ridge 30-Apr-1967	Belgian Expedition	Harper's Reservoir 29-Jan-2016	DJ Pryce
Peak Dale 1995	P&M Ashmole	Cassons 29-12-2016	LJ Fowler
Eastern Arid Area 09-12/2003	P&M Ashmole	Sandy Bay Barn 0 3-01-2016	LJ Fowler
Cabbage Tree Road 12/2005-01/2006	Peaks Survey	Ginger Patch 15-20 i 2017	DJ Pryce
Cuckold's Point 12/2005-01/2006	Peaks Survey	Old Resration Site 2017	DJ Pryce
Diana's Peak 12/2005-01/2006	Peaks Survey	Osborne's 5-12/vi/2017	DJ Pryce
High Peak 12/2005-01/2006	Peaks Survey	Fisher's Valley 20-10-2018	L Malan
Joan Hill 12/2005-03/2006	P&M Ashmole	Diana's Peak Nursery	
Mount Actaeon 12/2005-01/2006	Peaks Survey	19-11-2019	LJ Fowler
Osbornes 12/2005-01/2006	Peaks Survey	High Peak 27-11-2019	LJ Fowler
Bilberry Field Gut 24/02/2013	R&R Key	Barren Ground 09/11/2022	R&R Key
Cason's 13/03/2013	R&R Key	Bottom Woods 01/11/2022	R&R Key
Fisher's Valley 22/02/2013	R&R Key	Bottom Woods 01/11/2022	R&R Key
Three Peaks Ridge 07/03/2013	R&R Key	Fairyland -28/11/2022	R&R Key
Sapper Way 02-03-2013	LJ Fowler	Fisher's Valley 21/11/2022	R&R Key
Mount Actaeon 22-05-2014	DJ Pryce	Hutt's Gate 01/11/2022	R&R Key
Sandy Bay School 28-06-2014	LJ Fowler	Mulberry Gut 14/11/2022	R&R Key
Diana's Peak 08-12-2015	LJ Fowler	New Gound 08/11/2022	R&R Key
High Peak 10-05-2015	LJ Fowler	Teutonic Hall 18/11/2022	R&R Key
Fisher's Valley, 20-Jan-2015	DJ Pryce	Thompson's Wood 14/11/2022	R&R Key

***Diadegma semiclausum* (Hellén, 1949)**

The larva are parasites of the larvae of the diamondback moth (*Plutella xylostella*) and certain other moths including the leek moth *Acrolepiopsis assectella* (absent from St Helena). It is native to Europe but has spread to, or been introduced to, other parts of the world including Asia, South Africa, Hawaii, Australia and New Zealand. In tropical countries it is found in cooler climates at higher altitudes. This species was used at Scotland in 2013 to demonstrate biocontrol of Diamondback moth (display photographed by Roger Key), although it is not mentioned in ANRD, 2013, 'The history of Biological Control on St Helena'.

Status:: Biocontrol agent. ?Deliberate introduction.

(Diadegma surendrai Gupta, 1972)

Diadegma surendrai is a 'manuscript name' historically used for a parasitoid wasp introduced for biological control of the potato tuber moth (*Phthorimaea operculella*). It was never formally described in the scientific literature, but it is referenced in several biocontrol programs, particularly in India and New Zealand. The name *Diadegma surendrai* appears to be synonymous with *Eriborus trochanteratus*, (see below) which was imported from India to New Zealand in the late 1960s for pest control. **Status:** Unknown



(*Diadegma* 'sp.' *Diadegma raoi*, *rapi*, *turcator pulchripes*)

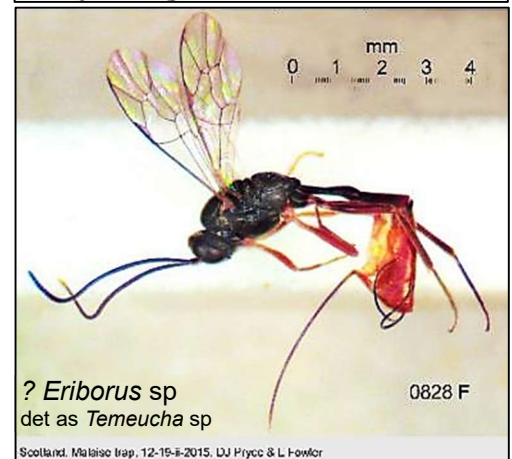
An unnamed species reportedly released in 1970-72 (*ANRD 2013) to try and control Potato tuber moth *Phthorimea operculella*, **Simmonds (1973) reports the release of *Diadegma raoi* Gupta which is not a validly published species name. It was used as a manuscript name in the early 1970s, particularly in the context of biological control programs targeting *Phthorimaea operculella*. The name *Diadegma raoi* appeared in unpublished reports and correspondence from the Commonwealth Institute of Biological Control in India. Voucher specimens labelled as *D. raoi* were lodged in New Zealand collections in 1970, but the name was never formally described or accepted in taxonomic databases. It could simply be a misspelling of *D. rapi* (Cameron, 1912) which is a biocontrol agent for Diamondback moth (*Plutella xylostella*). It was, however, later linked to *Diadegma turcator*, Aubert 1971, which has since been synonymized with *Diadegma pulchripes* (Kokujev, 1915). * ANRD, 2013, The history of Biological Control on St Helena **Simonds, F.J. 1973. Report on a visit to St. Helena – March 4-23, 1973. Commonwealth Institute for Biological Control, Slough. 45 p.

