

## A new Arctic species of *Fucellia* (Diptera Anthomyiidae) with maculated wings.

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By

J. E. Collin F. R. E. S., Newmarket, England.

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Among a few Arctic Diptera recently sent to me for identification by Dr. S. L. Tuxen of the Zoological Museum, Copenhagen, there were two males, preserved in spirit, of a species of *Fucellia* taken at Bays Fjord on the west coast of Ellesmere Land on the 15th May 1940 by Mr. Christian Vibe. At first sight this appeared to be *F. pictipennis* Beck., but Mr. Vibe who compared the specimens with Becker's type of *pictipennis* in the Danish Museum called my attention to considerable differences in shape, venation, and markings of wings, and requested me to describe the species. In doing so it gives me much pleasure to associate his name with this very interesting species.

### *Fucellia vabei* sp. n. ♂.

A dull, densely dusted, blueish-grey species, bearing black bristles, having long, narrow (particularly towards tip) wings, which are whitish, with some veins, or parts of veins, blackish, and a conspicuous brownish-black apical costal patch.

♂. Head grey, with only frons in front of cruciate bristles yellowish. Eyes diagonally oval and small, therefore facial orbits wide, wider than third antennal joint, and jowls below eyes very wide, wider than shorter diameter of eye. Face concave, longer than usual, with epistomal margin not acutely prominent, and clypeus entirely hidden. Antennae grey, third joint longer than second, stout, dusted greyish, but not pubescent; arista bare with very short basal, and double as long second joint, stout and dark on basal half, somewhat yellowish about middle. Palpi projecting, somewhat club-shaped but flat beneath, yellowish about base, and with a few small dark bristles on the greyish upper side towards tip, and some slightly longer ones at sides and end. All head bristles short, vertical and ocellar pairs longest, only two pairs of somewhat outcurved upper orbital bristles, and two (or only one) pairs of still smaller incurved lower orbital bristles, with an ad-

ditional microscopic anterior hair; there may be one (or two) pairs of microscopic hairs on upper half of frontal stripe which are wider apart than the cruciate bristles, but there are no small hairs on frontal orbits outside rows of orbital bristles. A row of 5-6 bristles on vibrissal ridge, none of them very strong, and only a few fine bristles along peristoma. Hairs on lower part of occiput not very long. Proboscis rather short and stout, black beneath, but labellae yellowish with yellow hairs.

Thorax with usual Fucelliine chaetotaxy, but acrostichals irregular (not all in pairs). Spiracles very large, and with a dense and complete yellowish-grey protective covering. Anterior upper sternopleural bristle much shorter and finer than the posterior, and both lower anterior and posterior still finer, only a little stronger than the 9-10 hairs between.

Abdomen uniformly grey without tessellations, composed of five ordinary and three modified (prehypopygial) segments, the basal segment very short, and by some authors incorrectly counted with the second as being the first, sixth tergite transverse and bare, the small seventh also bare, this latter lies on left side of abdomen, at left side of sixth tergite, and is more or less fused with the large eighth, it has a spiracle on its right-hand margin close to side-margin of sixth tergite; eighth tergite with a transverse band of two rows of setae across its middle, those of posterior row the longer. The ninth tergite, or epandrium of hypopygium, which has an excision behind to accommodate the large membranous anal area, bears on its excised hind-margin a fringe of bristles composed of longer hairs at sides than in the middle, but its dorsum is bare except at sides. The large grey fifth sternite has side-lobes which are more shining and bear some long curved bristles. All spiracles larger and more conspicuous than usual, and situated on side-margins of tergites.

