

Southern Gulf links

A Newsletter from SGC
June 2009



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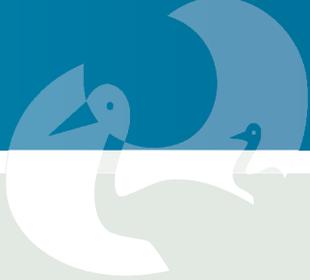
Staff and Directors of Southern Gulf Catchments recently caught up with CSIRO Officers Alex Kutt, Eric Vanderduys and Nick Colman at West Leichhardt Station. Not only did this exchange provide SGC with an insight into CSIRO's monitoring methodology and findings but it also provided an opportunity for CSIRO to trial and get feedback on their new draft Biodiversity Management training and technical awareness package.

Continued Page 2



Black-palmed monitor (above) and Pygmy mulga snake (below) are only known in Queensland from rocky habitats within the Mount Isa Inlier.





MANAGING BIODIVERSITY - A TOOL FOR LAND MANAGERS

Four years of research, monitoring, data gathering and analysis by CSIRO throughout the Mount Isa Inlier bioregion (*formerly known as the Northwest Highlands*) has culminated in the development of this technical package primarily aimed at supporting graziers to manage and monitor the biodiversity health of Northern Australia.

Although still in draft format CSIRO's "*Healthy Country and Healthy Biodiversity in Queensland Rangelands: the Mount Isa Inlier*" comprises a technical manual and training package which promotes a fundamental understanding of natural systems (fauna and habitats), threatening processes, management practices and monitoring on a typical property.

While initially aimed at graziers, this package has application for Traditional Owners, Government, Industry and the wider community in understanding the functionality, dynamics and complexities of managing biodiversity in northwest Queensland.

This package will be a timely information and reference tool especially in understanding scientific methodologies used to assess environmental condition and mitigate factors that impact on biodiversity, of particular relevance in light of the current Delbessie Agreement (State Rural Leasehold Land Strategy) and burgeoning interest in environmental stewardship and carbon markets.

It is hoped that this toolkit will become an essential reference tool that supports dialogue between Graziers, Traditional Owners, Scientists, Government and the Community.

Thank you to Ron & Joan Croft of West Leichhardt for their hospitality... and delicious slice and sangas.

For more information contact: Kate Masters, Southern Gulf Catchments: 07 4743 1888
Eric Vanderduys, CSIRO: 07 4753 8529



Mount Isa Inlier



Discussions at West Leichhardt Station



ASSESSING BIODIVERSITY FOR XSTRATA MOUNT ISA MINES

Southern Gulf Catchments is leading a team of experts conducting a biodiversity assessment of Xstrata Mount Isa Mines lease area to the west of Mount Isa city. The study includes a desk-top review of literature and extensive field investigations of flora, terrestrial and aquatic fauna and macroinvertebrates. The information gathered from the study will be used to identify key environmental values of the lease against a regional context to better inform planning and environmental management activities on the mine lease.

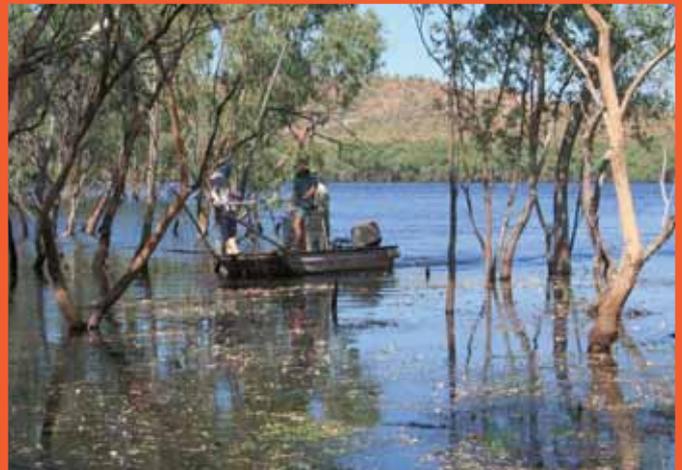
In February the aquatic survey team took advantage of the wet season water to conduct studies on fish and macroinvertebrates. A technique called electro-fishing was used to capture fish for sampling. Special equipment mounted on a small boat sends an electrical current into the water which temporarily stuns fish which float to the surface and are then scooped up with a net and transferred to a holding tank on the boat. Each captured fish is identified and has their length and general health recorded before being returned to the water unharmed. Macroinvertebrates are captured along banks and around vegetation using a net and are then identified before being returned to the water.

