

THE W.A. NATIVE ORCHID STUDY & CONSERVATION^{GROUP}



MEETINGS... 3rd WEDNESDAY each
month at..

KINGS PARK BOARD ADMINISTRATION CENTRE
Theatrette, KINGS PARK, WEST PERTH.

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OFFICE BEARERS 1985

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THE WEST AUSTRALIAN NATIVE ORCHID STUDY & CONSERVATION GROUP

OBJECTS OF THE GROUP:

- a. To promote interest in and preserve Western Australian indigenous orchids.
- b. To learn the best means of cultivation and do all things possible for the conservation of native orchids in their natural environment.
- c. To learn their habitats and keep records.
- d. To have field days and learn to recognise the different genera and species.
- e. To hold meetings for the exchanging of knowledge and furthering of interest in Western Australian orchids.
- f. To affiliate with kindred organizations.
- g. To make rules for the governing of the Group's domestic affairs.
- h. To do all such other lawful things as are incidental to or conducive to the attainment of the above objects or any of them.

NEXT COMMITTEE MEETING:

20 November - 7.00pm

NEXT GENERAL MEETING:

20 November - 8.00pm

Speaker for Meeting:

Paul Armstrong will speak on the Orchids of John Forrest National Park and time permitting Kingsley Dixon will give an outline of his European trip.

FINAL MEETING FOR 1985:

An evening at Kingsley's
Saturday, 14 December at 6.30pm.

Kingsley is organizing a hot buffet meal but would be grateful for any assistance. Please bring your own drinks.

WILDFLOWER SHOW SALES:

Our display was very successful and profitable. Following a sale by Ken Jones subsequent to the show of 50 copies of The Supplement we will make in excess of \$350 profit on sales.

IN SEARCH OF EPIBLEMA - Sunday, 10 November.

Following a startling report by Andrew Brown of a large population of Babe-in-the-Cradle orchid in the wilds of Malaga (north of Morley), an on-the-spot field excursion was organized. Apologies to members who did not hear of Sunday's trip but at such short notice it was difficult to call many members.

The good news is that the plants were only just coming into bloom and should be in good form for a couple of weeks more. A surprising 13 members turned up and were rewarded by a supposedly snake infested swamp (courtesy of Pat Dundas) brimming with 1 to 1.2m tall specimens of Epiblema grandiflora. If this was not enough a sky-blue coloured clone was found. Altogether a spectacular display with an estimated 150 plants in prime condition.

Also found were good stands of Prasoplyllum drummondii, Microtis unifolia, and Caladenia huegelii.

The area is probably a home for the gazetted rare Sundew Drosera occidentalis which was seen on some nearby tracks.

The Group in conjunction with C.A.L.M. is investigating the status of "Epiblema" swamp considered the best preserved Epiblema stand on the Swan coastal plain.

YORK FIELD TRIP

The dozen or so Club members who made the trip to York on Sunday, October 13th were about a fortnight too late to see the Beard Orchids (C. robertsonii) in flower on the way, but Mt Bakewell, after last summer's big fire, was well worth the visit. Caladenia integra was still in fine flower and is much more widespread than I was aware; Caladenia gemmata forma gemmata was very common but mostly in seed and a solitary specimen of Microtis alba was an interesting find. In a more exposed habitat, Diuris setacea and Elythranthera emarginata were numerous and their peak condition made them much photographed. Here Prasoplyllum elatum was also common and ranged from fully fresh spikes to spikes in full seed, demonstrating the long time span of the colony's flowering. Wayne found a specimen of the beautiful Bommerang Triggerplant (Stylidium brevis capum) but was only momentarily distracted from his single-minded pursuit of orchids.

After lunch, we paid a visit to the golf course and the adjacent bush where Thelymitra villosa and Diuris setacea were flowering. An unusual find here, a first for many, was a specimen of Thelymitra canaliculata. The party then split and headed for home by different routes. The main road group found a small colony of Thelymitra fuscolutea var fuscolutea; those who returned via West Talbot and Brookton Highway found Microtis orbicularis and Caladenia uliginosa. This is the most northerly known location for this "new" spider orchid.

