



INDIGENOTES

VOLUME 2 NO. 9, SEPTEMBER 1989.

10 OCTOBER

October Meeting:

Tuesday 31 October. Speakers on the preservation of remnant vegetation. 8 p.m. on the third floor, Ross House, 247 Flinders Lane, Melbourne (between Swanston and Elizabeth Streets). To get in, be on time, or yell loudly, as the doorbell doesn't ring on the 3rd floor.

November Committee Meeting:

Tuesday 14 November. 6.30 p.m. at 13 Lawson St, Kew 3101.

November Meeting:

Tuesday 28th November.

Articles: Contributions to Indigenotes should be sent to the editor, Tony Faithfull, 10 Alsace Street, Brunswick East, 3057 Tel (03) 3860264. The deadline for the October issue is Friday 6 October. See inside for instructions to authors.

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Protecting native flora and fauna from the Greenhouse Effect

By Philip Sutton*

The public is increasingly aware of the significance of the Greenhouse Effect. There is an expectation that Governments will take preventative and remedial action.

There is no consensus as yet about how this should be done. For example, ecological theory suggests that big changes in climate will, over sufficient time, result in major changes in the species composition and relative abundance of species within communities. Furthermore, in past geological ages if the climatic changes have been slow, the ecological communities have tended to track or move with the changed climatic zones. Does this mean that we should encourage the maximum movement of species in the face of the Greenhouse Effect? Previous ecological experience has shown that the conservation of native species is normally best served by maintaining as high a level of stability as the normal short run fluctuations of the environment will allow. Encouraging the maximum movement of species could pose major ecological problems itself. Yet if we don't encourage the movement of species how do we deal with the Greenhouse Effect?

This paper presents an alternative approach for discussion.

A draft strategy for protecting Flora and Fauna from the Greenhouse Effect:

Any actions taken in relation to flora and fauna should comply with the objectives of the Flora and Fauna Guarantee Act. Specifically this means that action should be taken to ensure that all Victoria's native species survive.

The most important strategy for protecting the full range of our native species in the face of the Greenhouse Effect is to conserve them in their current locations while urgent and effective steps are taken to reverse the global warming.

For most species the option of movement down corridors or deliberate translocation is not available. It seems that the onset of the Greenhouse Effect will be too rapid for effective corridors to be established, and too fast for all the species within ecological communities to move down them. The extensive clearance of land and its private ownership and as well as the monetary cost of establishing corridors severely constrain what can be done.

The greatest threat for most species is not the physical change in the climate but competition from species better adapted to the new conditions. So high priority should be placed on the control of environmental pest plants and animals

(even where these are native species). This will require a massive expansion in resources and the rapid development of environmentally sensitive control techniques.

Since climate change will nevertheless put stress on many species and ecosystems every effort should be made to improve the resilience of native species, natural areas and habitats. To do this it will be necessary to:

- * maintain the maximum natural genetic diversity of native species;
- * retain all remaining natural areas and native species habitats (with especially urgent efforts being put into the retention of areas that are climatically heterogeneous);
- * expand the size of, or link fragmented habitat areas through regeneration programs;
- * control pollution more rigorously and protect the ozone layer;
- * re-establish, where appropriate, the natural species mix in areas that have become depleted;
- * apply fire regimes appropriate for the retention of the full suite of indigenous species;
- * ensure that stock grazing pressure on natural areas is minimised or eliminated;
- * control, as already mentioned, environmental pest plants and animals in an environmentally sensitive

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Snippets:

NSW National Trust Bush Management Program has a narrow escape.

way;

- * adopt low intensity forms of timber harvesting for native forests used for production.

Far less disruption to nature will occur if the vast majority of native species are actively assisted to survive in their existing habitats, while major efforts are made to reverse global warming. This is still the most effective strategy even if it were to take 50 years or so to bring the global climate back to something like today's conditions.

The 'survival *in-situ*' strategy will not be appropriate for some species or ecological communities. Such species and communities need to be identified as soon as is technically feasible. Likely candidates are alpine and coastal species. If coastal communities are to survive a rise in sea level new habitats must be allowed to develop or be created to replace those that are lost. Special arrangements will be needed on the coast to provide private land for the purpose. Alpine environments should be managed to reduce stress and encroachment. The impacts of grazing and skiing/tourism related projects need special scrutiny. Other species and communities may need new habitat to be created. Some species may need to be protected out of the wild if suitable habitat cannot be made available.