***Eriborus trochanteratus* (Morley, 1913)**

Introduced between 1970 & 1972 along with another 14 species of parasitoid to try and control Potato tuber moth *Phthorimea operculella* "Some success but most did not survive" There are no subsequent confirmed records. This might also be the species described as *Diadegma surendrai* Gupta, 1972 (above). There are 54 species in the genus *Eriborus*, world-wide. One specimen, probably in the genus *Eriborus* was Malaise-trapped at Scotland in 2015 was originally identified as *Temelucha* sp (below).

Status: Biocontrol agent. Intentional introduction, possibly established.

Scotland 12-19/ii/2015 DJ Pryce / LJ Fowler
Ladder Hill, Verandah Quarters 28/03/2016 J.Harris



Ichneumonidae: Subfamily: Cremastinae

***Temelucha* sp. possibly *minuta* (Morley 1912)**

A cosmopolitan genus with over 200 described species that primarily target Lepidoptera larvae, especially those that feed within leaf folds or tunnels. One species *Temelucha minuta* (Morley 1912) is used as a biocontrol agent against Potato tuber moth *Phthorimea operculella*. An unnamed species of *Temelucha* is recorded as having been introduced between 1970 & 1972 along with another 14 species of parasitoid to try and control the moth. 3 specimens of *Eriborus* sp were found in 2015 and incorrectly recorded as *Temelucha*

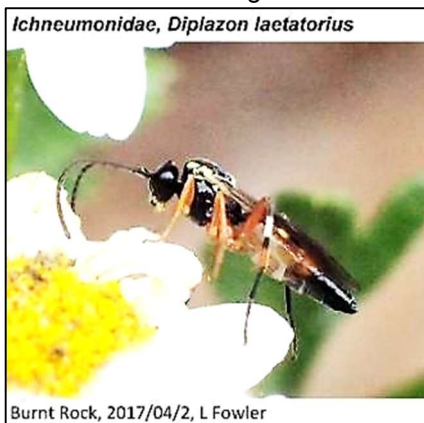
Status: Biocontrol agent. Deliberate introduction. Not established).

Ichneumonidae: Subfamily: Diplazontinae

***Diplazon laetatorius* (Fabricius, 1781)**

This species of European origin has now become almost cosmopolitan. Like all representatives of its subfamily, it parasitizes Hoverflies. It is very common on St Helena and has been recorded as far back as the 1870s.

Status: Uncertain origin. Established



St Helena	1875/76	TV Wollaston	Scotland,	19-Feb-2015	DJ Pryce
Fisher Valley,	13/11/1965	Belgian Expeditio	Man and Horse	2015-12-27	LJ Fowler
Varneys	13/10/1966	A Loveridge	Harper's Reservoir 2	9-Jan-2016	DJ Pryce
Peak Dale Gumwoods	05/1967	Belgian Expeditio	Burnt_Rock_	2017_04_23	LJ Fowler
Teutonic Hall	051967	Belgian Expeditio	Sapper_Way_	2017_08_23	LJ Fowler
Cuckold's Point	12/2005-01/2006	Peaks Survey	Bates	25-May-2017	DJ Pryce
High Peak	12/2005-01/2006	Peaks Survey	Old Restoration Site	2017	DJ Pryce
Weather Station	2012-12-03	LJ Fowler	Mount Pleasant	17-21/1/2017	DJ Pryce
Sandy Bay School	2014-06-28	LJ Fowler	Cason's	2021	LJ Fowler
Burnt Rock	2014-09-07	LJ Fowler	Fairyland	2021-05-10	LJ Fowler
Sapper Way	2014-09-10	LJ Fowler	Hutt's Gate	1/11/2022	R&R Key
			Teutonic Hall	05/11/2022	R&R Key
			Thompson's Wood	05/11/2022	R&R Key

Ichneumonidae: Subfamily: Ichneumoninae

Diadromus collaris (Gravenhorst, 1829)

A cosmopolitan species, possibly originating in Africa, used as an agent for the biological control of the Diamondback moth *Plutella xylostella*. In some parts of the world it is parthenogenic with mainly females known, although it reproduces sexually in South Africa. It was introduced to St Helena in 1999 and was regarded as successful. Photographs from Burnt Rock were identified as possibly being of this species

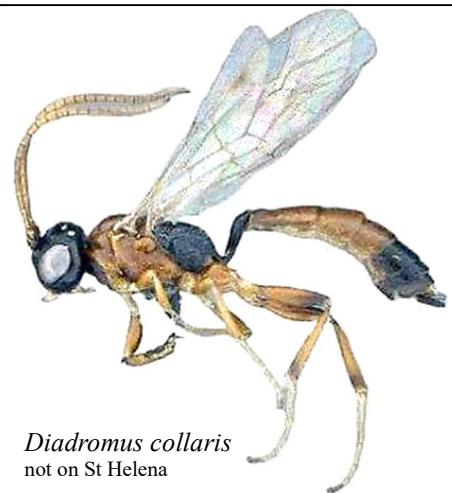
Status:: Biocontrol agent. Deliberate introduction. Uncertain

