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New Gripopterygids (Plecoptera) of New Zealand

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*Abstract*

Two new species and a new subspecies of *Zelandoperla* and a new apterous genus and species of Leptoperlinae are described. Some notes on habitat and rearing of nymphs are given. Included is a key to adults and nymphs of *Zelandoperla*.

Family GRIPOPTERYGIDAE Enderlein, 1909

Subfamily LEPTOPERLINAE Banks, 1913

Genus ZELANDOPERLA Tillyard, 1923

Type species: *Zelandoperla decorata* Tillyard, 1923, *Trans. N.Z. Inst.* 54: 212-214.

*Zelandoperla agnetis* n.sp. Figs. 1-6

**DIAGNOSIS:** Differs from type species as follows: Forewing with the crossveins surrounded by almost ellipsoid dark fuscous patches, each crossvein forming the conjugate axis of each patch, the patches tending to coalesce distally and posteriorly. Male with distal half of each paraproct falcate in lateral view and rudiment of tergite XI diamond shaped dorsally. Nymph with posterior margin of mesonotum straight, abdominal segments without distinct lateral bulge, cerci without distinct hairy fringe.

**DESCRIPTION OF IMAGO**

**Measurements:** Male, body length 9-10mm; forewing, 10-11mm; antenna, 8-9mm; cercus, 5-5.5mm. Female, body length, 10-11mm; forewing, 10-11mm; antenna, 10-11mm; cercus, 5.5-6mm. **Clothing:** Hairy fringes on femora and tibiae. Sides and ventral surfaces of thorax and abdomen densely covered with silky hairs. **Head:** Antennae light reddish-brown, scape tapered distally and twice as long as pedicel. Ocelli prominent. Frons dark reddish-brown to black. **Thorax:** Pronotum subrectangular, wider than long, with faint lyre-like markings. **Legs:** Fore femora dorsally dark brown with a yellow spot in distal third. Mid and hind femora yellow-brown with dark brown irregular patches, one basal, one at two-thirds and one distal. Tibiae basally yellow-brown merging to dark grey distally. **Wings** (Fig. 1). Forewing with crossveins surrounded by almost ellipsoid dark fuscous patches, each crossvein forming the conjugate axis of each patch, the patches tending to coalesce distally and posteriorly. Hindwing with dark patches surrounding the pterostigmatic crossveins. Most of the crossveins in remainder of distal half outlined in hyaline. **Male Genitalia:** Tergite X sub-pentagonal dorsally with posterior angles curved each side of a diamond-shaped rudiment of tergite XI. Paraprocts sickle-shaped with tips convergent; basal inner margins with a membranous fold. Epiproct ventrally keeled, wide at base, dorsal margins edged with small teeth on distal half. Sternite IX forms an ovoid subgenital plate. **Female Genitalia:** Subgenital plate not produced on to sternite IX, its posterior margin notched medially exposing mouth of genital aperture. Subanal lobes with strongly concave lateral margins, apices divergent and pointed.

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