

Ecoplan News

Issue 9 Autumn 1994

New education centre for Bibra Lake

Inspired by the Herdsman Lake Wildlife Centre, the initial ideas for the recently opened Cockburn Wetlands Education Centre were seeded some five or six years ago.

The new centre will provide a workspace for the Wetlands Conservation Society, Friends of Bibra Lake and the Coolbellup Scouts.

According to Wetlands Conservation Society president, Dr Philip Jennings, the centre aims to become a focus for wetland education and management in the southern metropolitan area.

In particular, it will provide information for visitors to the Beeliar Regional Park.

The Beeliar Regional Park consists of two parallel chains of wetlands. It includes most of the wetlands in the Cities of Cockburn, Melville and Kwinana.

Dr Jennings said the Wetlands Conservation Society got many requests for information from government and industry representatives, locals and students wanting to know more about wetlands.

"For example, they ask 'why does the lake go green? what's eutrophication? and what causes midge problems?'"

"We hope to provide a place where people can increase their understanding of wetland values and issues."

It is envisaged that volunteers will provide talks and guided tours of nearby wetlands and banksia woodlands.

The centre will be seeking sponsorship to fund a coordinator to manage volunteer activities and pay for the development of educational programmes and information services.

Currently running costs are being met by the hire of facilities and donations from the community.

The Gordon Reid Foundation for Conservation has provided some funds for display material.

The centre will be a base for community conservation projects.

Plans are underway to plant 6000 local trees; jarrah, sheoak, wattles and

paperbarks, to create nature trails and bird hides.

Cheryl Osborne is supervisor of a 12-month Youthlink programme (a Lotteries Commission initiative) based at the centre. She is training six local Aboriginal youths in landcare techniques. They are currently cleaning up and landscaping the site.

The area around Bibra and North Lake is recognised as a significant Aboriginal site. It was used as a main camping ground and congregation area for the local Beeliar group.

It is hoped that the centre will become a focus for Aboriginal heritage, youth programmes and a variety of outdoor education. The Coolbellup scouts will use the centre for their activities.

The Cockburn Wetlands Education Centre is on Hope Road, Bibra Lake, on the eastern shores of Bibra Lake.

Some readers may be familiar with the building as the November Ecoplan workshop was held there.

A variety of waterbirds and beautiful stands of swamp paperbark can be seen in the area surrounding the centre. The centre consists of a gallery, meeting room, offices, library and a small hall.

The Wetlands Conservation Society welcome new members who would like to contribute to the establishment of the centre.

For more information contact Philip Jennings on (09) 337 7113 or Cheryl Osborne at the education centre on (09) 417 8460.



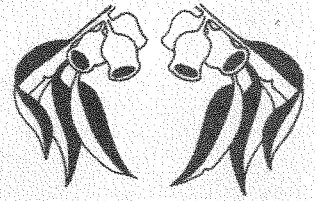
Youthlink youths with Cheryl Osborne, Philip Jennings and Coolbellup Scouts standing in front of the Cockburn Wetlands Education Centre.

Photo by Harry De Jong



Ecoplan update

— with Margo O'Byrne, EPA community involvement co-ordinator



Welcome to another Ecoplan newsletter. With such a long dry summer there have been a lot of fires in local bushland areas and I hope that the reserve you are working on has managed to recover without too much damage.

These past few months have seen some changes in the Department of Environmental Protection.

Those of you who met with Roxane Shadbolt during her three months working with Ecoplan will be pleased to know that she has had twin girls, Emma and Rachel born at the end of March.

At last report mother and babies are well but Roxane has not had much sleep!!

The new part-time worker with Ecoplan, Jeni Afford has been appointed and started with us on May 5.

Jeni has worked as an Ecologist for CALM for many years. She will bring to the position her extensive knowledge of flora and fauna of the coastal plain and will be available to work with groups on particular projects.

She has been associated with Ecoplan since she completed the very first Ecoplan training course in 1991 so is very familiar with what groups are doing.

You may like to invite Jeni out to your patch to see the valuable contributions you are making to looking after the environment.

These past few months have seen the fulfilment of some long held dreams. One is for the members of the Bayswater Greenwork group who now have a draft management plan for the reserve at Garratt Road foreshore.

The plan is out for public comment and available from libraries in Bayswater and Stirling.

Another important dream was realised with the official opening of the Cockburn Wetlands Education Centre at Bibra Lake.

The centre is a credit to the vision of the Wetlands Conservation Society and many hours of hard work have been put in by members of the society.

On a perfect March day in Kings Park I attended a significant event. It was the launch of the wonderful publication "Growing Understorey Seed" by Joanna Seabrook.

In this book Joanna, an *ambassador for the understorey*, promotes the

establishment of seed orchards together with direct seeding as effective methods of revegetating the state.

I would recommend that all ecoplanners and bush regenerators and indeed anyone interested in the environment read this publication.

During February and March the Department of Environmental Protection worked together with the Australian Association for Environmental Education and the Western Australian Municipal Association to plan the Weeding Western Australia forum which was held at the Perth Zoo on March 29.

The forum provided an opportunity to discuss the many issues associated with weeds and the 80 or so people who attended joined in the lively discussion and debate.

Thanks to all the speakers and panel members and to all who attended.

Over the remainder of the year Ecoplan will be sponsoring various workshops and activity days to assist individuals and groups to further their understanding of bushland care and group operation.

The first of these workshops was held on

May 7 at the Kings Park Education centre and focused on *Working Creatively with Conflict*.

On Saturday, May 28 there will be the first regional forum for groups in the central metropolitan region. The venue is the Morley recreation centre.

This forum will provide an opportunity to exchange information and ideas about what your group is doing, what problems you are facing and creative ways of solving them.

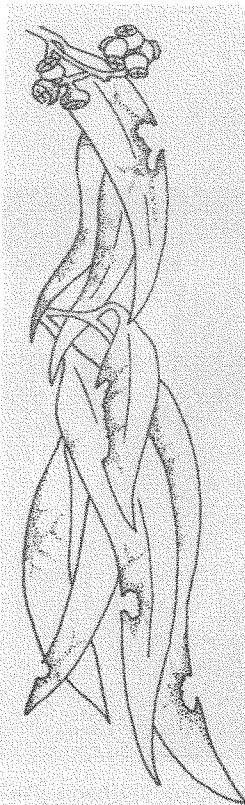
A forum for groups in the south-east region will be held at Armadale on July 30.

