

Salicaceae) and hibernate. Predation on lepidopteran and dipteran larvae by the adults and final instar nymphs were frequently observed in laboratory tests (Yasunaga 1996).

Material examined. – More than 350 specimens (HUES, NSMT, SEHU, ZMAS) were examined from the following localities: JAPAN: Hokkaido: Soya: Kutsukata, Rishiri Is.; Kafukai, Rebun Is. – Rumoi: Yagishiri Is. – Kamikawa: Nakagawa T.; Moshiri & Shirakaba, Horokanai T.; Etanbetsu, Asahikawa C.; Mt. Asahidake, 200-800 m alt. & Tenninkyo Valley, Mts. Taisetsu; Katsurazawa Park, Ashibetsu C. – Sorachi: Sunagawa C.; Higashi-Naie, Naie T. – Ishikari: Aoyama, Tobetsu T.; Yausuba, Ishikari C.; Hokkaido Univ. Campus, Sapporo C.; Jozankei, Sapporo C. – Shiribeshi: Asari Pass, Otaru C.; Mt. Chisenupuri, 500-600 m alt., Niseko. – Iburi: Hokkaido Univ. Exp. Forest, Tomakomai C.; Kimundo Waterfall, Toya Lake. – Hidaka: Urakawa T. – Tokachi: Tokachi-Mitsumata, Kamishihoro T.; Rakko Riv., Hiroo T.; Obihiro C.; Kyushu Univ. Exp. Forest, Ashoro T.; Kimonto, Churui Vil. – Honshu: Ozegahara, Gunma Pref. (NSMT); Daimonzawa, Mt. Akadake, 2,000-2,500 m alt., Mts. Yatsugatake, Yamanashi Pref.; Minoto, Mt. Akadake, 2,000-2,500 m alt., Nagano Pref. – Shikoku: Haruno T., Kochi Pref. – KURIL ISLS: Alekhino & Dubovoe, Kunashiri Is. (ZMAS) – RUSSIA, Sakhalin: Tunnaicha Lake, S. Sakhalin (lectotype ♀, SEHU); 12 km S of Kholmsk (holotype ♂ of *O. emiliae* Kerzhner, ZMAS).

Orthotylus (Orthotylus) interpositus Schmidt
(figs. 3-4, 14-17, 33)

Orthotylus (O.) interpositus Schmidt, 1938: 469; Kerzhner 1978: 43; Kerzhner 1988b: 833; Yasunaga 1993: 57, fig. 2G; Schuh 1995: 160.

Orthotylus interpositus? – Todo & Yasunaga 1996: 43.
Orthotylus (O.) sp. 1 – Endo et al. 1998: 17.

Diagnosis. – Recognized by the elongate body, immaculate pale green general coloration, usually darkened antennal segment I (fig. 3), and shape of the genitalia. The specimens from the eastern Palearctic Region are somewhat different from those from Europe in the larger body, longer antennae and legs, and developed and not conspicuously bifurcate female K-structures mesally overlapping each other (figs. 32-33). These different forms are considered to represent zoogeographical variation (Kerzhner pers. comm.). The final instar nymph resembles that of *pallens*, from which it is separable by the slender body and more deep greenish coloration (fig. 4).

Redescription. – Body generally pale green, elongate, parallel- (♂) or subparallel-sided (♀); dorsal surface uniformly clothed with silky, suberect pubescence. Head somewhat tinged with yellow, weakly shining, subvertical, bearing silky, erect pubescence; vertex transversely carinate basally; frons smooth, not striolate; tylus somewhat raised. Antennae pale brown; segment I, apex of II, and entire III and IV sometimes darkened especially in ♂; lengths of segments I-IV

(♂/♀): 0.55-0.60/0.55-0.62, 2.08-2.16/1.89-2.21, 1.03-1.23/1.00-1.18, 0.62-0.70/0.62-0.75. Rostrum pale brown, short, reaching but not exceeding middle coxa; apical half of segment IV infuscate. Pronotum transversely and very narrowly wrinkled, uniformly clothed with silky, upright pubescence; mesoscutum and scutellum shagreened, bearing silky, suberect pubescence; pleura unicolorously pale. Hemelytra weakly shagreened, uniformly clothed with silky, suberect pubescence; embolium tinged with yellow; membrane pale greyish brown, with greenish veins. Legs rather long; tibial spines pale brown; tarsi dark brown; lengths of hind femur, tibia and tarsus (♂/♀): 2.06-2.16/2.16-2.23, 2.85-3.20/3.00-3.12, 0.62-0.68/0.60-0.65; lengths of hind tarsomeres I-III (♂/♀): 0.18-0.20/0.20-0.22, 0.27-0.35/0.32-0.34, 0.27-0.34/0.30-0.35. Abdomen unicolorously pale; apex of ♀ ovipositor infuscate. Male genitalia (figs. 14-17): Genital segment with a pointed process above base of left paramere (14); right paramere broadened and toothed apically (fig. 15); vesica moderately curved in general shape; sclerite I smooth, gradually tapered towards apex; sclerite II with a branch at middle; sclerite III toothed and 3-branched (fig. 17). Female genitalia (fig. 33): K-structures well developed, somewhat asymmetrical and mesally overlapping each other.

Dimensions. – ♂/♀: Body length 6.29-6.58/6.62-6.72; head width including eyes 1.03-1.08/1.03-1.08; vertex width 0.40-0.46/0.46-0.53; rostral length 1.68-1.71/1.68-1.78; mesal pronotal length 0.90-0.94/0.94-0.96; basal pronotal width 1.56-1.61/1.63-1.68; width across hemelytra 1.89-1.97/2.06-2.24.

Distribution. Japan (Hokkaido), Kuril Isls, Palearctic Region. A typical Euro-Siberian species.

Biology. – This species is associated with willow, *Salix* spp., and is occasionally attracted to light. One generation per year is assumed for this mirid, and the final instar nymphs appear in mid July in Hokkaido.

Material examined. – 148 specimens (BMNH, HUES, MC, NSMT, ZMAS, ZMUH) from the following localities: JAPAN, Hokkaido: Kitami C., Abashiri (MC); Mitsumata, Kamishihoro T., Tokachi (NSMT); Ya'usuba, Ishikari C., Ishikari; Aoyama, Tobetsu T., Ishikari (HUES, ZMAS). – AUSTRIA: Pernitz (BMNH). – GERMANY: Passau & Halbendorf (ZMUH) – RUSSIA, Primorskiy Krai: 17km SW of Krounovka, near Mt. Medvezh'ja; Ussurijsk Natural Reserve; near Sergeevka; Rjazanovka, Khasanskiy Dist.; Mt. Oblachnaja, 600-700 m alt. (HUES, ZMAS).

Orthotylus (Orthotylus) kurilensis Kerzhner
(figs. 18-21, 35)

Orthotylus (O.) kurilensis Kerzhner, 1997a: 212.

Diagnosis. – Recognized by the slender body, nar-