Burnt Rock. 2018-12-19 LJ Fowler

Ichneumonidae, prob *Diadromus collaris*



Burnt Rock, 2018/12/19, L Fowler



Diadromus collaris
not on St Helena

Ichneumonidae: Subfamily: Pimplinae

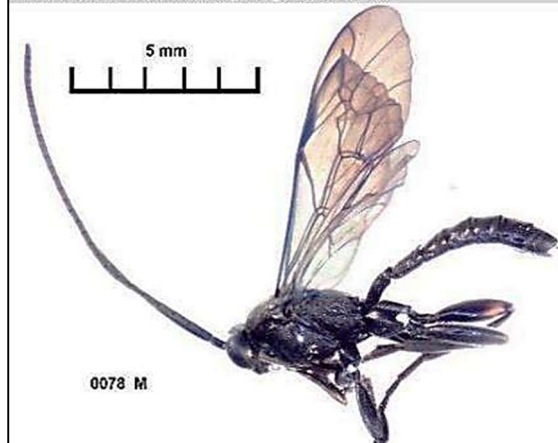
**Echthromorpha atrata* Holmgren, 1868

Endemic Species

previously *Echthromorpha agrestoria* (Swederus, 1787) ssp *atrata* Holmgren, 1868 (endemic subspecies)

*Gavin Broad at the NHM has recently communicated that is probably a good species and that *Echthromorpha atrata* Holmgren, 1868 should formerly be re-instated as an endemic species. However, this has not yet been published. It was originally described as *Echthromorpha atrata* Holmgren, 1868 from the collections of the circum-world expedition of the frigate "Eugénie" by TV Wollaston. It was reclassified as a subspecies of *Echthromorpha agrestoria* (Swederus, 1787). a possible endemic subspecies *Echthromorpha agrestoria* is a common Southern Hemisphere species with a very wide distribution "from Africa Oceania" and is very variable in colour, from all yellow to all black with many combinations of black and yellow patterning.

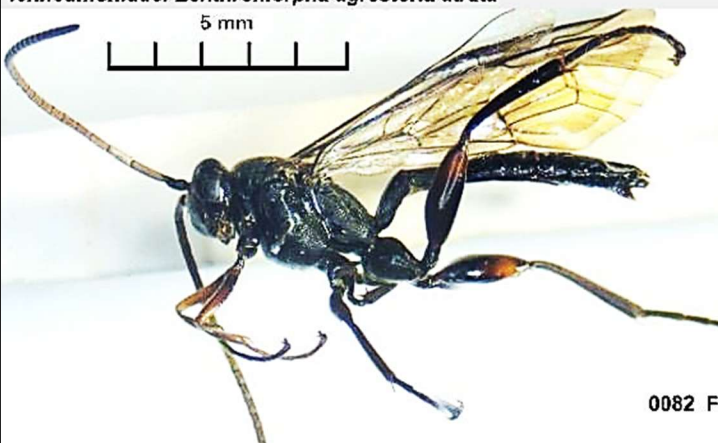
Ichneumonidae: *Echthromorpha agrestoria atrata*



0078 M

Cason's Gate, undated, DJ Pryce

Ichneumonidae: *Echthromorpha agrestoria atrata*



0082 F

Fairyland, undated, code 7c, DJ Pryce

(continued overleaf)

Holmgren's original description does not include structural differences separating it from other species in the genus. The material collected by the two Belgian expeditions includes 80 specimens, one of which was obtained by hatching it from a chrysalis of *Prodenia litura* Fabricius (*Spodoptera* – presumably *S littoralis*, the species known from St Helena, rather than *S litura*) (*Lepidoptera*, *Noctuidae*). It is a very common species on the island, especially widespread in regions of medium altitude and is attracted to light at night. A collection of 6 individuals "reared from rotted *Erythrina cafra* that's been attacked by larvae spp. by Philip Ashmole from Peak Dale on 26 Feb 1997 indicates that the species may also parasitise saproxylic species. These specimens had a very large variation in size (body length 5.5mm to 14.0mm), and some of the specimens had unusually pale brown legs (possibly teneral?). Other specimens have reached 20mm in length.

St Helena	1860-71	JC Melliss	Mount Actaeon	12/2005-01/2006	Peaks Survey
(as <i>Paniscus piceus</i>)			Peak Dale	12/2005-03/2006	P&M Ashmole
Vine Tree Gut	1875/76	TV Wollaston	The Depot	12/2005-01/2006	Peaks Survey
Plantation	1875/76	TV Wollaston	High Peak	2013-03-13	LJ Fowler
West Lodge	1875/76	TV Wollaston	Alarm Forest	20/02/2013	R&R Key
Vameys	1957-	A Loveridge	Sandy Bay Barn	6-06-2014 39.jpg	LJ Fowler
Plantation	1957-	A Loveridge	Sandy Bay -School	2014-06-16	LJ Fowler
Hyam's	09-12-1965	Belgian Expedition	Sandy Bay Ridge	16-6-2014	LJ Fowler
Sandy Bay, Chapel	09-12-1965	Belgian Expedition	Head Owain Clinic	2015-01-03 03	LJ Fowler
Luffkins	15-11-1965	Belgian Expedition	High Peak	2015-05-10	LJ Fowler
Teutonic Hall	31-Dec-1965	Belgian Expedition	Scotland,	19-Feb-2015	DJ Pryce
Willow Bank	12/1966	Belgian Expedition	Fairyland	2016-12-31	LJ Fowler
High Central Ridge	09-Jan-1966	Belgian Expedition	French's Gut, lower	01-Apr-2016	DJ Pryce
Lemon Tree Gut	09-Jan-1966	Belgian Expedition	French's Gut, upper	29-Feb-2016	DJ Pryce
Teutonic Hall	01/1966	Belgian Expedition	Pink Grove	19-Mar-2016	DJ Pryce
Teutonic Hall	01/1966	Belgian Expedition	Mount Pleasant	03-Oct-2016	DJ Pryce
Fisher's Valley	11/1967	Belgian Expedition	Rural Retreat	2016-02-09	LJ Fowler
High Central Ridge	31-Mar-1967	Belgian Expedition	Scotland	31-May-2016	DJ Pryce
Peak Dale Gumwoods	05/1967	Belgian Expedition	Thompsons Hill	03-01-2016	LJ Fowler
Teutonic Hall	1/1967	Belgian Expedition	Bates Gut	25-May-2017	DJ Pryce
Teutonic Hall	28-Feb-1967	Belgian Expedition	Black Gate	25-May-2017	DJ Pryce
Teutonic Hall	31-Mar-1967	Belgian Expedition	Rose Hill	20-05-2017	DJ Pryce
Teutonic Hall	30-Apr-1967	Belgian Expedition	Fairyland	2017_05_07	LJ Fowler
Teutonic Hall	31-May-1967	Belgian Expedition	Ginger Patch	20001-2017	LJ Fowler
Peak Dale	26 Feb 1997	P&M Ashmole det SGC)	Hutt's Gate	25-May-2017	DJ Pryce
Cuckold's Point	12/2005-01/2006	Peaks Survey	Mt Vessey Waterfall	2017-03-10	LJ Fowler
Diana's Peak	12/2005-01/2006	Peaks Survey	Redhill	25-May-2017	DJ Pryce
Grapevine Gut	12/2005-01/2006	Peaks Survey	High Peak	2019-09-02	LJ Fowler
High Peak	12/2005-01/2006	Peaks Survey	Cason's	2021	LJ Fowler
Lower House Plain	12/2005-03/2006	P&M Ashmole	Thompson's Wood	2022	R&R Key



