

Butterf



How can the two blue butterflies found in New Zealand be distinguished? The answer is "not easily"; but the diagnostic features are on the underside of the hindwings i.e. the part that shows when they are feeding or resting. On the left is the endemic southern blue (*Zizina oxleyi*) from central Otago, with a dark, heavily outlined zig-zag band across the wing. On the right the widespread common blue (*Z. labradus*), also found in Australia, which has no obvious band and rather more diffuse colouring. Note also the strongly banded fringe of hairs around the wings in the endemic species.

Being hybridised into oblivion by an invading, closely related species is probably not very common but is a recognised evolutionary pathway. Victoria University scientist Dr George Gibbs has been studying the fate of the native southern blue butterfly, which, like the black stilt, is being swamped by an aggressive trans-Tasman invader.

Next time you stop by the roadside in the Mackenzie Basin, spare a thought for the little blue butterflies dancing among the stones and dry summer vegetation. This butterfly, one of our smallest, could possibly be facing oblivion by hybridisation with an Australian immigrant species along the same lines as the black stilts which share their habitat. The similarity of their predicament is striking but the blues still have a long time ahead of them before they could be called threatened. This article briefly compares some parallel features of stilts and blue butterflies and attempts to trace the historical events that have led to the present state of affairs with the butterflies.

Species or subspecies?

Black stilts and native "southern blue" butterflies share the open river valleys of the Mackenzie Basin. Both are very much like their invading Australian counterparts (the pied stilt and "common blue" respectively) to the extent that competent taxonomists may argue over whether the endemic New

Zealand entity should be called a species or subspecies.

Nevertheless they are sufficiently distinct to be recognisable by colour and/or behavioural and structural differences from their Australian relatives and are uniquely New Zealand. Hybrids are readily formed in each case with the Australian relative and can be differentiated from either parent type by colour pattern. Both have widespread near relatives distributed beyond New Zealand and Australia to include Malaysia, India and Africa. In both cases we have difficulty tracing the historical events that led up to their present predicament. The period 1850-1870 could have been a critical one for both the stilts and the blue butterfly.

The mid-1800s were pioneering times — for natural history discoveries and for agriculture. Both are linked in our story. If we research the records of our museums and early zoological literature, we can find reference to the existence of the endemic black stilt (in 1840) and the endemic southern blue butterfly (in 1859). In each case