

DIPTERA: ACALYPTERATES OF SOUTH GEORGIA, HEARD AND KERGUELEN¹

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Abstract: All previously known Acalypterate Diptera from Heard Island and South Georgia are present in collections made in the period 1961-1965. *Heloparia ekelofi* Enderlein is recorded from South Georgia for the first time. Three previously known species from Kerguelen Islands are again recorded from these islands.

This paper records extensive collections of Diptera made in recent years from Heard Island and South Georgia and smaller collections from Kerguelen Island. There is nothing novel in the collections and only 1 new record. However, the full ecological data associated with the specimens does increase knowledge of these interesting flies and this is recorded fully. All previously known species from Heard Island and South Georgia are in the present collections. The vast number of specimens collected indicates the conscientiousness of the collectors and, allied with the lack of new species and only 1 new record, indicates that the acalypterate faunae of Heard Island and South Georgia are virtually completely known.

Many papers have recorded collections from these islands and there are very few details of the species that have not already been described. Included in this paper are descriptions of some characters and stages that do not appear to have been reported before. Although the study of the collections has been unrewarding in respect to new forms, knowledge of the flies is now as complete as need be and a very valuable and extensive collection is available for future workers should the need arise.

I am indebted to Dr J. L. Gressitt for giving me the opportunity of examining these collections. Representatives of each species have been retained and deposited in the collections of the Department of Entomology, Lincoln College, and the Entomology Division, D. S. I. R. (New Zealand). The bulk of the collections are returned to the Bernice P. Bishop Museum, Hawaii.

Family HELOMYZIDAE

***Prosopanthrum austrinum* Enderlein**

Prosopanthrum austrinum End., 1912, *Kungl. Svensk. Vetensk. Akad. Handl.* **48**(3): 135.—Holdhaus, 1931, *Zool. Jahrb. Syst.* **63**: 170-74.

SPECIMENS EXAMINED. SOUTH GEORGIA: *Numbers:* Pinned 67 ♂♂, 51 ♀♀. Spirit 548 adults, 16 pupae, 37 larvae. *Localities:* Bird I.; Macaroni Coulm, Fresh Water Bay, Landing Beach, Wanderer Valley, Stinker Cape. Grytviken Penn; King Edward Pt., Maiviken, Cumberland-East Bay, Cumberland-West Bay, Gun Plain, Brown Mountain, Hestesletten. Stromness Pen.; Stromness Beach, Husvik Harbor. Fortuna Bay. Royal Bay; Moltke Harbor-Lower Valley. Barff Pen.; Jorobihaan, Sörling Valley, Ocean Harbor. Busen Penn; The Crutch, Carlita Bay, Allen Bay, Enten Bay. Doris Bay. Right Whale Bay. *Habitats:* On moss and rocks, from tussock grass, under rocks on beach, tussock grass in Gentoo Penguin rookery, from nest material Gentoo Penguin (*Pygoscelis papua*), sweeping on stream, on snow surface, trap net, from *Acaena* near sea level, from short grass. Sea level to 300 m. *Collections:* 1.III.1961. (N. V. Jones) XII.1962. (H. B. Clagg); II-V, IX-XII.1963 (Clagg); I-IV.1964, (Clagg); I.1964. (Jones).

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DISTRIBUTION: South Georgia.

Family HELCOMYZIDAE

Paractora trichosterna (Thomson)

Orygma trichosterna Thmsn., 1868, *Eugenie's Resa*, *Zool. Inst.*: 602.

Paractora fuegiana Bigot, 1888, *Miss. Cap Horn Zool. Insecta DV (Diptera)* p. 39.—Enderlein, 1912, *Kunigl. Svensk. Vetensk. Akad. Handl.* **48**(3): 45–46, 97, 135.

Paractora trichosterna: Malloch, 1933, *Dip. Pat. and S. Chile* **6**(4): 329–31.

SPECIMENS EXAMINED. SOUTH GEORGIA: *Numbers*: Pinned 8 ♂♂, 7 ♀♀. Spirit 206 adults, 26 larvae, 5 pupae. *Localities*: Bird I.; Stinker Cape, Iceberg Point, Landing Rock, Wanderer Ridge, Main Bay. Grytviken Pen.; Cumberland, King Edward Cove. Busen Pen.; Enten Bay, Allen Bay. Royal Bay; Köppen Point, Moltke Harbor, Sacramento Bight. Stromness Pen.; Stromness Beach, Husvik Valley. Barff Pen; Sörling Valley. *Habitats*: Under rotting kelp and rocks on beach, nest material of Shoemaker (berlese funnel), dead Skua, on snow surface, grass near sea level, under bird carcasses, from or under seal carcass. Sea level to 100 m. *Collections*: I.1961 (N. V. Jones); IV, X, XI.1963 (H. B. Clagg); I. III.1964 (Clagg).

DISTRIBUTION: South Georgia, Feuerland (Tierra del Fuego). Falklands Is.

