

SAVE THE ANSTEY-KEANE BUSH FOREVER SITE

By Rod Giblett

In the Winter 2008 edition of *Urban Bush Telegraph* I wrote an article entitled 'Bulldozing Biodiversity in Bush Forever.' This article was about the proposal by the City of Armadale to construct a road through the middle of a 'Bush Forever' site 342 in Forrestdale. This site is part of Jandakot Regional Park. I would like to take this opportunity to bring you up to date with what has been happening since then.

First the background, and the conservation values of the site. Volume 2 of Perth's Bushplan (pages 208 and 209) sets out the conservation values of the site. These include the documented presence of the Southern Brown Bandicoot, or quenda. Dividing this site in two would have devastating consequences on the movements of this secretive marsupial. This site also includes 'Significant Flora', including 'Declared Rare Flora', and 'Conservation Category Wetlands.' It is the second most floristically diverse Bush Forever site on the Swan Coastal Plain out of 287 sites. It has 381 species, second to Greater Brixton Street (Bush Forever Site 387) with 518. These species are found in 312 hectares of bushland out of a total area of 368 hectares.

On a cloudy Sunday in September 2008 some members of the Bushland Environment Advisory Committee (BEAC)

of the City of Armadale went for a walk in this heathland, the only way to appreciate its treasures. Some Councillors and other interested people, including nearby residents, came along. The Friends of Forrestdale led the walk. What we saw were many species found in this sand-over-clay dampland including *Regelia ciliata* which provides important habitat for southern-brown bandicoot, or quenda, as it provides dense cover for this vulnerable animal.

The Friends of Forrestdale are proposing that the Anstey-Keane heathland be named 'Regelia reserve.' The Friends are also encouraging the Department of Environment and Conservation to nominate this dampland to the Directory of Important Wetlands in Australia as we believe it easily fulfils the criteria for inclusion. Such nomination would provide an additional level of protection for the area.

Environmental consultants Enviroworks are currently preparing a Public Environmental Review of the proposed road. The PER will be released for public comment in the first half of this year. When it is released, we encourage all members of the Urban Bushland Council to make a submission voicing our opposition to the construction of this road.



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The age old issue of arson in bushland needs much more serious attention. Recent research at Australian National University reveals that about 30,000 bushfires are lit annually across Australia at a cost of about \$1.6 billion (The Weekend Australian *Black Saturday Inquirer* 14-15 February 2009). In WA for 2008, there were 1,092 fires reported in bushland in January, 756 in February, and 863 in March (data collected by FESA). FESA reports that about 95% of these are for areas less than one hectare. And there are other fires that are not reported. The biggest problems for fire authorities are the high number of arson incidents.

In South Australia, a significant reduction in arson is attributed to 'Operation Nomad' which started in 2001. Police patrol through high fire risk areas and on days of extreme fire danger, police visit convicted and suspected arsonists. Up to 50 people are being watched by police at any time. While civil libertarians may object to scrutiny of suspected arsonists, the counter view is that prevention of arson is very much in the public interest. Certainly our bushland on the Swan Coastal Plain would benefit from less fires.

Friends groups have an important role to play in 'Firewatch'. For example it is important to report the suspicious presence and/or a regular presence of someone in bushland that looks odd. This was the situation in the case at Signal Hill Bushland in Belmont as in the following article.

If a fire is lit locally, calling the fire brigade on 000 and fast attack by ground crews and water bombers are critical to quick suppression and minimising damage to bushland. Friends Groups have intimate on-ground knowledge of their bushland, so it is important to keep in touch with the local fire station crews, that they know who you are, and that they are familiar with the entry points and special areas to be conserved. Friends would do well to remember to invite fire crews to guided walks and weeding days and morning teas during autumn and winter to foster an appreciation of the bush.

The following stories illustrate that more needs to be done to build mutually supportive relationships with fire authorities and land managers.



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STORIES OF FIRES IN URBAN BUSHLAND

Signal Hill Bushland in Belmont

Signal Hill Bushland is a 4 hectare remnant of *Banksia menziesii/Eucalyptus todtiana* woodland in Belmont. It is one of the very few bushland remnants left in the Belmont district apart from that remaining at Perth Airport and as such is of considerable conservation value. The following article is a personal perspective and there may be facts regarding the matters referred to of which I have not been fully appraised.