The survey team found a variety of species including cat fish, sleepy cod, grunter, bream, barramundi, fresh water turtles and small crocodiles. The macroinvertebrates recorded included caddisfly and dragonfly larvae, various aquatic bugs and beetles, mayflies and microcrustaceans.

During the year terrestrial fauna and flora surveys will be conducted on the lease by Lesie Felderhof (Firescape Science) and Alex Kutt from CSIRO. Keep an eye out for updates.



Alf Hogan and Terry Vallance identifying a cat fish



Electro-fishing on Rifle Creek Dam



Counting and identifying macroinvertebrates





SPOTLIGHT ON THE SARUS CRANE - "THE SGC LOGO"

Article by Bob Forsyth

Are they Brolgas?

No! Although they feed together, they do not breed with each other.

Scientific Names

Brolga - *Grus rubicunda*

Sarus Crane - *Grus antigone*

Nesting Habits

Very little known, but they build a rough platform of grasses and sedges on mounds in wetlands. Both parents incubate and help bring up the young. Usually two eggs are laid. The young take about 17 weeks before they fledge (i.e. fly).

How are they recognised from Brolgas?

	Brolga	Sarus Crane
Crown	Bare - light grey	Bare - light grey
Head	Crimson-Red band around head, that does NOT extend down the neck	Crimson-Red, extends down to the upper neck
Chin	Prominent dark 'dewlap' or bulge under the chin	Slim hollow throat
Legs	Black	Dull Pink
Height	Stands up to 1.4m	On average, taller than Brolgas
Photo (Adults)		
Photo (Juveniles)	 	 Note: Juveniles have cinnamon-brown colouring before <i>gradually</i> changing to scarlet.

Where are they found?

India to SW China (Their range has been dramatically reduced by human activity).

Queensland: Cape York & south to Townsville, and Gulf of Carpentaria, north of latitude 19 degrees.

Northern Territory: Roper River area & some isolated locations.

Western Australia: Isolated occurrences only.

When did they arrive in Australia?

The first theory was that they introduced themselves to Australia (possibly in the 1950s) and multiplied remarkably in the mid-late 1960s, but scientists are now offering several other theories that are waiting finalisation.

Where do they breed?

In the Normanton district, and also in the Lakefield district of Cape York (i.e. north of Laura).

Where do they winter?

In scattered groups along the eastern Gulf of Carpentaria, coast of Cape York and in larger numbers on the Atherton Tableland.

When were the first identified?

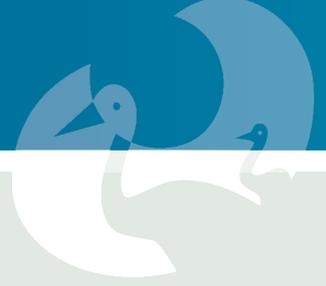
They were first recognised in Australia as not being Brolgas October 1966.

Where were these birds first recorded?

On October 12, 1966 three birdwatchers were camped at the Glenore crossing of the Norman River. They noted 20 cranes that differed from Brolgas. Most of the birds flew away, but six remained. Two more big cranes were observed at Lake Woods (near Burketown) on October 14.

Who was involved?

Fred T.H. Smith (from Melbourne), Mrs Billie Gill (from Innisfail), Eric Zilmann (of Gin Gin).



Subsequent Identification

It was not until December 26, 1966, when Fred Smith was browsing through a small Pocket Guide to British Birds that he saw an illustration of a Sarus Crane. He then visited the Melbourne Zoo and was able to view a live Sarus Crane. He subsequently communicated his findings to Mrs Gill and Mr Zillman.

Mrs Gill, Mrs P.L. Duve and Mr Bruce Cook, visited Normanton area from April 25 to 28, 1967 and sighted several Sarus Cranes including two pairs with flightless young. Bruce Cook obtained, knowingly the first Australian pictures of the bird. He also identified several at Willet's Swamp on the Atherton Tableland on July 29, 1967. Hugh Lavery of Animal Health Section, Townsville was perhaps the first to "collect" a specimen for museum examination.

How many are there in Australia?

Each year since 1997 the North Queensland Group of Birds Australia have counted both Brolgas and Sarus Cranes at various locations. One year 3000 Sarus Cranes were counted at the 20 or so sites.

Seeking Information

I would appreciate advice of any sightings of Sarus Cranes - south of the latitude of 18° 30'S (i.e Augustus Downs/Bang Bang Jump Up/Wondoola) and of any unfledged young west of the Bynoe and Flinders Rivers.

