

and toothed apically (fig. 56). Female genitalia (fig. 57): K-structures remarkably elongate, slender, widely separated from each other.

Etymology. – ‘Yamato’ (= an old name of ‘Japan’) in combination with the generic name *Orthotylus*, gender masculine.

Discussion. – *Yamatorthotylus* is similar in external appearance, except in the reddish dorsum, to the nominotypical subgenus, but the genitalia are highly modified. Especially, the long, slender K-structure is unique, and considered to be an autapomorphy for the present new subgenus.

Orthotylus (Yamatorthotylus) xanthopoda sp. n.
(figs. 41–42, 54–57)

Type material. – Holotype ♂, Kuroson, 550 m alt., Nishitosa Vil., Kochi Pref., Shikoku, Japan, 26.vii.1996, T. Yasunaga (HUES). – Paratypes: 53 specimens (ELKU, HUES, USNM) from the following localities in Japan: Hokkaido: Aoyama, Tobetsu T., Ishikari; Takaoka, Tomakomai C., Iburi. – Honshu: Mt. Nekogatake, Suzu C., Ishikawa Pref.; Mt. Obokodake, Totsugawa Vil., Nara Pref.; Mt. Wasamata, Kamikitayama Vil., Nara Pref.; Kitamata, Kawakami Vil., Nara Pref.; Gyojagacri, Tenkawa Vil., Nara Pref.; Saka’ashi, Nachi-katsu’ura, Wakayama Pref.; Yasukawa Valley & Komori, Ohtoh Vil., Wakayama Pref.; Komori Riv., Kozagawa T., Wakayama Pref.; Chojabaru, Geihoku T., Hiroshima Pref. – Shikoku: Tsuchigoya, 1,400 m alt., Ehime Pref.; Omogo, Ehime Pref. (ELKU); Befu, Monobe Vil., Kochi Pref.; same as holotype. – Kyushu: Ohminami Pass, 500–600 m alt., Mt. Hikosan, Fukuoka Pref. (USNM).

Diagnosis. – Easily recognized by the small size, red to chestnut brown dorsum, and contrastingly creamy yellow legs (fig. 41). The reddish coloration enables us to distinguish it promptly from any of the east Asian congeners, but this new species resembles certain species of *Phylus* Hahn of the subfamily Phylinae, from which *O. xanthopoda* is distinguished by the fleshy, apically convergent parempodia between the claws. The final instar nymph is also readily recognized by the small, oval body, scarlet coloration and yellow apex of the abdomen (fig. 42).

Description. – Dorsal surface red to dark chestnut brown. Head dark brown. Antenna yellow; segments I and IV more or less tinged with red or sanguineous; lengths of segment I–IV (♂/♀): 0.31–0.38/0.34–0.42, 1.58–1.67/1.37–1.57, 0.52–0.57/0.55–0.64, 0.36–0.42/0.36–0.42. Rostrum pale brown; apex of segment IV infusate. Pronotum, scutellum, and hemelytra unicolorous, densely clothed with simple, brown, suberect setae. Leg creamy yellow; femur partly tinged with red; tarsus pale brown with dark apex of tar-

somere III; lengths of hind femur, tibia and tarsus (♂/♀): 1.26–1.43/1.26–1.41, 1.86–2.06/1.82–2.06, 0.31–0.32/0.31–0.32; lengths of hind tarsomeres I–III (♂/♀): 0.11–0.13/0.12–0.15, 0.15–0.17/0.14–0.17, 0.18–0.22/0.17–0.19. Abdomen unicolorous, reddish brown to dark chestnut brown. Genitalia as mentioned in subgeneric description.

Dimensions. – ♂/♀: Body length 4.05–4.23/4.20–4.50; head width including eyes 0.72–0.75/0.65–0.70; vertex width 0.28–0.31/0.31–0.32; rostral length 1.25–1.27/1.25–1.32; mesal pronotal length; 0.46–0.48/0.46–0.51; basal pronotal width 0.95–1.02/1.02–1.06; width across hemelytra 1.25–1.33/1.29–1.40.

Distribution. – Japan (Hokkaido, Honshu, Shikoku, Kyushu).

Biology. – This new species was collected by sweeping various broadleaved trees, such as *Deutzia crenata* Sieb. et Zucc. (Saxifragaceae), *Fraxinus mandschurica* Rupr., *Syringa reticulata* (Bl.) Hara (Oleaceae), *Mallostus japonicus* (Thunb. ex Murray) Muell. (Euphorbiaceae) and *Acer* sp. (Aceraceae), and often attracted to light. The nymphs were found on *Deutzia crenata* in the Kii Peninsula and *Fraxinus mandschurica* in Hokkaido. Predation on unidentified lepidopteran larvae by both the adults and nymphs (fig. 42) was observed in laboratory tests. An univoltine life cycle is assumed for *O. xanthopoda*, and the newly emerged adults appear in early June in southern Japan and in mid July in Hokkaido.

Subgenus *Melanotrichus* Reuter

Orthotylus (Melanotrichus) Reuter, 1875a: 1: 92, type species: *Phytocoris flavosparsus* C. R. Sahlberg, 1841, subsequent designation by Kirkaldy 1906: 127; Schuh 1995: 148.

This subgenus is primarily characterized by the small body, both dark setae and silvery pubescence on dorsum (fig. 43), shape of the parameres (figs. 58–63), and simple form of the vesica. This is treated as a full genus by some authors (e.g., Henry & Wheeler 1988, Wheeler & Henry 1992), but I treat it here as subgenus until a comprehensive revision will be accomplished.

Orthotylus (Melanotrichus) flavosparsus (Sahlberg)
(Figs. 43, 58–60)

Phytocoris flavosparsus C. R. Sahlberg 1841: 411.

Orthotylus flavosparsus – Yasunaga et al. 1996: 93 (= *Orthotylus nigropilosus* Lindberg, 1934).

Orthotylus (Melanotrichus) flavosparsus – Reuter 1875b: 35; Wagner & Weber 1964: 329; Miyamoto 1965: 98, pl. 49, fig. 22; Wagner 1973: 229; Kerzhner 1988b: 833; Lee & Kwon 1991: 34; Schuh 1995: 157 (= *Tuponia guttula* Matsumura, 1917); Vinokurov & Kanyukova 1995: 112.

Tuponia guttula Matsumura, 1917: 432; Yasunaga et al. 1996: 93 (lectotype designation).