

PRELIMINARY NOTE ON A REVIEW OF SUBGENUS
TAENIOTHRIPS (ISOCHAETOTHRIPS)
(Thysanoptera : Thripidae)¹

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Abstract: The subgeneric characters of *Taeniothrips* (*Isochaetothrips*) (Moulton), n. comb. are redefined, and a key to 7 species is provided. Changes in nomenclature are 3 new synonymies and 6 new combinations. The subgenus is presently known from Equatorial Africa, Australia, and Central Oceania.

After segregating out an atypical group into *Chaetisothrips* Priesner (Sakimura 1967), a study on the type materials showed that the remaining 12 species of *Isochaetothrips* Moulton are still heterogeneous. A group including the type species, *seticollis* Bagnall, is fixed on *Isochaetothrips*, but another group, including *parvus* Bagnall, *uniformis* Bagnall, *querci* Moulton, *frankstoni* Steele, *pallidus* Steele, and *melanurus* Steele, is segregated into a new genus which is to be described in another paper. The presently known distribution of *Isochaetothrips* is limited to Equatorial Africa, Australia, and Central Oceania.

Foreseeing a further delay in completing a review of the subgenus, this preliminary note is written to avoid delay in communication, particularly of the emended subgenus concept and the new changes in nomenclature.

Subgenus **Taeniothrips** (**Isochaetothrips**) (Moulton), n. comb.

Isochaetothrips Moulton, 1928: 227.—Priesner, 1933: 53; 1949: 134; 1957: 166.—Moulton, 1933: 127.—Crawford, 1945: 179.

Taeniothrips (*Isochaetothrips*): Priesner, 1938: 349.

Type by original designation: *Taeniothrips seticollis* Bagnall, 1915.

Head normal for *Taeniothrips*, cheeks conspicuously arched and strongly constricted at both extremes, coarse striae on occiput; ante-ocellar setae wanting, latero- and inter-ocellar setae normal, I, III, V setae of postocular series prominent, but II & IV undeveloped. Antennae 8-segmented, normal; maxillary palpi 3-segmented. *Prothorax* with 2 long setae in a similar length at posterior angle, 3 pairs of hind marginal setae and median pair

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always prominent; 1 disc seta near posterior angle and 2 pairs of disc setae along foremargin always more prominent than other disc setae; premarginal dorsal bulging along hind margin prominent (heavier wrinkles). *Pterothorax*, mesonotum, lateral setae long, setae I always away from hind margin; metanotum, setae I long and away from foremargin (except for *seticollis* and *longicaudatus*, on margin). Mesospinula prominent, metaspinula wanting. Legs unarmed. Forewings, regularly-spaced seta rows on fore and hind veins; scale with 5 setae on vein, IV seta always longest (except for *insignis*, terminal longest), disc seta nearly as long as longest veinal seta, this chaetotaxy on scale deviates from the *Taeniothrips* type. *Abdomen*, hind margin of pleura explanate into slant-marginated clefts (on *insignis*, not slant), hind margins of epipleura and lateral portions of terga very weakly and finely serrated or combed; chaetotaxy normal; tergum IX, dorsal setae well developed; combs on tergum VIII normal, complete with many fine and long teeth (except for *longicaudatus*, absent). ♂. On tergum IX, 3 pairs of long setae on dorsum (B1, dorsal setae, and well-developed accessory marginal setae I near and caudolateral from B1), accessory marginal setae II undeveloped and near B2; on tergum X, dorsal setae prominent.

The subgeneric status with *Taeniothrips* Serville is herewith designated. The genus *Taeniothrips* is a highly heterogeneous assemblage (O'Neill & Bigelow, 1964). The basic group including the type, *picipes* Zetterstedt, however, is separable from the subgenus *Isochaetothrips* by the separate basal and distal seta groups on the forevein of the forewing, and by different chaetotaxies of the postocular seta series and the male tergum IX. On *picipes*, all the setae of the postocular series are subequal in length but IV and V are longer, and 3 pairs of long setae on dorsum of male tergum IX are the same as *Isochaetothrips*, but the short accessory marginal setae II move away from B2. Both chaetotaxies which are present on *Isochaetothrips* are identical with those on another group of *Taeniothrips*, including *atratus* Haliday, *vulgatissimus* Haliday, *simplex* Morison, *pretiosus* Priesner, and *tenebricosus* Priesner. All the other major characters enumerated for *Isochaetothrips* are common, with a few minor exceptions, on the *picipes* and *atratus* groups. The chaetotaxy on male tergum IX may perhaps be useful for finer segregations of *Taeniothrips* auct.

