

bers of *Stauroneis phoenicenteron*, *Cymbella turgida*, *Meridion circulare*, *Cocconeis* sp., *Navicula cuspidata* (var.), *Amphora ovalis*, and *Synedra ulna*. The author is grateful to Mr F. Reid, of Christchurch, for kindly identifying these organisms.

#### MOLLUSCA

The gasteropods *Potamopyrgus corolla* and *P. antipodum* occurred sparingly in the main stream but more abundantly in the tributaries. The distribution of the small bivalve *Corneocyclas novae-zelandiae* was similar (Suter, 1913).

#### CRUSTACEA

A prawn *Xiphocaris curvirostris* occurred mainly near the stream mouth under overhanging banks (Hutton, 1904).

#### INSECTA

Larvae of the blepharocerid fly *Curupira chiltoni* (Campbell 1923) were common on submerged boulders in the upper regions. Swarms of adults were seen clinging to the shaded downstream sides of projecting boulders in October, and larvae 2 mm in length were abundant in January. Sandfly larvae were also plentiful; the pupae of *Austrosimulium tillyardi* were found through the summer until March. Carnivorous larvae of the Dobson Fly *Archichauliodes dubitatus* (Tillyard, 1926) were common in the lower regions of the stream. Larvae of 5 mm in length were present in April, and adults began to appear in November; empty exuviae were found on the stream banks through December and January. Larvae of the Green Stonefly *Stenoperla prasina* (Tillyard 1926) were more plentiful in the tributaries than in the main stream. Larvae of the Black Stonefly (*Austroperla cyrene*) and *Nesoperla triavacuata* and *Zelandoperla decorata* were also found; the latter was particularly abundant.

Mayflies were well represented. The black and yellow-spotted nymphs of *Atalophlebia versicolor* and the reddish nymphs of *Deleatidium (Atalophlebiodes) cromwelli* were present in pools in the main stream, and in some of the tributaries. Large burrowing *Ichthybotus bicolor* nymphs were found occasionally amongst clay and rubble conglomerates, or in clay banks. The fast-swimming nymphs of *Nesameletus ornatus* were common along most of the stream, but the distribution of *Ameletopsis perscitus*, which is believed to be carnivorous (Phillips 1930), seemed to be restricted. Only two specimens were taken during a year's routine sampling in which about 3,000 *Coloburiscus* nymphs, and probably as many *Deleatidium lilii*, *D. vernale*, and *D. Myzobranchia*, were collected. Several other species of *Deleatidium* and *Atalophlebia* were also noted but could not be identified with certainty from Phillips' (1930) keys.

The caddis flies *Olinga feredayi*, *Helicopsyche* sp., *Hydropsyche* sp., and *Hydrobiosis* sp., were identified, but several others were present. *Olinga feredayi* and *Helicopsyche* sp., were found pupating in clusters of about 50. (Tillyard, 1921b, 1924; McFarlane, 1951).

#### PISCES

Small specimens of the Long-finned and Short-finned Eel (*Anguilla dieffenbachii* and *A. australis*) were often found under stones in rapids. The Long-fins were from 83–185 mm in length, and the Short-fins from 80–300 mm. They were identified from Cairns' (1950) descriptions. *Galaxias attenuatus* were common near the mouth of the stream, and a 127 mm specimen of *G. fasciatus* was collected in a tributary by Mr G. Stokell, of Springston (pers. comm.). *Gobiomorphus gobiodes* occurred throughout the stream. The Shark-nosed Bully, *Cheimarrichthys fosteri* (Waite, 1919) was sometimes collected in the rapids but was rare; only 20 were taken during a year's routine collecting, representing a collecting time total of about 24 hours. All these were taken at the downstream edge of the rapid shown in Plate I, fig. 2. Occasional specimens were collected further upstream.