John Tonkinson.

PTEROSTYLIS BARBATA, P. PLUMOSA AND P. TURFOSA IN WESTERN AUSTRALIA.

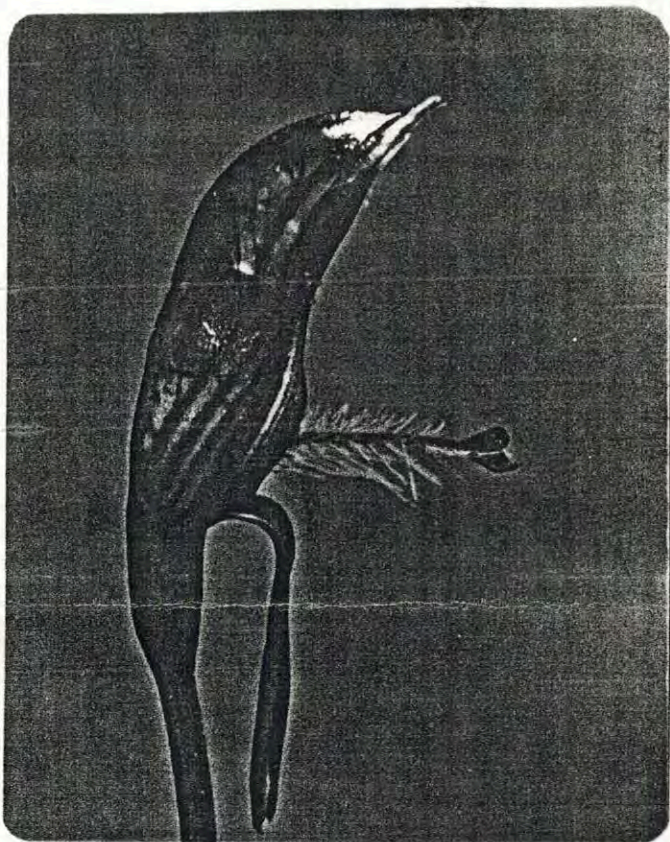
The question of 'how many different "bearded greenheads" in the Pterostylis barbata complex in Western Australia?' has become something of a perennial problem.

Excellent articles by Andrew Brown and Ron Heberle in the Orchidian (June 1980, December 1981) have ensured that visitors to the south-west will look carefully at orchids of this group.

Brown (1980) says of the common form of P. plumosa from the south-west "having seen specimens of P. plumosa from the eastern states I am not convinced that ours is the same species". I would agree with Andrew that they are certainly distinct and recently have formed the opinion that perhaps it would be better left to regard them as 2 sub-species. In eastern Australia P. plumosa is a constant species with a short acute apex to the galea and a relatively broad flower (see photos 1 and 2 showing flower side and front views). Curiously enough this "sub-species" does occur in Western Australia but only in the eastern borders of orchid distribution - ie about 100km east of Esperance in August - September (at least this is the only area I saw it). The common form of P. plumosa in the west is however a slender flowered plant with a long needlelike apex to the galea (see photo 3). It tends to flower somewhat later than the short flowered form ie October - November but both "sub-species" have a wholly green galea with dense yellow plumes (hairs) on the labellum (see Hoffman and Brown 1984 P. 322 for an excellent photo of the slender "sub-species" and Nicholls plate 346 for a painting of the type form of P. plumosa).