Any photos would be extremely welcome!

Bob Forsyth, PO Box 933, Mount Isa, 4825 (Tel 4743-3210)

Thanks

Many thanks to Elinor Scambler for reviewing and making valuable contributions to these notes.

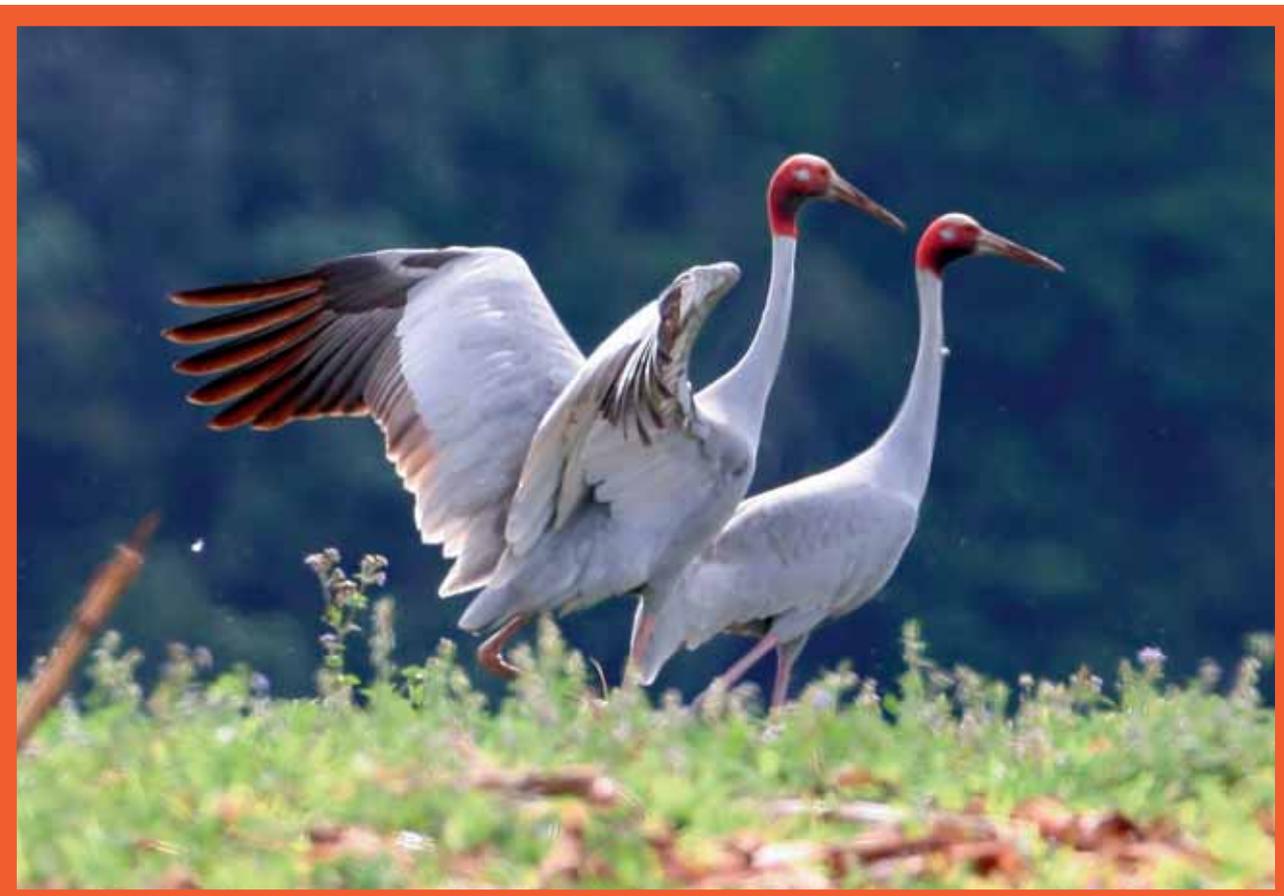
Many thanks to Ian Montgomery www.birdway.com.au for the three good photos. The juv brolga is mine.

