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DEPARTMENT OF PARKS AND WILDLIFE

Environment and Conservation

Study to search for rare orchids



A NEW study into the rare orchids found in the South West is being carried out by the Department of Environment and Conservation through the Biodiversity Conservation Initiative.

The study into the 300 species of orchids of the South West, home to the biggest number of terrestrial orchids found in any State of Australia, will cost \$94,000.

DEC South West regional botanist Russell Smith said orchids along the Swan Coastal Plain and on the Leeuwin Naturaliste Ridge were rare due to a number of reasons including their life history traits, restriction to certain habitat types and the destruction of habitat through human actions.

The survey will take about two years to complete and will concentrate on four critically endangered species, six endangered and one vulnerable species of orchid ranging from north of Bunbury to south of Margaret River.

"The aim of the project is to improve the conservation and management of threatened orchids," Mr Smith said.

The southern Swan Coastal Plain and Leeuwin-Naturaliste Ridge are a key area for biodiversity conservation as well as one of the highest population growth areas in Australia.

"There are many high value residential infrastructure and industrial developments putting pressure on biodiversity conservation," Mr Smith said.

A recent survey of the critically endangered cape spider orchid along the coast from Dunsborough to Rocky Point was successful in relocating a number of healthy populations.



The Cape Spider Orchid is one of 300 in the South West that are the subject of a new study.



Orchids in focus

THE SOUTH West's rare orchids are the focus of a new survey, aimed at boosting the critically endangered species. ERIN DAVEY reports.

DEVELOPMENT, four-wheel-drivers and spreading weeds are all making their mark on the rare plants, and the survey results will be used to make recommendations to ensure their protection.

As well as destruction caused by human activity, the orchids on the Leeuwin Naturaliste Ridge are threatened because of their restricted habitat types and their life history traits.

Russell Smith, regional botanist with the Department of Environment and Conservation South West said the southern Swan Coastal Plain and Leeuwin-Naturaliste Ridge were focal areas for biodiversity conservation, but they were under pressure from high value residential infrastructure and industrial developments.

"At the same time there is a growing awareness in the community of the value of this natural biodiversity and a willingness to become involved in conserving it," Mr Smith said.

The biodiversity conservation initiative has

allocated \$94,000 for a two-year study of native orchids from Harvey to Augusta.

The study, managed by the Department of Environment and Conservation, will survey the orchids to increase awareness of their biology and the threats they face.

Project officer Frances Kirchner said the initiative would focus on improving the conservation and management of threatened orchids, particularly within the Busselton to Augusta biodiversity hotspot.

"Our main aim is to re-survey the population and check how many populations there are, how many plants and the habitat they occur in," Ms Kirchner said. "We hope to get the community involved as much as possible in the surveys and subsequent protection measures of the threatened orchids."

The survey began in September, with volunteers scouring patches of South West undergrowth in scenes reminiscent of a police line.

But instead of something sinister, they were searching for the delicate indigenous plants.

Ms Kirchner said the unnatural weather patterns recently had seen an early flowering period for many of the orchids, which only flowered under specific conditions.

"A lot of the orchids are closing up already," she said.

"But that gives us more time to prepare for next season's surveys."

The survey will rely heavily on help from

volunteers and Ms Kirchner said anyone interested in orchids or flora identification may find the work of interest.

"If people have a specific orchid they like, they can participate in the study for just that," she said.

Volunteering involves wading through the scrub to locate the plants by their distinct leaves.

"We only look for one species each day so people can have their eyes adjusted just for that."

The plant finds are then mapped and data compiled on the size of the plant population and the type of neighbouring vegetation.

Subsequent recommendations could include weed spraying, installing gates to prevent four-wheel-drivers or even fencing.

"Whatever we can do to limit the damage to the orchids and promote their continuity and hopefully increase their population," Ms Kirchner said.

South West WA is home to more than 300 species of orchids — the biggest collection nationwide — of which 10 are declared rare flora, and five of those are critically endangered.

