

TWO NEW SPECIES OF MYCETOPHILIDAE (DIPTERA :
NEMATOCERA) FROM BRITAIN.

By PAUL FREEMAN, M.Sc., F.R.E.S.

(Department of Entomology, British Museum (Natural History)).

THE two species described below were amongst some material bred by the late Professor P. A. Buxton, C.M.G., F.R.S., and sent to me for identification. Professor Buxton very kindly presented the type series of both species to the British Museum (Nat. Hist.); I take pleasure in naming the *Sciophila* in his honour.

***Sciophila buxtoni* sp. n.**

Microtrichia present on wing membrane only at the extreme base of wing; scutum reddish and without darker stripes; pleura, postnotum and abdomen blackish; all femora red; ninth tergite of male contracted at apex. Body colour not unlike that of *plurisetosa* Edwards, but it is easily distinguished by the shape of the ninth tergite and by the absence of microtrichia over most of the wing.

The structure of the ninth tergite of the male is very similar to that of *S. dziedickii* Edwards, although it is narrower apically. The latter species was figured by Dziedzicki in his *Atlas* (1915: figs. 68-70) under the name *thoracica* Staeger, but Edwards (1924: 165) showed that it was not the true *thoracica* of Staeger and he renamed it *dziedzickii*. Dziedzicki was presumably figuring specimens described by Winnertz (1863: 757) under the name *thoracica*. It seems clear that the present species is different because Winnertz mentions the presence of three black stripes on the thorax of his specimens (as in true *thoracica* Staeger), also in Dziedzicki's figure no long spines are shown on the inner lobe of the style in the dorsal aspect and the outer lobe is smaller and shaped differently.

In Edwards' key (1925: 560), *S. buxtoni* runs out with *limbatella* Zett., *rufa* Meig. and *ochracea* Walker, from all of which it may be distinguished by the pale thorax and black abdomen, besides hypopygial differences.

Wing length 3.5-5.0 mm.

Head black, palpi brownish-yellow with black hairs, antennae black, first two segments brown or yellowish. *Thorax* with scutum and prothorax reddish-yellow, lacking dark markings, stripes not indicated, hairs yellow; scutellum brown, pleura and postnotum blackish-brown in male, with pale hair; in female these sclerites paler brown. *Legs* yellow except for a black spot beneath each trochanter, tarsi appear darker because of the dense covering of dark hair. *Wings* densely covered with macrotrichia, microtrichia confined to a band around the anal angle; Sc_2 meeting R in the middle of the small cell. Halteres yellow. *Abdomen* of male black and rather shining, of female paler, almost yellowish at the incisures giving a banded appearance. Male hypopygium (fig. 1) with ninth tergite contracted apically, style as shown, inner lobe with 24-36 capitate and pectinate spines and two long spines, outer lobe with two long spines ventrally and a short sharp spine on the inner dorsal angle.

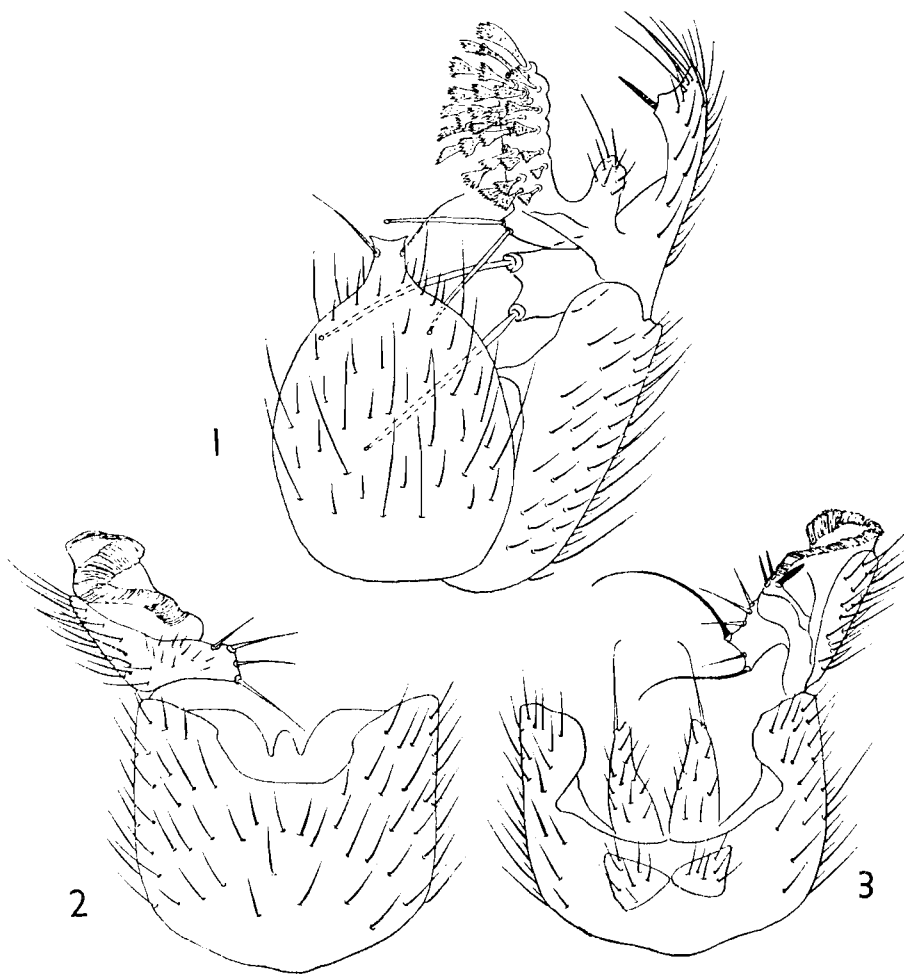
Holotype male and 2 ♂, 2 ♀ paratypes, BUCKS.: Gerrard's Cross, i. 1954 (*P. A. Buxton*). All bred from *Trametes confragosa* (Bolt.) Jorstad (*rubescens* Fr.), and *T. gibbosa* (Pers.) Fr. The fact that the insect has been reared twice from *Trametes* spp. but not from over 100 samples of 25 other species of Polyporaceae is of interest.

