come. Shortly afterwards this last bird arrived on the ridge. All birds moved about quite quickly in the upper understorey and canopy for about 30 seconds. A fight then broke out between two birds. One gave a distress call, and with much flapping, both birds fell some 10 metres to the ground locked in combat. Bills, feet and wings all seemed to be used although one seemed to use its wings to slow both birds' descent to the ground (fairly ineffectively). Although they landed barely two metres from where I stood, both birds seemed not to notice me and continued fighting on the ground for 5 seconds before parting and leaping up through the understorey. The northern pair then moved off down the side of the ridge towards the north while the other pair remained, both birds singing.

The ridge used as my observation point may also have been a territory boundary for the two pairs. The threshold for aggression in one or both of the combattants may have been lowered because of the onset of breeding. It is also possible that the use of the Kokako tape may have elicited abnormal behaviour in the birds.

A. J. SAUNDERS, *Wildlife Service, Department of Internal Affairs, P.O. Box 1146, Rotorua.*

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HONEYEATERS FEEDING ON *PSEUDOWINTERA* — A NEW RECORD

On 30 May 1979, in the Akatarawas, at the southern end of the Tararua Forest Park, Bellbirds *(Anthornis melanura)* and Tuis *(Prosthemadera novaeseelandiae)* were observed feeding simultaneously on the ripe fruits of the lowland horopito *(Pseudowintera axillaris)*. No records are in the literature of honeyeaters or other birds feeding on *P. axillaris* fruit, but McEwen (1978) reported that New Zealand Pigeons feed on the fruit of *P. colorata* (McEwen, 1978. The food of the New Zealand pigeon *(Hemiphaga novaeseelandiae novaeseelandiae)*. NZ Jour. Ecol. 1: 99-108). From 1030-1230 on a fine day the two honeyeaters intermingled in the canopy of a hinau-kamahi-rimu forest (*Elaeocarpus dentatus-Weinmannia racemosa-Dacrydium cupressinum;* c. 550 m). Mature birds of both species were observed to alight on the branches of horopito, an understorey tree, and to consume its fleshy orange-red pea-sized berries. The bellbirds fed rapidly, e.g. one mature bird of undetermined sex ate six fruits in a 10-second period. The bellbirds generally fed on berries from the same branch, often a thin upper one, on which they were perched. An adult male tui perched on a more robust lower branch (c. 1.5 m off the ground) and reached for fruit on nearby branches. The tui consumed 12 berries over a two-minute period.

The only other edible fruits present were those of stinkwood *(Coprosma foetidissima)* which are also small, orange-red and fleshy.

During my observation, the birds ignored the coprosma fruit, preferring those of horopito.

The mature berries of *P. axillaris* are insipid. However when unripe, the fruits have a distinct camphor-like taste. Camphor and related defence compounds are common in the Australian flora, where in unripe fruits they serve to prevent premature consumption. Perhaps this camphor-like property in the young fruits of *P. axillaris* similarly ensures against premature feeding by meliphagids, a primarily Australian group.

Pseudowintera is the New Zealand member of the Winteraceae, generally considered the most primitive extant flowering plant family. Little is known of the modes of seed dispersal in this ancient group and further reports will contribute significantly to the study of plant-animal co-evolution.

S. A. NORTON, *Botany Department, Victoria University of Wellington, Private Bag, Wellington.*

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DESTRUCTION OF BLUE DUCK HABITAT

A classic example of how favourable habitat can be quickly eliminated occurred in Otago during the major flood of 2 December 1979. Torrential rain fell along the Main Divide, with peaks at certain localities (Mt Cook reported 21 in. = 533 mm in less than 24 hours). Evidently a similar concentration occurred in the catchment of the Young River (near Makarora, head of Lake Wanaka). The south-branch riverbed and enclosing walls were completely scoured out from above subalpine scrubline to the confluence with the Makarora (in altitude from 3200′ to 1000′ — 975 m to 305 m).

Beech trees, logs, limbs, silt and other debris were strewn throughout the valley, including in places several metres inside the forest margins where no such flooding has occurred for more than a century. This flood was even more disastrous in this region than that of October 1978.

The river boulders were completely abraded of growth — gone are all traces of the mosses and algae which harboured caddis larvae and other sub-aquatic invertebrate foods of the Blue Duck *(Hymenolaimus malacorhynchos)*. The river looks raw and sterile. No ducks could be found on 7 January 1980 where formerly there had been at least three in the upper reaches. This is a serious loss in view of the scarcity of Blue Ducks in Mount Aspiring National Park.

It will be of some interest to see how long it takes for the river to return to suitable feeding condition and whether any Blue Ducks then return to it.

PETER CHILD, *10 Royal Terrace, Alexandra.*