A program of basic ecological research is needed. Species' physiological sensitivity, vulnerability to physical changes in the environment and competition and predation from other species need to be investigated to determine vulnerable species and species that could serve as useful indicators of community health or change. Studies of population and eco-system dynamics are needed. There should be investigation of early warning signs that Greenhouse induced climatic changes are already affecting ecosystems. For example some of the inexplicable dieback of tree species in otherwise fairly healthy native forest be an early warning sign.

On the basis of this research appropriate protection plans should be prepared. They should be implemented urgently.

Following the submission of reports on the NSW National Trust's general management and its financial affairs by the NSW Auditor General and the Office of Public Management, the State Government appointed an Administrator to replace the Trust Council and Executive Staff.

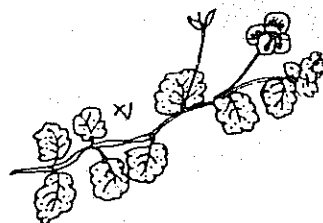
The Administrator is expected to take complete control of the Trust for a period of three to six months, studying the financial and management situations and preparing recommendations to the State Government on possible solutions and future practicalities.

As part of the Administrator's review of Trust activities, he will be carefully examining the Bush Management Program. Although he has expressed interest and has stated that he is generally impressed with the scope of the work, he has not as yet determined the long-term future of the Program. Mr Green (the Administrator) has questioned whether bushland management is an appropriate activity for the National Trust. However, he will endeavour to determine future directions for the Program over the next few months.

For a period of two weeks from the 26th July the bush regeneration workforce ceased work. This was to enable the administrator and his assistants to examine the financial records of the Program and to determine if it was paying its own way. After extensive investigation the Administrator was satisfied that the Bush Management Program was financially viable and allowed the regenerators to recommence work.

The future of the Bush Management Program within the National Trust NSW is in no way guaranteed. It would be unfortunate indeed if the excellent infrastructure developed by the Trust in NSW was dismantled.

- Adapted from an article by Judie Rawling in the National Trust (NSW) *Bush Management News Sheet*, September 1989.



**Veronica persica*
(Creeping speedwell)
from Andrew Paget

Coming Events:

OCTOBER

- 28 Saturday, 8am-5pm. **"Environmental Weed Control"**. Seminar and field afternoon Cost: \$28, includes light lunch and proceedings. Registration, 8-9 am. Studley Park Receptions, 3 Walmer St., Kew. For further info contact R. Adair or B. Richardson at the Keith Turnbull Research Institute, (03) 785 0111 or PO Box 48, Frankston.
- 28 Saturday. Tynong North to Gembrook. Variety of Vegetation Associations. Botany Group excursion of the FNCV. Leader Hilary Weatherhead. Contact Margaret Potter (03) 29 2779.
- 28 Saturday, 11am-4pm. **The Planning and Environment Act - a workshop for residents and community groups**. Topics include "How Responsible Authorities Administer Planning Schemes and the Rights of Objectors". Cost: \$15, \$5 (conc). Marie Mill Community Centre, Randall St., Maribyrnong. Contact WESTURB 688 4411.
- 28 Saturday. **Tree planting at Harbury, Pakenham**. To participate, contact Australian Trust for Conservation Volunteers (03) 583 3329.
- 29 Sunday, 10am. **La Trobe University Wildlife Reserves Support Group project day** - Gresswell Forest. Contact Laurie Whelan (03) 479 2871.
- 29 Sunday, 10am. **Community tree planting on the Merri Creek**. Bring spade, mattock bucket and come with your family, friends and neighbours. Meet at the corner of Walker Street and the Esplanade, Clifton Hill for an enjoyable morning's work. Melways 44 G1. Free sausage sizzle afterwards. This project is funded by the Collinwood Council and supported by the Merri Creek Management Committee. Contact the Tree Project 663 3281, Rob Haines 489 6308 (H) or Ray Shallard 481 0573 (H).
- 29 Sunday. **Annual Koala Survey**, Friends of Warrandyte State Park. Ranger Ian R. will help survey the Pound Bend Koala population. Contact Ian or Margaret Burke (03) 844 1060.
- 29 Sunday. **Festival of Koornung Valley**, in Elgar Park, Melways 47 C4. Environmental Displays, nature trails. Contact Minette Russell-Young (03) 898 1364.
- 30-3 Nov Mon-Fri. Maintenance work with Heidelberg Council. **Tree planting, weed eradication and tree maintenance**. Daily participation welcome. Contact ATCV (03) 583 3388.
- 30-3 Nov Mon-Fri. **Tree planting at French Island**. Accommodation: caravan. Contact ATCV (03) 583 3388.

