

Major prickly acacia infestation found locally

Hot on the heels of a single tree found at the quarantine yards just outside Kununurra recently a further 1500 hectares of the weed 'Prickly Acacia' has been located in a remote location North of the Durack River.

In an aerial survey plants appear to be scattered over a wide area. There looks to be three main areas where the plants are starting to form denser infestations. The spread of the infestation appears to have been stopped naturally where the plants come into contact with rocky country. However they appear to be very salt tolerant, growing along some of the tidal creeks. It is hard to determine the age of the infestation but some of the large plants are 10 to 15 metres in height.

Currently the Department of Agriculture is looking at management options and will be developing a plan in conjunction with the land holders.



Local Ag Department member Derek Goddard is dwarfed by the size of one of the many Prickly acacia trees growing in the remote location.

Bellyache bush success at Lake Argyle

On a more positive note early efforts at eradicating bellyache bush from around the Lake Argyle town site appeared to have been successful.

In June a team of Conservation Volunteers were brought in from Darwin by the local 'Weeds Working Group' to begin the cleanup, starting below the Waste Water Treatment Plant. Most of the plants were cut down and chemical then painted onto the stump, this method is considered safe from both a 'Work Safe' and environmental perspective.

A return visit to the site recently in late October showed a 100% death rate on the treated plants. It is expected that there will be a major germination during the wet season that will need to be dealt with early next year.

The Weeds Working Group is currently looking at ways to bring the volunteers back to town for further weed control work at Lake Argyle as well as other areas closer to town.



Noel Wilson from the Ag Department inspects the now dead plants below the village at Lake Argyle

Ord Land and Water Newsletter

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Thanks to all those who lent a hand



IN THIS ISSUE

- Weed control.
- Water quality
- Water efficiency
- Catchment
- WWF
- Wetlands
- Translation

Great support for OLW in 2003

Ord Land and Water has had plenty of help this year with project work. The Board would like to take this opportunity to acknowledge the individuals and organisations that have volunteered both time and resources that have contributed to the success to date of this work-

- Farmers across the ORIA for their financial support for the Pesticide Project.
- Lance Conley of Lone Eagle Pty Ltd, the Ord River District Cooperative, Ord Irrigation Cooperative and Department of Agriculture for assistance in the wetlands / re-use project.
- Farmers Greg Cummings and David Menzel, The Ord-Bonaparte Program, Water and Rivers Commission, Gary Ramsay of Barnyard Trading and Gae Plunkett and the Department of Agriculture for help in the Pesticide Project.
- Farmers David Menzel, Michael Eppler, Fritz Bolten and Paul Mock for their time, land and equipment and Duncan Palmer from Water and Rivers Commission in the Water Use Efficiency project.
- The mob at the Mirima language Centre and Waringarri Radio for their time and support in the Translation Project.
- The OBP and staff for office space and putting up with our coordinator.
- Kimberly Land Council and the Ord-Bonaparte Program for their work in bringing organisations and Traditional Owners together to talk about water quality.

Other people include Vivian Adams, Chris Adams, Emma Hitchens, George Gardiner, Matt Bolam. Sarah Strutt, Geoff Warriner and many more. We hope that the support is maintained throughout next year so we can continue implementing the Ord Land and Water Management Plan

Ord Land and Water AGM

Due to the heavy business and personal commitments of Board members during the latter part of this year the Board has reluctantly decided to postpone the AGM until early in the New Year of 2004. The Christmas holiday period is always a difficult time for meetings with many people heading off on holidays and not returning to the start of school. Be sure to look for the meeting in mid February. Remember there are five Board positions up for grabs. Hope to see you there.

OLW web site

Ord Land and Water is currently in the process of rebuilding its old web site. For those who have seen the old site the new one will be quite a change. It should be up and running sometime in the new year. We will keep you posted on its progress.

Waterway Health Assessments

A number of tools are now available to assess and rate the condition of our waterways. It's very useful to have baseline data on the health of our rivers, streams and springs to enable any changes to be monitored and managed if necessary.

