

*YOANIA AUSTRALIS*Fairlie Horsley¹

On 7th January, 1989, during the Canterbury Botanical Society's summer camp at Collingwood, one outing was to the Kaihoka Lakes area. It was a dull day, and our leader Margaret Bulfin suggested that our exercise might be to search for the little known orchid *Yoania australis* which had been reported from the area, but rarely sighted. Tony Druce who had not himself seen the orchid here, had specially asked us to look for it.

The slender information we had was that it was found mostly in the North Island on the forest floor under *Beilschmiedia tarairi* (taraire). However, in north-west Nelson it was said to be found in association with *Dysoxylum spectabile* (kohekohe).

Yoania australis is listed as an endangered plant species in New Zealand. It has no chlorophyll to help manufacture its own food, but relies on certain fungi for this function. *Yoania* is not only a rare orchid, but one of uncertain status and considerable botanical interest. This elusive orchid should be thoroughly investigated from all viewpoints. Whilst searching for *Yoania*, two clumps of the tall orchid *Gastrodia cunninghamii* were found along the lake track. They were splendid specimens, one a lovely pale cream in colour, and the other darker. After looking for some time, I saw on the upper side of the track, amongst the light leaf litter, a single unfamiliar growth. Could this be the object of our search? A call to our leader brought the excited response, "Yes, this is it. This is *Yoania*. Tell everyone to come and see." In a very short time there was a succession of prone bodies, with lens or cameras, all set to record this unusual delicate little newcomer.

After our initial acquaintance, members continued to search keenly, and not far away a clump of four *Yoania* was found, one flower of which appeared barely open. There was no sign of seeding.

While looking at this cluster, I noticed a spider in its tiny web, attached near the top of the orchid. Then a second spider, by the entrance of the highest flower, the one which appeared most open. I wondered if this could be a means of pollination.

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A third site of sparse *Yuania* was discovered, still close to the lake and growing in similar leaf litter amongst many collapsed nikau branches. Nearby was found the best site yet, really pretty, on another flattish area, growing around the base of a nikau palm. This consisted of a group of thirteen orchids, with nine in one close cluster, three in another, and the largest yet seen, growing on its own. A ruler produced from a back-pack found the measurements ranged from 7-15 cm tall.

The stems of *Yuania* were pink, a duskier pink than the underside of a field mushroom. Most of the stems which were covered with fine hairs had up to four bracts of a straw-white colour. The colour of the flower most open was pink-brown, with white-tipped sepals and petals.

A check-list was made of plant sites 1 and 2 which were quite close together.

Site No.1

Canopy: *Rhopalostylus sapida* (nikau palm - very dominant), *Hedycarya arborea* (pigeon wood), *Coprosma lucida* (shining karamu), *Dicksonia squarrosa* (tree fern), *Macropiper excelsum* (kawakawa), *Melicytus ramiflorus* (mahoe), *Pittosperum tenuifolium* (kohu kohu), *Ripogonum scandens* (supplejack), and *Brachyglottis repanda* (rangiora).

Seedlings: *Rhopalostylus sapida* (nikau palm), *Parsonsia heterophylla* (kaihua), *Pennantia corymbosa* (kaikomako), *Ripogonum scandens* (supplejack), and *Blechnum filiforme* (fern).

Ground cover: light leaf litter and *Microlaena avenacea* (bush rice-grass).

Site No.2

Canopy: *Rhopalostylus sapida* (nikau palm), *Carmichaelia arborea* (broom), *Carpodetus serratus* (putaputaweta), *Elaeocarpus dentatus* (hinau), *Hedycarya arborea* (pigeonwood), *Myrsine australis* (mapau), *Pseudopanax arboreus* (five finger), and *Brachyglottis repanda* (rangiora).

Seedlings: *Dodonaea viscosa* (ake ake), *Laurelia novae-zelandiae* (pukatea), and *Rhopalostylus sapida* (nikau palm).

Ground litter: *Microlaena avenacea* (bush rice-grass).

Not one tree of *Dysoxylum spectabile* (kohekohe) was found. In all sites it appeared that the nikau palm was the common canopy species with *Yuania australis*.