Phronia sinuata sp. n.

Thorax yellowish-brown, abdomen with pale bands at the incisures, hypopygium pale; posterior coxae darkened, posterior femora blackish at the tips; wings unmarked, costa only slightly produced. Similar to *P. obtusa* Winnertz, but separated by the yellow hypopygium and dark coxae, by the shape of the ventral margin of the sterno-coxite and by the presence of two long curved hairs on the tergal aspect of the inner lobe of the style. Resembles *obtusa* in the presence of a single sinuous striated band on the inner lobe of the style.

Wing length 2-2.5 mm.

Head, mouthparts, antennae dark brown, face, scape and pedicel yellow. Thorax with yellowish-brown scutum, stripes hardly indicated, bristles darker, remainder of



Figs. 1-3.—Male hypopygia of new species of *Mycetophilidae*. (1) *Sciophila buxtoni* tergal aspect; (2) *Phronia sinuata* sternal aspect; (3) the same in tergal aspect.

thorax rather darker. *Legs* yellow, posterior coxae distinctly darkened, middle coxae sometimes as well, apices of posterior femora blackish. *Wings* unmarked, costa slightly produced, venation normal, posterior fork short, anal area with a few erect macrotrichia on the membrane. Halteres yellow. *Abdomen* brown with yellow markings ventrally and at the incisures, i.e. each band overlaps two segments, on segments 1-4; male hypopygium and apex of female abdomen yellowish. Hypopygium (figs. 2-3) with characteristic apical margin to sterno-coxite; outer lobe of style simple, undivided; inner lobe with a single, rather broad, sinuous striated band; in tergal aspect, inner lobe bears three stout spines and at its inner extremity two long curved hairs.

Holotype male and 4 ♂, 1 ♀ paratypes, Bucks.: Gerrard's Cross, ix.1953 (*P. A. Buxton*); 1 ♂, 4 ♀ same locality and collector, xii.1954. All specimens bred from *Calocera viscosa* (Pers.) Fr. This insect has emerged from two of seven collections of *C. viscosa*, but not from five collections of *Calocera cornea*, nor from the other Tremellales (*Dacryomyces*, *Auricularia*) which have been examined by Professor Buxton.

REFERENCES.

- DZIEDZICKI, H., 1889, Revue des espèces européennes du genre *Phronia*, etc. *Horae Soc. ent. Ross.* **23**: 404-532.
- , 1915, Atlas des organes genitaux des types de Winnertz et des genres de sa collection de Mycétophiles. *Publ. Soc. sci. Varsovie* **3**: 1-16, pls. i-xxi.
- EDWARDS, F. W., 1913, Notes on British Mycetophilidae. *Trans. ent. Soc. Lond.* **1913**: 334-382.
- , 1924, Notes on the types of Mycetophilidae described by Staeger and Zetterstedt. *Ent. Tidskr.* **45**: 160-8.
- , 1925, British fungus-gnats. With a revised generic classification of the family. *Trans. ent. Soc. Lond.* **1925**: 505-670.
- LANDROCK, K., 1926-7, Fungivoridae (Mycetophilidae), in Lindner, *Flieg. Palaearkt. Reg.* **2** (1), pt. 8.
- STAEGER, C., 1840, Systematisk fortegnelse over de i Danmark hidtil fundne Diptera. 3. Krøjer: *Naturhist. Tidsskr.* **3**: 228-88.
- WINNERTZ, J., 1863, Beitrag zu einer Monographie der Pilzmücken. *Verh. zool.-bot. Ges. Wien* **13**: 637-964.