Below are results obtained by the State of the Environment reporting process using AusRivAS (Australian Rivers Assessment Scheme). AusRivAS works by measuring physical and chemical conditions at a site and then modelling the expected types of macroinvertebrates (water bugs, beetles, worms, snails and insect larvae). Nets are then used to sample macroinvertebrates and the numbers and different types found are compared to the model. Based on "natural" reference sites, if the macroinvertebrates found are similar to those predicted by the model a site is ranked 'A'. As the number and types of macroinvertebrates decrease from the number expected at a natural or unimpacted site, the ranking drops to B, C or D.

These results indicate good to excellent health at most sites. Macroinvertebrates are a useful indicator of stream health because they are in the middle of the food chain and many types are sensitive to habitat disturbances or pollution.

For further information contact Jane Rapkins, Kimberley Rivercare Officer on 9168 1082.

Site Name	Overall Rank
Blue Holes Pool	B
Black Elvire River	A
Kitty's Knob	B
Behn River	B
Dunham River Rock Bar	B
Mantinea Flats	A
Button's Crossing	A
Wilson River	B
Dunham at Great Northern Hwy	A
Emma Gorge	B



Merry Christmas and happy New Year to all. From the Board and Staff of Ord Land and Water.



LCDC meetings can be a very effective way for pastoralists to exchange ideas and feed information back into the relevant agencies.

East Kimberley catchment communication

Over the next couple of months Matt Bolam will be talking with East Kimberley Pastoralists to find out what types of communication are currently working and what are not from the pastoralist's perspective.

With the Government's intention to see natural resources managed at a regional level there needs to be good lines of communication in place. For example, an operating LCDC can be an extremely effective method of feeding pastoral priorities into regional natural resource management. Likewise publications such as the Pastoral Memo can be very effective at keeping people up to speed on issues.

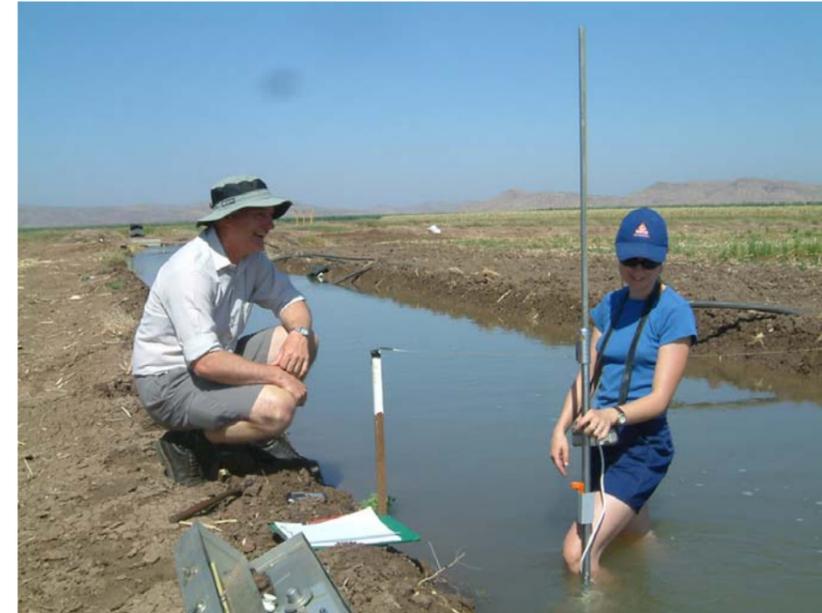
It's hoped that this information and more gathered from other sectors (industry, Indigenous communities, ORIA, Agencies etc) will assist to strengthen the lines of communication where they exist and create new ones where they don't.

More water efficiency work done on farm.

The Department of Agriculture and Ord Land and Water continued its preliminary work on measuring on-farm water use efficiency. A total of four farmers offered both their time and ground for the trial work this year.

The work focused on the design of, and learning to use the equipment as well as measuring irrigation efficiency. Results were encouraging, proving the portability of the equipment from one farm to another and its ability to measure a wide variation of flows. Some of the farm efficiency figures were very encouraging with a sorghum crop irrigation showing between 80 and 84% water use efficiency.

Next year the intent is to build a more complete picture of water efficiency trends on farm and for farmers to be able to test different management practices to improve their water efficiency.



NHT/NAP Program Manager Ron White discusses waterflows with Tara Gawnd from the Department of Agriculture.