This spring/summer season has been a bad one for fires at Signal Hill bushland with well over 20 separate fires lit on the site beginning in late November and continuing through to late January. There has been a lull in the fires for several weeks but inquiries directed to the City of Belmont's Environment Officer (and Crime Prevention Unit) indicate that the City has no knowledge of anybody having been apprehended for the arson attacks. Fortunately, despite the very large number of fires perhaps only half of the site has been burned out.

As a volunteer worker in bush regeneration and maintenance tasks on the site for about 14 years I have found the arson problem this fire season to be extremely vexing and frustrating. From my observation the fires have been dealt with promptly and effectively by the Belmont Fire Brigade and it is fortunate that the fire station is situated a relatively short distance from site. There have been instances of damage to smaller trees and shrubs that might have been avoided had more care been taken but one must accept the officers prioritise putting the fires out quickly and safely and that they simply cannot avoid causing some damage to vegetation. The fire vehicles cause damage to plantings, native vegetation, and limestone paths and also pose the very concerning risk of introducing dieback to the site.

The most frustrating aspect of the recent fire problems at Signal Hill from my perspective has been trying to enlist any significant assistance in identifying the culprit(s). The site has fauna which could be wiped out in a single fire and the worst case scenario of losing most of the bushland cannot be discounted as a possibility with the arsonist(s) presumably still at large. Despite numerous phone calls and requests for the City of Belmont to use its security staff and/or equipment to mount surveillance operations to identify the arsonists I saw no action other than the procurement of anti-arson signs citing fanciful rewards and occasional brief afternoon visits of highly visible security staff in marked cars. The anti-arson signs had no deterrent effect whatsoever and even the most simple-minded arsonist(s) are not likely to take to their work with uniformed security officers standing by. Many of the fires have been lit in a narrow time slot in the afternoon – sometimes on successive days – and it would have been relatively easy to identify the person or persons responsible in the early stages had surveillance been carried out by appropriately qualified people with some basic equipment.

I made inquiries at the Belmont Police Station, where I was informed the officers were aware of the fires. I made in-

STORIES OF FIRES IN URBAN BUSHLAND

quiries as to my rights to apprehend the arsonist(s) myself and have spent many hours patrolling the area and observing those visiting the site – doing my best not to antagonise too many people in the process. I spoke to FESA regarding the problem but received no feedback.

Trying to identify an arsonist by simple visual surveillance is difficult and time consuming for a volunteer and one would have thought at least some relevant authority might grasp the possibility that a person who is perfectly willing to light fires in conditions of forty degree heat and strong winds not far from adjacent properties might pose some sort of threat to the community in general.

Kevin McLean

Lightning Swamp, Noranda

On the 2nd February 2009, two deliberately lit fires simultaneously occurred at Lightning Swamp Bushland. The Malaga and Bassendean fire crews who attended the first fire had quickly been supported by a large FESA contingent of services that included the use of helitankers. Upon my arrival at the scene the local crews were just arriving at the area of the second fire. I was able to quickly speak to an officer in charge asking if helitankers were to be deployed due to the size of the fire and the threat to the perched wetland. He agreed and commented that there was a nearby water source before I was abruptly ordered to leave the area.

The second fire was located in a difficult area, especially for accessibility. Without the support of helitankers, the risk was that this sensitive A class reserve was likely to be substantially destroyed by the fire.

I appreciate the problem FESA crews have with members of the public being a nuisance in the face of potential danger. In circumstances such as this, however, I consider it is valuable for a representative of key stakeholders to be available nearby for consultation by the Fire Controller. A nominated stakeholder of the Friends of Lightning Swamp has a wealth of knowledge and understanding of both the area and access, especially when confronted by a natural reserve of 71 hectares in size.

The two fires had resulted in at least 20% of significant bushland habitat being destroyed and had threatened the Priority 4 rare perched wetland. The fires burnt out most of the good *Banksia* bushland - unaffected by dieback - where over past years dieback treatment and controls had been implemented and funded by the community and the Local Council.

As a consequence, the bushland probably will never fully recover. Now it will be prone to the spread of dieback, weed infestation and lowering rainfall. There also is the impact on habitat of travelling flocks of Carnaby's Cockatoo which regularly visit the site of fire.