Other forthcoming workshops will look "How community groups can work effectively with Government" and "How to write submissions for funding grants."

Introductory training sessions for Ecoplan volunteers will be conducted in July.

Finally I would like to thank Cathy Drake who has been guest writer for this edition of Ecoplan news.

Remember we are always happy to print information about forthcoming events and welcome your contributions.



Ecoplan workshops

When	Saturday 28 May
Time	10.00 - 3.00
Workshop	Groups in the Central Region
Where	Morley Recreation Centre
When	Saturday 26 June
Time	9.30 - 3.30
Workshop	Communities working with Government
Where	Grace Vaughan House Shenton Park
When	Sunday 14 August
Time	9.30 - 3.30
Workshop	Effective Submission Writing
Where	Venue to be confirmed
When	Saturday 2/9/16/23 July
Time	9.30 - 12.30
Workshop	Ecoplan Training Sessions
Where	Venue to be confirmed: Central Location
When	Saturday 30 July
Time	10.00 - 3.00
Workshop	South-east Groups Regional Forum
Where	Armadale Settlers Common Education Centre



Weeds conference in July

The Wildflower Society of WA is organising a public conference on invasive weeds in WA for July 8 and 9, 1994.

The conference — being held in conjunction with Murdoch University and the Australian Association for Bush Regenerators — will feature CSIRO scientist Dr Stella Humphries as key note speaker.

Dr Humphries wrote the landmark book *Plant Invasions in Australia* and is known for her work on weeds with local CSIRO officer Dr Richard Hobbs.

It will be an action orientated seminar with plenty of hands on advice for weeders as well as discussions on policies for politicians.

There will be plenty of opportunity to

by Gary Burke and Joanna Seabrook

have your say at one of the 'input sessions' and to make contact with similar minded folk.

There's a lot to do. The organisers are endeavouring to make the conference an enjoyable and productive time.

For conference details see the *Community Information* section of this newsletter.

Enquiries and enrolments:
Wildflower Society
PO Box 1131
Fremantle WA 6160
or contact
Gary Burke on (09) 360 2600



Bring back the butterflies

The WA Insect Society Inc has produced a booklet that seeks to encourage the return of butterflies to the suburbs.

The booklet's editor, Dr Terry Houston, said that many people, especially the older people had noticed that they did not see as many butterflies around Perth backyards as they used to.

"They are not there for children to experience nowadays," he said.

The book suggests that the main reason for the decline in native butterflies is the loss of local bushland plants that they relied upon for food and habitat.

The main thrust of the book is to encourage the cultivation of native food plants to bring back butterflies.

It gives very detailed information on many butterfly species, including where they are found and what plant species they rely on.

Although it is not intended to be a complete handbook of WA butterflies, the booklet contains beautiful colour photos of most of the butterflies found in the South-West (except for a few very rare ones) and some species from the north of WA.

Dr Houston estimates that 40 species are known to occur around Perth.

"We want to restore the more common ones so that they are common again and see more of the rarer ones," he said.

The book contains information on the life cycle, anatomy, classification and the rearing of butterflies.

Dr Houston says that "by breeding native butterflies you observe a lot more about them, including their life cycles and you can get a lot of enjoyment from it".

The booklet is very useful if you are wondering what sort of butterflies you have in your local patch of bush, and how they fit in the rest of the ecology.

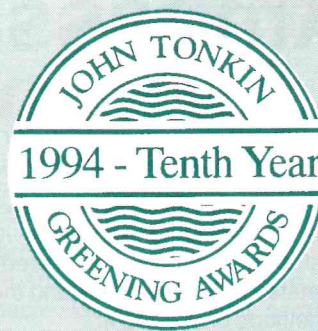
For example, butterflies play an important role in pollination. Some flowers are adapted to pollination by butterflies alone.

Reading *Bring Back the Butterflies* will certainly help to hone your observation skills.

Saving the local butterflies is yet another reason to take care of urban bush.

Bring Back the Butterflies is published by the WA Museum. It can be purchased from the Museum bookshop for \$9.95.

For further information on the WA Insect Study Society Inc. contact Terry Houston at the WA Museum on (09) 328 4411.



1994 John Tonkin Greening Award

Greening Western Australia's John Tonkin Greening Awards pay tribute to the enormous efforts being made by West Australians toward conservation and establishment of native vegetation throughout the state.

Awards are given in the following categories:

Individual Endeavour, Primary Producer, Agroforestry, Bushland Conservation, Local Government, Community Group, Education, Government, and Business.

Awards will be presented on Friday, November 4 at the Government House Ballroom in Perth.

The closing date for entries is Friday, July 29, 1994.

Guidelines and entry forms are available from Greening Western Australia, 1118 Hay Street, West Perth 6005, telephone (09) 481 2144.

Bush regeneration courses for 1994

Bush regeneration courses will be conducted again this year by APACE.

The dates for this years courses are as follows.

Saturday courses (1 pm - 4 pm)

23 July - 17 September

8 October - 3 December

One of these courses will be in the Hills area and another in a metropolitan location

Monday courses (1 pm - 4 pm)

25 July - 19 September

10 October - 5 December

Both of these courses will be held at APACE 1 Johanna Street North Fremantle

Cost of the course is \$200. Places can be booked by calling Susan Lovell at APACE on (09) 336 1262.



Ambassador for the understorey

Joanna Seabrook's recently published booklet *Growing Understorey Seed* is much more than just a 'how to' book.

As Joanna says, the book also provides the reader with 'reasons for doing it'. It's a passionate argument for the need to revegetate on a grand scale, and the best methods of tackling it.

In her entertaining, down-to-earth style Joanna explores topics such as the anatomy of a flower, pollination, and adaptation of Australian plants.

She explains the importance of retaining local genetic diversity and the ecological advantages of including the understorey in revegetation projects.

She believes that revegetation should not be simply putting trees in the ground and stresses "trees alone may not support even their own pollinators or predators of their pests".

The understorey is the core of species richness. It protects the ground from erosion and establishes a habitat for a wide range of species from microscopic organisms and insects to ground dwelling birds and animals.

Along with the familiar terms retention, regeneration and revegetation, Joanna suggests a new term; *rehabitation* for revegetation that will establish habitat.

The booklet has detailed chapters on the advantages of direct seeding and the concept and planning of seed orchards.

