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SOME COLLEMBOLA NEWLY
RECORDED FROM JAPAN

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In this paper one species and two forms of Smynthuridae are added to the Japanese Collembolan fauna. In many points the notes may be of particular interest, as the species and forms have been

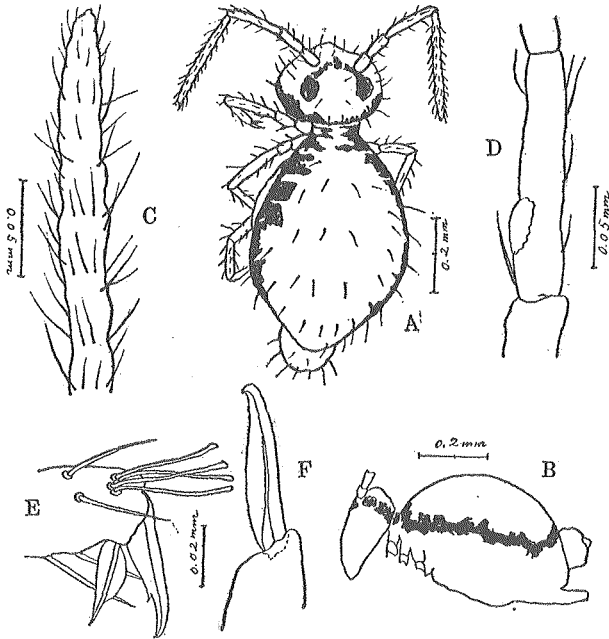


Fig. 1. *Smynthurinus aureus* (Lbk.) f. *signatus* KRAUSBAUER
A. Specimen, dorsal. B. The other specimen, lateral (appendages and setae omitted). C. 4th segment of antenna. D. 3rd segment of antenna. E. Lelf mucro, seen from outside. F. Hind foot.

unknown from Asia.

***Sminthurinus aureus* (LUBBOCK, 1862) f. *signatus* (KRAUSBAUER, 1898)**

Sminthurus aureus var. *signata* KRAUSBAUER, 1898, 1901

Sminthurinus aureus var. *signata* BÖRNER, 1901—AXELSON, 1904, 1905

Sminthurinus aureus var. *signatus* WOMERSLEY, 1939

Average length of the body 0.78 mm., up to 0.85 mm. Ground color pale yellow to brownish yellow; dorsum darker. All around the body, pleural side is margined by a broad bluish black band whose serrated edges indicate clearly the segmentations of the body. Eye patches black; interocular spot brownish black connecting both eye patches by a bluish black stripe transversally. Posterior border of the head with bluish black pigment. Antennae pale orange, ant. IV pale purple. Legs, sturnum, and ventral tube paler. Furcula almost transparent.

Measurements

Specimen	Body length	Head diagonal	Antennal length	Relative length of antennal segment
A	0.80		0.59	0.04 : 0.09 : 0.13 : 0.33
B	0.85			
C	0.69	0.29	0.56	0.04 : 0.09 : 0.13 : 0.34

	Furcula	Ma : De : Mu
A		
B	0.27	0.08 : 0.14 : 0.05
C	0.30	0.10 : 0.14 : 0.06

Remarks. In coloration and markings, the present specimens agree perfectly with LINNANIEMI's description (1912, p. 282) of European specimens. As shown in Fig. 1, F, the mucrones of all Japanese examples are of rather weak structure, with both smooth margins.

According to LINNANIEMI, in Finland, this form is found frequently in dead leaves, among moss, in swamps, on the surface of stagnant pools, between moist timbers layed on the ground, and rarely under the debris on the seashore.

Locality. Nanataki-mura, Kazuno-gun, Akita Pref. (5 individuals collected in a swamp, 16. X. 1948, R. NARUMI, no. 1287).

Distribution. Japan (Honshû), Northern Europe, and Western Australia.

***Smynturus viridis* (LINNÉ 1758) f. *irroratus* (REUTER, 1900)**

Smynturus viridis var. *irrorata* REUTER, 1900—AXELSON, 1905

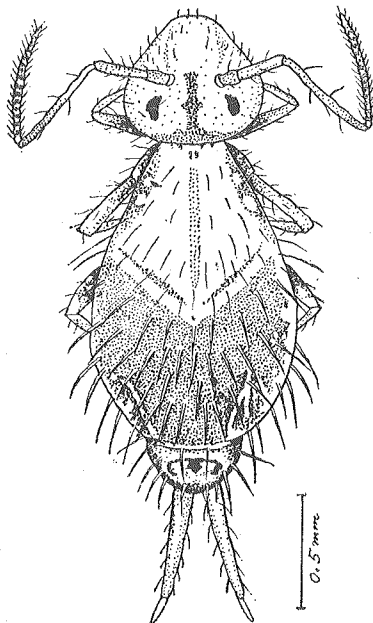


Fig. 2. *Smynturus viridis* (L.)
f. *irroratus* REUTER

Body length 1.71—2.13 mm. Dirty yellow. Anterior dorsum pale yellow, its posterior margin wedge-shaped. Vertex and posterior margin of the head greyish brown. Ant. IV and distal half of ant. III blackish purple. Sides of the body, legs, furcula, and ventral tube paler. Anal fleck black and distinct.