Smallest (5.5mm) and largest (14mm) specimens reared from decaying *Erythrina* wood at Peak Dale

Ichneumonidae, Echthromorpha agrestoria atrata

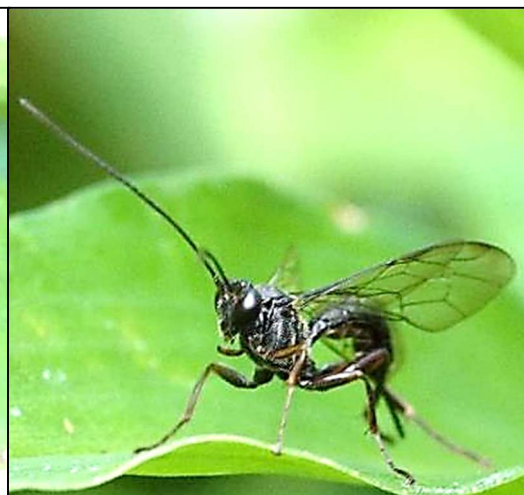


Sandy Bay Barn, 2016/01/03, L Fowler

Ichneumonidae, Echthromorpha agrestoria atrata



High Peak, 2015/05/10, L Fowler

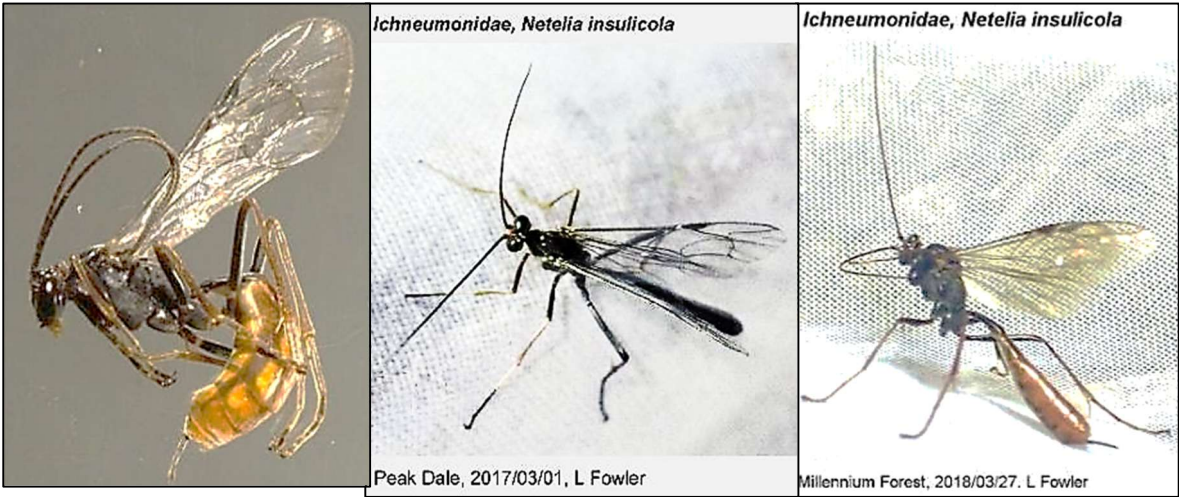
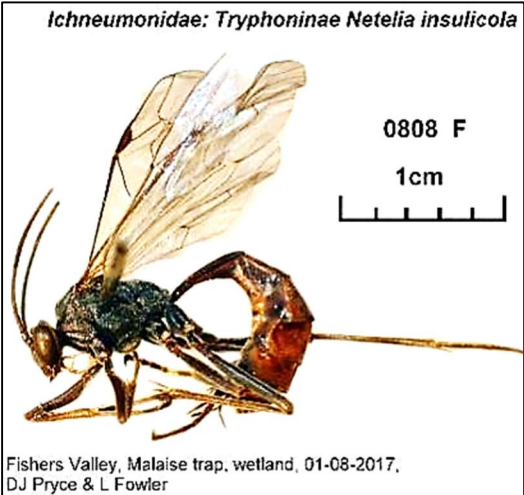


Ichneumonidae: Subfamily: Tryphoninae

Netelia insulicola (Morley, 1913) Endemic Species

Netelia is a very large genus with over 330 described species. Identification of species is problematic as most are similar in both morphology and coloration. The only reliable way to diagnose species is through examination of male genitalia, particularly structure on the claspers. The strong similarity between species has resulted in misidentifications as well as erroneous reports of species well outside of their natural ranges. They are parasitoids of moth caterpillars in many families and lay single eggs on the outside of the host that the larvae feed on. They eventually pupate in a cocoon on the outside of the host. *Netelia insulicola* was first found in the 1860s and there have been relatively few records compared with most species. They are most usually seen at light at night.