Family PALLOPTERIDAE

Heloparia ekeloefi Enderlein

Heloparia ekeloefi End., 1912, *Kunigl. Svensk. Vetensk. Akad. Handl.* **48**(3): 47–48.—Malloch, 1933, *Dip. Pat. and S. Chile* **6**(4): 339.

The record of South Georgia is new.

SPECIMENS EXAMINED. SOUTH GEORGIA: *Numbers*: Spirit 12 ♂♂, 2 ♀♀. *Localities*: Barff Penn; Sörling Valley, Jorobihaan. Stromness Penn; Husvik Valley. *Habitats*: From reindeer placenta, near sea level, from tussock grass near beach, from grass near sea level. *Collections*: I.1964 (H. B. Clagg).

DISTRIBUTION: South Georgia; Falkland Is.

Family MICROPEZIDAE

Calycopteryx moseleyi Eaton

Calycopteryx moseleyi En., 1874, *Ent. Mon. Mag.* **12**: 59.—Verrall, 1879, *Phil. Trans. R. Soc. Lond.* **168**: 239–40.—

Studer, 1889, *Forsch. Gazelle* **111**: 125–72.—Chun, 1900, *Aus Tiefen Weltmeeres*. 1 Aufl. p. 244.—

Enderlein, 1903, *Wiss. Ergebn. Deut. Tiefsee-Exped.* **3**: 224; 1909, *Deut. Südpol.-Exped.* 1901–1903, **10**(4): 433, 467–70.

Eggs. Spindle-shaped; cream colored; 0.75 mm. long.

SPECIMENS EXAMINED. HEARD I.: *Numbers*: Pinned 15 ♂♂, 5 ♀♀. Spirit 144 adults, many eggs. *Localities*: Green Valley, Poly Gully, Spit Bay, Cuffs Tops, South Barrier, Long Beach. *Habitats*: Sea level to 300 m. *Collections*: I.1965, (R. P. Temple).

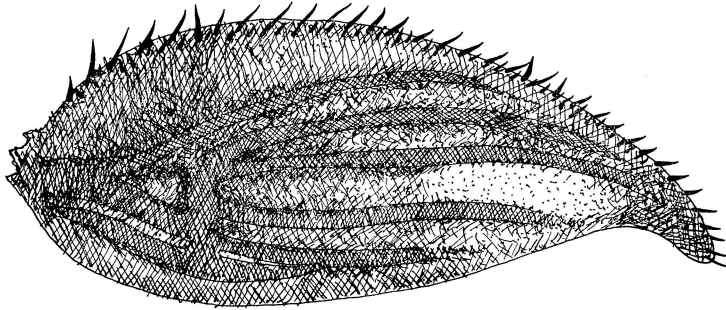
KERGUELEN I.: *Numbers*: Pinned 1 ♂, 1 ♀. Spirit 13 adults. *Localities*: Port Aux Français, Olsen Valley, Ainse du Jardin, Lake Les Drus. *Habitats*: Sea level to 300 m. *Collections*: I.1965 (R. M. Hay).

DISTRIBUTION: Heard I. and Kerguelen I.

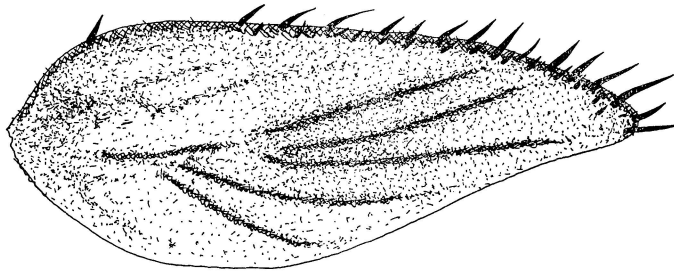
Family EPHYDRIDAE

Amalopteryx maritima Eaton

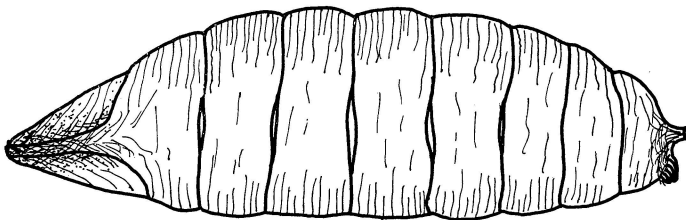
Amalopteryx maritima En., 1875, *Ent. Mon. Mag.* **12**: 58.—Verrall, 1879, *Phil. Trans. R. Soc. Lond.* **168**: 241–42.—



1 



2 



3 

Fig. 1-3. *Antrops truncipennis* Enderlein: 1, Wing of ♂ (line represents 0.5mm); 2, Wing of ♀ (line = 0.1 mm); 3, Pupa (line = 1.0mm).

Enderlein, 1909, *Deuts. Südpol. Exped.* 1901–1903. **10**(4): 434–35.—Womersley, 1937, *B. A. N. Z. Antarct. Res. Exped.* 1929–1931. Diptera. **4**(3): 75–77.