Remarks. Twelve specimens examined agree satisfactorily with LINNANIEMI'S description of European examples in color pattern.

Locality. Odake (1584 m), Mt. Hakkôda, Aomori Pref. (eleven examples collected on the ground covered with bushes of *Pinus pumila* REGEL, at the summit of Odake, 29. VII. 1951, N. NARA, no. 1473); Daishaka, Minamitsugaru-gun, Aomori Pref. (one example, 8. X. 1951, R. NARUMI, no. 1528).

Distribution. Japan (Honsû) and Northern Europe.

***Ptenothrix marmorata* (PACKARD, 1873)**

Papirus marmoratus PACKARD, 1873—MAC GILLIVRAY, 1891

P. testudinesatus FOLSOM, 1896

Ptenothrix marmoratus FOLSOM, 1928

P. marmorata FOLSOM, 1934—MAYNARD, 1951

Length, 2.3 mm. Dark purple, with conspicuous light yellow patterns, as shown in

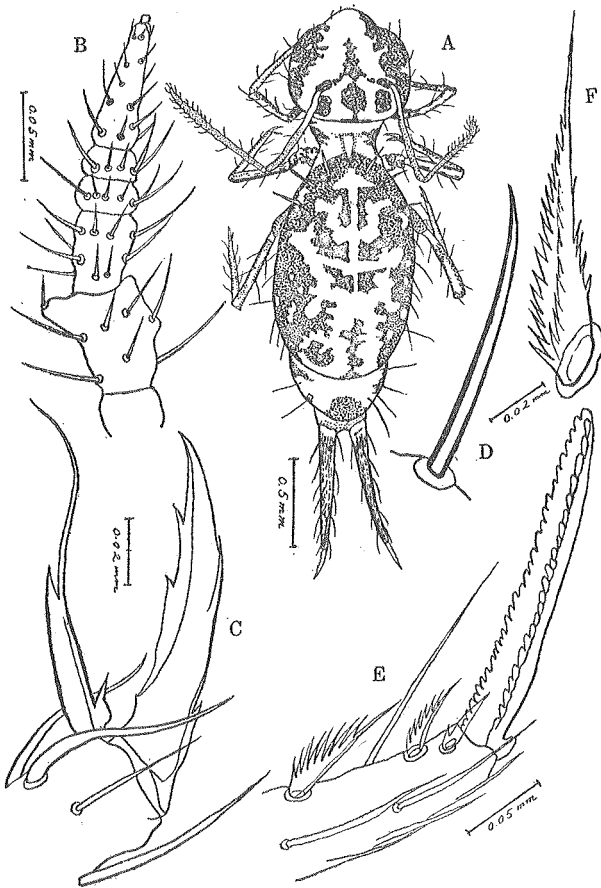


Fig. 3. *Ptenothrix marmorata* (PACKARD)

- A. Specimen, dorsel. B. End of antenna. C. Left forefoot.
 D. Genital appendage. E. Left aspect of left mucro and
 end of dens. F. Serrated seta of dens.

Fig. 3, A. Anterior half of sternum, collar of ventral tube, manubrium, and dentes blackish purple. Legs blackish purple, the joining parts of the segments excepted. Ant. I and III blackish purple; ant. II reddish brown, becoming darker towards the end; ant. IV violet, spindle-shaped, divided into four subsegments, whose intermediate two are small and subequal. Unguiculus moderately stout, slightly curved at the apex, provided with two inner teeth, an outer tooth, and a pair of lateral teeth. Unguiculus about half as long as unguis; inner lamella feeble, unidentate, having an unknobbed subapical filament. Furcula well developed; $Ma : De : Mu \doteq 31 : 80 : 27$. Dentes with distinctly serrated setae and four outstanding bothriotrichae. Dental formula: $D_1A_1-6a_7B_1-4C_1-7csEies$. Mucro about one third as long as dens, 30 inner teeth evident, 25 outer ones obscure. Hair very stiff and coarse; bristles long and spine-like (0.30 mm.) on the anterior dorsum, becoming shorter and weaker posteriorly. Genital appendages of female (Fig. 3, D) simple, slightly curving, about one half as long as mucro.

Remarks. Although only one example has been examined by the author, it agrees with *P. marmorata* from North America, conforming satisfactorily with FOLSOM's description (1934, p. 475). This species is distinguishable from any other species of *Ptenothrix*, by the blackish purple coloration with the remarkable light yellowish patterns.

Locality. Nopporo, Ishikari Prov., Hokkaidô (one female, 30. IX. 1949, K. SAITOH, no. 1344 b).

Distribution. Japan (Hokkaidô) and North America.

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