

The Male of *Glaucothrips glaucus* (BAGNALL) (Thysanoptera: Thripidae) on Plants from South Africa in Plant Quarantine in Japan

Masami MASUMOTO

Yokohama Plant Protection Station, 1-16-10, Shinyamashita, Naka-ku,
Yokohama 231-0801, Japan.

Abstract: The previously unknown male of the South African thrips, *Glaucothrips glaucus* (BAGNALL), is described, based on specimens taken in plant quarantine in Japan from cutflowers imported from South Africa.

Key words: *Glaucothrips glaucus*, Thysanoptera, Thripidae, male, South Africa, plant quarantine in Japan

Introduction

More than 100 Thysanoptera species, representing 50 genera and three families (Aeolothripidae, Thripidae and Phlaeothripidae) have been detected from imported cutflowers, fruits and vegetables in plant quarantine in Japan (HAYASE, 1991; ODA and HAYASE, 1994; MASUMOTO *et al.*, 1997).

The South African genus *Glaucothrips* KARNY, 1921 includes only *G. glaucus* (BAGNALL, 1914), which until now has been known only from the female (MOUND, 1968; JACOT-GUILLARMOUD, 1974). This species is often detected on cutflowers imported from South Africa in the import quarantine inspection of Japan. Recently, some male adults were detected together with females. This paper presents a diagnosis of the genus together with an illustrated description of the male.

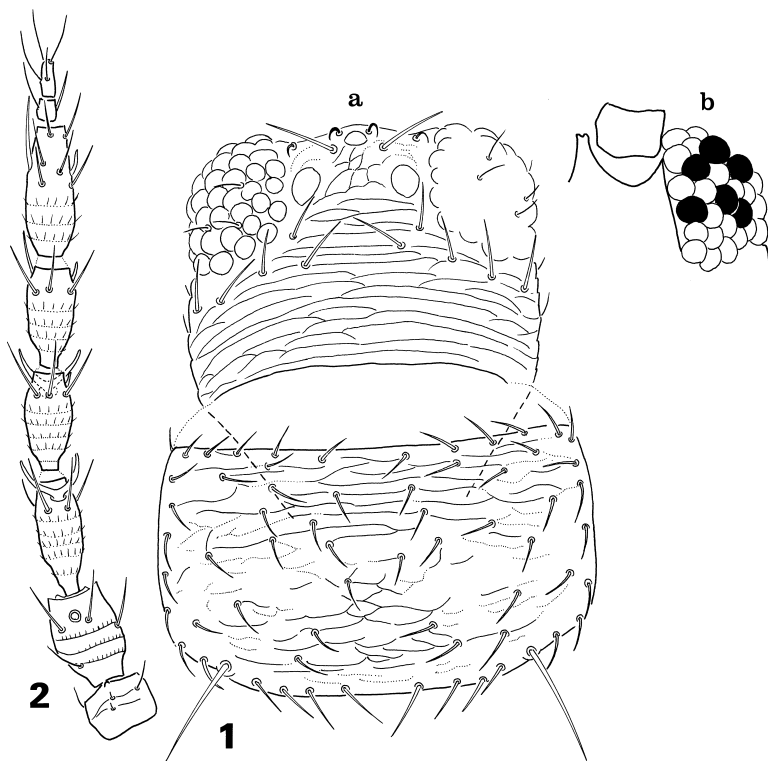
The author wishes to express his hearty thanks to Dr. Laurence MOUND, CSIRO, Australia, for his help with the manuscript, to Dr. Richard zur STRASSEN, Senckenberg Museum, Germany for his observations on female specimens when this species was detected at first time, and to Mr. Shinya KIMURA and Mr. Keisuke TAKASAWA, Plant Protection Station for supplying materials.

Genus *Glaucothrips* KARNY

Glaucothrips KARNY, 1921: 240, as subgenus of *Pseudothrips* BAGNALL. Type species *Pseudothrips glaucus* BAGNALL, by monotypy. MOUND, 1968: 40, as genus.

Diagnosis

Macropterous in both sexes. Head with slightly rounded cheeks (Fig. 1a). Antennae 8-segmented, segments III and IV with forked sense-cones (Fig. 2). Ocellar setae pair I



Figs. 1-2. Head and pronotum, antenna (male adult).