The fires have raised the questions of improved access and accessibility and the prevalence of arson in our precious natural areas. The Friends Group and the City of Bayswater with the assistance of FESA are presently revising a fire management plan.

John Williams

Landsdale Park, Landsdale

On Friday 16th January, fires burnt Kings Park, Yanchep and Landsdale Park.

Landsdale Park is a 16 hectare fenced and isolated bushland area adjacent to Landsdale Farm School in Landsdale Road, Darch. The bushland comprises Bush Forever site 199 and is a Threatened Ecological Community (SCP 20a) of *Banksia attenuata* woodland over a species-rich understorey. The vegetation complex is Karrakatta Central and South which will be under-represented in Bush Forever with only 8% set aside. It had not been burnt for seventeen years.

The Friends of Landsdale Park were told that the fire started on a very small area on the verge of the farm school site where a Christmas tree touched power lines. The wind was from the east for most of the day but was from the west when the fire started, thus sending the fire past a seven metre wide bitumen driveway and into the bushland. The whole 16 ha except for an eight metre strip at the boundary of the bushland and the farm school was burnt.

This strip was not burnt because the principal of the farm school had a long sprinkler pipe along the boundary so the water kept the fire out of the farm school buildings and the small section of bush. A kangaroo and at least two black-gloved wallabies were able to survive in this small area.



Photos by M Owen

At about 8.30pm FESA tenders were observed in Hepburn Avenue but they were not doing anything except watching. Why were these tenders not at least extinguishing burning trees on the edge of the bushland?

Burning the whole bushland block was catastrophic for the fauna of the reserve. From whence can they recolonise?

The City of Wanneroo, who with the Friends of Landsdale Park Bushland manage the bushland, is putting apples and feed (without seeds in it) into the bushland to help the wallabies and the kangaroo. They have also established that the foxes, which attack farm animals, are not in the bushland but rather in surrounding blocks. Notably the Park has vermin proof fencing around its boundary, an unusual asset for an urban bushland reserve.

The Friends and the UBC have requested a meeting with FESA, the Landsdale Farm School, the City of Wanneroo and DEC for a debriefing on what happened on the day and night so that we can do our best for the future of the bushland by understanding the events of the fire. FESA is unable to meet with us until the end of the fire season.

Marg Owen

Underwood Avenue Bushland protected federally.

Most people were shocked when EPA Bulletin 1272 was released at the end of October, 2008. The EPA Bulletin recommended to the Minister for the Environment that the UWA proposal for housing in Underwood Avenue Bushland be approved with conditions. The Bulletin relied on information supplied by the UWA's environmental consultant, Coffey Environments. The EPA also considered that the proposal would meet the requirements of the pre-



Photo by M Owen

An old jarrah in Underwood Avenue bushland.

cautionary principle, the principle of intergenerational equity and the principle of the conservation of biological diversity and ecological integrity. The EPA advised that roadside bushland be retained 'to maintain viable populations of several poorly dispersing bird species that are declining on the Swan Coastal Plain'. Who was responsible for that no-brainer?

Appeals were submitted and the previous state Labor Minister for the Environment, David Templeman, did not make a decision .

However the University was required to put its proposal to the Federal Government because of the effect on endangered species listed under the EPBC Act, that is on the Carnaby's Cockatoo.

On 16th December, 2008, the federal Department of the Environment, Water, Heritage and the Arts (DEWHA) published its draft recommendation report. The report recommended "That approval not be given for the proposal by the University of Western Australia to develop the eastern portion of Lot 4 Underwood Avenue, Shenton Park, WA for residential purposes (EPBC 2007/3386) under the Environmental Protection and Biodiversity Conservation Act 1999".



Photo by M Owen

Carnaby's Black-Cockatoo with a Banksia prionotes cone at Underwood Avenue bushland.

The action, if allowed, would have destroyed 25.27 hectares of foraging habitat for the Carnaby's Cockatoo. The Department ruled that this would have an unacceptable impact. This draft recommendation report is now on the record of the DEWHA.

On 17th December, 2008, the day after the report was published on the DEWHA web site, the University of WA withdrew its referral and requested that this withdrawal be published.