St Helena	1860-71	TV Wollaston as <i>Paniscus insulicola</i>
St Helena	1875/76	TV Wollaston
Fisher's Valley	19-12-1965	Belgian Expedition
Teutonic Hall	01/1966	Belgian Expedition
Teutonic Hall	28-Feb-1967	Belgian Expedition
Teutonic Hall	05/1967	Belgian Expedition
Prosperous Bay Plain	09-12/2003	P&M Ashmole
Prosperous Bay Plain	12/2005-03/2006	P&M Ashmole
Woodcot	20-Apr-2011	P&M Ashmole
Fisher's Valley	Aug 2017	DJ Pryce
Peak Dale	01-03-2017	LJ Fowler
Millennium Forest	27/03/2018	LJ Fowler



Superfamily Platygastroidea

A superfamily which currently has some 4000 described species. They are exclusively parasitoids.

Platygastroidea: Family: Platygasteridae

2 species

(sometimes incorrectly spelled Platygasteridae) This is a moderate-sized group (about 2000 described species) of exclusively parasitoid wasps, mostly very small (1–2 mm), black, and shining, with geniculate (elbowed) antennae that usually have an eight-segmented flagellum. The wings have very limited venation, which may be very difficult to see. Both ST Helenian species are in the subfamily are Platygastriinae, which includes about 40 genera, all of which are koinobionts on cecidomyiid flies (gall midges); the wasp oviposits in the host's egg or early instar larva, and the wasp larva completes development when the host reaches the prepupal or pupal stage.

Ease of Identification A difficult family and most specimens need to be sent to an international specialist to identify them to species. There a number of world authorities on the family who might be able to help: Norman Johnson Ohio State University, USA. Carlos Marchiori, Instituto Federal Goiano, Brazil. Peter. Buhl Naturhistorisk Museum University, Copenhagen, Denmark. David Notton, Natural History Museum, London, Lubomír Masner Agriculture and Agri-Food Ottawa Canada and Elijah Talamas, Florida Department of Agriculture, USA

Platygaster sp

A genus with 560 species world-wide with around 75 in Africa. Many additional species remain undescribed. They are parasitoids of gall midges (Cecidomyiidae) and are known for their role in regulating populations of these flies, which can be agricultural pests. Different *Platygaster* species exhibit varying degrees of host specificity, with some attacking a wide range of gall midge species while others are more specialized. The rounded, humped scutellum is a feature of this genus. A single record for St Helena:



Platygaster sp. not from St Helena

Cuckold's Point 12/2005-01/2006 Peaks Survey det DG Notton

Synopeas sp.

A genus with 400 species world-wide with 48 recorded African spp. They are parasitoids of gall midges (Diptera: Cecidomyiidae). *Synopeas* species are often associated with galls on specific plant species and are being studied for their potential role in biological control of invasive gall midge species. The scutellum is flattened and comes to a distinct backward-pointing spike. A single record.



Synopeas sp. not from St Helena

High Peak 12/2005-01/2006 Peaks Survey det DG Notton

Platygastroidea :Family: Scelionidae

up to 9 Species

This is a large cosmopolitan group with > 3000 described species in around 176 genera. The family was once considered to be a subfamily of the Platygasteridae. They are exclusively parasitoids of arthropod eggs, mostly small (0.5–3.0 mm), often black, sometimes highly sculptured, and typically with elbowed antennae that have a 9- or 10-segmented flagellum. Many are entirely wingless, or have one sex wingless. They are generally idiobionts, attacking the eggs of various insects, as well as spiders. Females of some species guard parasitized host eggs until their larvae emerge to keep other parasites away. Many scelionids are important in biological control. Several genera are wingless, and a few attack aquatic insect eggs underwater.

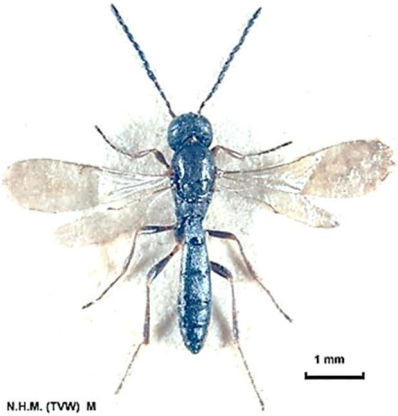
Ease of Identification A difficult family and most specimens need to be sent to an international specialist to identify them to species. There a number of world authorities on the family who might be able to help:- Lubomír Masner (Agriculture and Agri-Food Canada, Ottawa, Canada), Elijah J. Talamas (Florida Department of Agriculture, Gainesville, USA). Ovidiu A. Popovici (Facultatea de Biologie, Universitatea Alexandru Ioan Cuza, Iași, Romania), Luciana Musetti (Department of Evolution, Ohio State University, Columbus, USA), Huayan Chen (School of Life Sciences, Sun Yat-sen University, Guangzhou, China) (+ see below for those specializing in the Baeinae).

