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Species and Communities Branch newsletter for Species and Ecological Communities conservation
June 2010 Volume 16, Issue 1

Traditional wisdom meets western science

by Alison McGilvray

A long way from the coast, major towns or bitumen roads, lies a haven for a number of threatened fauna species that have disappeared from most of inland Australia. These species tolerate and continue to populate an area that many humans would consider too arid, dusty and harsh to consider living. It is partly these circumstances that have enabled these species to persist. The greater bilby (*Macrotis lagotis*), great desert skink (*Egernia kintorei*), marsupial mole (*Notoryctes caurinus* and *N. typhlops*), mulgara (*Dasycercus blythii* and *D. cristicauda*) and black-flanked rock wallaby (*Petrogale lateralis lateralis*) continue to live and reproduce across WA's western deserts.

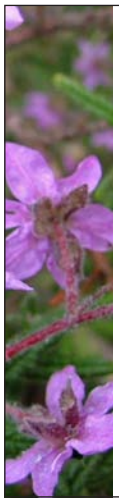
For the past two years, the Department of Environment and Conservation (DEC) has been working with the Traditional Owners, the Martu, and their representative organisation, Kanyirninpa Jukurrpa (KJ), on a threatened species survey program funded by Rangelands NRM WA. The Martu Determined Native Title Area is an area roughly twice the size of Ireland at 13.6 million hectares.

More than 200 Martu field workers have been employed to track and record evidence of these species and their predators. DEC and KJ have implemented a survey method devised by rangeland ecologists (Southgate and Moseby 2008) to determine the distribution and abundance of a variety of species across sandy, arid regions of Australia. The traditional tracking methods of Aboriginal people are key to accurate identification of signs of animals made 'last night or yesterday', 'last week' or 'long time ago'.

The random plot survey method is a rapid, non-invasive technique which enables monitoring of populations over very large areas. A two-hectare section of land is searched for a standard time period for the presence or absence of threatened, invasive and game fauna species. Evidence of signs include jamana (footprints), kuna (scats), pirti (burrows) and jawani (diggings). As a side project, the scats of predators

Above The tracking team along the Puntawarri Track, near Jigalong. Photo – Joy McGilvray

Below Rosie Williams from Punmu Community with a Greater Bilby. Photo – DEC



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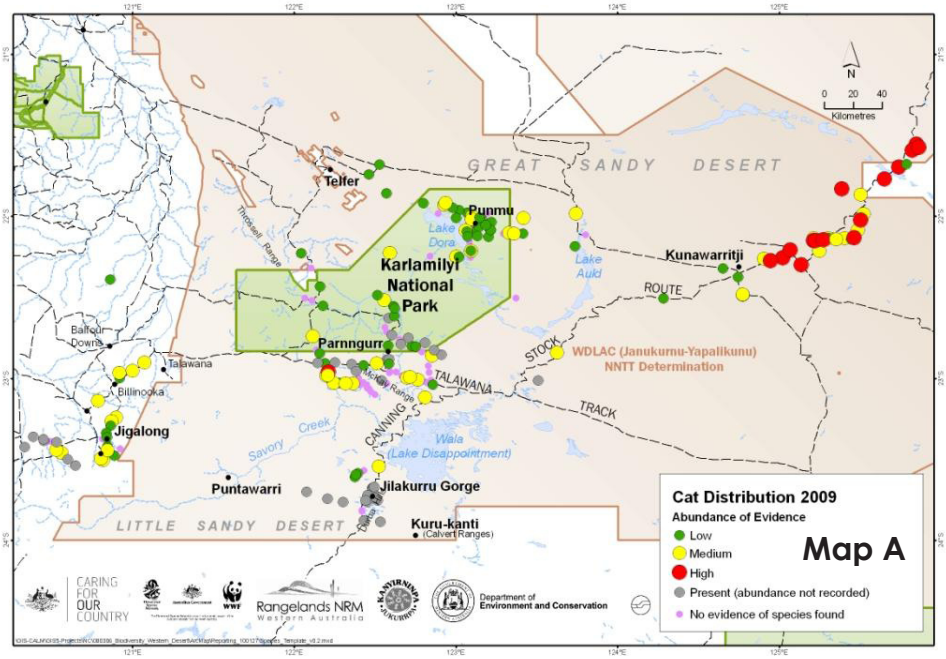
(cats, dingoes/dogs and foxes), are sampled and analysed to determine the prey species. Several owl pellets have also been collected and analysed.