Priesner (1933: 53) first mentioned a probable subgeneric status of *Isochaetothrips*. While describing *fumosoides*, Priesner (1938: 351) noted a series of characters common with those of *Taeniothrips* (*picipes* and *atratus* groups), and a combination of *Taeniothrips* (*Isochaetothrips*) was designated for the species. However, he did not, here and also in the subsequent reviews (1949: 134, 1957: 166), designate the subgeneric status of *Isochaetothrips*, probably because *Isochaetothrips seticollis*, the type, was not seen by him and also the other congeners known to him were different from *Taeniothripoid*. Upon purging now all the heterogeneous elements from *Isochaetothrips*, Priesner's view has been clearly confirmed.

A new genus into which the atypical species are to be assigned is readily separable from *Isochaetothrips* through the following characters: presence of ante-ocellar setae, weak interocellar setae, uniformly tiny postocular seta series; outer seta of prothoracic posterior-angle shorter than inner, no prominent disc setae; setae I always on hind margin of mesonotum and lateral setae weak; very long setae I always on foremargin of metanotum; terminal seta longest and disc seta short on scale; combs of tergum VIII sparse, convergingly directed, and broadly based; male tergum IX with 2 pairs of long

setae on dorsum (B1 and dorsal setae).

Besides 7-segmented antennae, *Thrips* (*Isothrips*) shows little difference from *Isochaetothrips*, but the major difference is the chaetotaxy of male tergum IX, the former having only 2 pairs of long setae on dorsum (B1 and accessory marginal setae I; dorsal setae short). The chaetotaxy on male tergum IX of *Isochaetothrips* is, however, common with that on *Thrips*, s. str., *Isoneurothrips*, and *Chaetothrips*.

For recognizing species of *Isochaetothrips*, variations in metanotal sculpture and accessory setae on sterna are useful. Such variations in metanotal sculpture are delimited within the particular distributional regions, with one deviated case in *longicaudatus*—namely, Equatorial African, Australian-New Zealand, and Central Oceanian, as shown in the following key to the species.

KEY TO SPECIES OF TAENIOTHRIPS (ISOCHAETOTHRIPS)

1. Metanotum finely striated 2
Metanotum reticulated..... 4
- 2 (1). Abdominal sterna without accessory setae; tergum IX, B2 as long as B3. (West Australia).....**seticollis** (Bagnall)
Abdominal sterna with accessory setae 3
- 3 (2). Epipleura with accessory setae; tergum IX, B2 as long as B3. (New Zealand)
..... cf. **Thrips (Isothrips) obscuratus** (Crawford)*
Epipleura without accessory setae; tergum IX, B2 as short as 1/2 of B3. (Victoria, Queensland, and West Australia).....**setipennis** (Bagnall)(=*chaetoneurus* Karny, *ignobilis* Bagnall and *myrsiniicola* (Bagnall)).
- 4 (1). Metanotum wholly reticulated; sterna with accessory setae..... 5
Metanotum reticulated mesad and striated or elongate-reticulated laterad..... 6
- 5 (4). Mid-tibia and antennal III brown, hind wing and base of forewing lighter brown, scale uniformly gray brown; forewing narrow (1/18 of length wide at middle). (Belgian Congo) **fumosoides** Priesner
Mid-tibia and antennal III yellow, hind wing and base of forewing nearly white, scale white at distal 1/2; forewing broad (1/15 of length wide at middle). (Ethiopia)..... **scotti** (Moulton)
- 6 (4). Abdominal sterna with accessory setae; abdominal X extremely long. (Samoa, South Australia) **longicaudatus** (Bianchi)
Abdominal sterna without accessory setae; abdominal X normal..... 7
- 7 (6). Brown species with brown femora and all brown antennal segments except III; forewing with 2 pale brown bands, distal band often very weak, basal 1/4 and distal 1/8 white; metepimeron finely reticulated. (New Caledonia)...
.....A species
Yellow species with yellow femora and gray-brown antennal segments III to VIII; forewing uniformly pale brown; metepimeron coarsely elongate-reticulated. (New Caledonia).....**insignis** (Bianchi)

* An aberrant form with 8-segmented antennae (partly or completely sutured style). Chaetotaxy on male tergum IX of this species is, however, of the *Isochaetothrips* type.

