

Wetlands Workshop at Paruku, October 2002

WWF, in conjunction with the Paruku (Lake Gregory) Indigenous Protected Area, held a workshop in October to talk about protecting the wetlands of Paruku. The workshop aimed to bring people from many different agencies and organizations together to assist the Tjurabalan manage and care for their lake to protect the special things about the wetlands. We talked about things that the Tjurabalan could do now, such as fencing cattle away from the lake, and broader conservation options such as Ramsar listing. Funds were obtained through the Natural Heritage Trust for wetland conservation initiatives.

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OLW AGM

OLW held its annual general meeting in late November of 2002. Re-elected to the Board were Scott Goodson, Greg Cummings and Andrew Kelly. Also seconded for a further twelve months were Liz Kirkby and Ian Davies. Those who attended received an annual report and also a Status Report that detailed progress to date by OLW and other organisations in the implementation of the Ord Land and Water Management Plan. For those who were unable to attend but would like a copy of any of these reports contact the coordinator at OLW.

The current Board members are-
Fritz Bolten: Chairperson
Scott Goodson: Vice-Chairperson (acting)
Tanya Vernes
Greg Cummings
Matt Bolam
Andrew Kelly

Cane Toads moving closer

Cane toads have taken one step closer to becoming residents of WA. They have been recently sighted at the Victoria River Crossing. It's possible that Kununurra could expect to see these pests sometime within the next five years. In Australia, cane toads have no natural enemies. Their toxin can kill most native animals that normally eat frogs. They therefore pose a risk to both native fauna and pets such as cats and dogs. Cane toads can use a wide variety of habitats and thrive in urban and disturbed areas. They have a voracious appetite and can eat a lot of different foods. They also breed quickly, allowing them to rapidly colonise and dominate an area.

Cane Toads are large heavily built amphibians with dry warty skin. They have a bony head and over their eyes are bony ridges that meet above the nose. They sit upright and move in short rapid hops. Their hind feet have leathery webbing between the toes and their front feet are unwebbed. Adult Cane Toads have large swellings - the parotoid glands - on each shoulder behind the eardrum. Scientists at the CSIRO Animal Health Laboratory in Victoria have been searching for biological controls of Cane Toads and in 2001 they began investigating gene technology as a mechanism of control. Scientists at the University of Adelaide have isolated a sex pheromone in a native Australian frog; they hope that a similar pheromone will be found in Cane Toads and that it could be used to disrupt their breeding cycle.



A young adult cane toad.

New weed found close to Kununurra

Prickly acacia (*Acacia nilotica*) was recently found approximately 5 km west of the Northern Territory/WA border on the Buntine Road. The weed covers over 7 million hectares of country in Queensland and the Northern Territory with the heaviest infestations along watercourses and drainage lines. Prickly acacia has been classified as one of Australia's twenty worst weeds. They form dense thorny thickets that replace natural pastureland and grow to about 4-5 metres in height. Prickly acacia (*Acacia nilotica*) can be easily confused with *Acacia farnesiana* also known as Prickly acacia or Mimosa bush, *Acacia farnesiana* is widely distributed throughout the Kimberley. The easiest way to differentiate between the two is the seed pods. Prickly acacia has grey pods with restrictions between the seeds. *Acacia farnesiana* has brown straight seed pods.



Seed pods of Prickly acacia (*nilotica*).



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Pesticide Project goes ahead!

The pesticide project has recently received the go ahead by farmers through a voluntary levy and the formation of a steering group. Funding partners have also made money available up until the end of this financial year. Voluntary contributions from farmers have come from 83% of the irrigated land area, highlighting their interest in the project. The project's principal scientist Rai Kookana and assistant Danni Oliver recently visited the Ord to get a better handle on local conditions and talk further to growers. Over a series of three meetings scientists and farmers made some significant gains into understanding how the project will mix science and farm management together to reduce the risks associated with pesticide use to the river.

The next major step forward will be a workshop in February that will look at identifying what sort of management trials should be looked at in the coming dry season.



Rai Kookana and Danni Oliver take soil samples from the ORIA. The purpose of these samples is to test how pesticides and local soils adhere to each other.



Barra in Lake Kununurra?

Murdoch University has been recently appointed to carry out an environmental impact study on the re-introduction of barramundi into Lake Kununurra. This follows on the heels of an economic impact study that showed that a new barramundi recreational fishery on the lake would mean more tourist dollars coming into the town.

Two scientific teams spent time on the lake in December documenting numbers and species of fish. A detailed look at their dietary habits including that of some of the barramundi already resident in the lake will be used to assess what the impact will be from any large-scale introduction.

In addition to the environmental study there will be a social impact study in early February also to be undertaken by Murdoch University. This will include consultation with recreational anglers, traditional owners and the tourism industry.



Howard Gill and David Morgan from Murdoch University on Lake Kununurra.