Anyone wanting to sign up as a volunteer in next year's surveys can contact Frances Kirchner on 9725 5952 or email frances.kirchner@dec.wa.gov.au



The Editors Spiel

Frances Kirchner, Herbarium Liaison Officer, CALM Bunbury



Volunteers and DEC staff identifying plants at the Eastern Reserves Camp

Welcome to the Autumn Edition of The Flora Scene!

As you may have noticed we missed the Summer Edition of The Flora Scene due to a number of reasons beyond our control not least the numerous fires we have had in our state this Summer. Due to the effort put into writing articles for the Summer Edition I have decided to retain most of them here due to their relevancy and interest.

Thankyou to the volunteers from the Bunbury and West Arthur Regional herbariums for their huge contribution at the Eastern Reserves Camp. We managed to

survey 32 quadrats over the three days with a large number of specimens to subsequently ID and mount.

I also wish to thank those volunteers that have assisted me with Orchid surveys this Spring. Due to the unusually short flowering period a number of orchids were unable to be surveyed and we will thus have a large program next season. You may have seen articles in the local newspapers calling for volunteers, **I'm very keen for regional herbaria volunteers to be involved so please let me know if you are interested.**

And as always, keep those articles coming! ☼

Eastern Reserves Camp

Mike Webster, Bunbury Regional Herbarium Volunteer

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The travel instructions were comprehensive & no one had any trouble finding the camp site; a very pleasant & quiet spot amongst the gum (sorry, eucalyptus sp.) trees. All had been carefully prepared for us; cold "room" with the food & drinks, camp kitchen, toilets & a large tarp suspended between the trees. We were fortunate & had no rain for the duration but the shade was welcome sometimes. It was also lucky that there was very little wind which could have proved tricky with all the specimens & paper. A notice board listed people's groups & times etc.

The days started early & we were off by 7am to our appointed tasks; flora surveys, setting pit-traps, water sampling, checking fuel loads etc. Returning at roughly lunchtime, between 12pm & 2.30pm. there was time to identify specimens & swap notes. After the evening meal; the food was good & ample incidentally, it was time to go out again spotlighting, listening for frogs & playing owl calls. Later, on the first evening, we had a very varied slideshow. All participants had contributed slides & talked about them as

they were shown. This made it particularly interesting, hearing the stories behind them & why they had been chosen to show. The evening of the second day we had a music quiz (which I knew nothing about!) but it was intriguing hearing how good other's memories are. As there was a lot of packing up & clearing away to do, we finished at lunchtime on day three.

I thought the camp was very successful, well-planned & executed. In view of the amount of time & planning that had obviously been put into it, I felt that it could, with advantage, have been longer; a full week perhaps. I think it would then perhaps allow time for more follow-up; those who had been setting traps for instance to learn the results, more info. on the frog surveys etc.. We might have had time to finish all the planned tasks too. The volunteers were outnumbered, I think, by DEC personnel, particularly on the last two days. It was good to meet some new faces & all the professionals were very willing to pass on their knowledge & help us. I hope the results were sufficiently rewarding for DEC so that the venture is repeated; I would certainly like to go again. ☼

Weed Busting in the SWCC Region

Janelle Carter, Department of Agriculture and Food

The Department of Agriculture and Food (DAFWA) have been successful at securing funds for Weed and Feral Management through the South West Catchments Council.

The project "On ground incentives and node support and training for regional weed and feral control" began in September 2006. Weed Buster Week was celebrated in October with the delivery of Weed Identification and Control Courses in Darkan and Bunbury. The Weed Buster Week theme for 2006 was "Communities Combating Weeds" and the courses gave local communities the knowledge and skills to be confident in weed management in their patch. A Friends of Big Swamp member said that the Bunbury course "made it possible to see that weed control in bushland is achievable". All participants received take

home resources so that they can practice their newly acquired skills after the course.

The on-ground component of the project also began in September, with 35 Expressions of Interest received for weed and feral animal control throughout the SWCC region. Some proponents received the Department's Spray Operator for weed control, whereas others received funding for their weed or feral project.

This DAFWA project is funded by the Natural Heritage Trust and is a joint initiative of the State and Australian Government, which are administrated by SWCC.

For further information on the project, please contact Jenelle Carter on 97530 303 or jlcarter@agric.wa.gov.au.