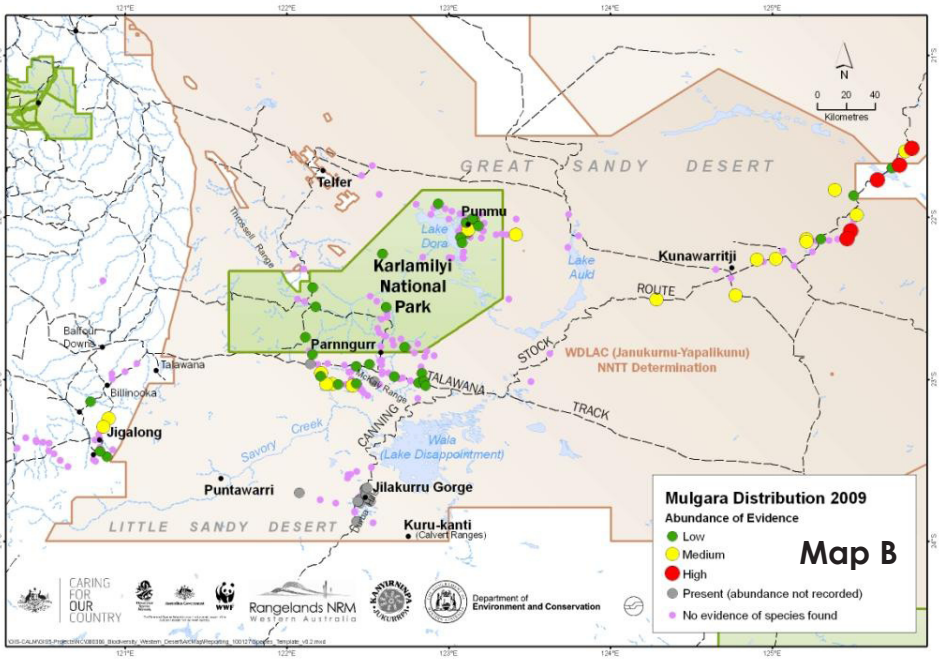
The Martu people use a Cybertracker program. Cybertracker is a freeware program designed for simple field data capture, using a variety of icons, photographs and short wording. All signs are geo-referenced and entered into a GIS program where some basic analysis occurs to show the distribution and abundance of species across the surveyed area.

In 2009, 226 plots were surveyed. Seventy-two plots showed evidence of mulgara, 37 showed signs of the bilby, 10 showed the great desert skink, seven for the marsupial mole and two for the black-flanked rock wallaby. This information has not undergone rigorous analysis and due to the varying experience level of trackers, may contain some false positives and false negatives. An exciting discovery was possible claws of the brushtail possum (*Trichosurus vulpecula*) in fox scats from Thring Rock, near Well 29 on the Canning Stock Route. Current distribution maps of the possum do not extend this far inland. The Calvert Ranges (Kuru-kanti) is the only area with evidence of the black-flanked rock wallaby. Surprisingly, in many areas where the threatened species occurred, there were also frequent signs of introduced predators. This information can help to decide where to focus future feral animal control and baiting programs and monitor their success.

In 2010, the program has expanded to include other land management projects, including environmental, visitor impact and cultural assessments and traditional burning.

Copies of the threatened species program report and recent maps are available by contacting the Pilbara Region's Karratha office, 9182 2000 or by email (alison.mcgilvray@dec.wa.gov.au).





Map A Fauna plots surveyed in 2009 containing evidence of introduced cats.

Map B Fauna plots surveyed in 2009 with evidence of the mulgara, a small carnivorous marsupial.

Developing a recovery plan for rainforest patches with local communities

by Val English

The Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula is a vulnerable listed ecological community that occurs as discrete pockets of dense vegetation, varying in size from about 0.02 hectares up to about 200 hectares. The average area of occurrences is about 35 hectares, and the most common size is about 10 hectares. There is less than 2,700 hectares of the vine thickets known.

The habitat of this remnant rainforest community is the slopes of coastal sand dunes on the Dampier Peninsula, between Broome and Derby. The community straddles the arid areas to the south and the monsoonal tropics to the north, and this has produced the unique vegetation that occurs in them. Scientific analysis of the component species indicates that the assemblages of the vine thickets on the Dampier Peninsula are distinct from other rainforest communities found throughout the Kimberley and northern Australia.

