



Figs. 127-129. Male genitalia of *Zanchius takahashii* – 127, right paramere; 128, left paramere; 129, vesica. Scales: 0.1 mm.

with basal transverse carina laterally continuing to posterior margins of eyes; frons subtriangularly projected, concealing tylus in dorsal view. Antenna yellow, with silky pubescence; segment II with 2 pale red annulations at base and apical 2/3; extreme bases of filiform segments III and IV darkened; lengths of segments I-IV ($\delta/\text{♀}$): 0.25-0.26/0.25-0.27, 0.85-0.86/0.90-0.92, 0.39-0.40/0.44-0.45, 0.36-0.37/0.34-0.40. Rostrum pale brown, slightly exceeding apex of middle coxa. Pronotum short, wide; calli flat; mesoscutum somewhat swollen; scutellum flat, weakly shagreened. Hemelytra pale green, subhyaline, flat and wide; inner margin of corium with a brown spot behind apex of clavus; extreme apex of embolium deep green; apical lateral part of cuneus sometimes with deep green spot; membrane sombre yellowish brown, semitransparent, with a dark spot on smaller cell. Leg yellowish brown; tibial spines pale brown; lengths of hind femur, tibia and tarsus ($\delta/\text{♀}$): 0.76-0.81/0.83-0.88, 1.28-1.30/1.26-1.35, 0.19-0.21/0.18-0.21; lengths of hind tarsomeres I-III ($\delta/\text{♀}$): 0.06-0.07/0.06-0.07, 0.09-0.10/0.08-0.11, 0.11-0.13/0.12-0.13. Abdomen almost unicolorously yellowish brown. Male genitalia (figs. 127-129): Parameres rather symmetrical in form; left paramere with conspicuously long setae (fig. 128); right paramere with elongate, curved hypophysis (fig. 127); vesica with pointed, bifurcate, apically curved sclerite (fig. 129).

Dimensions. – $\delta/\text{♀}$: Body length 2.97-3.06/3.00-3.15; head width including eyes 0.44-0.46/0.45-0.46; vertex width 0.15-0.17/0.19-0.21; rostral length 0.73/0.79-0.81; mesal pronotal length 0.22-

0.24/0.25-0.27; basal pronotal width 0.63-0.69/0.66-0.70; width across hemelytra 0.95-0.97/1.10-1.14.

Distribution. – Japan (Ryukyus: Ishigaki and Iriomote Isls.).

Biology. – This new species was found on *Pueraria* sp. (Leguminosae) and *Pipturus arborescens* (Link) C. B. Rob. (Urticaceae), with which numerous typhlocybinid leafhoppers (e.g., *Anufrievia* sp., *Limassolla* sp.) were associated. The final instar nymphs were found on *Macaranga tanarius* with a typhlocybinid leafhopper, *Davmata* (or *Tautoneura*) sp. Presumably, *Z. takahashii* preys on these leafhoppers.

Zanchius gigantoculus sp. n.
(figs. 130, 132-134)

Type material. – Holotype: δ , Mt. Yuwandake, Uken Vil., Amami-Oshima Is., Ryukyus, Japan, 29.v.1993, T. Yasunaga (HUES). – Paratypes (HUES): JAPAN, Ryukyus: 1 δ , same data as for holotype; 1 ♀ , Yona, Kunigami Vil., Okinawa Is., 20-25.v.1993, light trap, Y. Nakatani; 1 δ , 5 ♀ , same data except for 15-18.v.1998; 1 δ , Okuni-Rindo, Kunigami Vil., Okinawa Is., 14.v.1998, light trap, Y. Nakatani.

Diagnosis. – Recognized by the generally pale green dorsum with white markings on the hemelytra, large eyes, smooth base of the vertex, ventral apical sanguineous spot of the antennal segment I, sanguineous extreme apices of the antennal segments II and III, and partly punctate corium, cuneus and membrane cells. This new species is distinct in having a parallel-sided body, conspicuously enlarged eyes in the male, reduced basal transverse carina of the vertex and pronotal collar, punctate hemelytra and membrane cell (fig. 130), strong projection on the male genital segment (fig. 129), basally developed left paramere (fig. 133), tiny right paramere, and 4 sclerites on the vesica (fig. 134, sclerites 1-4). Similar male genital structure is exhibited in *Z. vittelinus* described from China by Zou (1989), and it is considered to be a sister species of *gigantoculus*.

Description. – Body generally pale or yellowish green, elongate oval, parallel-sided; dorsal surface shiny, sparsely pubescent. Head vertical; eyes prominent, conspicuously projected in δ , distinctly removed from anterior margin of pronotum; vertex lacking basal transverse carina, with a pair of rounded depressions; frons weakly projected; tylus rather flat, invisible in dorsal view. Antennae yellow; segment I with a ventral apical sanguineous spot, shorter than mesal length of head; extreme apices of segments II and III narrowly sanguineous; lengths of segments I-IV ($\delta/\text{♀}$): 0.33-0.38/0.33-0.34, 1.45-1.55/1.29-1.37, 1.05-1.11/1.00-1.04, 0.55-0.71/0.67-0.72. Rostrum reaching apex of hind coxa. Pronotum weakly sha-