Had the UWA withdrawal not occurred, the Federal Minister for the Environment, Peter Garrett, would have given his decision based on the recommendation report, on or before January 15th 2009.

sphere it still remains before the State Minister for the Environment, Hon Donna Faragher. Surely it would be impossible for the Minister to approve the proposal when the Federal Government has determined that the proposal is unacceptable.

The evidence as to the importance of Underwood Avenue Bushland has been proved beyond doubt. It is now up to the Minister for the Environment to declare that the UWA proposal is environmentally unacceptable and for the Liberal government to find a solution to this long running, expensive and horrifying antediluvian threat. The best outcome and that recommended by the Friends of Underwood Avenue Bushland is that the Minister for the Environment rejects the proposal as being environmentally unacceptable and that the bushland be added to the conservation estate and managed by a body such as the Botanic Gardens and Parks Authority.

Marg Owen

Bungendore Park Management Committee will be hosting Pancakes in the Park on the mornings of 28th and 29th March 2009 from 9am to 11am. The event will be part of the Hills Heartbeat Festival conducted over that weekend by Armadale Christian College. Visitors can experience the bushland setting of the park whilst enjoying freshly-cooked pancakes (gold coin donation) and see the Armadale Reptile Centre and Birds of Prey displays and learn of the part played in nature by these creatures. Enter the college from Admiral Road, Bedforddale (UBD Map 413, ref G1)

Kim Sarti

Armadale Wildflower Society members were busy collecting and cleaning seed from within Bungendore Park during December. The seed, mostly of Acacia, Kennedia and Melaleuca, will be used for propagating seedlings that form part of the long-term revegetation programme of the park. Another seed collecting date has been set for March to collect some of the Dryandra and Hakea seed.

Kim Sarti

Positive actions reduce illegal activities at Banksia Road Nature Reserve

As a resident of Casuarina I regularly walk in Banksia Road Nature Reserve. In 2004, I decided to do something about the ongoing inappropriate use of the reserve. This included trees being cut for firewood, frequent horse riding in the reserve, gates being stolen, fences being cut to gain access and kangaroos being shot. This activity coincided with the development of new hobby blocks in nearby Weller and an influx of new residents.

I felt that most of these people probably did not know how special the reserve was and why it needed to be looked after. As the site is a Bush Forever reserve the responsible authority is DEC and I phoned the Wanneroo office to express my interest in doing a letter drop and requested that a

ranger visit the reserve on a weekend to talk to and educate people.

DEC and the Shire of Serpentine-Jarrahdale were very supportive and worked with me to write a brochure which they printed. The brochure outlined why the reserve is important, what damage was being done, damage by horses and a list of local authorised alternative riding trails. I felt that it was really important to include authorised alternatives for activities so that people could make the decision to 'do the right thing'. I did a letterbox drop over two weeks and a DEC ranger visited the reserve on 3 separate weekends and talked to people. Signs were installed at the two firebreak access gates so that visitors knew it was a reserve for conservation. The missing gate was replaced with a fencing wire 'cocky' gate.

When I notice new people have moved in to the area I drop a brochure into their letterbox. These initiatives have been a fantastic success and I am only aware of one illegal activity in the reserve since 2004.

Jo Tregonning

Friends of the Western Swamp Tortoise invite food lovers to join them on a guided tour of local markets, gardens and orchards in the Swan Valley, enjoying a delicious long table lunch at Edgecombe Brothers Winery followed by a walk through the vineyard.

The Food Lover's Guide to the Swan Valley will be held on Saturday 14 March from 10 am till 3 pm. Cost: \$60 including tea & coffee on arrival at Edgecombe Brothers Winery and a long table platter lunch. Part proceeds towards the Friends of the Western Swamp Tortoise. Bookings are essential; contact Jan Bant on 9344 2872 (h), 0408 024 800 (m) or webrite@crystal.com.au.

Friends of Ken Hurst Park and WA Native Orchid Study and Conservation Group have recently written to the City of Canning, voicing their concerns over a proposal by Jandakot Airport Holdings (JAH) to revegetate two degraded lots, build a Northern Link road between Ranford Road and the northern edge of Jandakot Airport, and construct sections of Johnston Road and Acourt Road, free of charge. It appears the proposed roads are important part of the Jandakot City commercial development proposed to be built within the Jandakot Airport.