DAFWA's John Moore identifying weeds with course participants at Big Swamp,

Introducing: The Northcliffe Wildflower Society and Regional Herbarium

Gwynneth Oxnam, Northcliffe Regional Herbarium volunteer

The Northcliffe Wildflower Society was formed on 12th September 2003 following a special visit to Northcliffe by Dr. Neville Marchant the then Director of the WA Herbarium to try to set up a Regional Herbarium here to collect and identify the unique flora of the area. Neville had earlier met and befriended a local Northcliffe resident, George Gardner who had brought the Northcliffe wildflowers to the attention of the WA herbarium by collecting them and having them identified. Dr. Marchant now wanted to make sure that Northcliffe became part of the Regional Herbaria Programme.

Northcliffe, identified as the "Gateway to D'Entrecasteaux National Park" is a small close-knit community in the Southern Forest region. It is approximately 30km SE of Pemberton on the "Scenic" alternative route to Walpole and approximately 26km from the spectacular coastline of Pt. D'Entrecasteaux and the fishing community of Windy Harbour.

The Northcliffe region encompasses 5 National Parks and a number of Shire managed Reserves with a mosaic of environments and vegetation types, including coastal heaths over limestone, seasonally inundated sedgelands, Karri forests and a number of granite outcrops such as Mt. Chudalup, Muirillup Rock and Mokare's Rock, which contain a unique suite of flora. Some of the flora found in these environments is rare and found no-where else.

The Society has twelve local members and five

supporters from further a-field. We have so far collected and vouchered 250 specimens which were sent to Perth with duplicates beautifully mounted by volunteers. The specimens are scanned and saved to disk before filing in taxonomic order into lever-arch files, which are stored in a metal cabinet in the Department of Environment and Conservation Volunteer House. This work is our priority.

At the moment the group is seeking permanent accommodation in the new Northcliffe Interpretative and Cultural Centre (NICC), where our collection will be more accessible to the general public and community groups as a source of reference.

Our first collections were flora surveys for community group projects at various sites around Northcliffe. However, the group now wants to extend the member's knowledge and skills throughout the community by organising springtime walks for both children and adults, assisting with the selection of local plants for streetscape plantings and for private and public gardens. We hope to become growers ourselves so that we can donate or sell plants and to teach children and adults the skills in growing our beautiful natives. At the moment we have been asked to be involved in the selection of plants for a garden that is to be planted alongside the new NICC complex. A lot of this is "in the dreaming" at this stage, but if we don't dream how can we progress.

"A Friends of Big Swamp member said that the Bunbury course "made it possible to see that weed control in bushland is achievable."

Juncus acutus in Dunsborough

Richard Clarke, Secretary, Geographe Community Landcare Nursery

The keen eyes of Ron Glencross of Dunsborough Coast and Landcare (D-CALC) spotted *Juncus acutus* in Dunsborough in the Dunsborough Lakes area some time ago, but it was the intense interest state-wide in this new weed, and awareness that a dedicated workshop dealing with this species had been held in Perth at Wollaston College earlier this year, which led to a walk with Ron around our Dunsborough area in August to see exactly what was happening.



Juncus acutus

Photo by P. Cole

"The *Juncus acutus* story demonstrated the great importance of being alert to minute differences between plant species"

Ron Glencross, ex-Ag dept, is an experienced weed ID-er and has a keen appreciation of what might be called the 'ecological perspective', with a dazzling knowledge of our local plants and animals, even those that prefer the oceans, including whales.

I had decided to investigate the idea that *Juncus acutus* might be here, and waited for Ron and his wife Cyndy's return from a trip abroad. On August 24th, Ron and I walked over quite a bit of the Dunsborough Lakes area and found the species well established. It seemed to be mainly contained within Dunsborough Lakes, especially around the lakes and in the drains, but was spreading towards the Toby Inlet bridge near the caravan park, and had crossed Caves Road, establishing itself in the roadside drain. In the afternoon, Ron and I took out all the plants that we could see from that drain, trying to be as careful as possible to bag the seed by cutting off the heads. The larger plants were left on the mown grass by the drain at the side of the road, looking for all the world like *Xanthorrhoea* transplants! (they were later picked up by our *Verticordia* expert, Ian Budge, who works for the shire in Dunsborough – Ian has had some success in propagating and establishing many *verticordias* in his Quindalup garden)



Juncus acutus.

