

# ENTOMOLOGICAL VALUES OF THE REES RIVERBED NEAR GLENORCHY

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## INTRODUCTION AND METHODS

This short report documents the results of three visits to various sites in the Rees riverbed near Glenorchy in November and December 1990 by the author accompanied by Brian Lyford (Queenstown [private]) and John Ward (Canterbury Museum) on one visit each.

Sites were chosen by two methods - firstly by visual assessment of potential in reference to the extent or presence of native plant communities and secondly from local knowledge derived from DOC personnel in Glenorchy (Richard Kennett and Keith Springer).

The following insect groups were sampled:

Trichoptera	(Caddis Flies)
Lepidoptera	(Moths)
Cicadidae	(cicadas)

Collection was done by both day and night using hand collecting methods such as nets and ultraviolet lights respectively.

## OBJECTIVE

To put on record the entomological values of a braided river habitat in Otago and discuss the threats to this habitat.

## RESULTS

A rich and distinctive insect fauna is to be found on the Rees riverbed with some species not known elsewhere in Otago complemented by a fauna of more widespread species characteristic of riverbeds. One moth species, typical of southern coastal turf areas has its only known inland occurrence on the Rees riverbed.

The following is an annotated list of the various invertebrate species found.

## TRICHOPTERA

<i>Aoteapysche colonica</i>	Common larger river species.
<i>Psilochorema bidens</i>	Local species.
<i>P. leptoharpax</i>	Widespread river species.
<i>Oxyethira albiceps</i>	Very small numerous species.
<i>Pynocentria evecata</i>	Local river species.
<i>Pynocentrodes aeris</i>	Common small species.
<i>Hydrobiosis umbripennis</i>	Common river species.
<i>H. parumbripennis</i>	Common river species.
<i>H. clavigera</i>	Local river species.

## HEMIPTERA

<i>Maoricicada campbelli</i>	An uncommon river terrace cicada of stable well vegetated habitats.
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## LEPIDOPTERA

### Hepialidae

<i>Wiseana umbraculata</i>	Ubiquitous porina moths of damp swards
<i>W. copularis</i>	Common porina moth.

### Gelechiidae

<i>Isochasta parademsa</i>	An uncommon species, larvae live in a swelling on small-leaved <i>Coprosma species</i> .
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<i>Kiwaia caerulaea</i>	A short-winged and blue-grey species of stable river terraces. Only known occurrence in Otago. Probably associated with cushion plants.
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### *K.lithodes*

A larger blue-grey species of cushion plants on river terraces. Active by both day and night. Widespread.

### Glyphipterigidae

<i>Glyphipterix achlyoessa</i>	A widespread species of grass swards.
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### Yponomeutidae

<i>Kessleria copidota</i>	Larvae live on tutu, so common on the stable river terraces.
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### Tortricidae

<i>Capua semifera</i>	A common species of open areas.
<i>Merophyas leucaniana</i>	A common species of non-forest areas.

*M. paraloxa* A southern coast endemic here recorded at an inland site for the first time. Found commonly in wet hollows of river terraces where the larvae probably feed on *Gunnera dentata*.

*Ctenopseustis obliquana* A ubiquitous species that has polyphagous larvae.

### Lycaenidae

*Lycaena boldenarum* The boulder copper butterfly is common on stable river terraces where the larval foodplant *Muehlenbeckia axillaris* is found.

*Zizina oxleyi* The southern blue butterfly is also common where introduced clovers (the larval foodplant) occur.

### Crambidae

*Eudonia cataxesta* A blue-grey species of both stable and unstable riverbeds. Common here.

*E. feredayi* A common species of open areas: coastal to montane.

*E. sabulosella* A ubiquitous species of dry grasslands.

*E. chalara* A montane species of open areas.

*E. steropaea* Characteristically a coastal species but found at several inland localities. A less common species.

*E. philerga* A common species of open and forested areas.

*E. trivirgata* A widespread species of open areas including alpine areas.

*E. atmogramma* A common species of open areas.

*Scoparia diphtheralis* A ubiquitous species of open areas.

*S. asaleuta* A local species first described from the Wakatipu area, that is typical of stable river terraces. Adults are a very distinctive blue-grey.

*Glaucacharis helioctypa* A small species found in wetland areas here in the wet hollows behind the stable river terraces.

*Orocrambus haplotomus* A species endemic to West Otago where it is commonest on riverbeds. Common here.

*O. lewisi* A species attached to silver tussock areas.

*O. vittellus* ) Common; widely distributed species of

*O. flexuosellus* ) many grassland areas.

*O. ramosellus* )

*O. xanthogrammus* A highly coloured species characteristic of unstable and stable riverbeds. Common here. Larvae feed on *Raoulia* species.

### Geometridae

*Arctesthes catapyrrha* A small diurnal species of short turf. Found from coastal to alpine areas.

*Asaphodes aegrota* Common species, larvae on herbs.

*Helastia corcularia* Common grey species, larvae on moss and herbs.

*H. cinerearia* Common grey species, larvae on moss.

*Epicyme rubropunctaria* Widespread species, larvae on *Haloragis*.

*Paranotoreas brephosata* A bright, diurnal species of alpine to coastal areas.

### Noctuidae

*Euxoa admirationis* Typical of dry areas.

*Aletia moderata* A common species that has larvae feeding on *Raoulia* cushions.

*Graphania disjungens* )

*G. mutans* ) Common and widespread species of open areas.

*Rictonis comma* )

Two larger butterflies (*Bassaris gonerilla* [Red Admiral], and *Cythia kershawi* [Painted Lady]) were found on the riverbed but are not likely to be breeding there.

The Rees riverbed can be divided into four main habitats:

River Channel

Unstable riverbed

Stable riverbed

Seasonally wet hollows behind the river terraces.

The river channel is dominated by aquatic insect species of which the caddisfly *Aoteapsyche colonica* is typical. The caddisfly fauna though, is less diverse than that of forested streams that flow into it. The unstable riverbeds have sparse vegetation of *Raoulia* cushions and some *Epilobium* species. The moths *Eudonia cataxesta* and *Orocrambus xanthogrammus* are typical of this poor habitat.

Stable terraces in contrast have a comparatively rich flora and fauna including the local moths *Orocrambus haplotomus* and *Scoparia asaleuta*. The poorly collected *Kiwaia caerulea* were found on these sites. Diurnal moths are a feature of this habitat as are diurnal spiders, cicadas, beetles and bugs. This habitat is vulnerable to disturbance by growth of weeds such as willow and tracking for river access. In

Otago, these sites are now uncommon east of Lakes Wanaka and Wakatipu because of man-induced disturbance.

Wet hollows containing *Gunnera* support a small but highly interesting moth fauna containing the normally coastal moth *Merophyas paraloxa*. This is important habitat that is very vulnerable to modification for development. Most braided river habitat in Otago has lost this habitat type completely.

#### RECOMMENDATION

That this fauna and its habitat are protected in the long term from such disturbances as mining, tracking, growth and spread of willows as far as possible. That open, stable, natural river terraces and their vegetation and fauna be firstly recognised for their high conservation value and be given protection in the long term.