1. Head and pronotum (a. dorsal aspect; b. ventral aspect of left compound eye).
2. Right antenna (dorsal aspect).

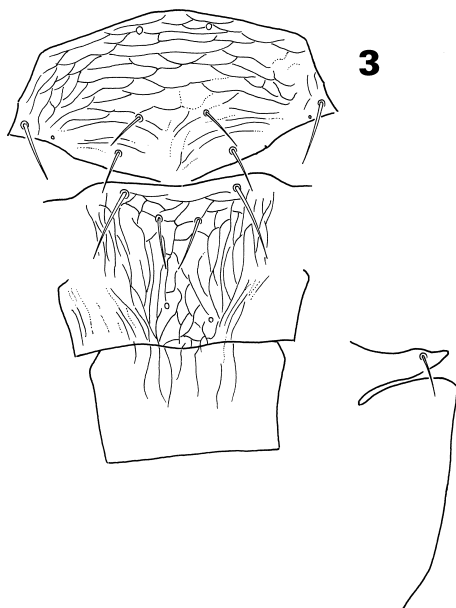


Fig. 3. meso- and metathorax (with metapreepisternum and a part of metaepisternum on right side) (male adult).

present, ocellar setae pair III prominent and arising just within ocellar triangle; postocular setae pair II situated behind setal row. Compound eyes with 6 facets pigmented (Fig. 1b). Maxillary palps three-segmented. Pronotum with a pair of elongate posteroangular setae and four pairs of posteromarginal setae, anterior margin without elongate setae (Fig. 1); prosternal ferna divided; prospinasternum developed. Metascutum reticulated with a pair of campaniform sensilla (Fig. 3). Mesothoracic spinula present. Metathoracic spinula absent; pre-episternum weakly developed and with a seta at apex (Fig. 3). Fore wings without long gap in setal row on first vein, posteromarginal fringe hairs wavy. Abdominal terga without ctenidia; discal B1 setae separated by distance greater than their length; sterna and laterotergites without discal setae; posteromarginal comb of tergum VIII complete; tergum X divided. Ovipositor developed in female.

Remarks

This genus is similar to *Anaphothrips* UZEL, 1895 but is distinguished by lacking a long gap in the setal row on the fore wing first vein, and having a pair of long posteroangular setae on the pronotum. The male lacks sternal glandular areas, in contrast to males of *Anaphothrips* sensu stricto (NAKAHARA, 1995).

Glaucothrips glaucus (BAGNALL)

Pseudothrips glaucus BAGNALL, 1914: 23.

Pseudothrips (*Glaucothrips*) *glaucus* (BAGNALL); KARNY, 1921: 240.

Pseudanaphothrips turneri MOULTON, 1936: 498–499. Synonymised by ZUR STRASSEN, 1968 (September): 366.

Glaucothrips glaucus (BAGNALL); MOUND, 1968 (May): 40; JACOT-GUILLARMOD, 1974: 835–836.

Male almost same characteristics as female but slightly smaller and paler. Body colour uniformly whitish brown to pale brown; antennal segment I whitish, II slightly shaded, III slightly darker than II, IV to VIII pale brown but IV slightly paler; head whitish brown with ocellar triangle darker, basal fourth sometimes darker; pronotum whitish brown, sometimes darker medially; mesonotum shaded near anterior margin; metanotum shaded; fore wings slightly shaded with two veins slightly darker; prominent body setae shaded.

Measurements in μm . Distended body length 920. Head (Fig. 1) distinctly sculptured with transverse striae, except ocellar triangle which is irregularly reticulated, length 75, width 110–120. Antennal segment II with three rows of microtrichia on dorsal surface and a sub-basal seta, segments III to VI with four to five rows of microtrichia on ventral and dorsal surfaces (Fig. 2); length (width) of segments I to VIII: 17 (20–22), 25–27 (22), 34–35 (15–17), 27–30 (15), 30–32 (15–16), 37–41 (16–17), 6–7 (5–7), 12–13 (5–7). Pronotum (Fig. 1) distinctly sculptured with anastomosing striae but weakly at each side, median length 75–85, width 145–150, posteroangular setae I length 35. Metascutum (Fig. 3) median length 53, median setae length 15. Fore wings length 530–585. Abdominal terga with transverse lines of sculpture medially, VIII with complete comb of long, fine microtrichia, IX with two pairs of stout short setae and two pairs of campaniform sensilla (Fig. 4); sterna without