Subfamily Scelioninae.

Macroteleia gracilicornis Dodd, 1920 probable **Endemic Species**

Macroteleia is a worldwide genus with about 130 Afrotropical species. Those species with known hosts are all egg parasitoids of crickets and grasshoppers, especially those in the family Tettigoniidae. *M. gracilicornis* was described from Saint Helena from 2♀♀ and 1♂ collected by Wollaston in the 1870s and has so far not been found anywhere else. It is recognizably different from most other species of the genus lacking such an elongate, laterally compressed abdomen. It may be a parasitoid of one or both of the two endemic bush crickets on the island. All but one record are from the cloud forest or its immediate environs, the exception being one record from Horse Point, where it was found in dead twigs of scrubwood.

Scelionidae: *Macroteleia gracilicornis*



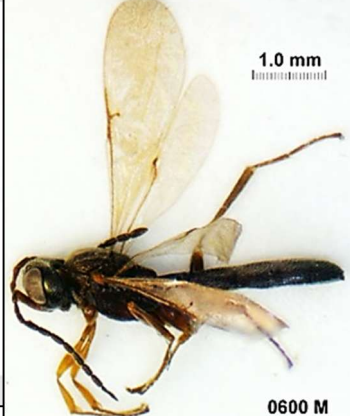
N.H.M. (TVW) M
Specimen in the Natural History Museum, London, col. TV Wollaston

Scelionidae: *Macroteleia gracilicornis*



N.H.M. (HM) F
Specimen in the Natural History Museum, London

Scelionidae: *Macroteleia gracilicornis*



0600 M
Diana's Peak, Malaise trap, cabbage tree forest, 2017, DJ Pryce

Scelionidae, *Macroteleia gracilicornis*



Diana's Peak, 2018/01/16, L.Fowler

St Helena	1875/76	TV Wollaston
Cason's Gate	iii/1967	Belgian Expedition
High Central Ridge	ii/-iii 1967	Belgian Expedition
High Central Ridge	iii/1967	Belgian Expedition
High Peak	ii-iii/1967	Belgian Expedition
Horse Point	08/03/1967	Belgian Expedition
Deep Valley	xii2005-i/2006	Peaks Survey
Mount Actaeon	14/01/2006	H Mendel
Long Ground?*	25/10/2016	LJ Malan
Grapevine Gut?*	10/10/2016	DJ Pryce
High Peak	10/10/2016	H Mendel
Diana's Peak	16/01/2018	LJ Fowler
Diana's Peak	2017	DJ Pryce

* DPLUS0029-site16 ** DPLUS0029-site96

photo of type specimen – see <https://www.gbif.org/occurrence/2294942358>
Collected at 'unknown location'

? Aradophagus pulchricornis Masner & Huggert, 1979

If correctly identified, this species is an enigma on St Helena – the female is only about the 4th known specimen ever found, the others being from Mexico and in a ship in Baltimore harbour (USA), with both records associated with dried herbs. The only species of the genus for which there is host data was reared from dead wood with scolytine weevils and aradid bugs present.

The male of the species seems not to have been described ,

A male scelionid, originally misidentified as a *Baeus* species (see below) might possibly be of this species

Scelionidae: *Aradophagus pulchricornis*



0811 F
Castle Gardens, ?swept, 21-12-2016, ?DJ Pryce

Scelionidae: possibly *Aradapahgus pulchricornis*



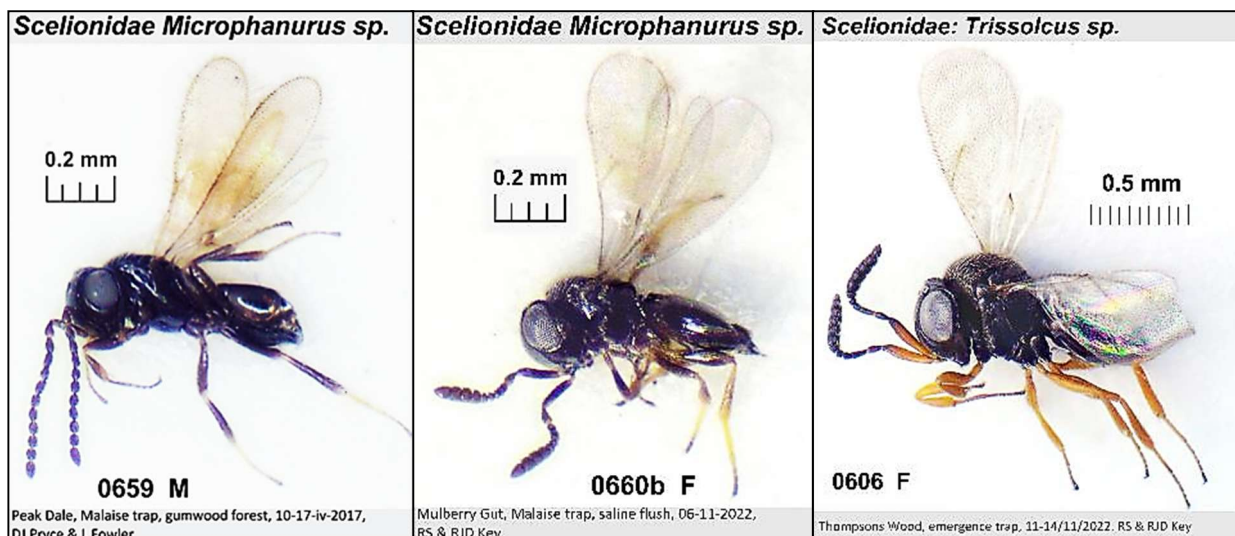
0607 M
Beale's, Malaise trap, moist shrub, 13-20-ii-2017, DJ Pryce & L.Fowler

