



CONSERVATION COUNCIL
OF WESTERN AUSTRALIA INC.

Presents...

14



The Banded Ironstone Formation Ranges: Their Natural Heritage Revealed

Thursday 10th May
Alexander Library Theatre
Perth Cultural Centre, Northbridge

The Banded Ironstone Formation (BIF) ranges of the Midwest and Yilgarn regions of Western Australia are home to unique biodiversity and sometimes spectacular landscapes that are part of WA's natural heritage. They are also prospective for iron ore; a commodity currently desired by our international trading partners that promises increased wealth and regional jobs during the life of the mining.

This forum will outline the natural heritage of the Banded Ironstone Formation ranges and consider how to appropriately balance the conservation of these ancient outback ranges and their unique flora with the aspirations of mining companies.

8:30AM	REGISTRATIONS
8:50AM	Welcome and introduction, acknowledgement of traditional owners Morning session chair: Brian Moyle (Wildflower Society of Western Australia)
9:00AM	Introduction to the banded ironstone formation ranges: geological history and flora of the Yilgarn (Neil Gibson, DEC)
9:20AM	Evolutionary patterns in BIF <i>Tetratheca</i> species (Ryonen Butcher, DEC)
9:40AM	Population ecology and genetics of <i>Tetratheca</i> on banded ironstone ranges in the Yilgarn (Colin Yates, DEC and Penny Butcher, BGPA)
10:10AM	Evolutionary patterns and ecology genetics in BIF (Matt Barrett, BGPA)
10:30AM	MORNING TEA
11:00AM	Taxonomic studies of BIF flora and new species (Juliet Wege, Kelly Shepherd, Ryonen Butcher, DEC; Russell Barrett, BGPA)
11:30AM	Restoration ecology: research options and opportunities in a biodiversity hotspot (Kingsley Dixon, BGPA)
11:50AM	Vegetation surveys in the banded ironstone formations (Neil Gibson, DEC)
12:20PM	KEYNOTE ADDRESS: Floristic communities and their role in conservation planning (David Keith, NSW DEC)
12:50PM	LUNCH
	Afternoon session chair & facilitator: Nic Dunlop (Conservation Council of WA)
1:50PM	Approvals process - some perspectives for the future (Brendan Hammond, Development Approvals Coordinator)
2:10PM	Conservation reserves: A long way to go (John Bailey, Conservation Commission)
2:30PM	Economic frameworks for evaluating conservation and development alternatives (Martin Van Bueren, The Allen Consulting Group)
2:50PM	AFTERNOON TEA
3:20PM	Aspirations of the mid west iron ore industry (Ian Loftus, AMEC)
3:40PM	Concerns of the community conservation movement (Chris Tallentire, Conservation Council of WA)
4:00PM	Open forum & panel session. Additional questions and "Where to for the Banded Ironstone Formation Ranges?"
5:00PM	CLOSE

Forum will be followed by drinks at the Brass Monkey. Light snacks will be provided. A full range of pub drinks are available from the bar.

The Conservation Council thanks the following sponsors of this event:

Wildflower Society
of WESTERN AUSTRALIA (Inc.)



For further information please contact the Conservation Council of WA, conswa@conservationwa.asn.au, 9420 7266
www.conservationwa.asn.au

***The Banded Ironstone Formation Ranges:
Their Natural Heritage Revealed
Speaker Biographies***

Neil Gibson, DEC

'Introduction to the banded ironstone formation ranges: geological history and flora of the Yilgarn'

Neil is a plant ecologist working within the Biodiversity Conservation Group. His areas of expertise include biological survey, assessment of conservation status plant species and plant communities, as well as plant community dynamics. He recently coordinated the DEC Banded Ironstone Formations regional flora survey.

Ryonen Butcher, DEC

'Evolutionary patterns in BIF *Tetratheca* species'

Ryonen is a Research Scientist at the Western Australian Herbarium, and is engaged under the Biodiversity Conservation Initiative programme. Ryonen is focusing his efforts on the resolution and description of new plant species in the Yilgarn Banded Ironstone and Ravensthorpe Range areas which are subject to mining interest.