Photo by P. Cole

Our next move was to call in people we knew at the Ag Department, the Shire, DEC, Toby Inlet Catchment Group, and Don Carter from the Cape Naturaliste Regional Herbarium (who took a specimen). I was sorry not to have included GeoCatch as GeoCatch's

Brendan Oversby had come from the Avon where he had had experience with this *Juncus*, but we had initially only thought of alerting the Ag Department. This was rectified when Brendan and Mandy Polley from GeoCatch

came out for an inspection tour a bit later, leading to a cooperative action plan coordinated by Andrew Webb and Mandy Polley of GeoCatch involving the Shire, the Ag Department, and Dunsborough Lakes. I had made a rough distribution map in earlier walks, but I have now completed a more thorough map for GeoCatch which will help when control measures commence soon. It is a significant occurrence, but after the mapping, not as bad as I had feared. We will have to wait and see what happens next.

In the middle of all this, it was fortuitous to have the Greg Keighery *Sedges and Rushes* workshop in Busselton. Greg was able to explain the seriousness of this species, and a little about its biology. A serious weed in NSW and Victoria, it has come to Western Australia with a vengeance, covering a lot of the South West described by a line drawn between north of Geraldton to Esperance. As with many weeds, its coming to Western Australia is a bit of a mystery; we conjecture that it may have come to Dunsborough Lakes when the lakes were being planted with rushes as a contaminant from nursery stock. Perhaps with our present knowledge, such a thing would not occur today, but the *Juncus acutus* story demonstrates the great importance of being alert to minute differences between plant species.

To my 'gardening' eyes, *Juncus acutus* is a beautiful plant. Close-up, it is easily distinguished from *Juncus kraussii* and *Juncus pallidus* and other weedy *Juncus* with its larger seed heads, but not at a distance. Urban Nature has produced an informative brochure about *Juncus acutus*, one of a number of brochures they have produced on significant weeds. This is available from Urban Nature.

There are 6 to 7 pages of photos of *Juncus acutus* on Google Images. You can also see a photo of a single plant found in Peron Reserve (which is just across Caves Road from some of the worst infested spots in Dunsborough Lakes) on the new website of Geographe Community Landcare Nursery. Hopefully, there will be no more plants found, but it seems that at Peron Reserve and in the area surrounding Dunsborough Lakes, we will have to continue to be vigilant and monitor the situation.

<http://florabase.calm.wa.gov.au/browse/flora?f=052&level=s&id=1175>

<http://www.naturebase.net/urbannature/index.html>

Guided Walks a First for Collie

Felicity Littleton



Cyanicula sericea.

Photo from FloraBase

"The Harris River Dam is a beautiful area, with picnic facilities, landscaped paths and an excellent choice of wildflower species"



Bossiaea ornata

Photo from FloraBase

To the best of my knowledge there have been no previous guided wildflower walks in the Collie district. There are a number of enthusiasts, dedicated mostly to orchids but enquiries have indicated that no formal botanical approach has been offered to the general public. For me that meant such pleasurable and informative activities were long overdue.

I set out to locate areas suitable for group participation. Not knowing how popular these walks might be, finding plenty of room for parking and a variety of negotiable tracks to walk along was advisable. Two sites were chosen. The first walk was held at an area a mere 6 kms north of the town beside the road to Harris River Dam. Although it was considered a bit far out for the inaugural walk, the Harris River Dam site itself is a beautiful area, with picnic facilities, landscaped paths and an excellent choice of wildflower species, some of which I am still acquainting myself with.

On my rehearsal, a week prior to the walk, I was pleased to see *Cyanicula sericea* dotted everywhere. Later, on the walk date, all but one of these had vanished due to the upsurge of warm weather. Plenty of *Bossiaea ornata* covered the ground, mingled with *Hibbertias* (*H. amplexicaulis*, *H. commutata*, *H. hypericoides*) and the ever colourful *Kennedia coccinea*, often accompanied by their two cousins *K. prostrata* and *K. carinata*. Two special favourites on this walk were *Diuris* aff., *corymbosa* and the sweet little *Patersonia pygmaea*.

