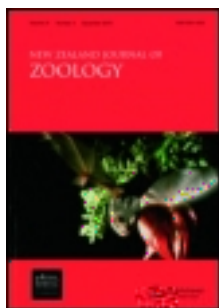


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Scree weta phylogeography: Surviving glaciation and implications for Pleistocene biogeography in New Zealand

Steven A. Trewick ^{a b}

^a Department of Zoology, University of Otago, P. O. Box 56, Dunedin, New Zealand

^b Department of Plant and Microbial Sciences, University of Canterbury, Private Bag 4800, Christchurch, New Zealand

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Scree weta phylogeography: surviving glaciation and implications for Pleistocene biogeography in New Zealand

STEVEN A. TREWICK*

Department of Zoology
University of Otago
P. O. Box 56

INTRODUCTION

Pleistocene climate change and glaciation have been advanced to explain distribution patterns among many New Zealand organisms. Two types of effect

invertebrates in New Zealand are few (but see Emerson & Wallis 1995; King et al. 1996; Buckley et al. 1998; Trewick 2000a). Phylogeography has

method of Sunnucks & Hales (1996). Molecular analysis used primers that target part of the mitochondrial DNA (mtDNA) cytochrome oxidase I gene (COI). These primers are known to be highly

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Fig. 1 Unrooted neighbour joining (NJ) network of $K2n$ distances



Areas $\geq 1000\text{m}$ asl
and higher



Peel



Fig. 2 Map of the South Island, New Zealand, showing sites sampled for core water. Filled boxes

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ranges are extensive but ice was scarce during comparatively low in the central waist of the South

possible when the alpine zone extended more widely than today (McGlone 1988), resulting in the wide distribution of lineage a (Fig. 1). The presence of

this region are alpine specifics (McGlone 1985), but some alpine endemics are present (Cockayne 1917; Wardle 1963; Burrows 1965). The evidence from

Modern montane habitats in the South Island are **REFERENCES**

considered to be more similar (more humid and with

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