

Newsletter 73                      December 2010

After reading Kate's piece, *Crossed Out*, in Newsletter 71, I began to wonder whether we really should be putting expensive resources into preventing a species from becoming extinct. Should vast tracts of land and huge wads of money be expended on saving and/or reintroducing a species – preservation v conservation – when most people today believe in evolution?

Co-incidentally, we received information on this subject from our British-born son-in-law who, while devoted to his wife and daughter, loves his Apple Mac and trawling the web. (I have to admit that his job requires him to know what is happening world-wide in his field.) He is aware of our interest in orchids and constantly puts fascinating facts before us.

[http://www.seeddaily.com/reports/Sub\\_zero\\_seed\\_freezes\\_aim\\_to\\_save\\_orchids\\_from\\_extinction\\_999.html](http://www.seeddaily.com/reports/Sub_zero_seed_freezes_aim_to_save_orchids_from_extinction_999.html)

San Jose (AFP) Sept 20, 2010

“Scientists from around the world gathered in Costa Rica this month to exchange ideas on ways to make sure orchids, among the world's most popular flowers, will still be around for the next generation to enjoy. Many of the orchids of the future, mere seeds today, are in a deep slumber inside glass vials in sub-zero temperature cared for by botanists with a group that has an acronym that sounds like a secret spy group: the OSSSU, or Orchid Seed Stores for Sustainable Use.”

The article goes on to say that the 23 countries belonging to OSSSU is hoping to build a network of seed banks by holding large numbers of seeds of their native species at -20°C, with the project to focus initially on 250 species in danger of extinction. A biologist from Ecuador said “each country had their own ideas on the best ways to preserve their species...[The] Cuenca University has decided to germinate 35,000 of the most marketable orchid species, then sell 10,000 of them at cut-rate prices to saturate the market and lower the demand. They will then plant the remaining 25,000 in forests near rivers, at botanical gardens and at the university itself to encourage both eco-tourism and an appreciation for the flower....”

A further point made is that “in the Philippines there are native orchid species that are on the verge of extinction because they are being used as base for the production of hybrids which are grown by the tens of millions for commercial use.” Could that ever happen here?

<http://www.guardian.co.uk/science/2010/jun/20/orchids-england>  
guardian.co.uk, Sunday 20 June 2010 19.30 BST

Paul Simons wrote an article:

#### *How Orchids Made a Comeback*

“Unknown and ignored, some of Britain's most exotic wildflowers are reaching their peak of blooming – our native orchids. These are wacky flowers with names to match – the lizard, lady, monkey or bee – and they dress up in outlandish costumes with strong perfume to fool insects into mating with them (that way the flowers get pollinated and the insects get a cheap thrill).

“The common spotted orchids, splashed with purple and white freckles, can be found on grasslands, road verges and even derelict industrial sites with alkaline waste. Alongside them, look out for the bee orchid, with its furry lower petal. And by the end of the month the pyramidal orchid will be flowering, with its tiny deep purple flowers arranged in dense pyramids.

“After years of near extinction, many of our orchids are making a comeback. The ghost orchid hadn't been seen for 28 years, but last year a single plant was rediscovered in Herefordshire. Then the Lady's slipper orchid, reduced to one specimen guarded 24 hours a day during its flowering season, came back from the brink after Kew Gardens coaxed its reluctant seeds into germinating in test tubes using a feeding formula for premature babies. They have flowered, in secret, wild locations. And in one revival that caught botanists by surprise, the lizard orchid burst out from its refuge on the golf course at Royal St George's in Kent and spread to other courses across southern England, its seeds hitching a ride on golfers' shoes.”

Ian's last offering concerned pollination by “vegetarian” mosquitos - one pollinates “the rather pretty blunt-leaved orchid that grows in bogs of boreal forests. Another kind pollinates the Monkey-Face orchid, an endangered Appalachian species.”

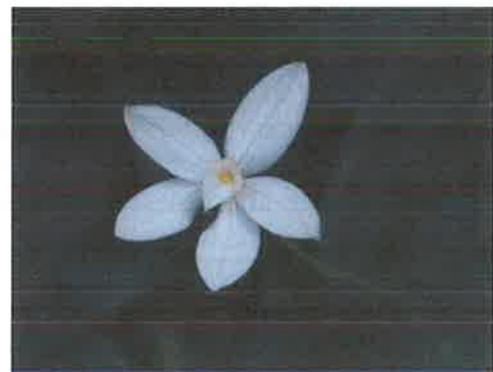
I can't resist a comment: What a pity there were no botanical names!



*Caladenia sp.*

Margaret Bradhurst writes: I found this little *Caladenia* in the Royal National Park in September and neither the Sydney Herbarium nor David Jones has been able to identify it. David thinks that it is an undescribed species. Unfortunately there were not enough of them for further investigation, so I am going to have to go back there next year to see if I can locate any more.

While I was photographing that, I noticed the little white *Glossodia minor*. Normally they are mauve. White versions of its bigger cousin *Glossodia major* can sometimes be found too.



*Glossodia minor (albino)*



*Thelymitra ixioides*

A few days later I came across a white version of *Thelymitra ixioides*. This is normally blue with darker blue spots. I had never seen a white one before, but obviously it can happen and it would be interesting to know how and why we find white (or albino) orchids from time to time.

My friend Doug Rickard photographed the *Thelymitra*.



FAMILY LYMANTRIIDAE, whatever that is.

Further to my article in Newsletter 68, despite my best efforts I have not been able to have my orchid destroying moth identified. Neither have I defeated it.

