

with a trapezoidal opening, the anterior edge wider than posterior, lateral walls arising abruptly well behind anterior edge, hind wall quite low, intercoxal area densely setose. Syntelopodite (Figs. 2, 25) of similar form to that of *D. lissognatha*.

*Female*. Collum with only a few setae in second row along anterior edge. Keel II weakly developed, its edge almost obsolete posteriorly. Prominent pleural projections on II and III. Epigyne with edge extended as a vertical wall with a thin spatulate median process and two weaker, lateral teeth. Cyphopods as for *D. lissognatha*, weakly excavated anteriorly.

**MATERIAL EXAMINED.** Holotype ♂, allotype ♀, paratypes 7 ♂♂, 5 ♀♀ (CM); paratypes 1 ♂, 1 ♀ (OM); paratypes 1 ♂, 1 ♀ (DM 8/366). Bluff Hill, Bluff, N.Z.M.S.1 S182 (Bluff): 358165. 6 August 1964, from mixed Podocarp-broadleaf forest; P. M. Johns.

**OTHER RECORD.** Croydon Bush, Gore.

### *Dityloura unicostata* n.sp. Figs. 19, 20, 21, 27, 30.

Length, 10mm. Colour, pale brown to cream.

*Male*. Gnathochilarium with broad, shallow, V-shaped groove following edges of mentum; mentum with prominent, central, longitudinal, heavily chitinised ridge from which the species derives its name. Keel II deeper and flatter than that of *D. lissognatha*, the ledge only forming on the posterior half. Pleural tubercles weakly raised on a segment II, even less so on III. Legs with undersurface of coxae smooth, with few setae; prefemur and femur with dense mats of short curved setae as is usual in the family; tibia and tarsus with spherules; all podomeres are more swollen than those of *D. lissognatha*. Sternites III–V, VIII–XVI with dense bunches of setae grouped near the coxae and raised on weak swellings. Sternite VI slightly depressed posteriorly, but setal density only slightly less than that of other sternites. Ventral posterior edge of XVIII with setae. Gonopodal opening of sternite VII with small lateral flanges arising gradually from just behind anterior border, outer surface of flanges with slight, vertical tuberclose ridges, posterior flange higher than laterals but slightly emarginate medially; intercoxal areas with setal bunches reduced in size and density in comparison with those of sternite VIII, and not raised on swellings. Genitalia (Figs. 19, 20, 27). Three setae on each anterior side of syncoxite. Telopodites fused for only a short distance (approx.  $\frac{1}{3}$  length) at base. Shank of each telopodite with lateral ridge projecting forwards. Main mesal processes simple and short; distal lateral process, thin, slightly curved and with two fine teeth; proximal lateral process massive, extending in an arch distal to the main tip and terminating in a broad flat plate. This terminal plate shows slight clinal variation; in northern populations it is transverse whereas to the south, a square (as in holotype Fig. 19) or further south a longitudinally elongate plate is found, reaching an extreme form (Fig. 20) at Waimate.

*Female*. Antennae as for male. Pleurite II with moderately well-developed ridge near posterior border (Fig. 30), pleurite III similar but smaller, epigyne (Fig. 30) with very small triangular lateral flanges and a large spatulate medium flange projecting between coxae of second legs. Cyphopods as in Fig. 21; with deep pit on receptacle face, and each excavated on anterior surface, the cavities fitting the slight swellings of the associated coxae.

**MATERIAL EXAMINED.** Holotype ♂, allotype ♀, paratypes 13 ♂♂, 12 ♀♀, 11 imm. (CM); paratypes 2 ♂♂, 1 ♀ (DM 8/357); paratypes 2 ♂♂, 1 ♀ (NMNH); paratypes 2 ♂♂, 1 ♀ (VM); paratypes 2 ♂♂, 1 ♀ (AMS), Peel Forest, Canterbury. N.Z.M.S.1 S91 (Mt. Peel): 786132, in Podocarp-broadleaf forest, 27 December 1961, P. M. & M. Johns. Paratypes 11 ♂♂, 3 ♀♀, 4 imm. (CM) same locality, 5 December 1962. P. M. & M. Johns.

**OTHER RECORDS.** Poulter Valley, Cass (various places); Craigieburn Range, Springfield, Staveley, Lake Heron, Rangitata Valley (various places), Peel Forest, Fox's Peak, Geraldine, Temuka, Kakahu Bush, Hook Bush, Kelseys Bush.

**REMARKS.** *Dityloura unicostata* is widely distributed in dry *Nothofagus solandri* var. *cliffortioides* of mountains of Mid and South Canterbury and extends eastwards and southwards into Podocarp-broadleaf forests of South Canterbury. Its northwestern boundary is the 50 inch isohyet that forms the eastern boundary of *D. lissognatha*. The two species have rarely been taken together yet they live in dense monospecific populations within a mile of each other. A similar boundary divides this species from *D. cothonognatha*.

### *Dityloura ditylognatha* n.sp. Figs. 31, 38, 39, 40.

Length 9–10mm. Colour cream to very pale yellow.

*Male*. Head and collum as for *D. lissognatha*, or *D. unicostata*. Gnathochilarium with mentum slightly depressed, with two central heavily chitinised flat-topped knobs conspicuous against the paler surface of mentum. Sternite I with very small flange produced ventrally to fit the groove surrounding mentum. Keel II reaching slightly ventral of collum, its edge not