Joanna has been one of the pioneers of direct seeding (putting seed on the ground and letting nature do the work) and the development of seed orchards.

Joanna says "it is not possible to get all the seed that is needed from the bush".

A seed orchard is like a 'seed farm' where plants are grown from local seed to produce large quantities of seed for revegetation.

She believes anyone could become involved in growing seed, even in their own backyard.

What's the best advice she can give to someone thinking of setting up a local seed orchard?

"Learn as much as possible about the local plants, ask what are you growing seed for and look at what the markets might be," Joanna said.

There is a great deal of research and experimenting required for Australian

plant seeds, and you can be at the forefront of discovery.

***Growing Understorey Seed*, is published by Greening Western Australia, costs \$10 and is available from Greening Western Australia or the Wildflower Society.**

Joanna's past booklets are also available from Greening Australia; *Collection of Seed of Australian Native Plants, How to Grow Australian Plants from Broadcast Seeds and Seeds of the Future.*

Profile: Joanna Seabrook



Joanna Seabrook with her new book *Growing Understorey Seed*.
Photo courtesy Greening Western Australia

Joanna is a founding member of the Eastern Hills Wildflower Society. This group takes care of the System 6 areas Yiriji Reserve and Hudman Road Reserve.

Currently, Joanna's main job is taking care of the seed orchard she started in 1979. She is a frequent speaker at conferences and seminars and leads walks through her local bushlands.

Her fondest memory of being involved with local bushland is when she and Mrs Gwen Abbott undertook a two and a half year project of making a plant collection

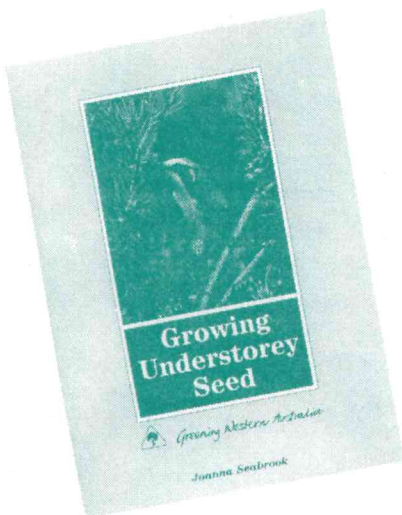
of the Helena Valley region.

Seven hundred species were included in the collection.

Joanna said: "I learnt an enormous amount, it was a wonderful experience ... I suppose it changed my perspective of the bush, the plants and everything."

She was awarded the John Tonkin Gold Tree award in 1991.

Joanna is a Greening Western Australia board director and a trustee of the Gordon Reid Foundation for Conservation.



Wanneroo's green plan

The City of Wanneroo invites participation in its 1994 Green Plan Planting programme.

The Green Plan is an ambitious plan to improve suburban streets, busy roadsides and other community amenities, restore conservation reserves, and revegetate dunes.

More than 150,000 trees and shrubs have been planted in the past two years.

The planting takes place at the start of winter each year.

Plants are in tubes and planted using a hand trowel. All materials will be provided.

If you would like to participate contact David Saunders, Parks Department, City of Wanneroo on (09) 405 0320 during office hours.

The planting programme as follows:

Sunday 12 June; Hepburn Heights Conservation Reserve

Meet at roundabout, Walter Padbury Boulevard at 9am

Sunday 19 June; Warwick Conservation Reserve

Meet at Tennis Court carpark at 9am

Sunday 26 June; Warwick Conservation Reserve

Meet at the south end of access road at 9am

Sunday 3 July; Shepherds Bush Park

Meet on Barrisdale Drive, north of overpass at 9am

Growing local plants in school

The Department of Conservation and Land Management has recently published a booklet called *Growing Local Plants for Education*, written by Robert Powell and Christina Lake.

The booklet gives guidance on planning and establishing a bush garden in a school environment.

It gives wonderful examples of educational activities in science, language and art.

A timetable for bushland activities, such as weeding, planting and seed harvesting, is included.

A bush garden project can draw in many people, such as students, teachers, gardeners and parents, and foster a community spirit.

The booklet has drawn largely from the experiences of establishing a bush garden at City Beach Primary School.

This school has won Greening Australia and Landcare awards for their projects.

Growing Local Plants for Education costs \$5 and is available from CALM's headquarters, 50 Hayman Road, Como, (09) 334 0333.

Tammin Alcoa Landcare Education Centre

LANDCARE EDUCATION WORKSHOP
MAY 27, 28 & 29 1994

Everybody welcome (no prior knowledge in landcare necessary)

- ◆ Visit sites on farms, water courses and reserves
- ◆ Learn to recognise soil and water degradation problems
- ◆ See what is being done to overcome the problems
- ◆ Talk to the farmers
- ◆ Find out about the importance of catchment planning
- ◆ Discover how farming affects city life

Technical staff from the Department of Agriculture will be in attendance throughout the programme and will

accompany participants on field excursions.

This programme is the only one of its kind in Australia and has received international recognition. It is a rare opportunity for members of the public to understand landcare issues and their implications.

An excellent teacher inservice programme is also conducted at Tammin.

Cost: \$60.00 per person

Includes: Accommodation, all meals and transport while on location at Tammin.

Contact: Kerri Young,
Landcare Education Co-ordinator
Tel/fax: (09) 293 3529

Perth environmental project

By Jim Dixon

The Perth Environment Project (PEP) is an initiative to facilitate the inclusion of environmental factors in statutory and strategic planning.

This Department of Planning and Urban Development project began in mid 1993 and runs for two years.

PEP is focussing on the physical resources (initially) of the Perth Metropolitan Region.

Data being sought fall into the categories of climate, coastal, fauna, flora, geology, geomorphology, heritage, hydrogeology, hydrology, minerals, soil, topography and vegetation.

This data suite achieves considerable additional power because it is used in conjunction with the 'human environment' data used by DPUD, such as Metropolitan Region Scheme and Major Amendments, Town Planning Schemes, cadastre, roads, land use, System 6 recommendations, and many others.

The data consist of bibliographic references, maps and tables.

The first draft of the Bibliography of Environmental Topics is already available through the DPUD Library.

An intensive map collection and validation exercise is in progress and this information is being placed into a geographic information system.

One of the most important data sets is that of remnant native vegetation.

About 20 per cent of PEP's effort is being directed towards this issue.