My first photograph shows the frass, just slightly larger than life size. The orchid is a leafless *Chiloschista phyllorhiza* on a piece of *Backhousia bancroftii*, Johnstone River Hardwood. The orchid root growing onto the mount under the bark has been killed. The larvae in the second photo – this and the moth photo may also be slightly larger than life – was extracted from a mount by submerging the mount under water overnight. This did not kill the larvae and I tracked it around the kitchen table to get this shot.

To get the moth, I put a piece of timber with heaps of frass into a jar and covered it with superwipe. It sat in the jar for I don't know how long, long enough for me to be sick of looking at it, and when I went to throw it away I discovered the moth already dead. The entomologist found the photographs insufficiently clear to attempt a definite identification. Later on I took a piece of infected timber to the South Johnstone Research Station, but the larvae did not survive.

I undertook the massive job of removing all the wooden mounts from my shade house. I concocted a toxic mix of old lawn grub insecticide in a 45 litre metal tub and over a few days submerged the mounts with attached orchids overnight in the liquid. When I took them out I subjected them to a jet of high pressure water, and if any frass remained I dug it out with wire. I returned 36 mounts with plants still attached to the shade house. Eleven plants had been so damaged they came adrift from the mounts, many of which had been eaten to the point of disintegration. I am positive that not a single caterpillar was returned to the shade house. There were quite a few in the bottom of the tub when I emptied it. Not all the plants attached to new mounts survived the drastic treatment.

Unfortunately the cold weather which was expected to slow down the life cycle of the moth did not eventuate this year and it is making a reappearance. One fact I have been able to establish is that the moth is not attracted to a hardwood mount which does not support a live plant. I therefore conclude that the larvae feed on the orchid roots as well as the timber.

It has been suggested that I might again have a specimen to take to the research station. I have said there is no chance of that as I am keeping a good watch and have used the wire and water jet method of removing any intruders. However, in the interests of science – how altruistic – I might allow one mount to succumb. If I do, it will have to be a mount which supports an orchid I can live without. I do have a few plants still attached to small branches and there is always a chance that the plant will not survive being removed and attached to a piece of hardwood which is easier to monitor, or tied to a tree in the yard and allowed to take its chances with excessive rainfall.

## DENDROBIUM NINDII

Don Lawie

Constant readers of this Newsletter will be familiar with the above species' name. Yes, we have written about it before, and probably will again. Of all the thousands of orchid species native to Australia, we admit to being stuck in a bit of a rut, with frequent references to *Dendrobium nindii* as well as the Cooktown orchid, *D bigibbum* and the Golden Orchid, *D discolor*. Well, why not? We believe that they are three of the world's most attractive and interesting orchids, and moreover we are privileged to live in a place where we can grow them in our own front yard and observe their habits over a long period of time.

Our relationship with *D nindii* goes back many years; we have of course related how it was first found on the bank of what became Ninds Creek by a Mr Nind, one of the first Europeans to explore the reaches of the Johnstone River system. The area is now best known by the township of Innisfail, built on the junction of North and South Johnstone Rivers, about 90km south of Cairns, and a half hour drive from our home.

The Johnstone Rivers, and also the Mulgrave and Russell Rivers to the north (we live by the lower Russell) run from the Bartle Frere/Bellenden Ker mountains – the highest in Queensland at about a mile high – to the Pacific Ocean. What used to be essentially a widespread swampy area was largely drained for sugar cane farming in the 19th/20th centuries. Much of the original vegetation has been destroyed by Progress, but some botanical jewels remain to be found in untouched places deemed to be unproductive for farming. One such jewel is *D nindii*, persisting in its growth along the rivers named above in obscure and little known spots, sometimes high in the riverside trees and occasionally still low down among the tangle of trees, palms, vines and undergrowth that lines the riverbanks. They have been, understandably, prime targets for "orchid lovers" over many decades, and were not plentiful before that, so that the location of the survivors is known to some of the habitués of the rivers and jealously guarded.

A few years ago I was boating downriver near home after doing a plant survey in preparation for a forthcoming ASGAP post conference tour and was accosted by a fishing guide from Cairns who takes his clients barramundi fishing. He accused me of stealing orchids and was very angry until I was able to persuade him of my *bona fides* - he knew of me but hadn't recognised me - and then he told me where to find a couple of nindiis. What relief, but what a good feeling to know such people are around.

And so to my purpose for writing today: about ten or more years ago a farmer asked us what he should do with an orchid he had picked up off the ground where it had fallen from a storm-smashed tree. We suggested he tie it to a tree in his garden. Not long afterwards he asked us to identify a "beautiful orchid" which had come into flower. It was of course a nindii. We subsequently harvested seed from the orchid, had them germinated, grew them on, lost most of them to various problems but did manage to distribute a few of the seedlings to residents along the river in the hope that we could effect a re-introduction of the orchid with genuine local provenance.

Our farmer friend contacted us again a few months ago to say that the Red Cedar (*Toona australis*) supporting the nindii was in poor shape and would we come and rescue it. An inspection showed that the orchid had about eight mature seed pods so we decided to leave it in situ to give the seeds a chance to disperse. While assessing the other orchids, which he constantly asks us to take into custody because he does not look after them, we discovered that a neighbouring dead Red Cedar was harbouring a large daughter orchid. These Red Cedars had been grown from seed and they just don't do well in cultivation. This tree was just a push from upright so with the help of a chain saw, we took the younger orchid home; the remains of the trunk and limbs were stowed for a timber craftsman to work with. We set up our prize in a fork of a Caledonian Oak (*Carnavonia arallifolia*) and with luck it will settle in well in time and spread seed to the surrounding rainforest. Progress reports on the nindii project will continue. Meanwhile his not looked after orchids thrive and suffer far less from orchid foes than those in our more concentrated site.