If the proposal went ahead, more the 100 hectares of regionally and nationally significant Banksia woodland would be cleared for this commercial development. The Banksia woodland is critical for the Carnaby's Cockatoo and the Grand Spider Orchid. Jandakot Airport contains the third largest known population of the Grand Spider Orchid (*Caladenia huegelii*), 216 plants over approximately 100 hectares.

The Friends Groups are concerned that JAH is taking away the planning functions of Local Government, Main Roads

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GLOBAL WARMING

*Précis of talk presented by Dr Jim Barrow to the Environmental Weeds Action Network (EWAN)
on 21 February 2009.*

His talk was illustrated with many colourful graphs that we cannot present here. Editor

Glaciers are the world's thermometers. Over the last century they have been steadily retreating, showing that the world is getting warmer. However, glaciers are not graduated; we cannot read the temperature from them. For this we need temperature recordings. These show that over this period the earth's temperature has increased by about 1°C. The increase is accelerating. The graphs are not smooth: cooler periods are associated with large volcanic eruptions and with industrial pollution in Europe after the last war and currently in Asia.

The primary cause of this increase is increased atmospheric carbon dioxide caused by human activities. When regular measurements first started in 1958 in Hawaii, the rate of increase was about 10 ppm per decade. Currently it is about twice that.

The sun is very hot. Consequently it emits radiation at short wavelengths and these include visible light. This radiation passes through the atmosphere fairly effectively. The earth is much cooler than the sun and emits radiation at much longer wavelengths, which we call infra red. This radiation is absorbed by the "greenhouse gases" of the atmosphere. That is why the atmosphere is usually warmest closest to the ground and why it is cold on top of mountains.

The main greenhouse gases are carbon dioxide, water vapour, and methane. These are effective at absorbing infrared radiation whereas the main atmosphere gases, nitrogen, oxygen and argon, are ineffective.

The earth's climate is currently fairly unstable. This is because the current disposition of the continents does not favour distribution of heat. The Arctic region is virtually surrounded by continents thus preventing access of warmer water, and the Antarctic region is occupied by a large tall continent. Further, the distribution of land masses is uneven with most of the land in the northern hemisphere and most of the water in the southern hemisphere. This latter effect makes us vulnerable to changes in the Earth's orbit.

We do not travel in a circle about the sun, as is commonly assumed, but in an ellipse. The shape of this ellipse varies in a complex way because of the gravitational effects of the other planets. The degree of "tilt" also varies through time. Because of these variations, the amounts of radiation reaching the earth vary with a periodicity of the order of tens of thousands of years. Consequently the earth has passed in and out of ice ages several times over the last million years or so.

When the earth emerged from the most recent ice age about 18,000 years ago, the rate of warming was roughly 1°C per 2000 years. It took, very roughly, 8,000 years to climb from the depths of the ice age and the total increase in temperature was about 4°. Compare that with the current rate of change of about 1° per century!

Perhaps the most worrying aspect is that the earth's climate is subject to a series of positive feedbacks. These are feedbacks which instead of mitigating the effect actually increase it. Thus, initiating a warming trend, triggers a cascade of posi-

tive feedbacks which increase the warming. Increasing temperature means:

- less ice and therefore less reflection and yet more warming;
- warmer atmosphere and therefore more atmospheric water vapour and therefore more absorption of infrared radiation;
- warmer ocean and therefore less ability to absorb carbon dioxide;
- warmer soil and therefore less storage of organic matter; and melting of perma-frost releasing methane (an important greenhouse gas).

And of course all of these effects interact with each other thus increasing the effect even further.

The foreseeable effects of the increasing temperature are as follows.

- Warmer oceans will mean more frequent and more intense cyclones.
- We will have more frequent disaster days - days of extreme temperature.
- Melting of the polar ice caps will raise the sea level.

These changes are likely to be slow and probably limited to half a metre within this century. They will accelerate as the ice shelves break up thus allowing the ice sheets to move more quickly. If (when?) all the polar ice sheets melt, the increase in sea level will be greater than 60 m. Melting of the Greenland ice cap may put so much freshwater into the North Atlantic Ocean that the Gulf stream is turned off and (ironically) northern Europe will become much colder.

The earth's weather systems will move "polewards" (southwards in the southern hemisphere northwards in the northern hemisphere). The area receiving tropical summer rain will expand, the area receiving winter rain will move towards the poles. Consequently the rainfall in most of southern Australia will decrease and will continue to decrease. Eventually this will mean that agriculture in much of southern Australia will become impossible.