The vine thickets are very significant to Indigenous people as they contain many traditional food sources and medicines, water and significant sites. Multiple language groups that live on the peninsula have traditional knowledge about the management and protection of vine thickets.

Funds have been provided through DEC's Specific Nature Conservation Projects to develop a recovery plan for the vine thicket community. A field visit was undertaken in February 2010 to collect some of the background information required for the plan. DEC staff met up with two well-known botanists from the

Broome Botanical Society, Tim Willing and Dave Dureau, who generously volunteered their time to share their knowledge of the vine thickets. As most occurrences of the vine thickets are managed by Indigenous groups, the Indigenous landholders who had kindly provided permission for the visits showed DEC staff and volunteers the vine thickets on their land.

The Nyul Nyul and Bardi Jawi Indigenous rangers present for the February site visits undertake threat management, such as weed control and fire management, in the habitat of the vine thickets. The West Kimberley Nature Project (managed by Environs Kimberley and funded through Caring for Our Country via Rangelands NRM WA) is supporting the Bardi Jawi and Nyul Nyul rangers in developing and implementing a series of projects to conserve and manage the vine thickets. The Indigenous ranger groups that manage Indigenous land that contains the vine thickets operate with extensive support from the Kimberley Land Council.

The recovery plan will outline key threats to the community, and recommendations for management. The need for more information about the ecology of the interrelationships of the vine thicket patches in terms of use by fauna will also be highlighted in the plan. The vine thicket patches function as an interacting ecosystem. That is, the movement of fruit-eating birds, bats and mammals disperses seed between the patches and helps maintain the plant and animal communities in their naturally fragmented state.

Above Nyul Nyul Ranger Group surveys Vine Thickets with Tim Willing.

Photo – Val English

A draft of the recovery plan will be provided for comment to a variety of stakeholders, including Indigenous land managers and other groups who manage land on which the community occurs, Environs Kimberley and Kimberley Land Council, and the Broome Botanical Society. These groups have already offered advisory support for the Recovery Plan.

For more information please contact Val on (08) 9334 0409 or by email (val.english@dec.wa.gov.au).

Tammar wallabies return to Kalbarri

by Gareth Watkins

The State NRM-funded Threatened Fauna Ark (TFA) project aims to re-establish up to 10, mainly threatened fauna species at selected sites throughout Western Australia. This will involve the translocation of species within their historical ranges.

Under the TFA project, the tammar wallaby (*Macropus eugenii derbianus*) was recently translocated to Kalbarri National Park. Kalbarri lies within the known former distribution of the tammar wallaby with the last recorded specimen in the area collected in 1979. The localised extinction of the tammar wallaby in the Kalbarri area has not been definitively attributed to any one cause. However, the occurrence of the feral cat and fox is considered a major factor in the decline and local extinctions of the tammar wallaby, and a major threat to their ongoing survival.

The tammar wallaby was listed as Schedule 1: 'Fauna which is rare or likely to become extinct', under the Western Australian *Wildlife Conservation Act 1950* until 1998 when it was removed from this schedule and listed as Priority Five fauna: 'Conservation Dependent'.

Fox control, using 1080 baits, has been carried out in Kalbarri National Park for more than 10 years, paving the way for a reintroduction of the tammar wallaby. Kalbarri National Park is a nominated fauna reconstruction site as part of the *Western Shield* fauna recovery program. The tammar wallaby is the third species to be translocated to Kalbarri National Park, following the chuditch (*Dasyurus geoffroii*) and the woylie (*Bettongia penicillata ogilbyi*) in 2000. The translocation is a conservation measure for the species as the establishment of a new population will provide further security against the risk of the species becoming threatened.

A total of 69 tammar wallabies were translocated to Kalbarri National Park during two separate releases in March

2010. The source of the first translocation was 51 captive tammar wallabies from The University of Western Australia. This population comprised of 31 females and 20 males. Thirty-seven of these animals (30 adult females and seven adult males) originated from Tutanning Nature Reserve and were the founder animals of the captive population. The animals for the second translocation were sourced directly from Tutanning Nature Reserve and included eight females and 10 males.

The tammar wallabies translocated to Kalbarri National Park will be monitored by DEC staff using radio telemetry. Sixteen individual animals have been fitted with radio-collars and an additional nine animals have been fitted with GPS datalogger collars. The GPS datalogger collars will provide more detailed information on habitat use and location over time.

