

contributions to our knowledge of the Miridae of the world. Etymology: *Josemiris*, from José and miris—gender feminine.

Josemiris carvalhoi n. sp. (Fig. 1–6)

BRACHYPTERS: Length 1.96 (2.44–3.20); width 0.76 (1.02–1.17). Head: length 0.39 (0.50); width 0.70 (0.79); vertex width 0.36 (0.46). Antennae: length of segments 0.33 : 0.84 : 0.80 : — (0.40 : 1.05 : 0.88 : 0.50). Pronotum: length 0.38 (0.46); width at base 0.69 (0.90). Hemelytron: length 1.06 (1.59).

MACROPTERS: Length 3.07–4.00 (3.97); width 1.10–1.19 (1.20). Head: length 0.42 (0.50); width 0.77 (0.84); vertex width 0.41 (0.44). Antennae: length of segments 0.43 : 1.25 : 1.13 : 0.50 (0.40 : 1.00 : 0.95 : —). Pronotum: length 0.49 (0.55); width at base 0.92 (1.10). Hemelytron: length 3.0 (3.07).

COLOUR: Green and pale yellow or orange. Head yellow or orange; tylus black or dark brown. 1st and 2nd antennal segments yellow or light brown (2nd sometimes with narrow brown band basally); 3rd and 4th segments brown. Pronotum with anterior lobe yellow; posterior lobe green or orange. Mesoscutellum yellow. Scutellum green or yellow. Clavus, corium, and cuneus green in freshly collected specimens, otherwise yellow or orange. Legs yellow or orange; 3rd tarsomere brown.

Ventral surface yellow; thorax with sublateral black or brown stripe from behind eye (sometimes extending onto anterior of abdomen, sometimes restricted to prothorax or its anterior half, or to a spot at anterior behind eye). 1 ♀ in addition with green tinge sublaterally on thorax and anterior of abdomen; another ♀ with orange lateral stripe on abdomen.

STRUCTURE AND ♂, ♀ GENITALIA: As described for the genus.

TYPE DATA: **Holotype** ♂ (brachypter) CO, Carrick Range, Watts Rock, 1300 m, sweeping grasses, 13 Feb 1976, L. L. Deitz (New Zealand Arthropod Collection). **Allotype** ♀ (brachypter) NN, Tahunanui, 23 Jan 1927, E. S. Gourlay (NZAC). **Paratypes** (3 ♂ 3 ♀; NZAC): brachypters—1 ♀ OL/CO, Lindis Pass, sweeping, 10 Feb 1982, C. F. Butcher; 1 ♀ AK, Auckland, NW motorway at Te Atatu bridge, sweeping *Salicornia*, 10 Jan 1980, C. F. Butcher & M. F. Tocker; macropters—1 ♂ SL, Orepuki, Longwood Range, sweeping pasture, 8 Feb 1976, L. L. Deitz; 1 ♂ CO, Old Dunstan Rd, Lammermoore Range, 700 m, sweeping grassland, 18 Feb 1976, L.L.D.; 1 ♂ WD, 1 km N of Hokitika, sweeping grass, 27 Feb 1976, L.L.D.; 1 ♀ MC, Banks Peninsula, 4 km E of Akaroa, sweeping pasture, 22 Feb 1976, L.L.D.

DIAGNOSIS: *J. carvalhoi* n. sp. is distinguished from *Cyrtorhinus cumberi* by the yellow (instead of black) anterior pronotal lobe, flattened trapeziform pronotum, which is not broadly rounded dorsoventrally, and has the sides rounding much more suddenly at anterior. The right paramere has a much longer elbowed arm than in *Cyrtorhinus* species, with apex extending beyond lobe.

DISTRIBUTION: Throughout the South Island, and possibly the North Island, as there is one specimen from Auckland.

REMARKS: The shape of the parameres and sclerotised structure in the aedeagus are identical in brachypters and macropters. The green of freshly collected specimens fades to yellow or orange.

DISCUSSION

Although brachypters are superficially more like *Fieberocapsus* than *Cyrtorhinus*, the male genitalia of *Josemiris* are nothing like those of the former, but similar to those of the latter (as figured in Carvalho & Southwood 1955). Their figure of the structure in the aedeagus for *C. cumberi* does not conform to the other species. My own investigation confirms that *C. cumberi* does have the flared “fish tail” apex to this sclerotised structure (or spiculum).

There are more differences between *Josemiris* and *Cyrtorhinus* than are mentioned in the diagnoses above. In lateral view of the head, the eye in *Josemiris* is smaller, narrower, and orientated diagonally (Fig. 2); in *Cyrtorhinus* the orientation is vertical. *Josemiris* has a more prominent frons, a wider vertex, and lacks or has a very shallow transverse impression on the pronotum (very distinct in *Cyrtorhinus*).

There is a need to study the biology of both *J. carvalhoi* and *C. cumberi* to determine if they are phytophagous, predacious, or occasionally predacious. Carvalho & Southwood (1955) reviewed the literature on predation of eggs of some Homoptera by some species of *Cyrtorhinus*—but see also Woodward (1950) and Usinger (1939). The latter author explains that mirids feeding on eggs hidden in stems appear to be feeding on the plant. *J. carvalhoi* occurs in grassland. *C. cumberi* was taken below and in tufts of rushes and grasses with many Delphacids (Woodward 1950). I have taken it on *Carex*. These two New Zealand mirid species may prove to be beneficial.

Interestingly, although *Cyrtorhinus* occurs in the Australasian zoogeographical region and all around