

THYSANOPTERA OF SOUTH GEORGIA¹By Thomas H. Wilson and Lewis J. Stannard²

Abstract: Only ♀♀ and larvae of one species, *Anaphothrips secticornis* (Trybom) are recorded from South Georgia. The ♀ and larvae are described here, and additional description of a ♂ from Washington, U. S. A. is included.

All Thysanoptera so far collected from South Georgia Island represent but one species, treated herein.

Family THRIPIDAE

Anaphothrips secticornis (Trybom). Fig. 1-10.

Thrips secticornis Trybom, 1896 : 620. ♀, ♂. Type locality.—not stated but either Portland or Albany, Oregon, USA, or Sweden (Lapland). Transferred to *Anaphothrips* by Reuter (1899). Transferred to *Euthrips* by Karny (1912). Larva II described by Priesner (1926).

Sericothrips apteris Daniel, 1904 : 295. ♀. Type locality.—Berkeley, California. Synonymized by Hood (1927).

Apterothrips subreticulata Bagnall, 1908 : 185. ♀. Type locality.—Queen Charlotte Is., British Columbia. Synonymized by Hood (1927).

Sericothrips ineptus Ahlberg, 1922 : 271. ♀. Considered probable synonym by Priesner (1926). Considered, herein,

New synonymy.

♀ (apterous). South Georgia Is. specimens: Fig. 2. Body color uniformly dark brown, femora brown, tibiae and tarsi yellowish brown in apical 1/3, body setae brown. Antennae brown, with segments III and IV occasionally lighter, pedicel of segment III pale white.

Head wider (\bar{x} W across cheek 135 (132-138) than long (\bar{x} L 98 (90-113). Ocelli absent. Transverse row of setae (4) anterior to eyes of equal length. Maxillary palps each 3 segmented. Antennae $2\times$ as long as head, secondary suture on antennal segment VI incomplete (fig. 5), sense cones on segments III and IV simple. Length (L) and width (W) of antennal segments of 11 specimens from South Georgia (L of III including pedicel) as follows:

Segments (measurements: \bar{x} (range) in μm).

	L	W		L	W
I	20 (17-22)	23 (22-25)	V	32 (30-36)	19 (18-19)
II	39 (36-45)	26 (25-27)	VI	45 (41-51)	19 (19)
III	34 (32-37)	20 (19-20)	VII	9 (8-11)	8 (7-9)
IV	32 (31-35)	19 (18-19)	VIII	14 (13-14)	5 (5-6)

Total \bar{x} length, 225 μm

Pronotum wider (\bar{x} W 170 (165-175) than long (\bar{x} L 105 (100-112), smooth, rounded on sides, with 26-28 short setae arranged in 4 irregular longitudinal rows. Pterothorax wide, legs stout, tibiae conical, tarsi each 2-segmented, abdomen wide (\bar{x} W of IV 299 (282-310), setae well developed on segments IX and X. Total body length (\bar{x} L 897 (864-924), slightly distended.

In California and Chile, particularly, ♀♀ may be either entirely brown or bicolored brown and yellow with the yellow confined to the thorax, abdominal tergite I and the legs. In British Columbia ♀♀ have the posterior border of pronotum, pteronotum, legs and most of abdominal tergite I yellow; and antennal segment VI is with a complete secondary suture.

♂. None recovered from South Georgia. Added description ♂ (apterous), Washington, USA, from grass: Similar to ♀ with following exceptions. Body yellow in color except for head and antennal segments