Previous page Tammar wallaby (*Macropus eugenii derbianus*) fitted with VHF transmitter.

Photo – Anthony Desmond

Left Tammar wallaby (*Macropus eugenii derbianus*) being translocated to Kalbarri National Park.

Photo – Gareth Watkins

For more information regarding this project please contact Gareth Watkins on 9219 8723 or by email (gareth.watkins@dec.wa.gov.au) or Nicole Willers on 9219 8709 or by email (nicole.willers@dec.wa.gov.au).

Stylidium amabile disturbance trial

by Alanna Chant and Catherine Page

Stylidium amabile, which was first discovered in the spring of 1989, is known from two populations approximately 1.4 kilometres apart near Maya, about 140 kilometres north of Wongan Hills. The species was once considered a form of *Stylidium coroniforme* (Wongan trigger plant). However, a recent taxonomic revision has resulted in the two Maya populations being described as a new species. To date, no further populations have been located.

Remnant scrub on sandy lateritic gravel occurs at both sites. In autumn 1990, a grader driver inadvertently destroyed the plants at both populations. However, following this disturbance, numerous seedlings appeared and the number of plants peaked, with 135 individuals being recorded. Since 1993 the number of plants has been decreasing and, in 2008, only 27 plants remained. There was concern that if this decline continued the species may become extinct within a few years.

Research on the *Stylidium* genus indicates that it may respond positively to disturbance. Observations recorded during monitoring of the *Stylidium amabile* populations supported the theory that a disturbance may induce recruitment of the species and the absence of disturbance may be contributing to the plant's decline. The known populations of *S. amabile* occur in areas that have been historically disturbed, however these areas are now long unburnt and have not been disturbed since 1993.

In order to test this theory, a disturbance trial was conducted during May 2009.

Trial sites were set up where mature plants had been previously recorded, as an existing seed bank was expected to be present in these areas. The trials tested the use of fire and smoke water to induce recruitment and included a control plot within five separate trials at the one location. The burn was fairly hot with flame heights of up to 10 metres and, fortunately, there were significant follow-up rains.

Initial monitoring has indicated that the trial has been successful in inducing recruitment. More than 400 seedlings were recorded in December 2009.

Left *Stylidium amabile* flower.

Below *Stylidium amabile* habitat.

Photos – Juliet Wege

The largest numbers of recruits were recorded in the burnt plots in close proximity to where adult plants were known to have been present. Some recruitment has also occurred in smoke-affected areas, but no recruits were found in control plots.

Approximately half of the recruits appear to have survived their first summer, which was one of the driest summers on record for the area. Monitoring will continue on a three-monthly basis during the first 12 months following the trial, then six monthly and annually in following years. The monitoring will also include checking for the presence of any weed infestations that may have resulted from the disturbance at the site and treatment of these before they can set seed. Other recovery work for this species includes the construction of fencing to exclude rabbits, which are a major threat at both sites.

Mapping of Whicher Scarp priority ecological communities

by Anne Harris

The Whicher Scarp forms a sickle-shaped landform unit that extends from near Burekup in the north where it meets the Darling Scarp, to the south-west of Dunsborough where it meets the granites of the Leeuwin-Naturaliste Ridge. A survey of the Whicher Scarp was undertaken by the then departments of Environmental Protection and Conservation and Land Management together with the Wildflower Society of Western Australia (Inc.) during a period of more than 10 years as part of the Swan Bioplan Project. This culminated in the 2008 report *A Floristic Survey of the Whicher Scarp* by B. Keighery et al.

Eight vegetation communities, from mid-slope woodlands through to permanent wetlands that were identified through the 2008 Whicher report, have been ranked as Priority 1 ecological communities (PECs). These are: A1-central Whicher Scarp mountain marri woodland (of grey–white sands); B2-west Whicher Scarp *Banksia attenuata* woodland; C1 and C2-Whicher Scarp jarrah woodlands of deep coloured sands; C5-Dardanup jarrah and mountain marri woodland on laterite; F1-Sabina River jarrah and marri woodland; G2-shrublands of near permanent wetlands in creeklines of the Whicher Scarp; and Swan Coastal Plain paluslope wetlands. The Whicher Scarp PECs are being variously impacted by mining and associated infrastructure, altered hydrology, land clearing, fragmentation, *Phytophthora* spp. (dieback disease), timber harvesting, gravel extraction, recreational activities and other site-specific threats.