Legs entirely grey, chaetotaxy not unlike that of *F. maritima*, but with the following notable exceptions: — all bristles weaker, apical tibial spurs especially weak, those on hind tibiae quite small, a complete posteroventral row of long bristles on middle femora, no bristly projection at base of hind femora, but a long outstanding bristly hair at base beneath, and a row of about 12 anteroventral bristles on apical threequarters. Bristles on tibiae often variable, especially there may, or may not, be a small bristle above front tibiae in addition to the posteroventral, middle tibiae may have one or more small bristles in front and behind in addition to 1 or 2 anterodorsal and two posterodorsal, and there is

usually only one small anteroventral bristle on apical half of hind tibiae in addition to the usual bristles above.

Wings very distinctive in shape and colour (fig. 1—2) with no strong costal spines at end of first vein, and only two rows

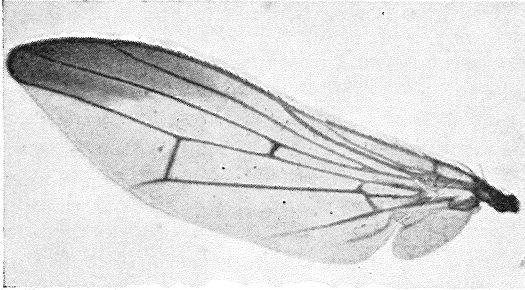


Fig. 1: *Fucellia vibei* n. sp.

of setulae on costa, the row of strong spines which in *maritima* form a distinct third row on lower side of costa are in this species represented by slightly more prominent spines among those of lower of the two rows on costa. Costa between ends of the

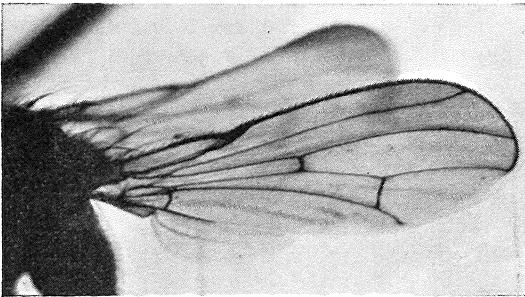


Fig. 2: *Fucellia pictipennis* Beck.  
The type-specimen.

first two veins very pale yellow and bearing very few setulae. Middle cross-vein practically opposite end of the second vein. Halteres yellowish-grey.

Length 4.25 mm.

With regard to the capture of this species Mr. Vibe writes as follows: — "After a long sledge journey to Axel Heiberg Land

"I returned to Bays Fjord west of Ellesmere Land on May 15th  
 "1940. The sun had been shining for several days, and had melted  
 "all the snow on the inner part of the northern beach of the Fjord.  
 "Although the temperature of the air was still 5° C. below zero, the  
 "uppermost few centimetres of the soil had thawed, and some water  
 "was running down from higher lying patches of melting snow.  
 "I found a lot of small flies running on, and flying over,  
 "grass tussocks on the sun baked slope along a dried up river bed,  
 "and I collected five specimens, all males. They were the first  
 "and the only insects occurring so early in the spring."

Mr. Vibe has very kindly supplied the photographs which illustrate so very clearly the differences between the wings of the new species and *F. pictipennis* Beck.

*F. pictipennis* was described from specimens collected in East Greenland, and was subsequently recorded by Dr. J. M. Aldrich in 1918 from Bernhard Harbour in the Canadian North Western Territory, and from the shores of Lake Hazen in Grant Land, at 82° North latitude, while in 1937 Prof. G. D. Hale Carpenter recorded it from Etah, North West Greenland. Thanks to the kind cooperation of the Officials in charge of the Museums concerned (National Canadian Collection at Ottawa, Carnegie Museum Pittsburgh, and Hope Department of the University Museum Oxford) the correctness of these records has been confirmed, but Mr. G. E. Shewell of Ottawa has informed me that both *pictipennis* and the new species (two males and three females of the latter) are included in the material from the Canadian Arctic, while he called my attention to the fact that their specimens of *pictipennis* exhibit considerable variation in the relative positions of the middle crossvein and the end of the first vein, but the stronger development of the frontal bristles, narrower parafacials, shape of wings, and (in the male) smaller hypopygium, serve to distinguish them from the new species.

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