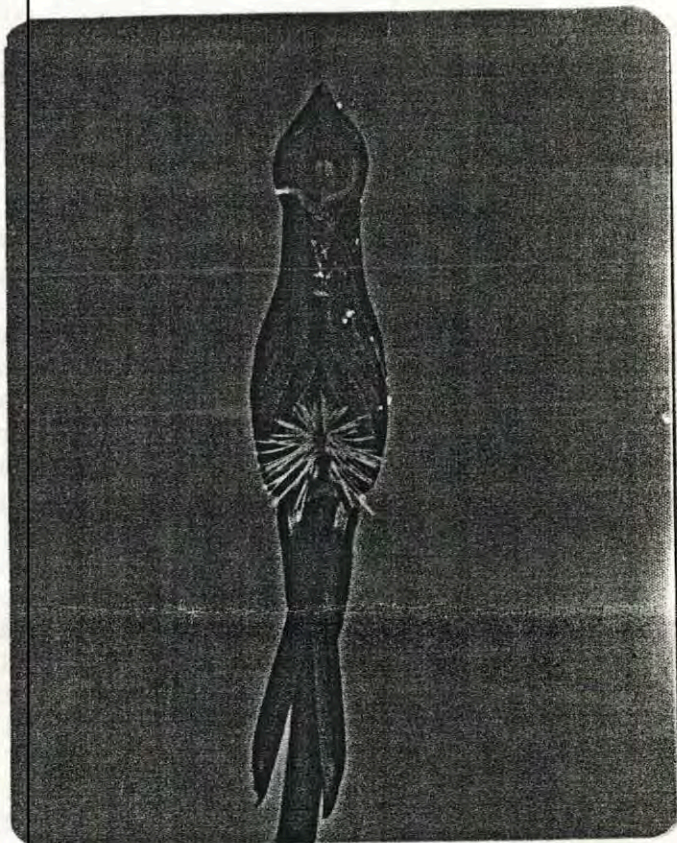
But what of P. barbata and P. turfosa? Heberle (1981) treats the "Albany bird-orchid" as a separate species and suggests that it is the P. turfosa of Endlicher. Ron in 1984 showed me this early flowering species near Albany and subsequently I found it elsewhere. I would agree with Ron that it is certainly not a form of P. barbata and nor is it P. plumosa. As he suggests there are clearly at least 3 species in the south-west. The ?P. turfosa flowers in August and early September and appears to be a plant of coastal heathland. It differs from P. plumosa and P. barbata in having the filiform apex to the galea as long as the slender galea itself; the labellum with only a few sparse almost colourless "hairs" and in having long divergent lateral sepals. Having just got used to this form of ?P. turfosa I found a late flowered form from near granite outcrops in dense bush north of Walpole and Denmark (this is shown in photo 4). In this form the flowers were larger than the coastal ?P. turfosa but not as slender, the "hairs" on the labellum like grey whiskers, the lateral sepals much contorted. It appeared to me to be a probable distinct sub-species of the "Albany bird-orchid."

What then of P. barbata? Brown (1980) wrote that P. barbata could be found from Geraldton almost to Esperance. The distribution shown in Hoffman and Brown (1984) is considerably less than that. The form shown in Orchids of South-West Australia P. 320 is the most common form, ie labellum with long sparse yellow hairs, brown edging to the galea base, divergent lateral sepals etc. Yet there are other forms and I would be inclined to regard the dwarf form with short galea and short dense hairs on labellum from granite outcrops inland ie north-east of Hyden as a separate sub-species.