Surprisingly, there is no current, reliable and complete map showing vegetation in the Perth Metropolitan Region, nor is there a statement about the relative value of the remnants.

There is a great deal of partial information but DPUD needs a full picture so that each remnant can be viewed in context.

To date the 1:20,000 aerial photograph coverage has been interpreted and the native vegetation boundaries digitised.

A satellite image is being classified by CALM/DOLA/CSIRO to provide an independent check of the photo interpretation.

These boundaries will be validated during field surveys, which will also collect basic ecological information such as vegetation type, condition, etc.

Once the boundaries are known with some confidence the hard work of consistently applying a fixed set of parameters to develop a 'statement of relative importance' for each remnant, will begin.

Obviously this is a large and complex task and the cooperation of many government, non government and private individuals is being sought by PEP's botanist, Dr Stephen Connell.

Regional reports



Hills Region

Things are happening in the Hills, folks! A bush regeneration course will be held here, by APACE, for the first time ever.

The course will help newly formed groups find a common approach for their efforts on the ground.

Friends of Hudman Reserve, the Hovea Ratepayers Association and Parkerville Primary School (involved with M22), and the Wildflower Society (Strettle Rd Reserve involvement) and maybe some Shire officers will be there.

Another exciting development was the formation of an Environmental Advisory Body by the Mundaring Shire. It is made up of 12 ratepayers.

The Council seeks input from this body to raise local environmental awareness.

It has a budget and councillors look forward to the group helping them preserve the health of the heritage up here.

The body has chosen as its first task to highlight voluntary group and individuals' efforts through the Hills Gazette (our local rag).

Friends of Hudman Reserve have sought funding from the Gordon Reid Foundation for this year's projects.

One project is to compile a history of the reserve for public presentation.

The reserve provided C Y O'Connor with granite to fortify breakwaters for the Fremantle Harbour Project.

Recently a group of us went on a field trip to several sites in the area where direct seeding of native plants had been used to establish road verges and rehabilitate exhausted gravel pits.

The Shires of Mundaring and Swan, and the Main Roads Department are to be congratulated on their success.

The field trips will continue with the forthcoming *Geology of Hudman Reserve*, linking water, soils and vegetation.

For more information, don't hesitate to contact Robert (572 1489) or Leonie (299 6489).

South East Region

Friends of Brixton Street

Last December Vincent Seventy launched the proposal to create the Yule Brook Nature Reserve.

This Reserve proposal includes the Brixton Street Wetlands.

It was developed by the Friends of Brixton Street and the Conservation Council of WA.

Since then, the Friends of Brixton Street held an art exhibition at Thornlie Square Shopping Centre.

The theme of the exhibition was, of course, bushland, native flora and fauna.

The same exhibition was displayed in the Maltings Gallery in Northbridge early in January.

There were over one hundred pieces from talented amateurs and professionals.

The artwork included oil paintings, sculptures, photography and drawings.

There were many pieces from children from Kenwick Primary School.

The art exhibitions were very successful in increasing awareness and interest in local bush.

The Friends of Brixton Street held a cleanup on 15 May.

For more information contact Regina Drummond on 459 2964.

Central Region

Friends of Woodman Point

The Friends of Woodman Point group has recently been formed.

We had our first meeting on the 12th March.

All the graduates from the Ecoplan Workshop held at the Wetlands Education Centre earlier this year were invited to the meeting.

We also had an article publicising the meeting in the local Fremantle paper.

The response was very positive with over 20 people attending this first meeting.

Robert Powell, coordinator of the publication *Woodman Point, A Relic of Perth's Coastal Vegetation* began the meeting by addressing the value of the area and highlighting the unique plant communities in the Reserve.

Following this, we developed aims for the group based on the participants' specific interests.

Interest varied from the historical aspects of the area to the protection of the marine environment.

Our main aim is to 'protect and enhance the environment of Woodman Point'.

Representatives from CALM and the Department of Sport and Recreation attended the meeting.

The Coogee Progress Association indicated they would help us with some initial funding.

On 22 May at 9.30am we are having a tree planting day in conjunction with the Department of Sport and Recreation.

Meet at the northern carpark outside the Ranger's office if you're interested. We'd love to see you at this event.

If you have any queries or would like to become involved in the group, phone either Carina Calzoni on 339 6205 or Ben Carr on 335 4635.

Samson Park, North Fremantle Foreshore and Cantonment Hill.

The City of Fremantle manages the above three natural bushland reserves.

All three reserves were identified by the EPA's System Six report, and subsequently the City of Fremantle has commissioned Management Plans for each reserve.

All reserves have strong community input in the form of 'friends' groups.

Samson Park has a very busy year this year.

We have nominated 1994 as the 'year of the Pelargonium', because of increasing numbers of this weed.

The Friends of Samson Park has been concentrating on the pelargonium on their monthly restoration days.

Other activities this year include a planting day, a Lupins Day, a Wildflower Walk and a bird watching tour.

The Friends of North Fremantle Foreshore will also have another busy year.

A huge planting programme is being planned, a wetland is to be recreated, and a general weeding and tidying up programme is also going to be implemented.

The Friends of Cantonment Hill has recently been formed to tackle revegetation.

School groups will assist with the, planting and revegetation tasks at Cantonment Hill.

Please contact Tony Baird, on 430 2314, for information relating to above groups.

We welcome anyone who is interested in restoring these beautiful areas.

Tony will also mail timetables of events for each of the three groups to those interested.

By Tony Baird

Bayswater Greenwork

A management plan has been written for the Garratt Road foreshore and is now out for public comment.

It is proposed to change the name of the foreshore to Baigup Reserve.

Baigup is a Noongah word meaning "place of many rushes".

Those of you who have visited the reserve will know that this new name is most appropriate.

The management plan also proposes a five year rehabilitation programme, including the construction of two artificial wetlands in a very disturbed part of the reserve, heavily infested with Typha.

It is recommended that these wetlands will have a nutrient stripping capability and also serve to increase the reserve's waterbird habitat.

Other recommendations include information boards and signs, and the management of public access to the reserve.

The construction of a boardwalk to one of the lakes and to the other natural areas is proposed.

The plan has been written by Kathy Meney and funded by DPUD, City of Bayswater, City of Stirling, and a National Landcare grant to Bayswater Greenwork.

The Department of Environmental Protection has contributed resources.