Colin Yates, DEC & Penny Butcher, BGPA

'Population ecology and genetics of *Tetratheca* on banded ironstone ranges in the Yilgarn'

Colin is the Principal Research Scientist of the Flora Conservation and Herbarium, and Landscape Conservation programs. His focus includes the impacts of ecosystem fragmentation on plant populations, as well as the long-term assessment and viability of locally endemic flora occurring in a Busselton Ironstones Threatened Ecological Community.

Penny Butcher completed her PhD in 1994 (ANU) and worked as senior research scientist for CSIRO on population genetics and breeding of Australian trees. Penny moved to BGPA in 2004 to work on a research project aimed at conserving *Tetrathecas* in the Yilgarn region, WA. Her main research interests include the molecular genetics of *Acacias* and improving breeding programs for Australian plants using molecular techniques.

Matt Barret, BGPA

'Evolutionary patterns and ecology genetics in BIF'

Matt is a Research Scientist at the Botanic Gardens & Parks Authority, with interests in conservation genetics, plant taxonomy and taxonomic mycology. His major projects in the past have included such works as the Molecular systematics of the genus *Lepidosperma* (Cyperaceae), working in collaboration with Dr Jeremy Bruhl, University of New England and Dr Karen Wilson, Sydney Botanic Garden.

***The Banded Ironstone Formation Ranges:
Their Natural Heritage Revealed
Speaker Biographies***

***Presented by Juliet Wege, co-written by Kelly Shepherd & supported by Ryonen Butcher & Russell Barrett
'Taxonomic Studies of BIF and new species'***

Dr Juliet Wege is a botanist from the Department of Environment and Conservation. She recently spent a year working as Australia's Botanical Liaison Officer at the Royal Botanic Gardens Kew in London, returning to Perth last spring to commence taxonomic studies on the flora of the Banded Ironstone formations.

Kelly Shepherd is a Research Scientist based at the Western Australian Herbarium and is currently working on the Biodiversity Conservation Initiative Project "Resolution and description of new plant species in the Yilgarn Ironstone and Ravensthorpe Range areas subject to mining interest."

***Kingsley Dixon, BGPA
'Restoration ecology: research options and opportunities in a biodiversity hotspot'***

Kingsley has had 20 years experience in researching the ecology and physiology of Australian native plants and ecosystems. As Director of Science at the Botanic Gardens and Parks Authority, Kingsley's interests include the conservation of rare and threatened species, the restoration of degraded landscapes and the horticultural and agricultural development of indigenous Australian plants.

***Neil Gibson, DEC
'Vegetation surveys in the banded ironstone formations'***

Neil is a plant ecologist working within the Biodiversity Conservation Group. His areas of expertise include biological survey, assessment of conservation status plant species and plant communities, as well as plant community dynamics. He recently coordinated the DEC Banded Ironstone Formations regional flora survey.

***David Keith, NSW Department of Environment and Conservation
'Floristic Communities and their role in conservation planning'***

David is a Principal Research Scientist with the NSW Department of Environment & Climate Change and a member of the NSW Scientific Committee and the IUCN Red List Standards & Petitions Working Group. His research interests include risk assessment of threatened species and communities, and the dynamics of plant populations and communities in response to disturbance regimes. He is the author of a book on native vegetation in NSW, 'Ocean shores to desert dunes.'

***The Banded Ironstone Formation Ranges:
Their Natural Heritage Revealed
Speaker Biographies***

***Brendan Hammond, Development Approvals Coordinator
'The Approvals Process – some perspectives for the future'***

Since November 2005 Brendan Hammond has held the position of Development Approvals Coordinator in the Western Australian Government. He reports directly to the Premier on matters related to the project approvals system.

Mr Hammond's industry experience in southern Africa and Australia includes over 24 years with major resources company Rio Tinto where he was Managing Director of Argyle Diamond Mines and while there was instrumental in concluding an agreement with local aboriginals regarding the future of the mine.