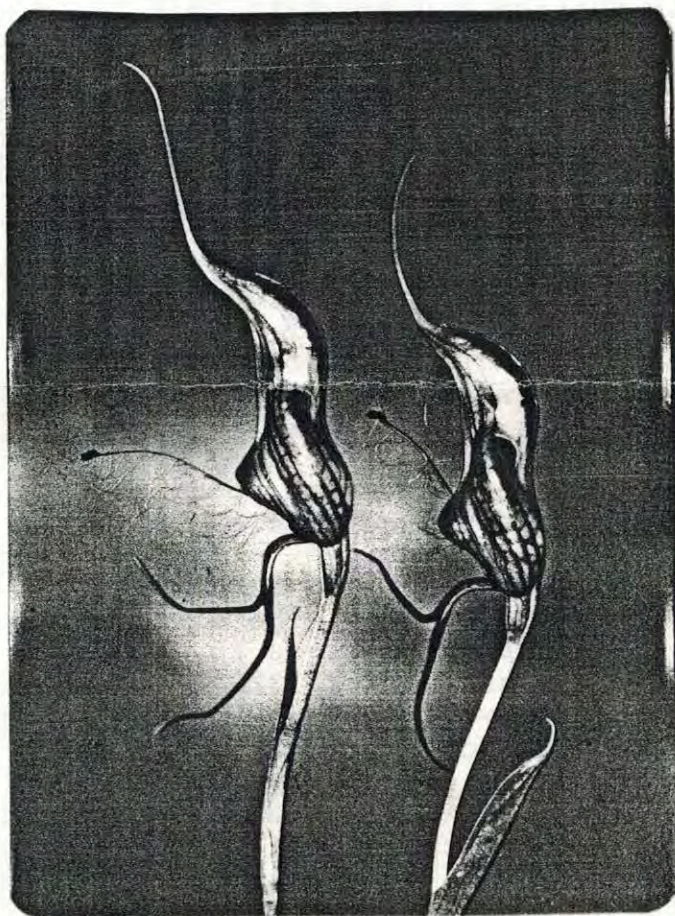
1

Pterostylis plumosa side view



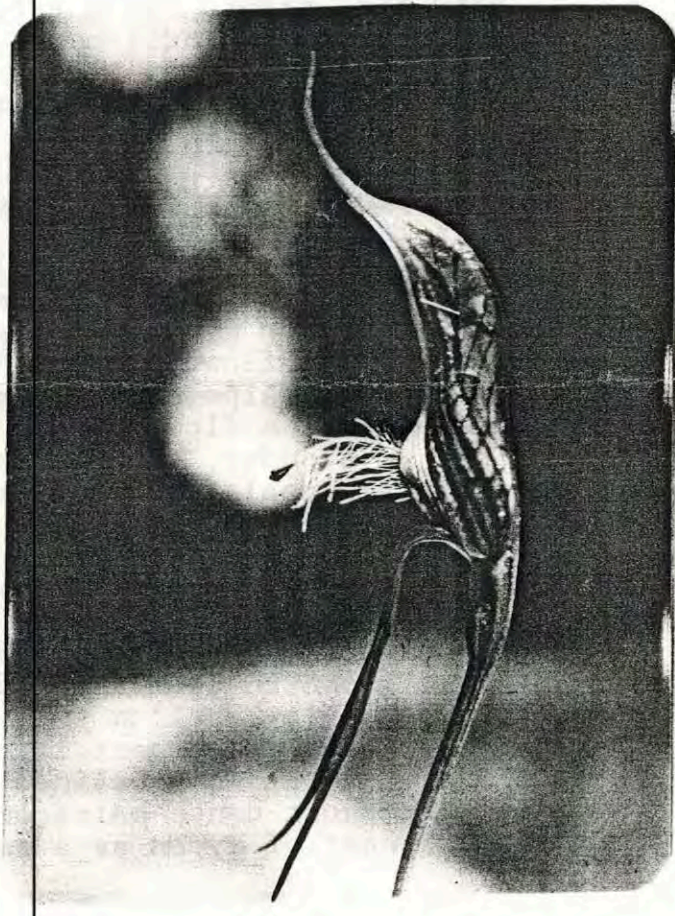
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P. plumosa front view