Mapping of the Whicher Scarp PECs was undertaken in late 2009 and early 2010, with funds provided through the Shared Land Information Platform (SLIP). Eighty-six occurrences of the PECs, have been mapped and relevant data have been entered into DEC's TEC database.

With more than 60 rare plant species, 90 species at the end of their range, more than 100 species with disjunct populations, and now eight PECs, the Whicher Scarp deserves recognition as a local biodiversity hotspot in the species-rich south-west,.

For more information please contact Anne Harris on 9334 0627 or by email (anne.harris@dec.wa.gov.au).

Above top *Daviesia elongata.*

Above right DRF *Dryandra mimica.*

Right *Stylidium latericola.*

Photos – Bronwen Keighery

Below right *Hodgsoniola junciformis.*

Photo – Anne Harris

Bottom left Surveying Whicher C2.

Photo – Val English

Bottom right Whicher wetland G2.

Photo – Jill Pryde

What's flowering – winter

By Andrew Brown

This section will become a regular feature of WATSNU and in it I will cover selected species that you can look out for at different times of the year.

In this, the first installment, I have provided descriptions and photos of five species that you can look out for during the winter months. These include several members of the pea and lily families and the unusual woolly lysiosepalum. If you think you have found any of these please contact the nearest DEC office.

Daviesia cunderdin – Cunderdin daviesia

Cunderdin daviesia is an attractive species, which produces large red pea flowers between April and June. It is an erect shrub 1.6 metres high by 1.5 metres wide when mature and has phyllodes (flattened leaf stalks that resemble leaves) up to four millimetres long with a sharp tip. The species differs from the related *Daviesia cardiophylla*, *Daviesia euryloba* and *Daviesia umbonata* in having larger flowers to 18 millimetres across that are completely red, rather than yellow and red.

The species is currently ranked as critically endangered due to it being confined to a single population on a narrow road reserve north of Cunderdin. The population comprises fewer than 10 plants, all of which are under threat from weed invasion, senescence, poor recruitment and road works.

Daviesia euphorbioides – Wongan cactus

This unusual leafless, hairless, cactus-like shrub to 80 centimetres high produces attractive yellow and maroon pea-like flowers between June and August. Flowers are seven to eight millimetres across, with several borne in very short racemes or clusters from the leaf axils along the stems. Each plant produces numerous thick cylindrical branches to 12 millimetres in diameter on which the leaves have been reduced to minute, scattered scales less than two millimetres long. The fruit is a triangular pod about one centimetres long with a large beak at one end.

The species is confined to the Wongan Hills–Dowerin area, over a geographic range of about 85 kilometres. It appears to prefer sandplain habitat where it grows in heath dominated by sheoak and Actinostrobus. The species is ranked as critically endangered due to severe fragmentation of populations and a continuing decline in plant numbers. The main threats are weeds, fire, chemical drift, rabbit warren construction, road and track maintenance and poor regeneration.

Lysiosepalum abollatum – woolly lysiosepalum

This medium-sized shrub, which grows to 1.5 metres high and wide, produces inflorescences of up to eight very attractive pinkish-purple flowers between August and September. Plants have hairy young growth and flowers giving them a woolly appearance. The mid-green, oval-shaped leaves are typically 10 to 16 millimetres long by two to three millimetres wide, with hairs on both surfaces.

Woolly lysiosepalum is known from a single population in the Wongan Hills area. Habitat is orange-brown, sandy clay over laterite in open mallee woodland. The species is known from fewer than 250 mature individuals in one population, and is currently ranked as critically endangered.

Wurmbea tubulosa – long-flowered nancy

This small bulbous herb, which grows to just three centimetres tall, produces up to 16 small lily-like flowers in June and July. The male and female flowers are borne on separate plants with the male flowers in an open inflorescence that is taller than the uppermost leaf; and the female flowers in a dense inflorescence which is almost concealed between the two basal leaves at ground level. Plants have three leaves, with the lower two similar in length and width. The lower leaves are very broad, three to 22 millimetres wide, and held flat to the ground, while the upper leaf is smaller and erect, emerging from the two lower leaves or attached to the stem just above them.