During his tenure at Argyle he implemented highly successful business strategy centred around the concept of converting the endowment asset base of the Argyle ore body into enduring assets beyond mine-life. Examples of this success were the extension of mine-life by some 20 years, the concluding of a regional participation agreement with local aboriginal people, a localisation of employment and good and services program worth some \$50m per year and rebuilding biodiversity on the mine lease using an innovative ethno-botanical approach.

As Development Approvals Coordinator he is responsible for monitoring the performance of the project approvals system in Western Australia, including progress with reforms aimed at streamlining the system. He advises government on development approvals issues, including ideas for further reform of the system.

***John Bailey, Conservation Commission
'Conservation Reserves: A long way to go'***

Associate Professor John Bailey, Chairman of the Conservation Commission, has been teaching at Murdoch University in the areas of environmental assessment, policy and law. He has also actively advised past governments on policy to assist with the management of mineral and petroleum interests that impinge upon conservation reserves including National Parks.

***Martin Van Bueren, The Allen Consulting Group
'Economic frameworks for evaluating conservation and development alternatives'***

Martin is a leading practitioner in the fields of agricultural and natural resource economics, having commenced his career as an economist with the Western Australia Department of Agriculture. Martin's skills in environmental economics have been applied to the design of policy instruments to overcome externalities such as salinity, water pollution and native vegetation decline.

***Ian Loftus, AMEC
'Aspirations of the Mid- west iron ore industry'***

Ian Loftus is Policy and Public Affairs Manager with the Association of Mining and Exploration Companies (AMEC).

***The Banded Ironstone Formation Ranges:
Their Natural Heritage Revealed
Speaker Biographies***

He worked with the federal Department of the Environment and Heritage in Darwin prior to joining AMEC, and has also worked for several Northern Territory Government agencies in a variety of policy roles.

He has a Bachelor of Arts in politics and history, and a Graduate Diploma in Public Policy and Governance."

***Chris Tallentire, Conservation Council of WA
'Concerns of the community conservation movement'***

Chris was appointed Director of the Conservation Council in March 2004.

As Director Chris leads the Council's active participation in environmental impact assessment and environmental policy development. Formerly he was a senior environmental officer with the Department of Environment and

Conservation. He relishes the freedom of working for a non-government organisation (NGO).

Chris has a long standing interest in climate change policy and carbon sequestration. From 2004 to 2005 he worked as a facilitator of innovative community projects designed to conserve energy and reduce greenhouse gas emissions.

After living overseas for 9 years Chris returned to Australia with ambitions of farming. He holds an Honours degree from Curtin University in agriculture and business, a course of study that enabled him to understand the environmental, social and economic uncertainty facing much of Australia.

Chris's first environmental campaign was in 1995 against French nuclear testing. He didn't brave the seas in a Zodiac, but instead used his French language skills to implore the French people to see reason and stop exploding bombs in the Pacific.

Chris believes the unique natural heritage of Australia is our greatest treasure, and that a full understanding of our natural environment is critical to the development of a well founded national identity.

Afternoon open forum and panel session

Panel Members

Chris Tallentire, Ian Loftus, John Bailey, Martin Van Bueren & Gordon Wyre -Director Nature Conservation for DEC



CONSERVATION COUNCIL

OF WESTERN AUSTRALIA INC.

The Banded Ironstone Formation Ranges: Their Natural Heritage Revealed

Forum

10 May 2007

PARTICIPANT EVALUTION FORM

Please take a few minutes to fill in this feedback form. This form is part of how we gauge whether the forum has achieved its objectives. We greatly appreciate your feedback which also provides a chance for us to improve future conferences and events.

RATING: Please rate your forum experience 1 (poor) to 5 (excellent)

	1	2	3	4	5
How would you rate the overall effectiveness of the forum?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were the topics interesting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the speakers engage and inform you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did you find that there was a satisfactory blend of speakers, breaks and question times?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How suitable was the venue?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did you enjoy the food and beverages?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the forum adequately cover the issues discussed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please circle the sector you represent:

Mining Industry

Government

Consultants

Community

OTHER COMMENTS

Please provide any further comments to CCWA about the content or running of the forum.

Thank you for taking the time to complete this form.

*Please return to the box outside the theatre or to CCWA, City West Lotteries House, 2 Delhi St,
West Perth, 6005*