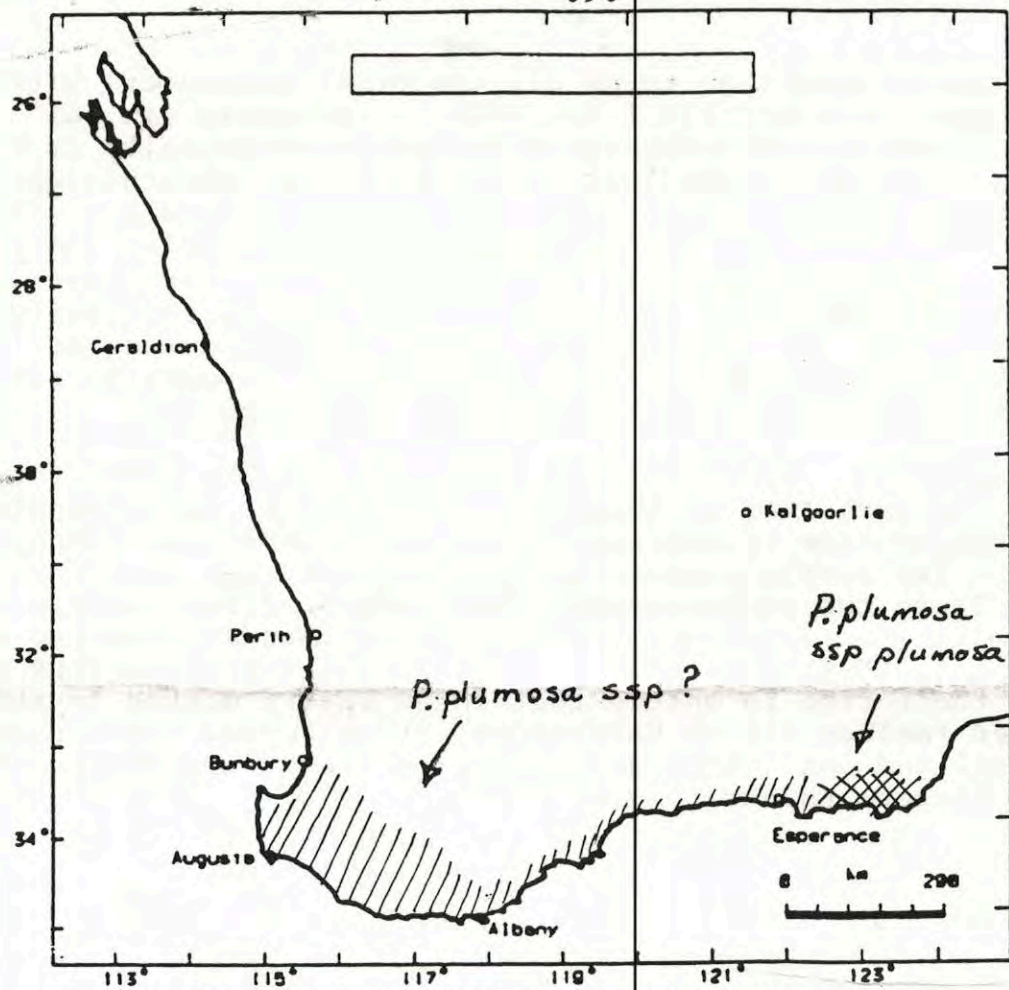
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P. turfosa