31 Tuesday, 8pm. **IFFA meeting**. For details see front cover.

NOVEMBER

- 1 Wednesday, 7pm. **Hydrology and Function of Natural Wetlands** - Peter Breen. 8.30pm, **Prospects and Limitations on the Use of Wetlands for Treating Effluents and Runoff Waters** - Prof. Peter Cullen. Registration, 6.30pm. Third session of the seminar series "Wetlands - Their ecology, function, restoration and management", organized by La Trobe University Wildlife Reserves. Undercroft Lecture Theatre (use carpark 2). Rates vary from \$15 to \$6 per session. Contact Shirley Diez or George Paras 479 2871.
- 2 Thursday. **Friends of Warrandyte State Park propagation day**. Contact Ian or Margaret Burke (03) 844 1060.
- 4 Saturday. **Tree planting at Kilmore**. Contact ATCV (03) 583 3388.
- 5 Sunday, 1pm. **Friends of Langwarrin Flora and Fauna Reserve activity day**. Contact Leon Costermans (03) 783 5015.
- 6-10 Mon-Fri. **Seed collection around Melbourne**. This will be taking place each week, ending 5 January. Melbourne residents can participate on a daily basis, country residents can be accommodated at Cheltenham House. Contact ATCV (03) 583 3388.
- 8 Wednesday, 7pm. **Streams - Functioning, Conservation and Restoration. Stability and Management of Wetlands**. Two lectures as part of Wetlands seminar. For more details see 1 November.
- 8 Wednesday. **Friends of Sherbrooke Forest project day**. Contact Vivien Freshwater (03) 754 3093.
- 10-12 Fri-Sun. **Tree Project display at Life Be In It "Have A Go" show**. Exhibition Buildings, stands 121 & 122. Contact (03) 663 3281.
- 12 Sunday, 10am-1pm. **Banyule Flats plant care and maintenance**. Melways 32 F3 (access from Somerset Drive). Contact Beryl 45 1845 or Mott 8981364.
- 12 Sunday, 10am. **Friends of the Yarra - Galatea Point**. Contact Judy Rutherford (03) 347 2252.
- 15 Wednesday, 7pm. **Water quality and wetlands**. 2 lectures of Wetlands Seminar, see 1 Nov.
- 18 Saturday. **Friends of Werribee Gorge State Park and the Long Forest Mallee project day**. Contact Judy Douglas (053) 67 2672.
- 19 Sun. **Festival of Gardiners Creek**, Melways 61 D3. Minette Russell-Young 8981364.
- 22 Wednesday, 7pm. **Provision of Habitat for Waterbirds. Management of Coolart's Wetlands**. Two Lectures of Wetlands seminar series. See 1 Nov.
- 25 Saturday. **ACT AGAINST GREENHOUSE**, a march

Grasslands Bus Tour

and festival organized by Environment Action Network. The aim of the day is to highlight the threat of environmental destruction. If you would like more information, would like to set up a stall or offer help, contact Andrew Bath 386 2437 or 329 1320.

- 25 Saturday. **Friends of Sherbrooke Forest, bush maintenance.** Contact Vivien Freshwater (03) 754 3093.
- 25-26 Sat-Sun. **Mt. Eliza Association for Environmental Care** activity days. Contact Anne Read (03) 787 2034.
- 26 Sunday, 10am. **La Trobe University Wildlife Reserves Support Group** project day - Campus Reserve. Contact George Paras (03) 479 2871.
- 26 Sunday. **Friends of Warrandyte State Park** activity day. Contact Ian or Margaret Burke (03) 844 1060.
- 26 Sunday, 10am-1pm. **Pricking out and re-potting at Victorian Indigenous Nurseries Co-operative.** 8 Lee St. Brunswick. Contact VINC (03) 387 4403.
- 28 Tuesday, 8pm. **IFFA meeting.** For details see front cover.
- 29 Wednesday, 7pm. **Wetlands - Their Ecology, Function, Restoration and Management.** Seminar series, see 1 November.