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Local weed map produced

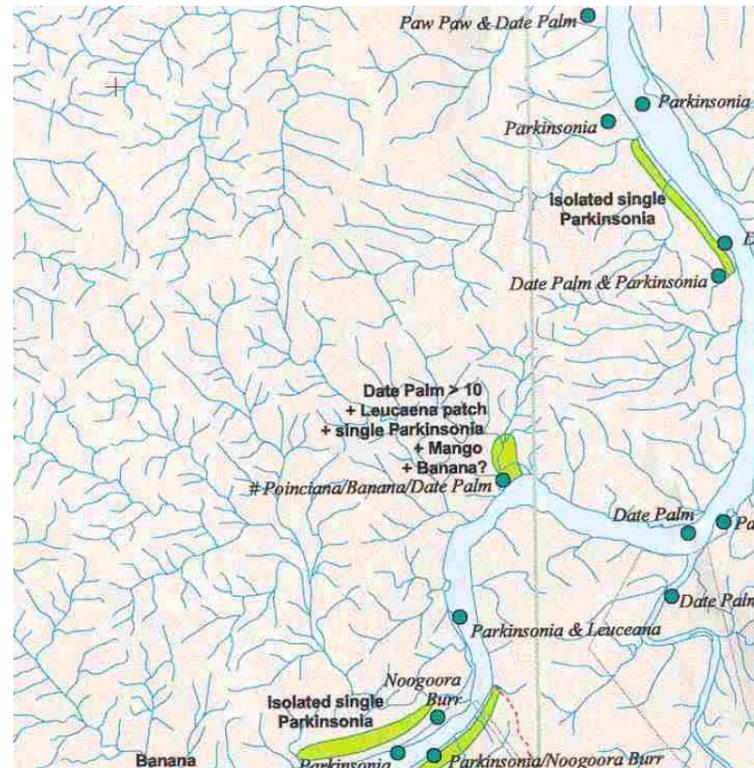
The local weed action group has produced an aerial map of Lake Kununurra to show weed infestations. A low level flight between the two dams by helicopter allowed local weed experts from CALM and the Department of Agriculture to spot and map numerous weed species.

Of particular interest to the Department of Agriculture was the amount of wild bananas and mangoes spread along the lake's banks. These could be a serious threat to industry in the event of an incursion of an exotic pest or disease due to their potential to act as a reservoir for re-infection.

From an environmental point of view it was pleasing to see that the bellyache bush infestation around the Lake Argyle village appears not to have moved down stream yet.

The main environmental weeds spotted were parkinsonia, date palm, leuceana and neem, with the industry threat weeds being mangoes, bananas and pawpaw.

On weed news closer to Kununurra there are still reports of small amounts of salvinia being found within the affected area of Lily Creek by the Department of Agriculture.



A section of the map from around Spillway Creek showing the extent of weed infestations.

Further cover crop trials for this wet

Last wet there was a small trial done to look at wet season run off of silt from farmland. In a trial conducted by the Ord Bonaparte program there was a direct comparison of soil loss between ground left bare over the wet and one that had a cover crop of lablab. The results of the trial showed that there was a significant loss of topsoil from the bare ground compared to where the cover crop was planted.

This coming wet the trial will be repeated on Paul Mock's property in a different soil type and with some further refinements to the trial to try improve the accuracy of the readings.



Brian Prince, Phil Charlsworth and Duncan Palmer admire their handy work at the sight of the run off trial.

Shire looks for boating facility

As a direct response to the lack of mooring and refueling sites for commercial boat operators in Lake Kununurra the Shire is undertaking a 'Land Capability Study'. This will identify the most appropriate place for a commercial boat operator's facility on the lake. A consultant has been selected and will be seeking the views of the stakeholders and community over the next two and a half months.

For those who wish to have a say on the issue you can contact the Shire offices on 91 681 677 to ensure that your views are considered by the consultants.



Commercial boat operators such as this houseboat business require facilities for mooring and refueling that are not out of step with community expectations.



Watering sugarcane is a costly exercise compared with other flood irrigated crops in the ORIA.

Ag Dept looks at sugar trials

Research by the Department of Agriculture on the water use of sugar has indicated that greater water savings and associated costs are possible.

Sugar is by far the largest single crop grown in the valley but also is a heavy water user therefore any gains in water efficiency will be significant.

Sugar crops grown on the Ord use far less pesticides than other crops and reduce erosion of topsoil during the wet season when much of the valley's soil loss occurs. However some of the chemicals used for weed control in the crop's early growth stages do move off farm. One of the priorities for the pesticide project will be to see what steps can be taken to reduce that run off.

Measuring Lake Argyle

Back in the early nineties there was a fair bit of work done by the then Water Authority to gain some idea on the movement of silt into Lake Argyle from the upper catchment. Although there was some commitment to continue this work after major flood events budget downsizing has prevented this from happening.

In the mean time there has been two major flood events, the first during the 2000/01 wet when the dam got to its record height of 99.43 metres AHD in Mach of 2001 and last wet season.

To be able to ascertain what how silt is building in the lake it's important to have this work continued as soon as possible. OLW, Water and Rivers, the Ag Department and the Water Corporation are currently looking at ways to make this happen. Information gained will give an idea on how restoration work and pastoral management in the upper catchment is progressing.

Dry argument

It depends exactly just whose rain records you check against but the rainfall we've had to date in Kununurra indicates the driest start to proceedings since the early 1990's. Looks like we can all expect high water and power bills sometime soon.



Wetlands that have formed as a result of the creation of Lake Argyle have become an important habitat for birds and fish.

NHT supports local project

The National Heritage Trust has recently allocated funds for a component of an OLW project based in the irrigation area. The project will look at how the irrigation drains could be used to recycle water back onto farms and the feasibility of creating artificial wetlands within them to trap silt, pesticides and fertilisers. This initial component of the project will identify where pumping structures and wetlands could be placed to gain the greatest benefit.

The next step will be to look at both the engineering aspects of moving water back on to farms and the development of some trial demonstration sites. To progress this OLW and the Ord Irrigation Cooperative have joined forces to seek further funding. Both organisations recognise the importance of projects like this in helping farmers keep our rivers clean.



Currently waste water from the irrigation system finds its way back into the river. Gains in water efficiency will reduce these amounts significantly.