There will be a Quiz night at 7:30pm on Wednesday 25 May at the Bayswater Hotel.

You are invited to get a table of 6 to 8 people together. Tickets are \$6 each.

On Saturday the 4th of June there will be a Baigup Reserve Activity Day on the banks of the Swan River in Bayswater. It takes place from 1pm - 5pm.

Meet at the carpark, Hinds Reserve, Milne St, Bayswater. Afternoon tea is supplied. Wear your work clothes.

Contact Linda Taman for more information on 370 1213.

Friends of River Canning Environs (FORCE)

Shortly after the release of the *Canning River Community Booklet: City of Gosnells Area*, which was compiled by Cynthia Bevan, the Friends of the River Canning Environs (FORCE) was formed.

FORCE is a river care group interested in integrated catchment management and comprises 7 members from the Cities of Gosnells and Canning.

FORCE liaises with river and wetland groups in the localities of Canning, Gosnells and Armadale.

Despite interest in slightly different group activities, we are working towards a common goal: reducing river pollution.

We are also all interested in improving our skills in non-technical water monitoring to reduce nutrient levels.

FORCE welcomes new members from this region and looks forward to liaising with groups with a similar interest.

FORCE can be contacted on 459 4752.

By Cynthia Bevan

North West Region

Friends of Yellagonga Regional Park

First the not-so-good news.

Negotiations between DPUD and the City of Wanneroo, whereby the City would lease a house within Yellagonga Regional Park for community use, failed recently.

The Council's Building Department put a high price on renovations they consider are needed to bring it up to a certain standard appropriate for community use.

Our group was one of the potential tenants of the premises.

As a result we are now conducting further investigations into how we might be able to negotiate other ways of obtaining use of the house.

The good news is that a happy group of volunteers regularly attend our bush regeneration and nursery activities coordinated by Kate Tauss.

These volunteers come from inside and outside our group.

Well over 1 000 wetland plants have been planted since the beginning of the year and some of the pampas grass around Lake Goollelal has been removed using the brushcutter.

All of the plumes were removed from remaining plants.

In the nursery there has been much potting up, re-potting, etc, to keep volunteers busy.

The Water Authority of WA is buying a large quantity of the sedges planted during our LEAP project.

Children from the Ocean Reef Primary School recently used the nursery to plant seeds they collected from another local park as part of an environmental programme developed by Dot Parker.

Dot, a pre-primary teacher at the school, felt inspired to undertake environmental work with students after attending our Ecoplan Conference last year.

She is now an environmental support teacher for the school.

Children from the local Montessori School are involved in a programme drawn up by Kate.

They are currently eradicating morning glory at Lake Goollelal.

Two scouts, Mark Woodland and Christiaan Van Derpebble, who are working toward their Queen Scout Awards, are also attending our busy bees.

Mark is currently studying an ecology unit at school (Year 10) and he says that the hands-on work in the nursery and in the field has been invaluable in

reinforcing some of the theory.

Although Mark hopes to follow his father into the building industry, he says he finds the working bees useful in that he can talk to others about their jobs.

He enjoys the friendliness of the other community volunteers, and never finds the activities boring!

Christiaan, currently in Year 11, is hoping to study environmental science at university and work for CALM, so he is gaining valuable experience in the field of his choice.

In other news, an environmental group from the local Joondalup Campus of Edith Cowan University, ECCO, has indicated an interest in undertaking bush regeneration work in Yellagonga, between the campus and Lake Joondalup.

Past studies have shown the area to be dominated by weeds. We would hope to be able to support them as much as possible in their quest.

by Fay Mumme

For more information contact Fay Mumme on 401 2678.

Friends of Hepburn and Pinnaroo Bushland

There has been no activity of the group over the hot summer months except keeping watch on the area to prevent vandalism.

A fence with four gates has been erected to protect the bush, but four-wheel drivers continue to break down the gates and create havoc in the area. It is most frustrating.

When the cooler weather and rains come the weeding programme will be recommenced and revegetation of some areas in conjunction with the Wanneroo City Council will take place.

There has been a delay in vesting the area in the Wanneroo City Council by Landcorp and it is hoped this will soon go through. We are not aware of what the delay is. We will be proposing to drop the word Pinnaroo from our name at our next meeting.

It was originally thought that we could work in with the Metropolitan Cemeteries Board protecting bushland within the Pinnaroo Memorial Park, but this appears to be a lost cause and we will concentrate on the Hepburn Heights bushland.

by Alan Lloyd, Chairman, Friends of Hepburn and Pinnaroo Bushland.

For more information contact Alan Lloyd on 448 9270 or Harry Frochter on 401 4344.

Coming events calendar



MAY

28 Saturday*	9.00am	Hills Forest	Stepping Out - Advanced Walk on Water
29 Sunday	8.30am to 11.00am	Friends of Ellis Brook Valley (Inc)	Project area morning
29 Sunday*	1.00pm	Hills Forest	Discover Nyoongar Way Stepping Out - Basic
30 Monday	7.30pm to 9.30am	Friends of Ellis Brook Valley (Inc)	Monthly meeting, 14 Kenneth Street, Maddington

JUNE

4 Saturday	1.00pm to 5.00pm	Bayswater Greenwork	Baigup Reserve Activity Day on the banks of the Swan River in Bayswater
4 Saturday*	10.00am	Hills Forest	Forest Under Canvas - Advanced
5 Sunday	**		World Environment Day
8 Wednesday	9.00am to 11am	Friends of Ellis Brook Valley (Inc)	Ellis Brook Break - Planting in revegetation area for Arbor Day
10 Friday	**		Arbor Day - plan something special in your area
10 Friday		Herdsmen Lake Wildlife Centre	Day of Trees (Gould League)
11 Saturday	8.30am to 11.00am	Friends of Ellis Brook Valley (Inc)	Project area morning
17/18 Fri/Sat	5.00pm	Herdsmen Lake Wildlife Centre	Family Sleepover "Plants and Water"
18 Saturday	8.00am	Herdsmen Lake Wildlife Centre	Early Morning Bird Walk
25 Saturday	2.30pm	Herdsmen Lake Wildlife Centre	Gould League Excursion Zig-Zag - Gooseberry Hill National Park
26 Sunday	8.30am to 11.00am	Friends of Ellis Brook Valley (Inc)	Planting in project area
27 Monday	7.30pm to 9.30am	Friends of Ellis Brook Valley (Inc)	Monthly meeting, 14 Kenneth Street, Maddington

JULY

16 Saturday	9.00am	Herdsmen Lake Wildlife Centre	Early Morning Walk
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AUGUST

10 Wednesday		Herdsmen Lake Wildlife Centre	Day of Birds (Gould League)
20 Saturday	7.00am	Herdsmen Lake Wildlife Centre	Early Morning Walk
20 Saturday	2.30pm	Herdsmen Lake Wildlife Centre	Gould League Excursion Cottesloe Beach at Jarrah Road
23 Tuesday	7.30pm	Herdsmen Lake Wildlife Centre	Gould League Council Meeting

* "Go Bush!": The Hills Forest Activities - more information can be obtained from Paula on (09) 295 2244 weekdays between 8.30am and 4.30pm.