References

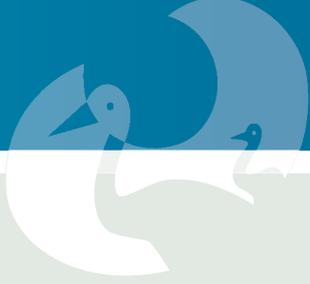
Handbook of Australian, New Zealand & Antarctic Birds, Vol 2, 1993, p480-5, 457

The Bird Observer, No.471, Feb 1971

Web Page <http://ozcranes.net/species/sarus.html>



Sarus Crane



2008 ANNUAL GENERAL MEETING

After unforeseen delays Southern Gulf Catchments held the 2008 Annual General Meeting on Saturday, 14th March 2009 at the Outback at Isa. The day was attended by representatives from all sectors, members and invited guests including Ben Addison from the Australian Government and Betty Kiernan MP State Member of Mount Isa.

It commenced with an impromptu building evacuation before lunch as the caterer's BBQ played havoc with fire alarms and then settled into the day's formalities and proceedings. Members had the opportunity to have their voice heard and raise issues of concern with Sector Directors; Bob Forsyth gave an informative talk on the Sarus Crane and Betty Kiernan MP presented the Sarus Crane Awards. All feedback received indicated the day was well worthwhile.

The 2009 Southern Gulf Catchments AGM is to be held on Saturday, 26th September 2009.

AGM HIGHLIGHTS

The appointment of a new Chair

Alison Bohannon was elected as new SGC Chair replacing Paul Warren who had served for four years.

Alison, a private community services consultant, and formerly the Manager of the Mount Isa Development Community Association, is based in Mount Isa and has lived in the region for over 20 years. Having volunteered for many years in local Landcare, Rotary and more recently, the Laura Johnson home, she brings to Southern Gulf Catchments Ltd her extensive not-for-profit experience, local knowledge, networks and enthusiasm to improve the Southern Gulf region's environment.

Alison sees some of Southern Gulf Catchments' strengths as the ability to provide support for scientific information collection, strategic planning and on ground implementation.

One of her first tasks is the launch of the Southern Gulf Catchments Environment Fund, a tax deductible fund enabling community and industry to donate funds toward projects that help protect and improve the region's environment.

"We need in these difficult financial times to work smarter, as a team, to build community awareness and harness enthusiasm for our environment."

Outgoing Chair Paul Warren was thanked and recognised for bringing stability and strategic development to the organisation and for his hard work in building the governance skills of the Board.



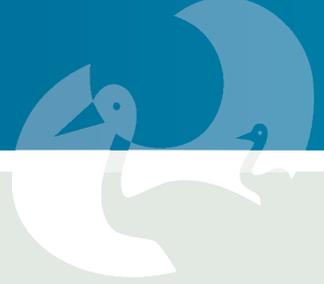
Alison Bohannon presents Paul Warren with a satellite imagery print designed by GIS Officer, Jeremy Hayden

2008 SARUS CRANE AWARDS

The Sarus Crane Award recognises activities/projects, community engagement and education and knowledge which have achieved excellence in environmental improvements, protection, sustainability or rehabilitation; implementation of best practice management; promotion and/or increasing the understanding of environmental and cultural values/threats of the region.

The 2008 winners included

- Brett and Jenny Epple for leadership of the Fairlight Landcare Group, and for initiative and dedication in the fight against severe infestations of rubber vine both on Alston Vale Station and in the wider community. Brett and Jenny Epple expressed their gratitude for the award stating "we are indeed proud of our achievements, however much of our work would not have been possible without the wonderful support from SGC. What could be more rewarding than looking after this wonderful country we live in!"



Betty Keirnan MP-State Member of Mount Isa presents Bob Forsyth (above) and Sandy Watson (below) with their awards.

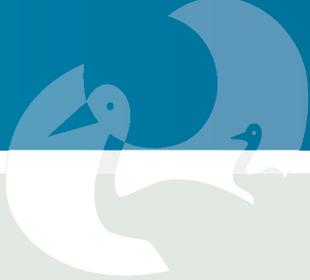


- Eddie McIntosh for long term ongoing mesquite control on properties in the Hughenden vicinity, Hughenden Landcare members.
- Kevin Cairns for long term ongoing mesquite control on properties in the Hughenden vicinity, Hughenden Landcare members.

- Jim Edwards for long term ongoing mesquite control on properties in the Hughenden vicinity, together with Hughenden Landcare members.
- Dick Cribb for long and diligent work protecting and rehabilitating Woolgar River frontage country on Middle Park Station, in old gold mining country north of Richmond.
- Lance and Kylie Hutley for their efforts and tribulations in protecting the riparian and flood out country of the Gregory River through Riversleigh Station, and for their guidance in the Waanyi stockperson training program.
- Mitakoodi Juhnjar Aboriginal Corporation for the completion of their TKRP project on time and initiative to complete an additional activity/case study.
- Bob Forsyth for contribution to the knowledge of the environment and local history of the region.
- Sandy Watson for the Neumayer Valley project completion of important wetland fencing project in great time. An excellent value for money project.
- Charles Curry for his unflinching pursuit of weeds in the Southern Gulf Catchments region.