This species has been well described by the above authors. The present collection confirms the occurrence on Heard Island.

SPECIMENS EXAMINED. HEARD I.: *Numbers*: Pinned 31 ♂♂, 15 ♀♀. Spirit 98 adults. *Localities*: Spit Bay, Poly Gully, Green Valley, Long Beach. *Habitats*: ex rookery *Eudyptes chrysolophus*. *Collections*: I–II.1965 (R. P. Temple).

KERGUELEN IS.: *Numbers*: Pinned 3 ♂♂, 1 ♀♀. Spirit 21 adults. *Localities*: Port Aux Français, Port Jeanne d'Arc, Bay of Swans. *Collections*: I.1965 (M. Hay).

DISTRIBUTION: Heard I., Kerguelen I., Macquarie I., Crozets.

Family SPHAEROCERIDAE

Anatalanta aptera Eaton

Anatalanta aptera En., 1875, *Ent. Mon. Mag.* **12**: 59.—Verrall, 1879, *Phil. Trans. R. Soc. Lond.* **48**: 244–45.—Enderlein, 1903, *Wiss. Ergbn. Deuts. Tiefsee-Exped.* **3**: 225; 1909, *Deuts. Südpolar-Exped.* 1901–1903. **10**(4): 429–30.

SPECIMENS EXAMINED. HEARD I.: *Numbers*: Pinned 16 ♂♂, 17 ♀♀. Spirit 72 adults. *Localities*: Spit Bay, Poly Gully, Capsize Bay, Beach. *Habitats*: ex rookery of *Eudyptes chrysolophus*. Sea level. *Collections*: I–II.1965 (R. P. Temple).

KERGUELEN IS.: *Numbers*: Pinned 3 ♂♂, 4 ♀♀. Spirit 14 adults. *Localities*: Port Aux Français, Olsen Valley, Bay of Swans, Port Jeanne d'Arc. *Habitats*: Sea level. *Collections*: I.1965, (M. Hay).

DISTRIBUTION: Heard I., Kerguelen Is.

Antrops truncipennis Enderlein

Pteremis nivalis Bigot, 1888, *Miss. Cap. Horn Zool. Insecta* DV (Diptera) p. 43.

Antrops truncipennis Enderlein, 1909, *Zool. Anz.* **34**: 228, 1912; *Kungl. Svensk. Vetensk. Akad. Handl.* **48**(3): 99, 135.—Schaeffer, 1914, *Sci. Bull. Mus. Brooklyn Inst.* **2**: 92.—Holdhaus, 1931, *Zool. Jahrb. Syst.* **63**: 175.

Adult. Full taxonomic descriptions are available from Enderlein (above; 1901 and 1912). Additional characters and fuller details of some characters are given here. Wings of ♀♀ are shorter than those of the ♂♂. The ♀ wing is equal to length of the thorax; the ♂ wing is 1.5 × length of the thorax. (Fig. 1 and 2).

Pupa. Yellowish brown; length 4.0–4.5 mm. (Fig. 3)

SPECIMENS EXAMINED. SOUTH GEORGIA: *Numbers*: Pinned 5 ♂♂, 7 ♀♀. Spirit 228 adults, 2 pupae. *Localities*: Bird I.; Freshwater Bay, Gentoo Point, Landing Beach, Stinker Cape, Main Bay, Iceberg Point. Royal Bay; Köppen Point. Barff Pen; Ocean Harbor, Sörling Valley. *Habitats*: Under rocks on beach or shore, under rotting kelp, moss, under rocks in Gentoo Penguin rookery. Sea level to 150 m. *Collections*: II, IV, V, VII, X.1963 (H. B. Clagg); I, III.1964 (Clagg).

DISTRIBUTION: South Georgia and Feuerland (Tierra del Fuego).

Archiborborus koenigi Holdhaus

Archiborborus königi Hldh., 1931, *Zool. Jahrb. Syst.* **63**: 175–79.

This species belongs to the subgenus *Procopromyza* Malloch and appears to be closely related to the 2 species, *A. albicans* Malloch and *A. submaculatus* Duda. So far *A. koenigi* is only known from South Georgia.

SPECIMENS EXAMINED. SOUTH GEORGIA: *Numbers*: Spirit 83 adults. *Localities*: Grytviken Pen.; Cumberland-West Bay, Cumberland-East Bay, Penguin River, Gun Plain, Maiviken, King Edward Cove. Busen Pen; Jasen Harbor. Royal Bay; Moltke Harbor, Sacramento Bight, Moltke Harbor-Lower Valley. Leith and Stromness Penn. Bay of Isles. Doris Bay. *Habitats*: Under rocks on

beach, from tussock grass (hand net sweeps), ex moss and lichens, from stream, under rocks in Gentoo penguin rookery. Sea level to 150 m. *Collections*: I-III.1961 (N. V. Jones), XI, XII.1963 (H. B. Clagg) I, III, IV.1964 (Clagg).

DISTRIBUTION: South Georgia.