JANUARY 1990

The Ecology of Tasmanian Mountain Vegetation.

Three separate courses run by the Tasmanian Environment Centre. The courses will acquaint participants with families, the structure of plant communities and the interactions and impacts on them of ecological factors including fire, soil and climate. Leaders are Professor W.D. Jackson & John Davies B. Sc. Hons. Courses at: Mount Field N. P. (closing date for enrolments 24 Nov), Tasmania's Central Highlands and Ben Lomond N.P. For further information contact the Tasmanian Environment Centre Inc, 102 Bathurst St., Hobart 7000. Ph 002 345 566.

AUGUST 1990

9th AUSTRALIAN WEEDS CONFERENCE. To express your interest or submit papers or posters contact D. W. Stephenson, S.A. Dept. Agriculture, Northfield Laboratories, Box 1671, GPO Adelaide 5001, ASAP. Topics include "Weeds in National Parks, Conservation, Protected and Amenity Areas".

A large range of activities such as bushwalks and "Friends" activities are published by the Victorian National Parks Association in their newsletter. For details contact V.N.P.A. (03)654 6843.

By David Taylor

On Sunday 24 September, the Friends of the Merri (FOM) conducted a bus tour of grassland sites across Melbourne's northern and western fringe. The tour was organised to assist FOM with the campaign to save Cooper Street Campbellfield Grassland. As IFFA members would know, Cooper St was promised for acquisition by the State Government last year, but since then CFL have been attempting to back away from the purchase. Like so many remnant vegetation sites on the urban fringe, Cooper St is also threatened by development - in the form of a 294 lot factory subdivision.

The tour kicked off with a look at the Barry Road gorge area at Campbellfield. Whilst this site does not contain any significant expanses of grassland, its deeply incised basalt gorges are prominent geological features within an area of unsurpassed landscape values on the Merri Creek. The vast majority of the land here (97 ha) is owned by the Board of Works for the purpose of developing a future flood retarding basin. The natural beauty and potential of the site was apparent to everyone as we made our way along the western edge of the Creek valley escarpment, occasionally catching the fragrance of the Tree Violet on the force 10 gale.

Nearby, and looking particularly threatening was the compulsory industrial subdivision - this one having already caused disturbance to a registered archaeological site. In addition factories will be within spitting distance of the most significant escarpment and vantage point on the site. It is worth noting that the attitude of the Victorian Archaeological Survey has been that the site is not particularly significant (so why is it registered?) and in any case please don't cause us problems.

Despite this, FOM are proposing that this Board of Works land be included in a metropolitan park which would also comprise the adjoining Cooper Street Grasslands which was our next stop. IFFA members would remember that this site was surveyed by Flora Survey (CFL) in early 1988 and 145 indigenous species were recorded. Whilst we were probably at least one month early for the peak of the flowering season, for many people on the tour it was their first chance to look at a large

Continued on page 7.

Snippets:

A message from Brisbane's Lord Mayor

"Brisbane's bushlands are a vital part of our heritage which we need to take steps to conserve and manage.

They provide a place of quiet in the bustle of our city, a haven for wildlife which has been displaced by urban development.

Over the years the remaining bushlands in Brisbane have been abused, through dumping of refuse and destruction of fragile vegetation by trail bike intrusion.

The Brisbane City Council has taken the lead in the fight to restore the damaged areas, and our Bushland Management Study is an important step in this direction. It documents the bushlands of Brisbane, their distribution, their history, the condition they are in and the management methods needed to enhance their status as valuable parts of our city.

The study is part of the Council's work developing guidelines for managing the various bushlands. The initial step was to record important conservation areas in Brisbane and the result is the Brisbane Conservation Atlas - available at any Brisbane City Council library.

Further large conservation areas have been identified in the Bushland Management Plan, and a strategy formulated for their conservation and restoration.

The community has already expressed its concern for our bushland in submissions to the Bushland Management Study, and the success of our management strategy will be largely dependent on the extent to which the people of our city rally around to actively help bushland restoration.

A team effort is what many people in Brisbane support - the council and the community working together for our bushlands.

To help generate greater awareness and interest in the city's bushland, the Brisbane City Council has established Brisbane's first Bushland Information Centre in the scenic Raven Street Reserve on Downfall Creek at McDowall.