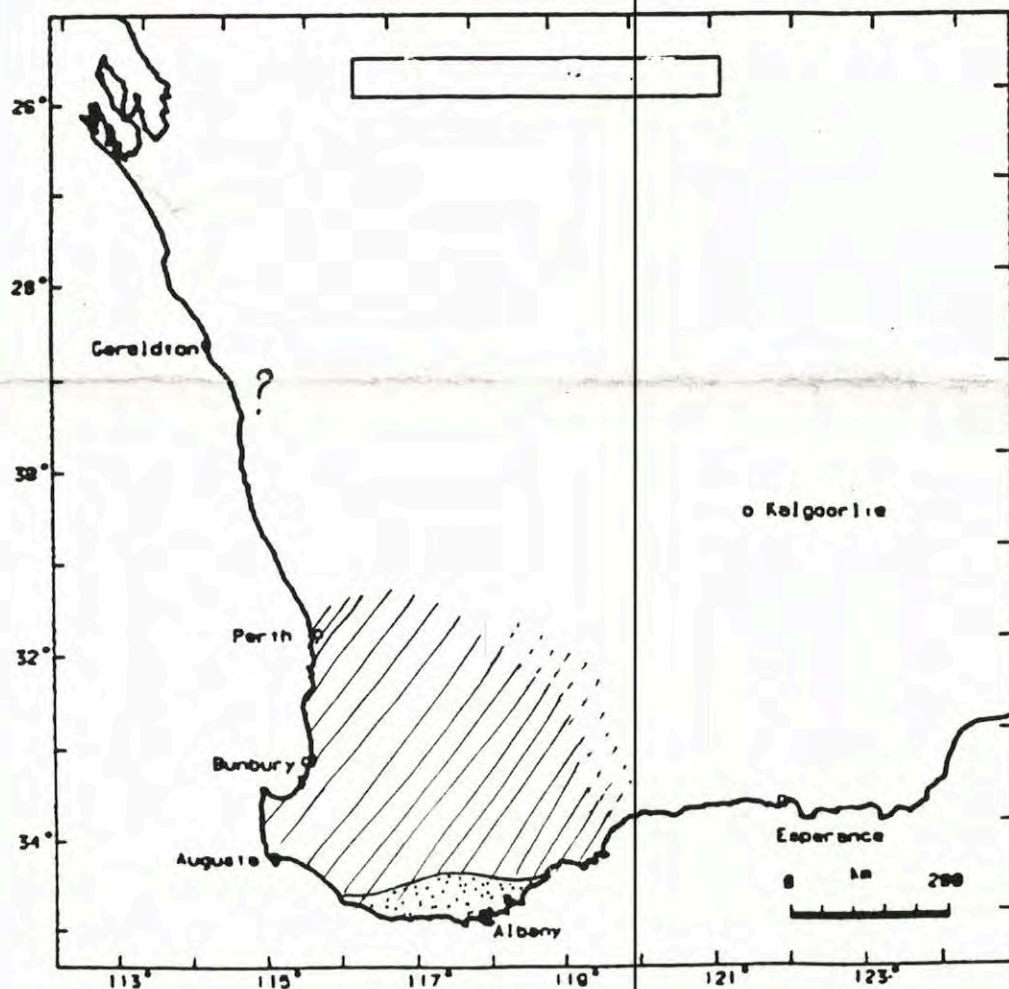


4

P. plumosa s.s.p.



Distribution of *P. plumosa* in WA



Distribution of *P. turfosa* (dots) and *P. barbata* (stripes) in WA

Thus it can be seen that in my all too brief encounters with the group in Western Australia I was able to recognise six (6) distinct "bird orchids" separated either geographically or by flowering times and morphologically fairly constant throughout their ranges. Little wonder that Ron Heberle titled his (1981) article "A further look at *Pterostylis barbata* Lindley and *P. plumosa* Cady - and six other possible Bird Orchids of Western Australia!!" Ron (personal comm. 1984) noted that there were late flowered (November) forms that I could not expect to find during my visit. What a fascinating study the group would provide for someone who was brave enough to try and name them all.

Acknowledgements: As this is my final article for 1985, this is probably the best time to thank and name some of those people who really made my time in Western Australia in 1984 such "smooth sailing". Two people especially did far more than one could normally expect. These two people were Andrew Brown and Ron Heberle who with their families accepted me as a non-paying boarder, took me to (one might expect) their special orchid locations and in various ways gave up a lot of their time to ensure that I saw what I wanted to see. Others who helped include Alison Harrington, Steve Hopper, Herb Foote, Rod Peakall and Don Voight and of course there were others. Once again my sincere thanks to you all.

Bob Bates.

PTEROSTYLIS BARBATA, P. PLUMOSA AND P. TURFOSA IN WESTERN AUSTRALIA

The Continuing Saga.