The species is found between Dongara and Perenjori, growing in clay and sandy clay, under shrubs on riverbanks, along drainage lines and in seasonally wet places under York gum, Acacia and Hakea species. The species is currently ranked vulnerable as it occurs over a restricted geographic range, populations are severely fragmented and there is continuing decline in the quality of habitat at many sites.

Wurmbea calcicola – Naturaliste nancy

This bulbous herb, which grows to 18 centimetres high, produces up to five attractive white and pink flowers in June and July. Each plant has three large long, glossy leaves 10 to 18 millimetres wide with the uppermost leaf often exceeding the flower stem in height.

The species is restricted to a small area on the Cape Naturaliste Ridge west of Dunsborough where it is found in shallow sandy soil pockets on the upper sections of limestone cliffs and in deeper soil nearby. The species is ranked as vulnerable as the single known population is estimated to contain less than 1,000 mature individuals.

Previous page top image 1 *Daviesia cunderdin.*

Previous page image 2 *Daviesia euphorbioides.*

Previous page image3 *Lysiosepalum abollatum.*

Previous page bottom image 4 *Wurmbea tubulosa.*

Above right *Wurmbea calcicola.*

Photos – Andrew Brown

RECENT CHANGES TO WA THREATENED SPECIES LISTS

The *Wildlife Conservation Act 1950* provides for taxa (species, subspecies and varieties) of native flora and native fauna to be specially protected because they are under identifiable threat of extinction, are rare, or otherwise in need of special protection. Such specially protected wildlife (fauna and flora) is considered to be 'threatened'. The WA Minister for Environment recently approved changes to the lists of threatened species that were recommended at the 2009 Threatened Species Scientific Committee (TSSC) meeting. The new lists were published on 23 February 2010 and can be viewed on DEC's 'Listing of threatened species and ecological communities' webpage, along with the summary of changes in the tables below, at www.dec.wa.gov.au/content/view/852/2010/.

Fauna	Common name	Scientific name	Status 05 Aug 2008	Status 23 February 2010
Additions	None	None	None	None
Deletions	None	None	None	None
Changes to Category/ Criteria	None	None	None	None
Nomenclature changes	*Previous name*	New name	Publication	
	Draculoides Middle Robe (WAM T63329)	*Draculoides mesozeirus*	Harvey M.S., Berry O., Edward K.L., Humphreys G. (2008) Molecular and morphological systematics of hypogean schizomids (*Schizomida: Hubbardiidae*) in semiarid Australia. Invertebrate Systematics 22: 167–194.	
	Paradraculoides Mesa A (WAM T63327)	*Paradraculoides anachoretus*		
	Paradraculoides Mesa A (WAM T63327)	*Paradraculoides bythius*		
	Paradraculoides Mesa A (WAM T63327)	*Paradraculoides gnophicola*		
	Paradraculoides Mesa K (WAM T65801)	*Paradraculoides kryptus*		
Additions	Lodge's spider orchid	*Caladenia lodgeana*	Priority 2	Critically Endangered B2ab(ii,iii,v)
	N/A	*Diplolaena andrewsii*	Priority 2	Vulnerable D1, D2
	N/A	*Grevillea corrugata*	Priority 1	Vulnerable D1, D2

Flora	Common name	Scientific name	Status 05 Aug 2008	Status 23 February 2010
Additions	N/A	*Hibbertia abyssa*	Priority 1	Critically Endangered B1ab(iii) + B2ab(iii)
	N/A	*Kunzea acicularis*	Priority 1	Vulnerable D2
	N/A	*Typhonium sp. Kununurra*	Priority 1	Endangered D
Deletions	Ongerup wattle	*Acacia trulliformis*	Vulnerable B1a, b(v), D1	Priority 4
	Howatharra mallee	*Eucalyptus blaxellii*	Vulnerable D1	Priority 4
	N/A	*Hydatella leptogyne*	Critically Endangered B1ab(iii)+2ab(iii)	Priority 4 (as *Trithuria australis*)
	South Stirling morning iris	*Orthrosanthus muelleri*	Vulnerable B1, 2ce	Priority 4
Changes to Category/ Criteria	Kundip Wattle	*Acacia rhamphophylla*	Vulnerable D2	Critically Endangered B1 ab(v)+2ab(v)
	N/A	*Daviesia elongata subsp. elongata*	Vulnerable D2	Vulnerable B1ab(iii,v)
	N/A	*Hydatella dioica*	Vulnerable D2	Critically Endangered B1ab(iii)+2ab(iii)- as *Trithuria occidentalis*