Charles Curry receives his award from SGC Chair Alison Bohannon at the NRM Regional Groups Collective dinner held in Townsville.



WEED WATCH - BELLYACHE BUSH

Article by Charles Curry

How did it get here and why?

Bellyache bush (*Jatropha gossypifolia*) was introduced from the Caribbean in the late 1800s as a garden ornamental or medicinal plant. It escaped and has become naturalized in various areas of north Queensland, Western Australia and the Northern Territory. Overseas, it is commonly called physic nut or purging nut, probably because of its occasional use as a treatment for belly ache, leprosy, eczema and other ailments.

The majority of infestations are associated with old townships, dumps, roadsides, over-grazed paddocks and the banks of watercourses, where it is at its worst through regular ground disturbance by flooding, trampling by stock and where plant competition and fire regimes have been modified by sustained grazing pressure.

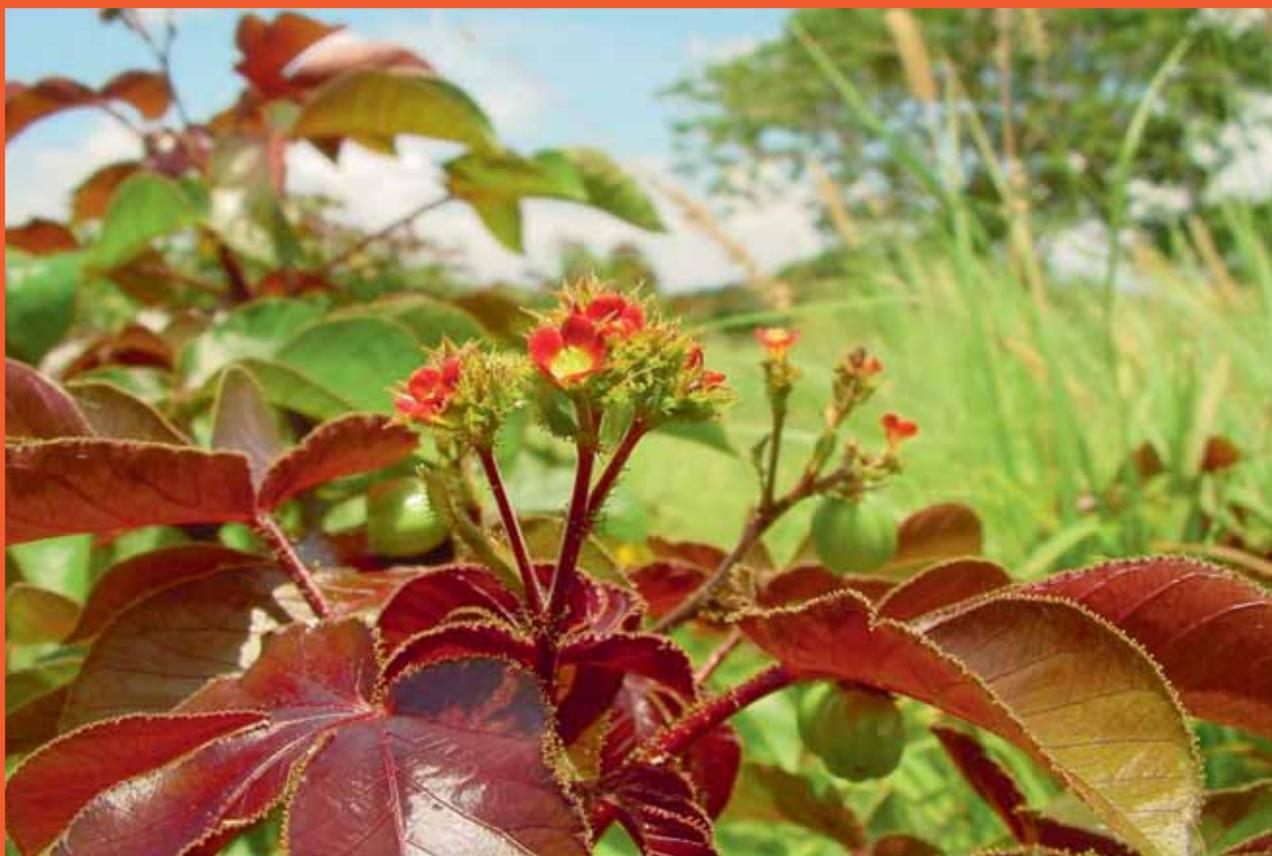
Bellyache bush is often mistaken for castor oil plant (*Ricinus communis*) which also colonises riverbanks and freshly deposited alluvial soils and gravel. It is easily distinguished from castor oil plant by the shape of the leaves (bellyache bush leaves