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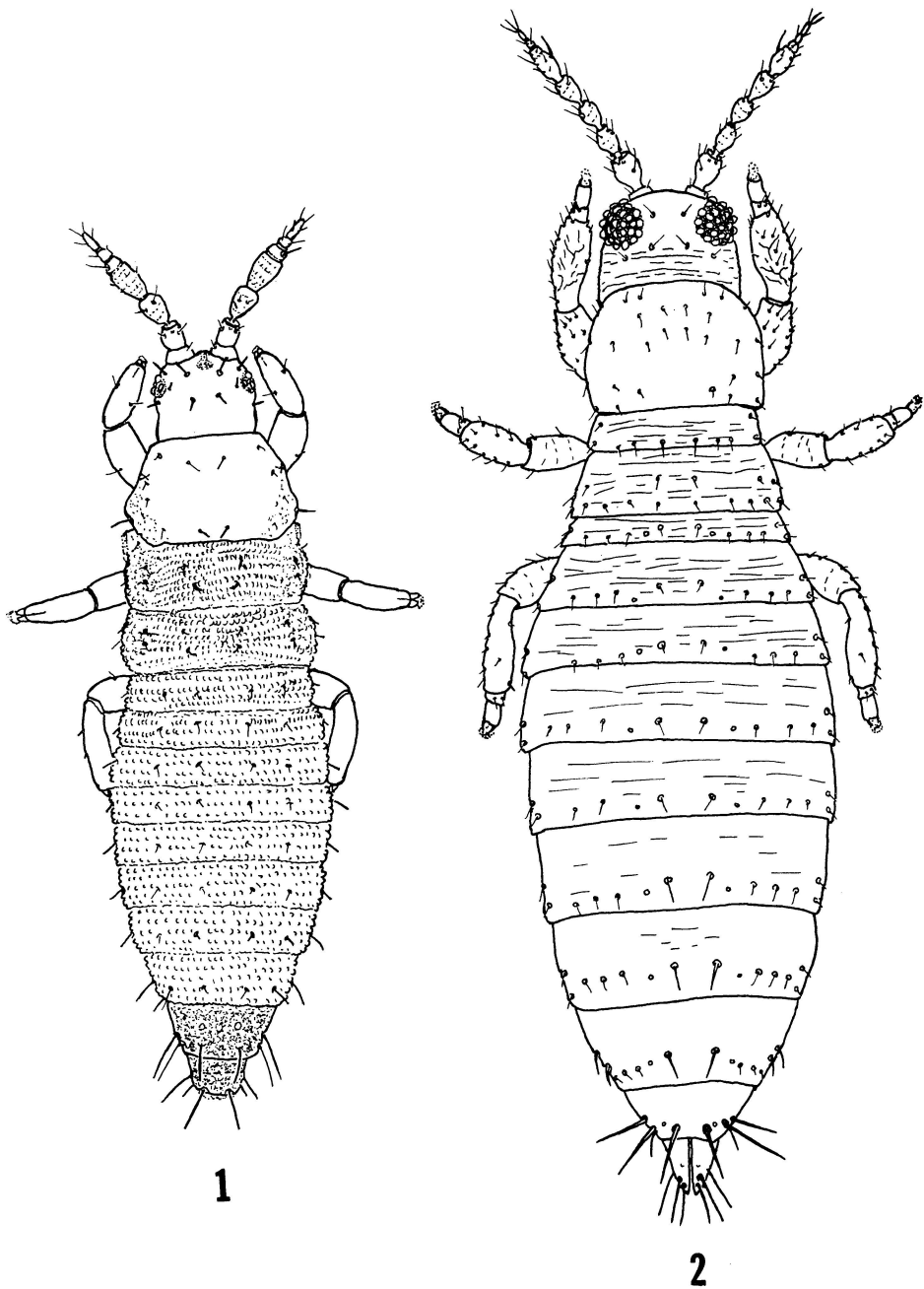


Fig. 1-2. *Anaphothrips secticornis* (Trybom), South Georgia: 1, Larva II, dorsal view; 2, ♀, dorsal view.

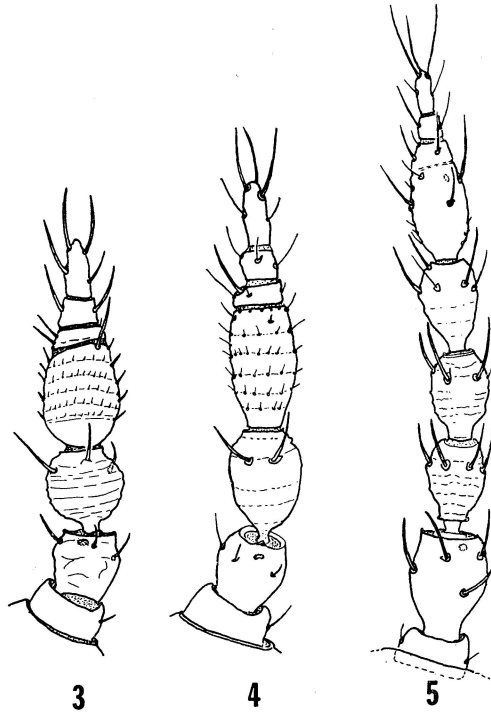


Fig. 3-5. *Anaphothrips secticornis* (Trybom), South Georgia: Left antenna, dorsal view: 3, Larva I; 4, Larva II; 5, ♀.

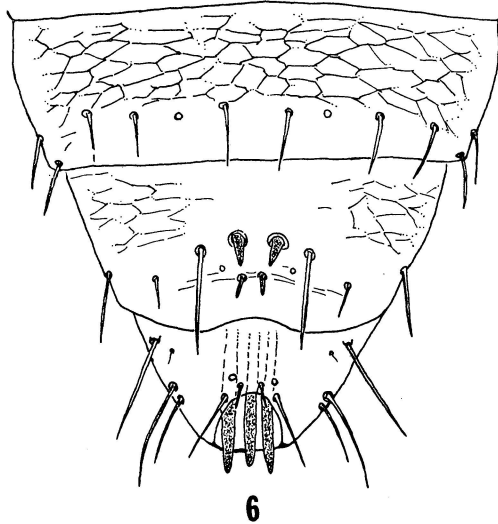


Fig. 6. *Anaphothrips secticornis* (Trybom). ♂, Washington State, USA, abdominal segments VIII to X, dorsal view.