More success for the Pesticide Project

The last trials of the Pesticide Project scheduled for 2003 were carried out on a rockmelon crop belonging to local farmer David Menzel. Danni Oliver from CSIRO and her team spent five days in September taking and preparing water samples from the field for laboratory analysis.

Some chemicals such as endosulfan tend to become attached to soil particles and can be moved off farm in the silt load that moves with an irrigation. This trial looked at using polyacrylamide (PAM) to reduce the amount of silt running off a paddock. Water samples were collected from a crop treated with PAM and non-treated cropped area, then sent to laboratories in Adelaide for analysis.

A summary of findings shows that the areas treated with PAM had a reduced total load of endosulfan in the irrigation runoff water of 63%.

An interesting observation that was highlighted from this experiment was that the area treated with PAM took considerably longer for the water to reach the tail drain. This may have been a demonstration of how PAM increases the water absorption of the soil, an important consideration when looking at ways to improve water efficiency.

These results and those of the other pesticide trials carried out this year will be presented to farmers at a workshop in mid December along with the water efficiency work currently being done.



CSIRO technician Julie Smith preparing water samples for further testing.



Wetlands monitoring

Artificial wetlands are able to store and eventually breakdown pesticides and nutrients that are trapped within them. In some areas wetlands are being built to remove contaminants from wastewater before it returns to rivers or streams. Whilst their usage for this type of work is slowly increasing not much is generally known locally about their capacity or ongoing management.

Ord Land and Water has been doing some preliminary monitoring of an extensive wetlands system that drains close to 500 hectares of irrigated farmland. The monitoring consisted of testing to see if pesticides carried by water would drop out of suspension as they made their way through the dense stand of plants that make up the wetlands.

To carry this work further there has been an application for further funds made so that the system can be monitored for a season to gain a better understanding of its effectiveness under local conditions including wet season flooding and local farm management practices such as watering and fertilizing.

Last Laugh

The following excerpts are actual answers given on history tests by school children. They were collected by the teachers over a period of three years. Aren't brains wonderful?

1. Louis Pasteur discovered a cure for rabbits but I don't know why.
2. Karl Marx was one of the Marx Brothers. The other three were in the movies. Karl made speeches and started revolutions. Someone in the family had to have a job, I guess.
3. Ancient Egypt was old. It was inhabited by gypsies and mummies who all wrote in hydraulics. They lived in the Sarah Dessert. The climate of the Sarah is such that all the inhabitants have to live elsewhere.
4. The Greeks were a highly sculptured people, and without them we wouldn't have history. The Greeks also had myths. A myth is a young female moth.
5. Socrates was a famous old Greek teacher who went around giving people advice. They killed him. He later died from an overdose of wedlock, which is apparently poisonous. After his death, his career suffered a dramatic decline.
6. Abraham Lincoln became America's greatest Precedent. Lincoln's mother died in infancy, and he was born in a log cabin, which he built with his own hands. Abraham Lincoln freed the slaves by signing the Emasculation Proclamation.

Translation work nears completion

The Lotterywest funded Translation Project is finally nearing completion and for those who listen to Waringarri Radio the recorded segments should be about to be aired.

Ord Land and Water and the Mirima Woolab Gerring Language and Culture Centre have been working together to summarise and translate into Mirriwoong language parts of the Land and Water Management Plan relevant to local Mirriwoong people. This includes segments that deal with Fire, Plants and Animals, Water Quality and Fish Stocks.

Waringarri Radio has been very supportive of the project in their role as the community radio station. For some people, including those on outlying stations and communities, radio is a prime means of keeping up to date with local events and news. Using radio will ensure that the message gets out to those people.



Translators, Blanche Barney Flying-Fox and Frances Kofod at work on the difficult translation process.

Fish stock News

The Minister for Fisheries and his CEO recently reaffirmed their commitment to finding possible engineering solutions to move barramundi from the river into Lake Kununurra if the project of restocking the lake as a whole is acceptable.

The Fisheries CEO Peter Rogers will chair a meeting in Kununurra early in the new year between interested organisations and Fisheries personnel experienced in fishway construction. This should clearly map out what is required from a project proponent.

This could mean that Lake Kununurra may become a major barramundi impoundment bringing more tourists and business to the area, similar to Eastern State impoundments such as Tinaroo.