Nomenclature changes	Previous name	New name	Publication / notes
	Beyeria sp. Bandalup Hill (G. Cockerton 7553)	*Beyeria cockertonii*	D.A. Halford & R.J.F. Henderson in Austrobaileya 7:604(2008).
	Darwinia chapmaniana ms	*Darwinia chapmaniana*	Nuytsia 19:37-52 (2009).
	Darwinia ferricola ms	*Darwinia ferricola*	Nuytsia 19:37-52 (2009).
	Darwinia foetida ms	*Darwinia foetida*	Nuytsia 19:37-52 (2009).
	Darwinia sp Carnamah (J.Coleby-Williams 148)	*Darwinia polychroma*	Nuytsia 19:37-52 (2009).
	Darwinia sp. Stirling Range (G.J.Keighery 5732)	*Darwinia nubigena*	Nuytsia 19:37-52 (2009).
	Darwinia sp. Williamson (G.J. Keighery 12717)	*Darwinia whicherensis*	Nuytsia 19:37-52 (2009).
	Hydatella dioica D.A. Cooke	*Trithuria occidentalis Benth*	Taxonomic revision of the family Hydatellaceae has resulted in *Hydatella dioica* being recognised as a taxonomic synonym of *Trithuria occidentalis*. See D.D. Sokoloff et al. in Taxon 57:196 (2008).
	Grevillea althoferorum subsp. *althoferorum* ms	*Grevillea althoferorum subsp. althoferorum*	Nuytsia 18:230, Fig.3 (2008).
	Grevillea althoferorum subsp. *fragilis* ms	*Grevillea althoferorum subsp. fragilis*	Nuytsia 18:230, Fig.3 (2008).
	Grevillea bracteosa subsp. *bracteosa* ms	*Grevillea bracteosa subsp. bracteosa*	Nuytsia 18:232-233 (2008).
	Grevillea bracteosa subsp. *howatharra* ms	*Grevillea bracteosa subsp. howatharra*	Nuytsia 18:232-233 (2008).
	Jacksonia pungens ms	*Jacksonia pungens*	Australian Systematic Botany 20:587-590, Fig.72 (2007).
	Jacksonia quairading ms	*Jacksonia quairading*	Australian Systematic Botany 20:582-585, Fig. 69 (2007).
	Jacksonia velveta ms	*Jacksonia velveta*	Australian Systematic Botany 20:489-490, Fig. 8 (2007).
	Kennedia macrophylla	*Kennedia lateritia*	Taxonomic revision of Kennediinae. See T.R. Lally & Paul G.Wilson in Nuytsia 18:340 (2008).
	Marianthus sp. Bremer	*Marianthus aquilonaris*	Nuytsia 19:298 (2009).

The annual review of threatened wildlife listings by the TSSC occurred in March 2010 and recommendations are being prepared for the Minister's approval. Nominations to add taxa to, or delete taxa from, the current Declared Rare Flora and Specially Protected Fauna lists should be submitted to the TSSC (tssc@dec.wa.gov.au) by the end of January 2011 for the next list review. For more information including application forms and guidelines visit DEC's website (call for public nominations for listing (and delisting) of threatened plants and animals at www.dec.wa.gov.au/content/view/252/2011/) or contact DEC's Species and Communities Branch on 9334 0455.

RECENT CHANGES TO WA THREATENED SPECIES UNDER THE EPBC ACT

In December 2009, the Federal Environment Minister agreed to the following listings and transfers of Western Australian flora under the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act. These changes were made as part of the ongoing partnership DEC has with the Commonwealth to align the State and Federal threatened species lists (see *WATSNU*, 2006, volume 12, issue 2). EPBC Act listings can be viewed on the Department of the Environment, Water, Heritage and the Arts's website at www.environment.gov.au/epbc/about/lists.html#species.

Species	EPBC Act Amendment
Banksia fuscobractea	List as Critically Endangered
Eremophila rostrata (Listed at the subspecies level in WA)	List as Critically Endangered
Eremophila sp. Koobabbie (R.J.Chinnock 9540) (Listed in WA under *Eremophila koobabbiensis* ms)	List as Critically Endangered
Gastrolobium luteifolium	List as Critically Endangered
Guichenotia seorsiflora	List as Critically Endangered
Hybanthus cymulosus	List as Critically Endangered
Caladenia barbarella	Transfer from Vulnerable to Endangered; name change from *Drakonorchis barbarella* to *Caladenia barbarella*

For more information please contact DEC's Species and Communities Branch on 9334 0455.