Developed in conjunction with various community groups and Greening Australia, the Centre contains a wealth of information for those interested in learning more about bushland ecology and the Council's bushland management strategy for the future.

As well as information, the Centre also provides an important community education service by conducting environmental workshops and providing advice and assistance to people who are seeking to develop bushland management projects elsewhere in Brisbane.

The Centre also is complemented by a two kilometre bikeway, which extends along Downfall Creek and attracts many visitors to the reserve on weekends.

Honorary rangers have been appointed to help prevent dumping and other undesirable activities in the reserve, while local service clubs have installed footbridges and playground equipment to provide additional recreation

facilities for visitors.

I commend this innovative complex to all members of the community who have an interest in the preservation and enhancement of our natural environment and I am sure the Centre will provide a new impetus and direction for environmental study in Brisbane for many years to come."

from Sallyanne Atkinson, Lord Mayor, City of Brisbane.

- via Australian Association of Bush Regenerators Newsletter No 11, June 1989.

Wetlands - their ecology, function & management.

(A new Applied Ecology and Conservation Seminar series)

La Trobe University Wildlife Reserves has organized another series of lectures on the practical aspects of conservation work. This series focusses on wetlands, their ecology, function, restoration and management. The series opened at the Agora Theatre at La Trobe University on October 18th, but other sessions are to be at the Undercroft Lecture Theatre.

Information about each session will be included in the coming events section of this newsletters.

The series includes a wide range of well known and respected speakers with theoretical and practical experience. It has been designed to develop an understanding of, and encourage, ecologically sound management practices in natural areas, and in other areas being restored for conservation purposes. The application of ecological theory to practical management is to be emphasised.

Enquiries to Shirley Diez or George Paras at the Reserves on (03) 4792871.

Thanks !

Thankyou to Andrew Paget for having provided illustrations which we have used regularly in Indigenotes. They have been really appreciated. We apologise to Andrew for not acknowledging the use of his drawings.

Thanks also to Dimi Bouzalas for preparing the Coming Events section.

Profile:

Australian Association of Bush Regenerators.

The Australian Association of Bush Regenerators (AABR) was established in New South Wales in 1986 out of concern for the continuing survival and integrity of bushland and its dependent fauna in or near urban areas. The Association aims to foster and encourage sound ecological practices of bushland management by qualified people.

AABR produces a newsletter about 5 times per year which contains information about the activities of the Association - displays, social functions, seminars on bush regeneration, meetings, etc, and reports from its members about their experiences with bush regeneration.

An activity which the Association held recently is their Introductory Bush Regeneration Workshop. Held over one morning, the workshop involved a one-hour talk on bush regeneration from the scientific viewpoint with group discussion, a talk by a member of a voluntary group about how his group started, and how others can do the same, and two hours of fieldwork with secateurs, trowel, gardening gloves and a sturdy knife. The workshop was held in the Lane Cove River State Recreation Area.

The Association has strict membership criteria, and a review process which presumably is intended to restrict membership to *bona-fide* applicants. Its membership includes professionals and volunteers.

Its aims are:

- * To promote and advance the study and practice of bush regeneration;
- * To foster education, research and any other means of advancing knowledge in any aspect of Bush Regeneration that the Association may think desirable;
- * To institute and arrange lectures, seminars, symposia and demonstrations on pertinent subjects, and in general to provide a forum for the discussion and dissemination of information relevant to the pursuit of Bush Regeneration;
- * To promote, establish and maintain a suitable standing for and service by persons engaged in the practice of Bush Regeneration at a professional level.
- * To demonstrate publicly the contributions of Bush Regeneration to the continuing benefit of bushland and human welfare, and to serve the public need for knowledge and experience in all areas in which Bush Regeneration is relevant.

- * To print or publish any periodicals, books or papers that the Association may think desirable for the promotion of its objectives.
- * To encourage the sound management of bushland through the development and implementation of ecologically based plans of management for bushland areas.
- * To foster and create equitable working conditions and the establishment of industrial awards that will recognise the skills and status of bush regenerators.

These aims are somewhat similar to IFFA's, however it would seem that AABR fills more of the role of a union for people involved in bush regeneration, or a professional association.

Material in this article has been taken from the *Australian Association of Bush Regenerators Newsletter*, and other material provided by the Association.

- Tony Faithfull.

Grasslands Bus tour

continued from page 5.

expanse of Kangaroo Grass grassland.

