genera. The author has in his possession several brachypterous *S. prasina* males but has not seen brachypterous individuals in other species. Specimens with wings not extending the full length of the abdomen do occur and in the Canterbury University Collection one *A. cyrene* female and four *Z. fenestrata fenestrata* males have this condition. It is difficult with the small numbers and lack of opposite sex in the last instances to decide whether they form populations.

The differences in the male genitalia are within the limits of intraspecific variation when compared with the variations found in *Z. fenestrata fenestrata* and other species of *Zelandoperla*. The shape of the paraprocts and the dorsal shape of tergite XI are consistent but the angle of tergite X and the lateral outline of tergite XI are variable characteristics. An example of this variation is seen in thirteen specimens from the Ohika-nui River where eight have the same lateral outline of tergite XI as shown in McLellan (1966), four have a more rounded posterior margin and three are more curved anteriorly.

KEY TO ADULTS OF *Zelandoperla*

1 (a) Pronota with forward directed spines 2
(b) Pronota without spines 3

2 Forewings with crossveins of distal two-thirds surrounded by dark irregular patches, some almost cruciform .... *Z. denticulata*

3 (a) Forewings dark with hyaline rectangles between crossveins or brachypterous; male with paraprocts tapered evenly to points and tergite XI subtriangular dorsally 4
(b) Forewings with crossveins surrounded by dark patches 5

4 (a) Wings normal length .... *Z. fenestrata fenestrata*
(b) Wings brachypterous, uniformly dark fuscous with a tendency in the hind wings for M 3 and 4 and Cu 1 to fuse distally and the number of anal veins to be reduced .... *Z. fenestrata pennulata*

5 (a) Ellipsoid patches surrounding crossveins of forewings with each crossvein forming the conjugate axis of each patch; male with paraprocts falcate laterally and tergite XI diamond shaped dorsally *Z. agnetis*
(b) Forewings with crossveins surrounded by circular patches which are joined by dark bands running midway between and parallel to each main vein from R to Cu 2; male with tips of paraprocts cut off obliquely in lateral view and tergite XI ovate dorsally .... *Z. decorata*

KEY TO NYMPHS OF *Zelandoperla*

(For late instars only)

1 (a) Pronotum with forward directed spines 2
(b) Pronotum without spines 3

2 Pronotum and mesonotum laterally flanged with denticulate margins; body wide and flat .... *Z. denticulata*

3 (a) Mesonotum with straight hind margin; abdominal segments without lateral bulge and no dark marks on tergites; cercal and antennal fringe lacking or indistinct .... *Z. agnetis*
(b) Mesonotum with convex hind margin 4