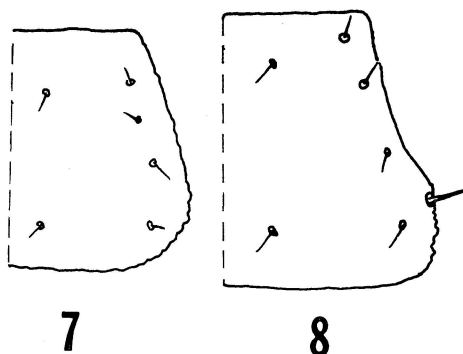


Fig. 7-8. *Anaphothrips secticornis* (Trybom), South Georgia: 7, Larva I, pronotum. 8, Larva II, pronotum.

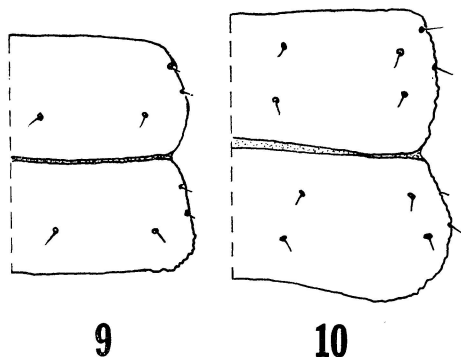


Fig. 9-10. *Anaphothrips secticornis* (Trybom), South Georgia: 9, Larva I, meso-metanotum, showing 1 transverse row of setae on each segment. 10, Larva II, meso-metanotum, showing 2 transverse rows of setae on each segment.

VIII, which are brown. Antennal segments II to IV yellow, segment V yellowish brown, segment VI enlarged and with an incomplete secondary suture as in ♀.

Head much broader than long, dorsal surface with fine anastomosing striations. Legs not as stout as in ♀. Abdominal tergites with a single row of moderately long setae on posterior margin, segment VIII with a comb of scallop-like teeth, segment IX (fig. 6) with 4 spines (anterior pair largest).

Larva I: Body color light yellowish brown, with pale tan colored spots, principally on head and pteronotum. Abdominal segments IX and X light brown, base of femora and tibiae brown with apical 1/3 pale white. Antennal segments I to III light brown with apical 1/3 pale white, IV uniform gray brown, V light brown, III VI brown, VII dark brown.

Head wider (\bar{x} W 80 (73-83)) than long (\bar{x} L 68 (61-73)), transverse row of setae (4) in front of eyes nearly equal in length. Antennae 7-segmented (fig. 3), segment IV with 5 transverse rows of microsetae, vestigial on III. Length (L) and width (W) in μm of antennal segments of 5 specimens from South Georgia (L of III including pedicel) as follows:

Segments (measurements: \bar{x} (range) in μm)

	L	W		L	W
I	10 (9-11)	24 (23-25)	V	8 (7-10)	15 (14-15)
II	21 (20-22)	21 (20-22)	VI	9 (8-9)	11 (10-12)
III	23 (22-25)	25 (24-26)	VII	19 (18-20)	8 (7-8)
IV	34 (32-36)	24 (23-25)			Total \bar{x} length, 124 μm

Prothorax with an X-shaped spot on each side. Pronotum wider (\bar{x} W 124 (122–128) than long (\bar{x} L 90 (83–100), with 12 setae (fig. 7), large posteromarginal setae (as found in larva II, fig. 8) absent. Meso- and metanotum (fig. 9) with only 1 transverse row of setae as compared with 2 rows in Larva II, (fig. 10). Integument of pteronotum and abdominal segments I to VIII with transverse rows of oval to oblong dermal excrescences, approximately 6 rows per segment. Abdominal segments IX and X smooth, segment IV \bar{x} W 160 (133–181), segment X with a weak suture which represents the division of segment XI. Lateral abdominal setae moderately stout and weakly knobbed, segment IX lateral setae \bar{x} L 31 (30–34), slightly bent. Total body length \bar{x} 610 (546–660), slightly distended.

Larva II: Body color light yellowish brown with brown spots which are more extensive than on Larva I, the darkest spot between bases of antennae on vertex of head (fig. 1), abdominal segments IX and X brown. Antennal segments I to III brown, VI and VII dark brown. Femora brown with apical 1/3 pale white, tibiae brown with outer apical 1/3 light brown and inner apical 1/3 grayish white.

Head wider than long. Antennae 7-segmented (fig. 4), very similar to *obscurus* but usually shorter and thicker. Length (L) and width (W) in μm of the antennal segments of 9 specimens from South Georgia (L of III including pedicel), as follows:

Segments (measurements: \bar{x} (range) in μm).