Lake Clifton microbial community listed under federal legislation

by Jill Pryde

The threatened ecological community that occurs in Lake Clifton – the 'Thrombolite (stromatolite-like microbiolite) community of a coastal brackish lake (Lake Clifton)' – was listed as critically endangered in Western Australia in 2001. This special microbial community was recently also successfully nominated by the Peel Harvey Catchment Council, for listing under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The community is now also ranked as critically endangered and protected under this federal legislation.

The stated purpose of listing this ecological community under the EPBC Act is to help prevent its decline and to provide support to on-ground efforts that ensure its long-term survival. The listing also means that any new activity that is likely to have a significant impact on the community will need to be referred to the Commonwealth Environment Minister for assessment.

In addition, funding opportunities may now be available to landholders and the community through the Australian Government's Caring for Our Country package for work on this special microbial community.

For more information please contact Jill Pryde on 9334 0263 or by email (jill.pryde@dec.wa.gov.au).

Right Lake Clifton and boardwalk
Photo – Jill Pryde

Great Cocky Count

by Geoff Barrett

The Great Cocky Count 2010 was held on Wednesday 7 April 2010. More than 300 volunteers counted Carnaby's black cockatoos (*Calyptorhynchus latirostris*) as they returned to their night roost sites. The data are still being collated but at least 6,000 birds were recorded across 200 sites in the greater Perth region and close to 120 night roosts were mapped.

The first Great Cocky Count was run by Birds Australia in 2006, and identified night roosts sites as core habitat, upon which black cockatoos depend for feeding, drinking and refuge during the night. WA State NRM funds were provided for a second Great Cocky Count in April 2010, run by Birds Australia and DEC. The intention is to carry out repeat counts, once a month, until the birds return to the wheatbelt in July.

The Carnaby's black cockatoo is listed as threatened under Commonwealth and State legislation, and an estimated 54 per cent of potential habitat has been lost from the Swan Coastal Plain. If roost trees and feeding habitat continue to be lost, the continued presence of these fine birds in the Perth metropolitan region is uncertain.

For more information, contact Geoff Barrett on 9423 2907 or by email (geoff.barrett@dec.wa.gov.au).

Recovery plans approved

Five interim recovery plans (IRPs) for flora have recently been endorsed by the DEC's Director of Nature Conservation. These plans have been written with the assistance of DEC's Specific Nature Conservation Project funding.

No.	Title	Prepared by	DEC region/districts involved
294	*Cryptandra congesta*	Cassidy Newland	Warren
295	*Stylidium amabile*	Robyn Luu, Andrew Brown	Midwest
296	*Daviesia ovata*	Robyn Luu, Andrew Brown	South Coast
297	*Eremophila ciliata*	Robyn Luu, Andrew Brown	South Coast
298	*Grevillea fuscolutea*	Cassidy Newland	Warren

Two fauna recovery plans have also recently been completed. These plans were prepared with financial support from the Australian Government to be adopted as national recovery plans under the provisions of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). These are:

- Wildlife Management Program No. 46, The Western Barred Bandicoot, Burrowing Bettong and Banded Hare-wallaby Recovery Plan 2007–2011 prepared by Dr Jacqueline D. Richards for the Western Barred Bandicoot, Burrowing Bettong and Banded Hare-wallaby Recovery Team; and
- Wildlife Management Program No. 47, The Western Trout Minnow (*Galaxias truttaceus hesperius*) Recovery Plan prepared by Polly Mitchell and Janet Newell (DEC) with assistance and advice from Stephen Beatty and David Morgan (Freshwater Fish Group, Centre for Fish and Fisheries Research, Murdoch University), Paul Close (Centre of Excellence in Natural Resource Management, The University of Western Australia), Martin de Graaf and Craig Lawrence (Department of Fisheries, Western Australia).

The plans are available on DEC's website at: www.dec.wa.gov.au/index.php?option=com_content&task=view&id=869&Itemid=2008

Western barred bandicoot.
Photos – Babs and Bert Wells/DEC

Burrowing bettong.

Banded hare-wallaby.

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2010257-0610-WEB