

## Orchid Conservation by Alan Stephenson

The preparation of the Conservation Handouts (which are incorporated in the information below) came about over time due to my installation as AOC Conservation Director following the AGM in 2002. The first of these was the Orchid Identification sheet and I found this necessary following numerous requests to identify native orchids for various people who attended the Nowra A&H Shows. A question would be asked, I saw an orchid the other day but don't know what it is and can you help? I would then ask a series of questions, such as where did you see the plant and the answer would be, oh in the bush. Then came questions about a particular habitat, flower numbers, leaf type etc. Answers would be, near a scribbly gum, I only noticed one flower and didn't look for a leaf.

The leaf sheets followed and were quickly accepted by the person in charge of local bush care groups. They are important to identify orchid occurrence when weeding or perhaps using herbicides and the local threatened species photos were equally accepted by this group and local national parks personnel.

However I consider the other sheets to be most important as in my environmental capacity I am required to read Environmental Impact Assessment Reports (EIS) required prior to a development application. It is here I encounter many disturbing statements and listed below are 10 points which I consider to be crucial to a proper understanding of the proposed development.

1. Access all reports for development
2. Read environmental report
3. Determine target orchid species
4. Assess if survey was done at correct time for orchid
5. Note all orchid species listed in report
6. Read other reports from same surveyor
7. Verify if these are honest and concur with terms of reference
8. Check method of survey, transect width or meander
9. Look for anything unexpected in survey findings
10. Determine if all work was completed prior to close of submissions

The establishment of one or more target species begins with a search of the NSW Wildlife Atlas and the time and method of any survey I consider to be a guide to the ethic of the person/s responsible for the EIS. The list below gives a reasonably detailed explanation of the 10 points.

1. When a development of any type is proposed, an Environmental Assessment Report (EA) will be required. All of these reports will be available for public comment on a Website in PDF form, depending on whether the development is for a local council, state or federal government or a private company. This could be anything from a sporting field, shopping centre, highway, prison or any type of mine or port. These reports will be available on the Website under Major Development or a similar title and you will need to check, the council Website or state or federal government but all will be advertised in a local, major city or national newspaper.
2. You will need to read the entire report and it could contain difficult issues such as traffic, bridge or road construction, among many other things.
3. In the environmental section there will be a target species and it could be one or more orchids or any other species of flora and/or fauna.
4. If the target species is an orchid, make sure it is the correct species (for the area) and ensure there are no other endangered species in the area which have not been mentioned. Local knowledge is good for this. Also make sure the survey has been undertaken at a time where the orchid is sure to be in flower. This does not always occur.
5. Note all orchid species listed in the report and match these with your knowledge of the area. Local knowledge again.
6. Read any other reports done by the person/s that has done the report.
7. By doing point six you will then be able to determine if the EA is honest and complies with the requirements in the conditions. These conditions are usually set by the Director General (DG) of NPWS or in Queensland it could be the EPA. In NSW this is the DG of the Office of Environment and Heritage. My experience tells me these conditions are not always complied with.
8. Check the method of survey used by those responsible for the survey. What were they looking for? If it was a small terrestrial orchid, did they search every square metre of the site? I am informed by the Qld Environment Minister that EA's in Qld are carried out over more than one season. See attached letters. The Random Meander letter was sent

to every environment minister in Australia. All but the NT minister responded. This is a most important point.

9. It is always a possibility that something unexpected is located during these surveys but it depends on the ability and honesty of the person concerned. This may be due to certain companies and or governments (usually councils) who regularly use the same person or company because that is the easy way to guarantee the required result. Scrupulously honest EA surveyors are not wealthy, usually due to lack of work.
10. I know of more than one instance where EA work was still being undertaken after the closing date for public submissions has closed. This means any findings from the late work are not in the final report and are never seen by the public, therefore no comment can be made. This late report could be the critical factor and it may not just be accidental. My cynicism is strong regarding this and several other points I have listed.