The ultimate *negative* feedback may occur if carbon dioxide concentrations in the atmosphere continue to increase. Currently they are at about 390 ppm. It is estimated that if they are allowed to reach about 900 ppm, they may induce conditions similar to those that occurred at the end of Palaeozoic era. This was 251.4 million years ago and was the greatest disaster in the history of the world. Ninety per cent of marine life disappeared and seventy-three per cent of land vertebrates. No wonder it is known to geologists as the "Great Dying". At that time, the enormous concentrations of carbon dioxide released by volcanic activity in what is now Siberia initiated a chain of events that resulted in anoxic oceans and release of hydrogen sulphide. Obviously this killed most marine life. Land animals did not escape because of the direct effects of hydrogen sulphide toxicity and because of consequent destruction of the ozone layer. I hope that mankind never gets to test whether the scenario is realistic.

Proceedings for damages following tree deaths

In late 2006 hundreds of trees and thousands of shrubs in and around compensating basins and drains in two local government areas died. The deaths followed extensive weed spraying by Turfmaster Facility Management, a contractor used by both local governments..

Both local governments lost many of their large original Tuart, Jarrah, Banksia and other native and planted trees, and deaths spread into residents' back yards. The native trees were in many cases the last reminder of the original ecosystem, and some were estimated to be over 200 years old.

Following investigations by the two local governments and the Department of Environment and Conservation the herbicide hexazinone was found to be the reason for the deaths.

One local government acts

After a further extensive investigation one of the affected local governments has resolved to institute proceedings for damages by the weed contractor. This follows the council's action to terminate their contract with Turfmaster Facility Management in August 2007.

One local government renews contract

The second affected local government claims it has been satisfied with the level of tree removal, rehabilitation, and compensation the company has carried out since the poisoning. This local government recently awarded Turfmaster Facility Management with a new weed spraying contract for irrigated turf, footpaths and kerbs. It is not clear whether spraying in natural areas is included.

In both local government areas there has been significant community concern arising from the poisoning. In December last year an unsuccessful petition with 2,500 signatures was presented to one of the affected local governments to ban the use of pesticides for weed control, and to also cancel its contract with Turfmaster Facility Management.

Hexazinone

Hexazinone is related to atrazine and simazine, and belongs to the highly toxic and soluble triazines group of herbicides. Hexazinone is effective on foliar contact and is also a soil active residual herbicide. Once in the soil it can be absorbed by plant roots and if incorrectly applied, is capable of killing desirable plants and trees.

The label (for at least one brand, *Velpar® DF*) warns against contaminating ponds, streams, rivers, waterways, or drains. It also advises that it should not be applied within 25 metres of a recognised waterway, or further if native riverbank vegetation may be damaged.

This article is an edited version of an article from the AABR March 2009 newsletter

Notably one of the affected local governments now employs and trains its own staff for spraying weeds in bushland. This enables proper timing, supervision, and monitoring without the pressures of 'making money'.

SAVE NORTH LAKE

In 2000, the Main Road announced their decision to continue with a proposal to extend **Roe Highway Stage 8 through the Beeliar Wetlands.**

This announcement prompted the North Lake Residents Association and other concerned groups to act and soon a community Action Committee was formed to address the issues raised by the reality of a highway traversing the unique and fragile environment of Beeliar Wetlands.

The Beeliar Wetlands, including North Lake, Bibra Lake, Horse Paddock Swamp and the adjoining bushland are highly valued by the community that believe preservation of these wetlands was necessary for the integrity of the area and maintaining the biodiversity of the ecosystems.

The quality of the environment in these wetlands is measured through the return of the migratory birds. It also remains a significantly important cultural site for the Nyoongar people and a significant social amenity for the people of the wider metropolitan region.

As the evidence against building a highway through these wetlands is unequivocal, the community believes '**NO HIGHWAY**' option remains the only option for this proposal and the Road Reserve for Roe Highway Stage 8 needs to be removed from the Metropolitan Regional Scheme.