have 3-5 lobes, whereas the leaves of castor oil plant are divided into 7-9 lobes).

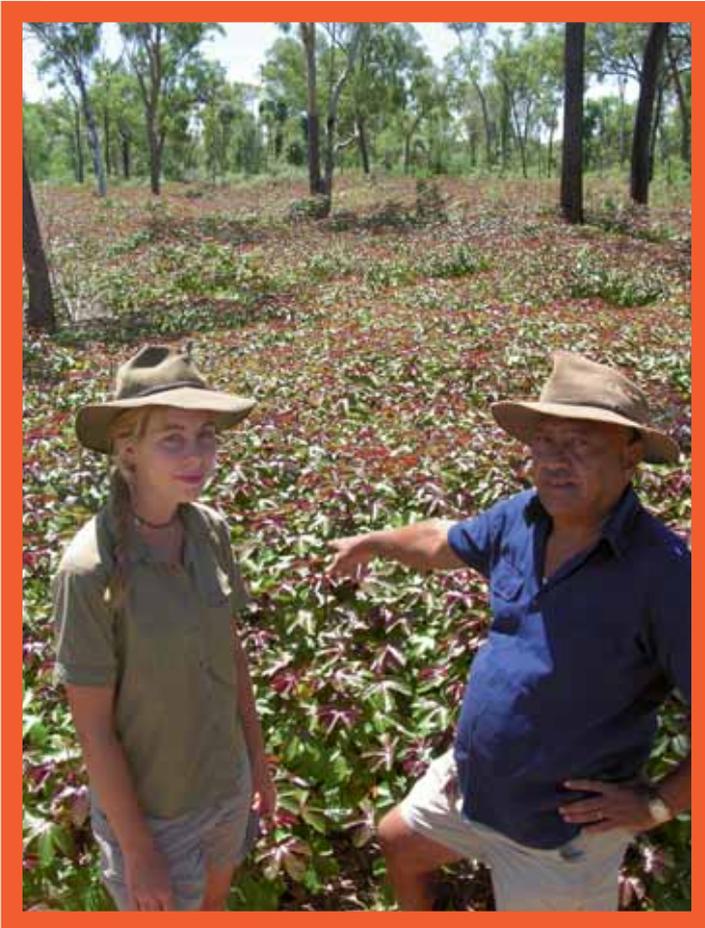
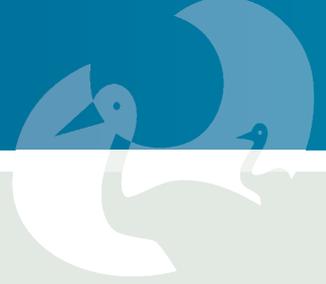
What is the problem?

Without continued intervention, bellyache bush will become more abundant. Productive river frontages and flats throughout much of northern and central Queensland are at most risk of invasion. Its major drawback is that it forms dense impenetrable thickets and spreads easily, by its “exploding” seed release, by water and by animals and birds. Prolific seedling emergence can occur for at least four years following destruction of mature plants. There is anecdotal evidence that a small proportion of seeds remain viable for 15 years.

Most parts of the plant, including the seeds, are toxic. Its seeds can kill - three only ingested will kill a child, and many cattle deaths have been attributed to the consumption of bellyache bush during drought.



Leaves and flower of bellyache bush



Researcher Dr Faiz Bebawi (TWRC) and assistant Kitty with an impressive stand of bellyache bush on a Burdekin tributary.

Where is it in Southern Gulf and what has been done so far?

The worst infestations in Queensland historically existed along the banks of the Burdekin River and its tributaries, and on the Walsh and Palmer Rivers. However, it has now become established on the Gregory River downstream of Gregory

Downs township, on parts of the Leichhardt River, the upper Corella River, on some properties north of Richmond and on Mornington Island.