Castle Gardens	21/12/2016	DJ Pryce
Beale's	13-20/03i/2017	DJ Pryce

Subfamily Telenominae

Trissolcus ?2-3 spp formerly *Microphanurus* sp – a junior synonym of *Trissolcus*)

A cosmopolitan genus of about 100 species. Those that have been studied have been found to be egg parasitoids of shield bugs (Pentatomoidea), of which there are 3 species on St Helena, one a possible endemic. There seem to be two species of *Trissolcus* on the island, one with black legs and one with orange legs.



Trissolcus sp

Cabbage Tree Road	iii/1967	Belgian Expedition
High Peak	27/02/1967	Belgian Expedition
Rural Retreat Gut 1	2/04/1967	Belgian Expedition

the Belgians' specimens and later ones have not been compared

Trissolcus sp 1

Burnt Rock	13-20/ii/2017	LJ Fowler
Peak Dale	13-20/iii/2017	LJ Fowler
Peak Dale	10-17/iv/2017	LJ Fowler
Fairyland	2021	LJ Fowler
Ladder Hill	02/11/2022	R&R Key
Mulberry Gut	06/11/2022	R&R Key

Trissolcus sp 2 Orange legged form

Peak Dale Gumwoods	10/04/2011	R&R Key
Joan Hill	13-20/ii/2017	DJ Pryce
Ladder Hill Fort	08/11/2022	R&R Key
Thompson's Wood	11-14/11/2022	R&R Key

Scelionidae, *Trissolcus* sp



Telenomus spp

Telenomus is a large, globally distributed genus with over 330 described species. Most are parasitoids of moth eggs, but some have been recorded from eggs of other insect orders. The Belgian Expedition had previously recorded a *Telenomus* sp. at Fisher's Valley 19/12/1965, Plantation 06/12/1965 & Teutonic Hall 22/04/1967, and the Peaks Survey recorded a *Telenomus* sp. at Mount Actaeon xii/2005-i/2006. They have not been compared with each other, nor with the collection recorded below.

In a large collection of *Telenomus* specimens sent to Steve Compton in 2023, he was able to recognise three types of males, one of which was in accord with *T. remus* although females were either all of one species or seemed indistinguishable.

Telenomus sp 1 Male type 2

A single specimen with a yellow petiole from
Rupert's 6-10/vii/2017 DJ Pryce

Telenomus sp 2 Male type 4

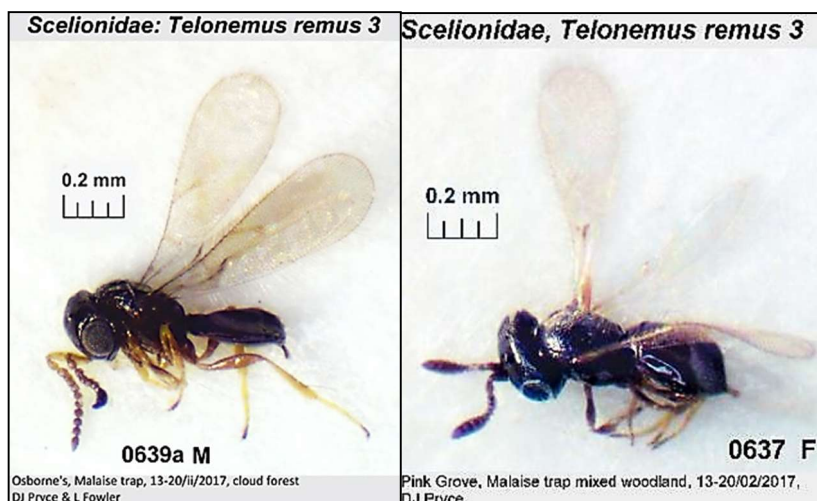
A single specimen with hairy eyes (no photo)
Beale's 13-20/ii/2017 DJ Pryce



***Telenomus remus* Nixon, 1937**

Three consignments, each of about 450 eggs of the Army Worm *Spodoptera littoralis* parasitised by *T. remus*, were sent to the island by the Commonwealth Institute of Biological Control and released in this year by Keith Sim (CIBC. 1976. Report of work carried out during 1975. Commonwealth Institute of Biological Control, Commonwealth Agricultural Bureaux, Slough. p. 86). The species was found again in 1995 by ANRD and identified by the Internal Institute of Entomology IIE

This is a species originating in SE Asia used a biocontrol agent for Army worm.,



subsequently:-

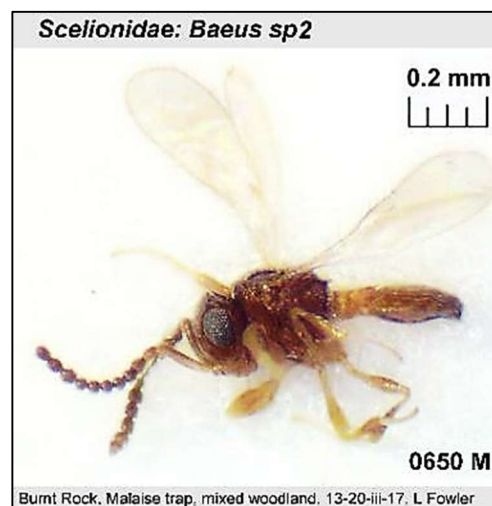
Beale's	13-20/ii/2017	DJ Pryce
Perkin's Gut	13-20/ii/2017	DJ Pryce
Osborne's	13-20/ii/2017	DJ Pryce
Pink Grove	13-20/ii/2017	DJ Pryce

it is not known whether these records are of specimens checked against other species of *Telenomus*

Subfamily Baeinae “Micro-flea Wasps” Sometimes

regarded as a Tribe Baeini within the Scelioninae.