Hydrocotyle curbed in the Canning

The invasive water weed, Hydrocotyle, may now be under control in the Canning River, according to the Agriculture Protection Board.

However, the APB says two or three more treatments will be needed this summer.

Two years ago the Canning River from Kent Street Weir to Nicholson Road Bridge was completely covered with Hydrocotyle.

This area was identified in the 1983 System Six report as "having the best estuarine vegetation of the Canning and Swan rivers".

Hydrocotyle became established in the early 1990s probably as the result of

someone emptying an aquarium into a local drain.

Mechanical weed harvesters removed most of the weed but small broken-off pieces have the ability to regenerate and start new infestations.

These have to be treated with herbicides to keep the river weed-free.

A major problem is small plants hiding among weeds on the edges of the river and infestations in small lakes and drains emptying into the Canning river.

APB staff are searching the banks and spraying infested areas with glyphosate, a non-toxic herbicide that rapidly breaks down when placed in contact with soil or mud.

An all consuming passion

Early nineteenth century Augusta pioneer, Georgiana Molloy, loathed the alienating bush during her first six years in WA.

She did not want to venture far from her English garden of nasturtiums and peach trees. However, when an amateur English horticulturalist asked her to collect native seeds her view of the bush changed dramatically.

Plant and seed collecting became an all-consuming passion.

She said "being in the bush is one of the most delightful states of existence".

Her passion for the bush inspired William Lines to write a book about her life: *An All Consuming Passion*. It is published by Allen and Unwin and is a very entertaining read.

Community Information

Water Pollution Seminar

Organised by the Pollution Action Network

Saturday 11 June, 2pm-5pm

Grace Vaughan House

Discussion issues will include groundwater pollution, the Swan and Canning estuaries and strategies for combating water pollution.

Further information:

Adele Foote (09) 335 6894

Wetland Seminar Series

The venue for the wetland seminars has been changed to seminar room LC310 on the 3rd floor of the John Tonkin Water Centre, Leederville

◆ Thursday 23 June 3.30pm

The State of Kalgan River by Luke Pen

Thursday 21 July 3.30pm

Bayswater Integrated Catchment Management: Re-creating the Catchment by Judy Edward MLA and the BICM coordinator.

◆ Thursday 18 August 3.30pm

What is happening to our wetland trees? by Ray Friend

A Vision for a Greener City

The Role of Remnants in Urban Environments

Organised by Greening Australia

4, 5 & 6 October, 1994

Esplanade Hotel, Fremantle

There will be presentation of papers and three forum sessions for discussions.

The three forum topics will be: The Environment of Urban Areas, Planning Conservation and Development, and Management of Urban Environments.

Registration of interest:

Motive Conventions Tel: (09) 322 2666

Fax: (09) 322 1417

Invasive Weeds in WA Conference:

Murdoch University Lecture Theatre 1

July 8 6.30pm-10.30pm

July 9 9am-6pm and final party

Cost: \$25 concession

\$50 full (includes proceedings)

Enquiries and enrolments:

Wildflower Society

PO Box 1131

Fremantle WA 6160

or phone Gary Burke on (09) 360 2600

National Workshop on Native Seed Biology for Revegetation

Hosted by The Australian Centre for Minesite Rehabilitation Research and the Chamber of Mines and Energy of WA Inc

24, 25 & 26 August, 1994

Technology Centre, WA Technology Park, Perth WA.

The workshop aims to review current knowledge and research, determine future research needs and determine future market service needs in the use of native plant seeds.

Further information, registration of interest and interest in contributing a paper:

Dr Ian Ritchie, Australian Centre for Minesite Rehabilitation Research

Tel: (02) 934 3585

Fax: (02) 934 3580

Community Skills Training Centre

The centre offers courses and workshops on group and community work skills free to voluntary and paid workers in social and community services, such as Ecoplan.

An example of the courses provided is given below:

Group Facilitation Skills Course

24, 31 May and 7, 14, 24, 21 June

9am and 4.30pm

Grace Vaughan House, Shenton Park

Participation priority is given to coordinators of volunteers.

For more information on any activities contact the Community Skills Training Centre on (09) 382 0712.

Friends publications

With funds from the Australian National Wildlife Service (Save the Bush Scheme) and the City of Stirling the Friends of Trigg Bushland Inc have produced a leaflet on *Trigg Bushland*.

The leaflet contains a map of the vegetation types and prominent features of Trigg Bushland.

It has information on the history of the area, landscape, flora and fauna and bush management.

For more information contact David Pike on (09) 448 9192, or Robyn Murphy on (09) 341 6209.

The Friends of Ellis Brook have produced a booklet and educational package based on the Ellis Brook Reserve.

This publication was also funded by the Save the Bush Programme.

The booklet costs \$5. Contact Margaret Robertson on (09) 459 8852 for more information.

Wetland folio available

Wetland and natural map folios have been produced to help better planning, management and protection of Perth's wetlands and natural resources.

The folios are ideal for use by community groups and others involved in wetland protection and management.

The folio maps are produced at 1:25,000 scale and consist of several components.

The wetland classification map shows wetland types and boundaries.

The wetland classification and management overlay provides a summary of the wetland resource and management categories.

These overlays can be used with 1991 orthophotos which provide information on vegetation and land use and are available from the Central Map Agency in the Department of Land Administration.

Another section in the folio is the wetland management and the conservation estate map which provides information on wetland management, recognition of values at the international, national and regional levels and shows conservation areas.

Other information featured on the folios includes System Six boundaries, catchment boundaries and wetland zones of influence.