I had some concerns regarding this site, but I am glad that I stuck with it. Ugly deposits of dumped rubbish were clearly in view, along with a rabid invasion of *Tagasaste*. Luckily, the people on the walk were only

too happy to assist with collection of litter (and some weeds) into a giant bin bag, which I took away to the Collie Rubbish dump later. The people on the walk seemed receptive to addressing a major environmental concern. 15 people attended.

No such problems of degradation were evident at the second walk which drew 20 people.

17 kms south on the road to McAlinden is the very appealing Oxley Road area.

Although similar to the Harris road site regarding Jarrah/Marri forest canopy and familiar laterite soils, vegetation differences are clearly evident here. We were surrounded by an inviting sea of colour, displaying beauties such as *Thomasia grandiflora*, *Lechenaultia biloba*, *Pimelea suaveolens*, *Logania serpyllifolia* and four species of *Acacias*. People always like to see Kangaroo paws, and we were not disappointed to discover them toward the end of our journey, along with a scattered population of *Elythranthera brunonis*.

Most welcome was the company of some visitors from the Roo Gully Wildlife Sanctuary. They gave us marvellous descriptions of Fauna / Flora relationships.

Prior to the walk my friend and keen

Orchid enthusiast, Eric Chapman, collected two samples for me to show on the day, which were not sighted on the walks - *Caladenia longicauda* subsp. *eminens* and *Caladenia uliginosa*. These are found on his property at North Dinninup. The farm and many of the other areas where these grow would not be suitable to take large numbers of people to view them.

This was a very poor year for Orchids, probably due to unusual weather patterns. Despite this minor disappointment, there was plenty to see and both groups said they had a wonderful day. I felt so very pleased that this had developed into a most enjoyable pastime. ☼



Felicity Littleton with a group of flora enthusiasts from the Collie region



Useful Websites:

<http://florabase.calm.wa.gov.au/>

<http://www.calm.wa.gov.au/>

<http://www.lotterywest.wa.gov.au/>

For information or to submit an article contact

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A new website for a Busselton local plants nursery

Richard Clarke, Secretary, Geographe Community Landcare Nursery

Geographe Community Landcare Nursery has launched a new website. It has an online order form, a nursery list in various formats, and links to helpful information.

The nursery is one of a number of Australian volunteer-operated community nurseries, and sees itself as a child of the more established Leschenault Community Nursery in Bunbury. We sell mainly to the Busselton-Dunsborough-Margaret River area. Next year we are hoping to begin cuttings propagation in earnest with the completion of a cuttings house.

Ultimately on the website, we would like to see an information page on all the species grown at the nursery, and a start has been made with local photographs. It is possible some readers could help by submitting local photos. We are looking for a variety of Busselton –Margaret River photographs to describe a species [various stages of life-cycle, and details of buds, flowers, fruit, seeds, bark, leaves, pods, ...] Information about submitting photos is on the website.

There does not seem to be much information on the 'Busselton' flora online, so hopefully the species pages and the website as a whole will be educative. We hope the website will help to encourage more people to participate in nursery activities (nursery work, seed collecting, ...), in community and private revegetation projects, to grow local plants in gardens, and to have a wider appreciation of our natural heritage.

<http://geographelandcarenursery.mysouthwest.com.au/>

If you would prefer to receive this newsletter in electronic format please let me know.

Funding Opportunities

- **Lotterywest and the Gordon Reid Foundation** have ongoing grants available to community organisations involved in the Conservation of Western Australia's natural habitats and diversity. Find out more at <http://www.lotterywest.wa.gov.au/>
- The **Bankwest Sponsorship Fund** supports programmes and initiatives which benefit the community of Western Australia across a wide variety of areas. This funding can be accessed all year. For further information visit http://www.bankwest.com.au/newsroom/in_the_community/how_to_apply_for_sponsorship/index.asp or phone 131718.