1. **Taeniothrips (Isochaetothrips) seticollis** (Bagnall), new combination

Taeniothrips seticollis Bagnall, 1915 : 591.

Physothrips seticollis : Bagnall, 1916 : 219.

Isochaetothrips seticollis : Moulton, 1928 : 227.—Priesner, 1957 : 161.

A ♀ syntype (Mundaring Weir, Darling Range, Perth, West Australia, 3.VIII.1914, E. B. Poulton), which is herewith designated as lectotype, was examined at the British Museum. No other specimen was seen in any collection. No ♂ is known.

2. **Taeniothrips (Isochaetothrips) setipennis** (Bagnall), new combination

Physothrips setipennis Bagnall, 1916 : 399 ; 1926 : 101.

Isochaetothrips setipennis : Moulton, 1928 : 227.

Physothrips chaetoneurus Karny, 1920 : 37 ; 1924 : 12, fig. **New Synonymy.**

Isochaetothrips chaetoneurus : Steinweden, 1933 : 293.

Physothrips ignobilis Bagnall, 1926 : 101. **New Synonymy.**

Isochaetothrips ignobilis : Moulton, 1928 : 227.

Physothrips myrsiniicola Bagnall, 1926 : 103. **New Synonymy.**

Isochaetothrips myrsiniicola : Moulton, 1928 : 227.

A ♀ syntype (Healesville, Vict., 25.I.1914, R. Kelly) and a ♂ metatype (Ben Cairn near Healesville, Vict., 17.I.1926, R. Kelly), which are herewith designated as lectotype and paralectotype of *setipennis*, were examined at the British Museum. Two ♀♀ syntypes (Warburton, Vict., 17.I.1926, R. Kelly) of *ignobilis*, a ♂ syntype (Warburton, Vict., 17.I.1926, R. Kelly) of *myrsiniicola*, and a ♀ syntype (Mt. Tambourine, Qd., Oct. Mjöberg 129)(191-65, 186 y) of *chaetoneurus*, which was on loan from the Riksmuseum, Stockholm, were also examined at the British Museum, and found to be all identical with *setipennis*. A note appearing on the type slides of *ignobilis* and *myrsiniicola* indicated that both synonymies had been previously recognized by E. R. Speyer. Several ♀♀♂♂ in the California Academy of Sciences collection determined by Moulton as *myrsiniicola* (Melbourne, Vict., X.1930, J. Evans ; Box Hill, Vict., 27.I.1928, and 24.I.1929, R. Kelly)(Moulton 2720, 3386, 4434) are a misidentification of *melanurus* Steele of the other group.

3. **Taeniothrips (Isochaetothrips) scotti** (Moulton), new combination

Isochaetothrips scotti Moulton, 1928 : 228.—Priesner, 1938 : 351.

Holotype ♀ and several paratypes in the BM collection and also a few paratypes in the CAS collection were examined. No ♂ is known.

4. **Taeniothrips (Isochaetothrips) fumosoides** Priesner

Taeniothrips (Isochaetothrips) fumosoides Priesner, 1938 : 349.

Isochaetothrips fumosoides : Priesner, 1957 : 161.—Faure, 1959 : 382, figs.

Four ♀♀♂♂ paratypes (N'Gesho, Belgian Congo, 2.IX.1937, J. Ghesquière, No. 5238) in the Priesner collection were examined.

5. **Taeniothrips (Isochaetothrips) insignis** (Bianchi), new combination

Isochaetothrips insignis Bianchi, 1945 : 274.—Priesner, 1957 : 161.

Holotype ♀ and a paratype in the HSPA collection and also another paratype in the

Priesner collection were examined. No ♂ is known.

6. **Taeniothrips (Isochaetothrips) longicaudatus** (Bianchi), new combination

Taeniothrips longicaudatus Bianchi, 1953: 94, figs.

Holotype ♀ in the Bishop collection was examined. Four ♀♀ (South Australia, no locality and no date, C. T. McNamara)(Moulton 3878) were found with an MS name in the CAS collection. The locality record of this collection is incomplete and appears somewhat dubious, but this collection reveals its distribution range from Samoa to South Australia. No ♂ is known.

7. **Taeniothrips (Isochaetothrips) sp.**

A series of ♀♀♂ specimens determined by Bianchi (1945: 273) as *seticollis* (various localities, New Caledonia, VIII.X.1940, F. X. Williams) in the HSPA and Priesner collections are a misidentification of an undescribed species.

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