The folios cover the Perth metropolitan area and extend from the Shire of Gingin in the north to the shires of Mandurah and Murray in the south.

Local authorities in the Wedge Island to Mandurah area have been provided with most folio maps covering their shire.

Copies of the folios may be viewed and obtained from the Reprographics Centre at the WA Water Authority offices in Leederville.

The folios were produced by the Water Authority and the Department of Environmental Protection.

Letters



PLEASE NOTE

The Department of Environmental Protection has decided that future editions of Ecoplan News will not include a letters section.

The department is interested in hearing people's concerns on environmental issues and welcomes letters from members of the public.

These letters will be responded to individually but will no longer be published in Ecoplan News.

Bushland Council's First Birthday

The WA Urban Bushland Council was formed a year ago to bring together groups working to protect urban bushland.

The mission of the council is to promote public awareness and conservation of urban bushland.

Urban bushland is of great public concern. This was demonstrated at the recent rally to save bushland at Churchlands, attended by more than 200 people.

Despite community recognition of bushland there is currently no government policy to ensure its protection and management.

We hope the urban bushland policy being prepared by the State Government will protect our bushland heritage.

Unfortunately there has not been community consultation in drafting the policy.

Planning controls, a management framework and commitment by state and local government are necessary.

The Urban Bushland Council has commented on proposals affecting bushland including major Metropolitan Region Scheme amendments, urban development plans and the Kings Park bushland management plan.

The Council has 26 member groups from across metropolitan Perth and includes the WA Wildflower Society, Wetlands Conservation Society, Friends of Bold Park and Bayswater Greenwork.

Networking information and supporting local action has been a major part of the our work.

We are preparing a directory of community bushland groups in WA.

This will allow sharing of skills and knowledge between people concerned about urban bushland.

We have helped local campaigns including the effort to save bushland at Shenton Park which saw the State Government make the area a reserve.

The task ahead is a challenging one.

As Perth's growth continues so more bushland is lost and pressure on remnants increases.

We need to take stock of what's happening to our bushland.

The Council will play an important role in speaking out on bushland issues and

being proactive in developing policies to keep our natural heritage.

To contact the Urban Bushland Council of WA write to PO Box 326, West Perth WA 6872 or phone Jane Blake on (09) 310 8141 (h) or (09) 321 6008 (w).

Jane Blake, Urban Bushland Council

Market Garden Swamp

Shortly before Easter bulldozers arrived at the Market Garden Swamp on Mayor Road in Spearwood.

They began to clear and fill the fringing vegetation around this beautiful little swamp.

Local residents were shocked by the destruction and several called me to ask for assistance to stop the work.

This destruction was totally unexpected. We had all assumed that because this Swamp was recommended for reservation in the System Six Red Book and in the Beeliar Regional Park Study that it was safe. It is also listed in the Lakes EPP.

Hurried enquires to DEP and DPUD shed no light in the matter.

Even the City of Cockburn was mystified. One official said that the developers may have been given authority to bulldoze the Swamp in 1982, before the System Six Red Book and the Lakes EPP.

When I pointed out that the Beeliar Regional Park Study recommended no clearing should be done in the Market Garden Swamps without approval from the EPA, DPUD and the City of Cockburn the official was speechless.

Although the clearing has now stopped so far I still have not received a satisfactory explanation of what is going on at the Market Garden Swamp.

This beautiful little wetland with its complete buffer of saltwater paperbarks has been badly damaged.

The Beeliar Regional Park was supposed to have been established long ago to protect these wetlands but despite numerous promises it still has no formal status.

It appears that wetland destruction is proceeding as usual and there is still no effective process in place to protect them even when we draw the authorities attention to the problems.

The Government still has a long way to go to implement its promise of no further wetland loss.

Philip Jennings, Wetlands Conservation Society

Ecoplan contacts

☐ Contact numbers:

Ecoplan community involvement co-ordinator

Margo O'Byrne ☎ 222 7054

Jeni Alford ☎ 222 7051

Conservation Council of WA

Urban Bushland co-ordinator

Joan Payne ☎ 397 6380

WA Conservation Council

79 Stirling Street

PERTH ☎ 220 0652

Environment Centre of WA

587 Wellington Street

PERTH ☎ 321 5942

Greening Western Australia

1118 Hay Street

WEST PERTH ☎ 481 2144

APACE

1 Joanna Street

NORTH FREMANTLE ☎ 336 1262

Volunteer Centre of WA

79 Stirling Street

PERTH ☎ 220 0676

Community Skills Training Centre

227 Stubbs Terrace

SHENTON PARK 6008

☐ Ecoplan community contacts:

South-East Region

Brett Tizard ☎ 497 3469

Central-South Region

Carina Calzoni ☎ 339 6205

North-West Region

Fay Mumme ☎ 401 2678

Central Region

Linda Taman ☎ 370 1213 (w)

Eastern Hills Region

Robert Watkinson-Slough ☎ 527 1489

Busy Bee at Yanchep

The Boomerang Gorge track in Yanchep National Park has a major weed problem. Bridal Creeper is strangling the native plants there, and a keen group of volunteers is being sought to tackle it.

On Monday 6th June (Foundation Day) the Park is hosting a busy bee beginning at 9am and finishing with a barbecue lunch. Whatever your age, your energy is wanted and badly needed for as many hours as you can spare. There are jobs to suit all levels of fitness. The track was originally designed for the disabled, and is an enjoyable 10-15 walk. The barbecue is being sponsored by the Park, so you will be well rewarded for your efforts!

A short video on the Track's Bridal Creeper problem has recently been made with Gordon Reid Foundation money, and can be seen in the Park Visitor Centre.

The Park is on Wanneroo Road just under an hour's drive north of Perth. Phone Dave on (09) 448 9192, Susan on (09) 368 1087 or Julie at Yanchep NP on (09) 561 1004 for details.

Susan Harris - Yanchep National Park Committee Member

The tree as a whole

Look at a tree as a whole and you will be aware of the space it occupies.

It extends upwards and outwards in different directions.

Walk around it and it changes shape and structure from every angle.

Stand close to the tree and you will appreciate its three dimensions, particularly if the sun is high and parts of the tree are lit up.

Stand further away and the tree looks more two-dimensional, particularly if the sun is low.

If the sun is behind you, the tree looks heavy and solid, with thick, opaque foliage.