Most persons undertaking EIS work are the product of a tertiary institution and I have found most are well versed in mammals, trees, weeds, some insects and reptiles but orchid knowledge, particularly terrestrial knowledge is extremely limited and in some cases non-existent. I have encountered one EIS report which indicated part of the survey for threatened orchid species was undertaken in a vehicle.

Photographs of Shoalhaven Threatened Species, leaf sheets 1 and 2 (see end of article) have been given to NPWS and I know they have been spread through their system. They can be adapted to suit any region as not all areas have the same species. (Re the species list notations: most are easily explained but the red asterisks denote species I have found which were not considered to grow in this region and some are extensions of range.)

I urge all OSNSW members to access the NSW Government website and in particular the section pertaining to major developments, read reports relative to those developments and using their orchid knowledge of an area with which they may be familiar, assess the viability of the report as it relates to the occurrence of orchids, as I consider local knowledge will in most cases be greater than many professional surveyors.

### **Aid to Native Orchid Identification**

- Record day, month, and habitat type where species was seen.
- Mark the site, unobtrusively if possible (GPS) and keep location confidential.
- Record if orchid has a leaf, number of leaves and shape.
- Note if leaves sit on or above ground or leaf litter.
- Is the leaf the same colour on top and underneath.
- Does the orchid have a scent?
- Record number of flowers, colour, buds on the plant and number of plants at the site.
- Record height of plant.
- Is the plant on a tree, rock or in the ground?
- Photograph habitat, whole plant, single flower and labellum in the centre of the flower. Digital photo preferred.
- Do not remove a flower or plant unless authorised.
- For identification, send photos to:  
Alan W Stephenson,  
Conservation Director, Australian Orchid Council [affine@tpg.com.au](mailto:affine@tpg.com.au)  
or contact nearest  
Office of Environment and Heritage 4428 6300 (West Nowra) or National Parks & Wildlife  
Service, Graham St Nowra 4423 2170.

### **State Environmental Authorities**

- NSW Office of Environment and Heritage
- Victorian Department of Environment and Primary Industries
- Queensland Environmental Protection Agency
- South Australia Department for Environment and Heritage
- Western Australia - Department of Environment and Conservation
- Tas Department of Environment, Parks, Heritage and the Arts
- NT Department of Natural Resources, Environment, the Arts and Sport
- ACT Territory and Municipal Services

Please note that state environment authorities occasionally change titles and vary responsibilities (with government changes).

## SHOALHAVEN THREATENED ORCHID SPECIES



*Arachnorchis tessellata*



*Calopogon pulchellus*



*Cryptostylis hunteriana*



*Rhizanthella slateri*



*Genoplesium baueri*

All species on this page are listed under the Commonwealth EPBC Act and/or the NSW TSC Act as either Vulnerable, Endangered or Critically Endangered. Two species are considered extinct, five are endemic to the Shoalhaven and eleven are at their southern recorded geographic limit. Any person who encounters one of these species is urged to record the find with the nearest available Office of Environment and Heritage or NPWS. A record should also be noted on the NSW Wildlife Atlas



*Diplodium pulchellum*



*Oligochaetochilus gibbosus*



*Specularantha vernalis*



*Prasophyllum affine*



*Specularantha ventricosa*



*Coronastylis vernale*



*Coronastylis superba*



*Arachnorchis cadyi*



*Diplodium nans*





*Calochilus*



*Trelymitra*



*Cymbidium suave*



*Pterostylis nutans*



*Pterostylis curta*



*Pterostylis abnormata*



*Diplodinium truncatum*



*Diplodinium laxum*



*Crangonorchis pedoglossa*



*Diplodinium alveatum*



*Pterostylis curta*  
variegated leaves



*Pterostylis baptistii*



*Prasophyllum affine*



*Pyrorchis nigricans*



*Petalochilus hillmanii*



*Chiloglottis sylvestris*



Corybas leaf with  
Seed capsule



*Glossodia major*



New stems of *Corunastylis* species



*Caleana major* fresh leaves

*Caleana major* old leaf