More information can be found on the following website:

www.savenorthlake.com

Community is encouraged to support the campaign by sending a letter to the Western Australian Premier. A form letter, ready to be emailed can be found on <http://www.savenorthlake.com.au/howtohelp.shtml>

For more information Save Beeliar Wetlands Action Group contact Melinda Stephen on 0422 957 560 or email to Melinda.stephen@gmail.com

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WA and the WA Planning Commission in proposing the commercial development at the Airport.

Together with other conservation groups, including the UBC, the Friends Groups expressed total opposition to the proposals by JAH to clear native vegetation. In their letter, the Friends Groups urged the City of Canning not to agree with JAH proposal.

Bark crab spider

It is intriguing to see the techniques that insects and other arthropods use to avoid being caught and eaten. Examples of the many, many strategies are hiding on the underside of leaves, aligning themselves with stems, imitating a stem, dropping to the ground when approached, changing colour, mimicking a distasteful or dangerous creature, mimicking a seed and being able to fly away.

Looking around my garden in Wembley, to my wondering eyes I saw a couple of feet and a strange protruding leg attaching the creature to the underside of a leaf (see photo below).



Photo by M Owen

Carefully turning the leaf over, I saw that it was a spider which I had never seen before. I consulted that wonderful book “Guide to the Wildlife of the Perth Region” by Simon Neville.

There in the book was a photograph of the very spider in my yard, a bark crab spider, *Stephanopis palliolata*. Simon Neville writes of it; “Undoubtedly these spiders are the masters of bark camouflage..... The only reason I saw this one was that it was sitting on the brick wall of my mother’s house”. Similarly, the only reason I saw my bark crab spider was because it was not on bark but on a green leaf.



Photo by M Owen

Another reference says that this group of spiders may “fasten onto their bodies flakes of bark or, where trunks have been blackened by fire, minute scraps of charcoal.”

This spider has remained on the same eucalypt since I noticed it right at the end of December, 2008, and it is now early February.

On another occasion, I was fortunate to come across this spectacular sight in Underwood Avenue Bushland as in trying to follow a fast-disappearing damselfly, I walked close by and the spiders caught my eye (see photo below).



Photo by M Owen

The banded female orb weaver spider, *Argiope trifasciata*, had come out of her skin and the skin was still within the web. The female was particularly beautiful. Two small and also beautiful males were in her web, in close proximity. The arrangement reminded me of the Southern Cross constellation.

I wondered why quite a few spiders have so much silver on them and I asked for information from one of the WA Museum spider experts, Julianne Waldo.

Julianne told me that these spiders are not St Andrews cross spiders who put a stabilimentum or band of dense silk in the form of a cross in their webs, but banded orb-weavers. Banded orb-weavers put a single zigzag line rather than a cross.

As to the silver colouring, Julianne explained that this is to do with thermoregulation. Spiders who sit in their webs during the day need to regulate their temperature or they will overheat. Spiders can control the movement of their body fluids between the abdomen and the cephalothorax to keep the cephalothorax cooler. The silver colour and also white hairs deflect the sun as well.

However on cloudy but very hot days spiders cannot orient to the sun and they may overheat and die in the web.

The silver and yellow stripes on the banded orb weavers may be quite good camouflage in tall grass and shady situations so the spiders’ colouration serves more than one purpose.

PYROPHILIACS

Recently the Department of Environment and Conservation held a lunchtime talk entitled *Infra-Red heat and Smoke detecting sensory organs used by pyrophilic insects to locate bushfires in South West forests: a brief update of this year's annual survey*. The speakers were Professor Helmut Schmitz and his colleagues from Bonn University, Germany. The Professor and his associates come to Perth annually to survey the jarrah forests and this year they worked at Yanchep after those fires. The team is studying the 'extensive assemblage of endemic insects species attracted to and dependent on very recent post-fire habitats.' Using bio-mimicry techniques the researchers aim to develop and construct mechanisms for low cost detection and early-warning of fire.

So far insects are roughly a thousand times more efficient than humans in detecting fire. The audience at the talk was told of a gas explosion fire in the desert in America which insects were able to detect from 80 miles away. One of the

Australian beetles is able to smell a fire from at least 40 kms away. The senses involved are vision, smell and infra-red receptors. Through the infra-red receptors insects can detect the dangerous hot spots in fires and avoid them. Infra-red receptors in various insects operate though differing and highly evolved systems. Beetles also can identify the tree species, burning wood and the type of fire.