There is no doubt in my mind that both Bob Bates in the preceding article and Ron Heberle in the Orchadian, December 1981, are quite right in saying that there are a number of distinct taxa involved in the P. barbata and P. plumosa complexes in W.A.

Nevertheless I feel that the problem is somewhat more complex than either suggest. Distribution and flowering times overlap, several share the same habitat and there are races of plants which do not fit neatly in to any of these taxa.

This brings me to the question of Rank! Do we treat these plants as species, sub-species or simply forms of a particularly variable species?

Similar complexes occur within several other genera. ie Diuris, Caladenia and Microtis. It has only been through much field work that we now have some degree of understanding and can now separate different taxa within these complexes with some assurity. Yet even now new taxa are still being discovered.

Let us look at some of these plants one at a time.

A) Pterostylis plumosa (small blunt)

There is still some doubt as to whether typical P. plumosa occurs in W.A. although admittedly the small Esperance form does appear to be a good match.

This plant is somewhat more widespread than is shown in Bobs distribution map and although more common between Esperance and Israelite Bay also occurs at least as far west as the Oldfield River.

B) Pterostylis plumosa (Narrow filiform)

As indicated by Bob, the common form of P. plumosa found in W.A., has slender flowers with long filiform tips to the sepals. Although common in the area indicated by Bob this orchid does not have a distinct cut-off point to the east of Esperance and has been seen at least as far east as Mt Ragged.

Although normally flowering later than the small form (September - November as opposed to August - September) I have seen them growing together on at least one occasion. This was at Condingup Peak during September, 1982.

The fact that they grew together without any apparent intermediate forms and are morphologically distinct indicates to me that they are probably good species rather than sub-species, however a good deal of field work needs to be done in order to determine whether this is the case.

C) Pterostylis barbata (Common)

The common widespread type form occurs from Perth to Augusta and eastwards through Mt Barker to the Stirling Ranges and Porongurups. On occasions it can also be found within the wheatbelt.

D) Pterostylis barbata (small wheatbelt)

Essentially differing from typical P. barbata in having squat flowers with short sepals and dense marginal labellum hairs, this form can be seen from Northampton to Munglinup, in the area often referred to as the wheatbelt. At the time of mapping its distribution for (Orchids of South-West Australia), Geraldton and Munglinup were deliberately left out as I was aware of only 2 small populations and none between them and the orchids main range of distribution. As a result of recent fieldwork, I now know it to be much more widespread than previously thought. Areas where I have seen this orchid include Northampton, Three Springs, Eneabba, Merredin, East of Hyden and Ravensthorpe.

Interestingly, the type form also occurs in the wheatbelt of W.A. where it appears to be confined to most shaded areas, such as under thickets of Allocasuarina huegeliana (Sheoak).

E) Pterostylis barbata (late-large)

This form is reasonably common in the higher rainfall belt south of Manjimup between Augusta and Denmark. I don't think it is the same plant referred to by Bob as the late flowered form near Granite Rocks (shown in photo 4). Plants are generally much larger than P. barbata and have a broad (bloated) sinus. Flowering is quite late during October - November.

F) Pterostylis barbata (syn turfosa "Albany filiform")

Differing mainly in its long filiform sepals and sparsely haired labellum, this form appears to be confined to the Albany area, flowering quite early during August - September.

SUMMARY

As mentioned before, both flowering times and distributions overlap considerably and the plants appear to be quite polymorphic with intermediate forms being common between all 4 taxa. As appears to be the case with some Caladenias, Microtis, Diuris etc it may be that P. barbata is currently in the process of speciation and is therefore not a stable species at this present time.

Andrew Brown

NOVEMBER.

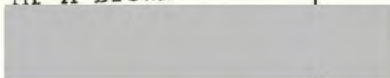
Paffle roster - Steve Hopper
Supper roster - Pat Dundas

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COMO, 6152

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Mr A Brown


NIGHT AT KINGSLEY'S

Saturday, 14 December - 6.30pm

For details see inside.