	L	W		L	W
I	12 (10–14)	25 (23–27)	V	7 (5– 8)	15 (13–16)
II	24 (23–26)	22 (21–23)	VI	8 (8–10)	10 (7–12)
III	36 (35–39)	24 (23–25)	VII	20 (18–21)	9 (8– 9)
IV	39 (37–41)	22 (21–22)			

Total \bar{x} length, 146 μm

Pronotum (fig. 8) with 14 setae as opposed to 12 setae in Larva I. Prothorax with an X-shaped mark on each side. Meso- and metanotum (fig. 10) with 2 transverse rows of setae as compared with only 1 row on Larva I. Integument of pteronotum and abdominal tergites with dermal excrescences more developed than in Larva I. Abdominal segment IV, \bar{x} W 225 (196–250), lateral setae stout and weakly knobbed, segment IX lateral setae, \bar{x} L 37 (35–39), slightly bent. Total body length (moderately distended) \bar{x} 873 (684–1023).

SOUTH GEORGIA: 1 ♀, South Georgia, I–III. 1961, N. V. Jones; 4 ♀♀ from *Rostkovia*, 3 ♀♀ from short grass, 26 ♀♀ from grass, Grytviken Pen., Maiviken, 11.XII.1963, H.B. Clagg; 11 ♀♀ from short grass (80 M), 7 ♀♀, 29 larvae (75 M), Stromness Pen., Tönsberg Point, 7.I.1964, Clagg; 5 ♀♀, 19 larvae from short grass; Barff Pen., Sörling Val., 21.I.1964, Clagg; 1 ♀, 1 larva from trapnet (10 m), Barff Pen., Jorobihan, 29.I.1964, Clagg; 1 ♀, 13 larvae from short grass, Barff Pen., Lonnsberg Val., 8.II.1964, Clagg.

ADDITIONAL SPECIMENS EXAMINED: 1 ♀, Emerald Lake Field,, British Columbia, Canada, VIII.1953, Ross and Ross, 1280 m; 2 ♂♂, Friday Harbor, Washington, USA, 27.VII.1954, C. J. Goodnight, from grass; 4 ♀♀, Nederland, Colorado, USA, 5.VI.1954, Ross & Ross, on marsh marigold, ca. 3000 m.

Geographic distribution: Widespread, but spotty, in grasslands in Europe and the western portions of North and South America, including islands and in high mountains, specifically Sweden (Trybom 1896), Austrian Alps (Priesner 1926), British Columbia (Bagnall 1908), Washington (Bailey 1957), Oregon (Trybom 1896), California (Daniel 1904), Colorado (INHS), Chile (Moulton 1933), Juan Fernandez I. (Ahlberg 1922), Tierra del Fuego (de Santis 1963), South Georgia I. (records herein).

The specimens from South Georgia are deposited in the Bernice P. Bishop Museum, the U. S. National Museum, and the Illinois Natural History Survey.

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LITERATURE CITED

- Ahlberg, O.** 1922. Thysanoptera from Juan Fernandez and Easter Island. *Nat. Hist. Juan Fernandez & Easter I* **3**(2): 271-76.
- Bagnall, R. S.** 1908. On some new genera and species of Thysanoptera. *Trans. Nat. Hist. Soc. Northumberland, Durham, and Newcastle-upon-Tyne N. S.* **3**(1): 183-217.
- Bailey, S. F.** 1957. The thrips of California. Part I: Suborder Terebrantia. *Bull. Calif. Ins. Surv.* **4**(5): 143-220.
- Daniel, S. M.** 1904. New California Thysanoptera. *Entomol. News* **15**(9): 293-97.
- Hood, J. D.** 1927. On the synonymy of some Thysanoptera occurring in California. *Pan Pacif. Entomol.* **3**(4): 173-178.
- Karny, H. H.** 1912. Revision der von Serville aufgestellten Thysanopteren - Genera. *Zool. Annot.* **4**: 322-44.
- Moulton, D. A.** 1933. The Thysanoptera of South America III. *Rev. Entomol.* **3**(1): 96-133.
- Priesner, H.** 1926. Die Thysanopteren Europas. Part I. Fritz Wagner, Vienna: 1-238.
- Reuter, O. M.** 1899. Förteckning och Beskrifning öfver Finska Thysanoptera. *Acta. Soc. Fauna Flora Fenn.* **17**(2): 3-67.
- Santis, Luis de.** 1963. Tisanopteros de Tierra del Fuego. *Rev. Soc. Entomol. Argen.* **24**: 63-66.
- Trybom, F.** 1896. Einige neue oder unvollständig beschriebene Blassenfüsse (Physapoden). *Öfv. Vet. Akad. Förhandl.* **8**: 613-26.