Look at it against the light at sunrise or sunset, and the tree is a silhouette, delicate and detailed; the foliage is broken into a texture, and twigs normally hidden by foliage are revealed.

Excerpt taken from *Leaf and Branch*, 1990, by Robert Powell, published by Conservation and Land Management, page 3.

Pampas busters

One solution to the daunting bushland weed problem is to concentrate on one serious weed at a time.

With support from the Gordon Reid Foundation for Conservation The Pampas Busters, alias the Murdoch Branch of the WA Wildflower Society, has launched a campaign to curb the spread of pampas grass.

This innovative project was inspired by the late Yve Blundell-Wignall following a workshop held by the group.

The group has produced an informative leaflet on the reproductive strategies of pampas and suggestions for removing it.

The Pampas Busters have picked on this dreaded weed because it is spreading with potentially very serious consequences.

Until recently it was thought that only female plants, which do not produce viable seed, existed in WA.

However, bisexual plants, which produce 100,000 or more viable seeds from each flower head, have been spreading throughout the South-West.

The group is setting up a database of where pampas occurs in the metropolitan area, and asking people to report sightings.

The campaign targets pampas grass in domestic gardens, in particular.

Pampas seed in domestic gardens can easily spread to nearby bushland and wetlands.

The group will be sending out letters and leaflets to people who have pampas in their gardens to let them know what a dangerous weed it is and how they could remove it.

Leaflets will also be sent to libraries, councils, landscape gardeners and plant nurseries in a bid to increase community awareness of the weed.

Information on pampas sightings on public land will be given to local councils and other land managers.

Not only is it a threat to native plants and bushlands, but the weed also aggravates asthma and hay fever sufferers. It is known to harbour termites.

The Pampas Busters suggest that native reeds and rushes are more appropriate than pampas for damp areas in a garden.

If you would like a Pampas Busters leaflet, advice on eradication or have pampas sightings to report contact the Murdoch Branch of the Wildflower Society on (09) 457 2896.



Rural linkage essential

Four WA projects will share in over \$75,000 under the Commonwealth's 1993-4 City Landcare Programme.

The City Landcare grants programme seeks to encourage community groups and schools to become involved in demonstrational and educational activities which enable city people to better understand landcare concerns in the country.

There was some misunderstanding in this year's applications that City Landcare funding was for urban based landcare projects.

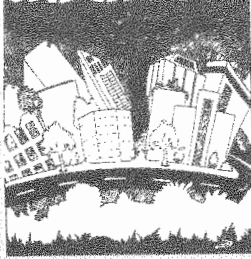
Projects that could establish the development of urban-rural linkages were more likely to have been successful.

So, for example, a city landcare display that establishes linkages with rural landcare activities would be a relevant project under the grants scheme.

Next year's call for City Landcare applications will be advertised in January 1995, the same time as other National Landcare grants.

For more information contact Jon Glauert at the Department of Agriculture on 368 3475.

...UNDERSTORY...



On Thursday May 5 at 7pm public radio station RTR FM (92.1) celebrated the return of the local environmental magazine programme, *Understory*.

After a break of over three months, when documentary features such as *Beyond the Swan* and *Discovering Perth's Urban Bushlands* took its place, the regular weekly programme returns.

Understory seeks to look beyond the sensationalism of the mainstream media and concentrates on the action happening on the community level.

The programme will have a strong focus on local environmental issues. Feedback and input are welcomed.

The coordinators of the programme, Shona Kennealy and Cathy Drake, invite Ecoplan group representatives to come and talk on radio about their group, and the kind of activities they are involved in.

You could send a short outline of your group or any other relevant material to: *Understory*, RTR FM, PO Box 949, Nedlands 6009.

If you are seeking volunteer help or publicity for coming activities you could send in the details to be broadcast.

Help keep Perth people in touch with the wonderful work being done by the volunteers.

Shona Kennealy or Cathy Drake can be contacted by leaving a message at RTR FM on (09) 380 3380.

Weeds weeds weeds

March was National Landcare month and this year's theme was weeds.

The Australian Association for Environmental Education (AAEE) organised a forum entitled *Weeding Western Australia* for people to meet and share their knowledge and experience of bushland and wetland weeds.

It was attended by more than 80 people, some from as far away as Katanning and Collie.

Three speakers introduced the forum.

Gary Burke who is researching feral plants and animals at Murdoch University's Institute of Science and Technology Policy, talked about the determination of cost and loss of value due to weeds. Gary made us realise just how impossible it is to put figures on the cost of weeds (except that he did it in another article).

Luke Penn who worked for sometime with the Waterways Commission in Albany and now works for the WA Water Authority, showed us pictures of a natural and a weed invested waterway and reminded us how dramatically an environment can change if left to the weeds.

Greg Keighery a principal research botanist with the Department of Conservation and Land Management, highlighted the insidiousness of the problem. He said that there was nowhere in WA, not even the Nullarbor plain or the central deserts that did not have a weed problem.

Here are some comments in response to the forum. Joanna Seabrook felt strongly that the best way to protect the bush from threats such as weeds, is to learn about the bush and appreciate it.

There were a few participants from the horticultural field who commented that the curriculum material in TAFE and other educational institutions lacked information

about current and potential bushland weeds. Miles Hitchcock from Bayswater Greenwork was impressed that local councils seemed to be taking weeds more seriously. He also said that a weeds campaign would greatly benefit from a national or state profile.

The Keep Australia Beautiful Campaign is a very successful project on such a scale.

"Education is probably the highest priority," Miles said.

"The problem won't go away until people are aware of it and this could be achieved."

Ben Carr from Friends of Woodman Point said there was a need for more integration of information and resources on weeds, especially between groups and other government agencies.

"Weeds have not really been given the attention that they need," he said.

"An isolated weed outbreak is often not considered a problem until it spreads out of control."

Ben believes we need to set priorities for eradicating weeds that have the greatest impact or potential impact.

As Joanna Seabrook said in her address "the main thing is to make a start and don't be discouraged by the enormity of the problem".

Urban bushland special

The April Edition of the Perth Environment Centre's magazine *Environment* focused on urban bushland.

It was produced with assistance from the WA Urban Bushland Council.

It contains reflections from George Seddon, James Duggie, Robert Powell, Bronwen Keighery, David Wake and others.

There are some still available from the Environment Centre (telephone 321 5942) and some newsagents.

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