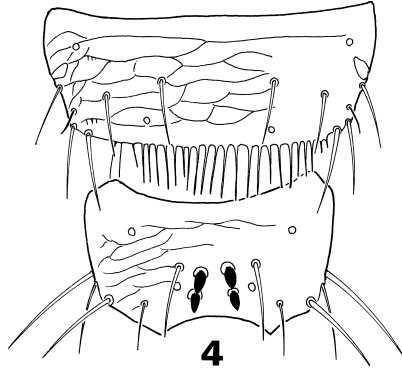


Fig. 4. Abdominal terga VIII to IX (sculpture on right side omitted) (male adult).

glandular area.

Specimens examined. 2♂♂, on cutflowers of *Berzelia* sp. [Bruniaceae] imported from South Africa, in plant quarantine in Narita Airport, Japan, 28-July-2001, S. KIMURA. 2♂♂, on cutflowers of *Phylica* sp. [Rhamnaceae] imported from South Africa, in plant quarantine in Narita Airport, Japan, 23-March-2002, K. TAKASAWA.

References

- BAGNALL, R. S. (1914) Brief descriptions of new Thysanoptera. II. *Ann. Mag. Nat. Hist.* (8)13: 22–31.
- JACOT-GUILLARMOD, C. F. (1974) Catalogue of the Thysanoptera of the world. *Ann. Cape Prov. Mus. (Nat. Hist.)* 7, part 3: 517–976.
- HAYASE, T. (1991) A List of thrips (Thysanoptera) intercepted in plant quarantine. *Res. Bull. Pl. Prot. Japan* 27: 93–99.
- KARNY, H. 1921. Zur Systematik der Orthopteroiden Insekten, Thysanoptera. *Treubia* 1: 211–269.
- MASUMOTO, M., Y. ODA and T. HAYASE (1997) Additional list of thrips (Thysanoptera) intercepted in plant quarantine. *Res. Bull. Pl. Prot. Japan* 35: 149–150.
- MOULTON, D. 1936. Thysanoptera from Africa. *Ann. Mag. Nat. Hist.* (10)17: 493–509.
- MOUND, L. A. 1968. A review of R. S. Bagnall's Thysanoptera collections. *Bull. Brit. Mus. (Nat. Hist.) Entomology, Suppl.* 11: 1–181.
- NAKAHARA, S. 1995. Review of the Nearctic species of *Anaphothrips* (Thysanoptera: Thripidae). *Insecta Mundi* 9: 221–248.
- ODA, Y. and T. HAYASE (1994) Additional list of thrips (Thysanoptera) intercepted in plant quarantine. *Res. Bull. Pl. Prot. Japan* 30: 123–124.
- ZUR STRASSEN, R. 1968. New records of South African Thysanoptera with description of a new Phlaeothripid genus. *J. Ent. Soc. Sth. Afr.* 31: 365–372.

和 文 摘 要

南アフリカ産切花から発見された *Glaucothrips glaucus* (BAGNALL)
(アザミウマ目; アザミウマ科) の雄成虫

榎 本 雅 身

横浜植物防疫所

我が国の輸入植物検疫において、切花、生果実及び野菜から3科50属100種以上のアザミウマ類が発見されている。南アフリカに分布する *Glaucothrips* 属 (アザミウマ科) は、*G. glaucus* (BAGNALL) 1種のみを含み、輸入検疫でも切花からしばしば発見されている。本種は、これまで雌しか知られていなかったが、最近、輸入検疫において雌成虫とともに雄成虫が発見

された。雄成虫の形態的特徴は雌成虫とほとんど同じだが、雌成虫に比べてやや小さく、体色も淡い。本報告では雄成虫の形態的特徴を記載・図示した。本属は、*Anaphothrips* 属に似るが、前胸背板後縁に1対の長刺毛を持つこと、前翅前脈の翅毛列が途中で大きくとぎれないことで識別できる。