AACo and Southern Gulf have combined funding to treat the Gregory River infestations since 2003 but a strong partnership with the new owners will be needed to get the weed under control. The former Department of Natural Resources and Water and Southern Gulf have kept the Corella infestations controlled, and Mount Isa Water has been active on its land along the Leichhardt River downstream from Mount Isa.

How do we get rid of it?

Fire can kill young plants, provided sufficient fuel exists. Regular slashing can reduce the plant's rate of spread and can kill mature plants, although seedlings survive. The Tropical Weeds Research Centre (Biosecurity Queensland) at Charters Towers has been conducting biological control trials involving a jewel bug, a stem-boring weevil and a rust fungus.

Chemical control is effective and two herbicides, metsulfuron methyl (Brushoff®) and fluroxypyr (Starane Advanced®), are registered for use in Queensland, as a foliar spray. The plants need to be thoroughly wet with the herbicide/water mix and applied when the plant is actively growing to achieve the best kill results.

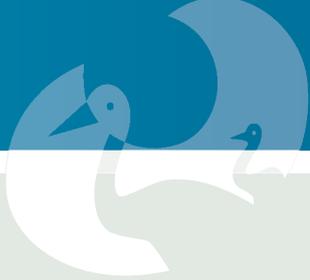
Bellyache bush is a declared Class 2 plant under the *Land Protection (Pest and Stock Route Management) Act 2002*. It is the responsibility of landholders to control this plant on land under their control. Southern Gulf will endeavour to assist landholders who report any infestations on their properties, subject of course to available funding.



Bellyache bush at 20 Mile, Gregory Downs, pre-treatment, November 2007.



Post treatment, August 2008



TWINNING PARTNERSHIP BRINGS FURTHER SUCCESS

Article contributed by Mark Van Ryt, Gregory River Landcare Group.

Southern Gulf Catchments and the Gregory River Landcare Group have formed a partnership with the Brisbane based Bulimba Creek Catchment (B4C) and the International River Foundation. This partnership is continuing to benefit the Gregory River Community.

“Our twinning partners in Brisbane are ready to increase assistance to the Gregory River community in any way they need from technical advice on project proposals to governance for Landcare Groups,” Mr. Van Ryt said.

In May of this year, SGC sponsored the third annual work program undertaken by representatives of B4C and the Gregory River Landcare Group. Each of the following activities has educational, social and environmental outcomes.

- **Landcare Group AGM and General meeting.**
- Replant and extend the Gregory School Healthy Food Garden.
- A half-day spraying rubber vine; a weed of national significance.
- Gregory Canoe Race Corporate Cup - winning the bronze medal.

- Doomadgee State School - replant their Healthy Food Garden.
- Doomadgee - fishing clinic with 22 kids from the school.
- Burketown - helped 32 kids set up their own healthy food garden.
- Initiate 2009 Dream River art project with the three schools.

Before catching his flight back home to Brisbane, Steven Cameron from B4C discussed future plans to investigate ways of controlling camping litter, conduct further weed spraying, and the organisation of accredited weed spraying courses.

This project of “Twinning” is called “The Over the Horizon Project”. It is hoped it can achieve much for the diverse communities involved - the Catchment Groups and the school children - whose future we will work to improve and enrich. Systematic change for a sustainable future can be achieved if our children are given the tools and capacity to take their communities forward.

THE SGC ROAD SHOW ROUND-UP

Key information from the Southern Gulf Catchments road show 20th - 24th April 2009

1. Research on the Flinders and Gregory Rivers (Cath Leigh)

- Understanding relationships between river flow, patterns of biodiversity and food webs using bugs (macroinvertebrates) results.

For further information please contact Cath Leigh at Griffith University on 07 3735 7457.

2. Upcoming research from Tropical Rivers and Coastal Knowledge (TRaCK)

- Research activities looking at nutrients in dry season waterholes underway now.
- Research activities on food webs, who eats who in waterholes.

For further information please contact Ruth O'Connor on 07 3735 5094.

3. The Delbessie Agreement (Mike Cannon)

Under the Delbessie Agreement (State Rural Leasehold Land Strategy)

30-year leases

- Standard lease terms.

40-year lease term - up to 10 year extension on standard lease

- Where the lease land is assessed in good condition.
- Lessee has complied with Land Management Agreement.

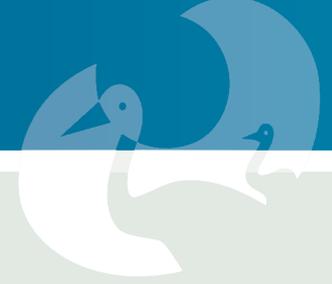
50-year lease term - up to 10 year extension

- Where the lease land is assessed in good condition.
- Lessee has complied with Land Management Agreement.