Tiny wasps with extreme dimorphism between the sexes. Females lack wings and have reduced or fused segments. They are able curl into a ball rather like an armadillo or a pill woodlouse/millipede and can superficially be mistaken for mites. They are very easily missed in pitfall & Malaise traps. They are parasitoids of spider eggs, some specialising on wolf spiders (Lycosidae) and comb-footed spiders (Theridiidae). Some females are phoretic, riding on the spider until she lays her eggs. Males are winged and have a more typical appearance for Scelionidae wasps. About. 95 species are recorded worldwide. Wasps of the genus were first noted on St Helena by the Belgian Expedition from the High Central Ridge in 1967 Three morphotypes of male have subsequently been found and two of females



Ease of Identification

A surprising number of specialists have recently published on these tiny wasps and may be able to help with the St Helena species. Andrew D. Austin & Norman F. Johnson (Australian Centre for Evolutionary Biology, University of Adelaide, Australia), Nicholas Stevens (Bestiolas Consulting, Perth, Western Australia). (Biological Sciences, The University of Adelaide, Adelaide), Rodrigo de Oliveira Araujo & Felipe Vivallo* (Departamento Entomologia, Museu Nacional, Rio de Janeiro, Brazil) & Kamalanathan Veenakumari (National Bureau of Agricultural Insect Resources, India)

Males

♂ ***Baeus* type 1** – commonest form

Beale's	13-20/iii/2017	DJ Pryce
Perkin's Gut	8-15/v/2017	DJ Pryce
Ginger Patch	13-20/ii/2017	DJ Pryce
Mount Pleasant	5-12/vi/2017	DJ Pryce
Osborne's	3-10/vii/2017	DJ Pryce
Pink Grove	3-10/vii/2017	DJ Pryce
Fisher's Valley	21-24/xi/2022	R&R Key

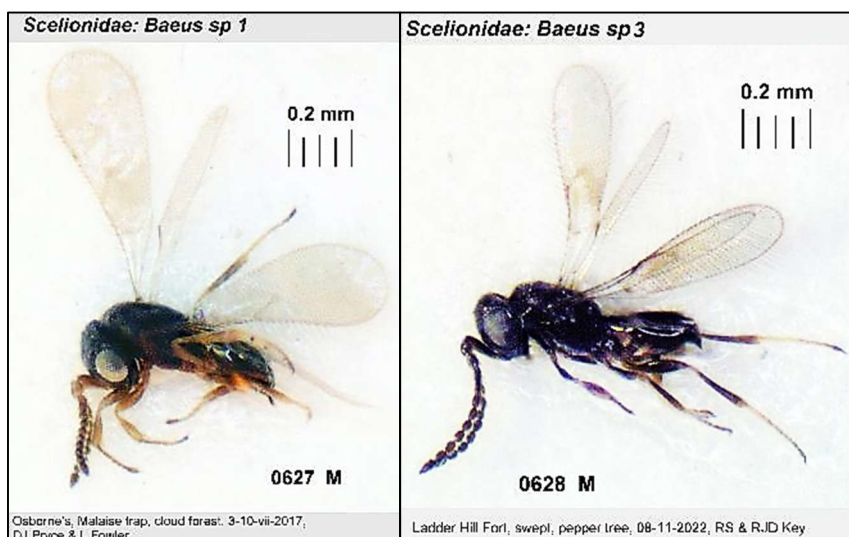
♂ ***Baeus* type 2** orange petiole

1 specimen only

Burnt Rock 13-20/iii/17 LJ Fowler

♂ ***Baeus* type 3** "not like the rest - longer antennae, darker legs

Ladder Hill Fort 08/11/2022 R&R Key



***Baeus* spp.**

Females

♀ ***Baeus* sp** (short funicle)

Beale's	13-20/ii/2017	DJ Pryce
Diana's Peak	2017	DJ Pryce
Pipe Path	10-17/iv/2017	DJ Pryce
Well Spring, Mt Actaeon		
	29/10/2022	R&R Key
Cuckold's Peak	29/10/2022	R&R Key

♀ ***Baeus* sp** (longer funicle)

Perkin's Gut	13-20/iii/2017	DJ Pryce
Diana's Peak	3-10/vii/2017	DJ Pryce

Scelionidae: Baeus sp1 short funicle



0.2 mm

0612a F

Diana's Peak, Malaise trap, cabbage tree forest,
3-10-vii-2017, DJ Pryce & L Fowler

Scelionidae, Baeus sp. indet.



Diana's Peak, 2018-01-16, L Fowler

Scelionidae, Baeus sp. indet.



Cuckolds Point, tree fern debris 19/4/2011,
RS & RJD Key

Scelionidae: Baeus sp2 longer funicle



0.2 mm

0616 F

Diana's Peak, Malaise trap, cabbage tree forest,
3-10-vii-2017, DJ Pryce & L Fowler

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