

### KAKADU PROJECT UPDATE November 2012

### What's Going On?

This short newsletter is to give you an update on what has been happening with the different NERP research projects working in Kakadu. There are a number of different projects looking at the floodplains, estuaries and bush ecosystems of Kakadu. This update covers some of the research that has been occurring since May 2012.

# What's that fish? Wet and dry season fishing

Mark Kennard and Brad Pusey from Griffith
University want to understand why fish live where
they do at the mouth of the South Alligator River.
They recently finished a dry season trip by boat,
spending 2 weeks sampling fish using netting
and trapping in the South Alligator River estuary
and lowlands. They will look at the fish they
caught in the wet and dry to predict how climate
change and sea level rise will affect fish living in
the river.

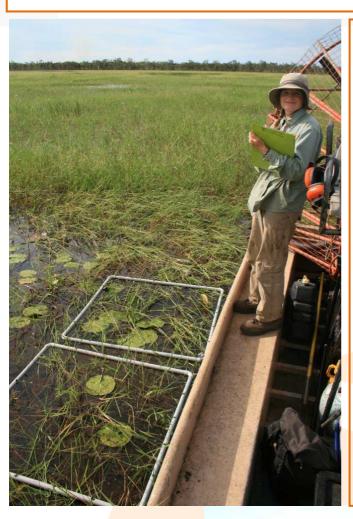


This project is looking at how weeds and sea level rise might impact on the floodplains in the north of Kakadu. A workshop was held in August with Parks staff to discuss how these threats can be managed using planning and decision support tools. This was followed by a workshop at the Jabiru Youth Centre with Bininj to indentify culturally important wetlands vulnerable to weeds and saltwater, and any changes they have been noticing. Kelly Scheepers will be contacting Bininj over the coming months to find out more about floodplain changes. If you would like to contribute, contact Kelly at CSIRO (8944 8412).



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### The grassy weed threat to Kakadu's floodplains



NERP researchers are trying to find out where para grass and olive hymenachne are likely to spread to on the Kakadu floodplains. Researchers have collected information about the sites where these weeds have already invaded to help them work out where the weeds prefer to grow. Information such as how long the site is under water, how deep the water gets and what native plants grow at the invaded sites are recorded. This information will be used to produce maps of areas likely to be invaded in the future. This photo shows the researchers on the Magela floodplain. For further information, email Samantha Setterfield (samantha.setterfield@cdu.edu.au) or Aaron Petty at CDU (aaron.petty@cdu.edu.au or 8946 7112).

### Mapping olive hymenachne and para grass

The Kakadu weeds team and NERP researchers completed a week-long helicopter survey of Wildman, West Alligator and South Alligator river floodplains. They were looking for olive hymenachne and para grass to develop the first detailed maps showing where grassy weeds already are. This will help NERP researchers understand where these weeds prefer to grow to work out where they will spread to in the future. The survey showed where weed control has been working but also found some new areas where weeds are growing. This photo was taken from the chopper over South Alligator River.





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Which wetlands and billabongs are most important in Kakadu for plant and animal food? What do different animals eat and where do they find their tucker? Flesh samples are being taken from plants and animals (including crocodile toenails!) that live in the floodplain areas. Park rangers, TO's and researchers have found areas all over Kakadu particularly rich in animals and plants that are important to look after. If you go hunting and fishing often and would like to help researchers collect flesh samples, please contact Anne O'Dea.

#### Rare Sharks and Sawfish

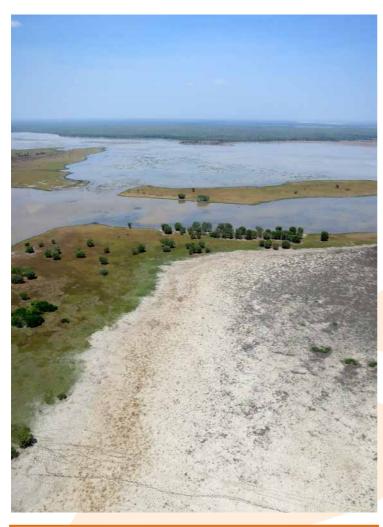
Researchers from CDU and NT Fisheries have been searching the South Alligator and East Alligator Rivers for freshwater sawfish and speartooth shark, to find out more about where they live and what habitats they prefer. Only one sawfish was caught so a small tissue sample was taken before it was released. Ten spear tooth of the South Alligator River. These river systems sharks were caught and released at the mouth species so if you see any while you are out fishing, please let Anne O'Dea know.





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### Salt water on the South Alligator floodplain







## What's going on?

NERP researchers used a helicopter to access the South Alligator River take sediment floodplain to samples in August. They are measuring changes in the sediment to find out how bacteria and small animals respond to saltwater. They also took photos of the plants at each site to see what kinds of plants grow where there are different amounts of salt in the ground. A follow-up field trip to the same sites is planned for February 2013 when the area will be covered by water.

There is sometimes paid work opportunities for Bininj to help researchers do field work. If you want to be involved or would like to know more about any of the projects, please contact:

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