- An Indigenous access and use agreement.*

- A conservation agreement or covenant.*

(*where Minister considers these appropriate)



Mike Cannon presenting at Richmond

The land condition assessment

- Carried out using guidelines developed to balance the interests of all stakeholders.
- Assessment of a range of attributes that indicate general condition of a lease.
- Recorded as a snapshot in time and a benchmark to guide future management.
- Not about blame or punishment for past events.
- Applying consistent state wide assessment methodologies with consideration to spatial, seasonal, climatic and natural variability.

Land Management agreements

- Negotiated agreement between the lessee and the State.
- Based on the outcomes from an assessment of land condition (including vegetation, biodiversity and water), conducted by DERM officers.
- The lessee and DERM agree to how the lease land will be managed including any 'issues' identified through the condition assessment.
- Enable lessees to meet the specified Duty of Care provisions.
- Are consistent with property planning principles.
- Have no fixed term.
- Reviewed by DERM at least once every 10 years.
- Self assessed after 5 years.
- Are registered on the lease title - binds the incoming lessee where a lease is transferred.

For further information contact Mike Cannon Department of Environment and Resource Management Townsville on 07 4799 7381.

4. Property Mapping Services available from Southern Gulf Catchments (Jeremy Hayden)

- Southern Gulf Catchments can assist with training in technology such as GPS and mapping your property.

For further information please contact Jeremy Hayden at SGC on 07 4743 1888 or 1800 676 242.

5. Conservation option - the Nature Refuge Program, (Samantha Ryan)

- Safeguarding biodiversity by protecting and conserving habitats in which animals and plants live, and facilitating mobility of species across the changing landscape, especially in response to climate change.
- Recognised as a mechanism to apply for a 50 year lease term through the Delbessie Agreement (State Rural Leasehold Land Strategy).
- Voluntary agreements between the landholder and state government.
- Negotiable over leasehold or freehold land.
- Flexible. Each nature refuge agreement is negotiated directly with the landholder.
- Binding on successive owners. Your good management is continued after the land is sold.

Nature refuges...

- Allow sustainable production (eg grazing) to continue, with some conditions.
- Allow recreation or tourism.

Nature refuges do not...

- "Lock up" your land. Management of the land remains the responsibility of the landholder.

For further information contact Samantha Ryan at Department of Environment and Resource Management Townsville on 07 4796 7775.

6. Services from the DPI&F mobile office unit (Fred McPhie)

- Able to provide all DPI&F services such as brands returns and NLIS.
- Facilitate training days such as basic autopsy and sampling for disease testing.

For further information contact Fred McPhie at DPI&F on 07 4650 1201.

Southern Gulf Catchments

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Fax: 07 4749 4887

GREGORY CANOE RACE - A TURBULENT WEEKEND!

Article by Jeremy Hayden

This years Gregory River Canoe Marathon was more challenging with the water level still nice and high from the great wet season we had. Strong turbulent rapids saw many paddlers tipped and scrabbling for paddles, canoes, water bottles and dry land! Luckily we were equipped with a spare paddle... (Mark I owe you a paddle)

Southern Gulf Catchments' team again comprised SGC staff, Gregory River Landcare group members, a SGC Director and a representative of the Bulimba Creek Catchment body. This partnership also took care of some rubber vine infestations in the area.

This was a very enjoyable and successful weekend with the team bringing home the Bronze medal to compliment the Gold and Silver medals earned in previous years, maybe a little more training required for next year to reverse the trend!



DATE CLAIMER – 26TH SEPTEMBER 2009

The 2009 Southern Gulf Catchments AGM is to be held on Saturday, 26th September 2009.

BIODIVERSITY BACK ON TRACK

The Southern Gulf region Biodiversity Back on Track draft plan is available for review. If you would like a copy to comment on please contact Kate Masters on 4743 1888.

SOUTHERN GULF CATCHMENTS

NEW WEBSITE COMING SOON!

Keep an eye out for our totally new website that should be going live June 2009.

The new website is aimed at:

- Being easy to use;
- Providing links and access to useful NRM information;
- Showcasing the great NRM work being carried out throughout the region; and,
- Informing the region of current NRM news and activities and funding opportunities.

We will be seeking feedback on the new website including general ease of use, content or any other feedback.

Please email us or give us a call 1800 676 242



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