Our third stop was at Evans Street, Sunbury, where we had our first glimpse of the early flowering species of the basalt plains in full bloom - Kennedias, Eutaxias and Pimelias were all a splendid sight.

That this land too should be under threat from the developers bulldozer is almost too hard to believe. How ironic it is that the Shire of Bulla should be commencing a local conservation strategy whilst being party to this site's destruction.

To round off the day the navigators decided to take the bus via the Truganina Cemetery, but due to a distinct lack of local knowledge (read we got lost) we had to be content with a quick look at the Derrimut Grassland recently burnt by CFL.

Overall there was a feeling that these sites and others would be worth a visit when more flowers were out. If you'd like to do it, raise it at the October IFFA meeting.

What is IFFA?

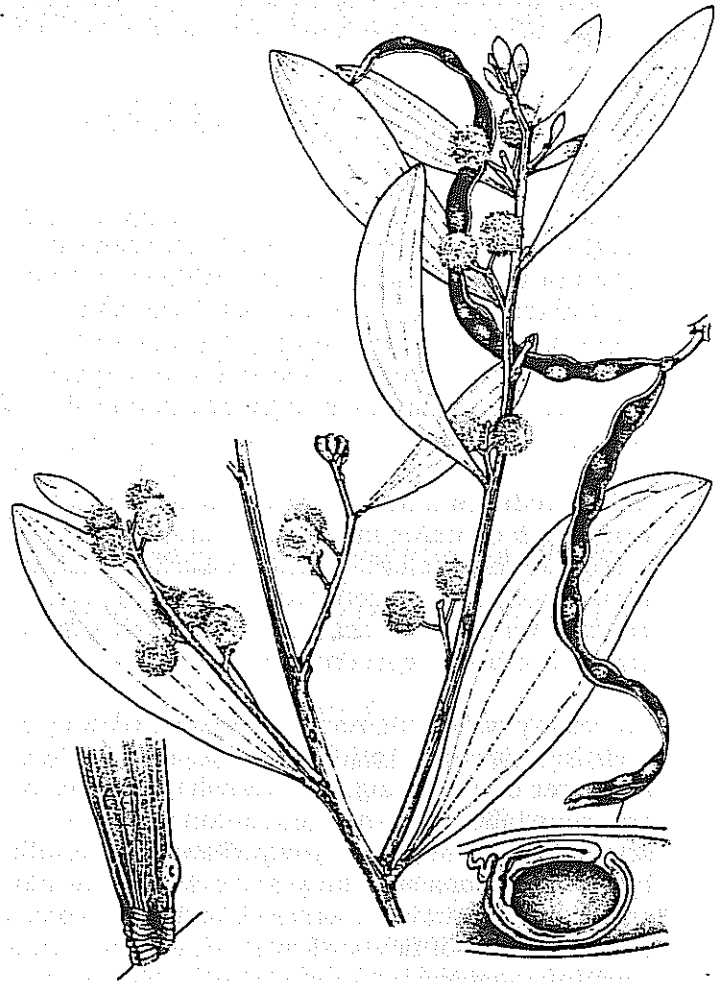
The Indigenous Flora and Fauna Association (IFFA) is an organisation dedicated to the conservation of the indigenous Australasian biota. Its members, comprising both amateur and professional workers come from diverse backgrounds including botany, zoology, ecology, horticulture, environmental management, education and other fields.

The organization believes that conservation of plants, animals and the communities they form, must be based on sound knowledge of their biology, ecology, distribution, status and management requirements. To achieve these ends, we aim to foster a broad multidisciplinary approach, bringing together expertise from a wide range of professions which are too often independent and narrowly focussed. We believe this approach is necessary to maximise the conservation, social and economic benefits of responsible resource management.

In particular we wish to encourage participation and involvement in the important emerging disciplines of conservation and restoration biology, habitat reconstruction, revegetation and the active management of vegetation and fauna - on public and private lands.

It is a primary objective of the Association to research, collect and disseminate information concerning conservation matters to relevant agencies, groups and individuals through *Indigenotes* and our new journal *Advances in Nature Conservation*. We also aim to participate on debate in environmental issues and help in the formation of conservation policies at the local, state or national levels.

The resources of IFFA are available to both the public and private sectors of the community to help establish appropriate conservation and management strategies.



Acacia melanoxydon (Blackwood)
from Anita Barley

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