In West Australian fires, fungi start to grow immediately after fire. Some pyrophilic insects come to the fungi, mate and the larvae consume the fungi. Some insects are only active one, two or three days after the fire and it is not known where the adults go. In places in Germany which have not had fire, the associated pyrophilic insects have become extinct.

After a fire fungi and moss grow rapidly and there is a succession of beetles and flies feeding on these food sources and then more insects come in. It was stated that nature is optimised and these pyrophilic insects are at their evolutionary peak.

◇ What's new? ◇ What's new? ◇ What's new? ◇ What's new? ◇

THE WESTERN AUSTRALIAN NATURALISTS' CLUB presents

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Cost: Adults \$15, Students \$10

Enquiries: 9228 2495

The Serventy Memorial is the major fund-raising activity to provide for the Serventy Memorial Prizes for students. It was established in 1989 as a memorial to the continuation by the Serventy family to the Western Australian Naturalists' Club with the aim of assisting and encouraging young people in the study of natural history.

Professor Lyn Beazley is a highly sought after speaker who is interested in practically anything and she has an overwhelming aspiration to involve future generations in the joys that science can bring through education, translation and communication. She is currently a Professor in Zoology at the University of Western Australia.

ENVIRONMENTAL COMMUNITY GRANTS 2009

The Government will allocate \$1.53 million in grants to be expended within the 2009/2010 financial year. Application forms are available from the Department of Environment and Conservation

Phone 9334 0455 or email grants@dec.wa.gov.au for more details. Application forms can be downloaded from www.dec.wa.gov.au

Applications close at 4 pm Friday 1 May 2009.



28th March - 5th April
CONSERVATION WEEK 2009
Connecting Community and the Environment

Conservation Week is the largest community focused environment event in WA that aims to connect the community and the environment as well as celebrate the work of conservation organisations, community groups and individuals across the state.

To find out more about activities and how to get involved visit www.conservationwa.asn.au or contact Jessie Cochrane on (08) 9420 7266 or email clo@conservationwa.asn.au



Making Change in a Changing World

**Sunday 23 August – Thursday 27 August 2009
Perth, Western Australia**

For more information go to www.ser.org

Support the Urban Bushland Council

Join or renew your membership

Groups:

Membership with voting rights is available to groups committed to the protection of urban bushland for \$30 a year (GST included). A growing membership strengthens the cause and groups benefit from the network.

Individuals:

Supporter membership is only \$20 per year (GST included). Supporters can attend meetings and receive copies of the "Urban Bush Telegraph"

Send your name, address and cheque or postal order to:

Treasurer, Urban Bushland Council WA Inc, PO Box 326, West Perth WA 6872

URBAN BUSHLAND COUNCIL WA EVENTS 2009

ANNUAL GENERAL MEETING

FAUNA OF PERTH'S BUSHLANDS

'The Stars Beneath Our Feet'

presented by Dr Ric How

Also Presentation of Perth Urban Bushland Fungi Project reports for 2008
to their respective groups

Tuesday 3rd March 2009 at 7:00 pm

At Lotteries House, 2 Delhi Street, West Perth (near City West Railway Station)

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URBAN MONITOR

New high resolution information and monitoring of the greater Perth region

presented by Jeremy Wallace, CSIRO

Wednesday 1st April 2009 at 4:15-5:15pm

At The Leeuwin Centre Conference Room, 65 Brockway Road Floreat (adjacent to McGilvray Oval) Parking available

UBC PUBLICATIONS

Wetlands to Wastelands? - proceedings of a seminar about the future of bushland at Perth Airport (2004)

Available at UBC's website

<http://members.iinet.net.au/~ubc/html/infosheets.htm>

Burning Issues—proceedings of a workshop about fire management in urban bushland. (2002)

Out of print.

Building Partnerships between Community Groups and Local Government for Our Bushland –proceedings of a seminar (2000). Available from the UBC for \$5.50, postage included

Managing our Bushland - proceedings of a conference about the protection and management of urban bushland (1998).

Out of print; available in libraries.

Burning our Bushland - proceedings of a conference about fire and urban bushland (1995). Out of print.

NEWSLETTER ITEMS

Compiled by: Renata Zelinova

PLEASE SEND CONTRIBUTIONS TO:

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