Expert survey to estimate freshwater species responses to threats in the Daly River catchment

INFORMATION SHEET

Who is conducting the research

Dr Mark Kennard,
Dr Simon Linke,
Dr Josie Carwardine,
Dr Lorenzo Cattarino
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Australian Rivers Institute, Griffith University
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Why is the research being conducted?

The aim of our research project is to prioritize the spatial allocation of conservation management actions to sustain freshwater-dependent species in the Daly River catchment, Northern Territory, Australia. The project is led by Griffith University in collaboration with CSIRO.

We invite you to participate in this survey to elicit information on the potential responses of freshwater-dependent species to different threats. The elicited information will be used to create simple response curves that describe the relationship between the probability of persistence of functionally similar species and the intensity of a particular threatening process. This information will be used to prioritize the spatial allocation of conservation management actions to improve persistence of freshwater biodiversity in the Daly River catchment.

What you will be asked to do

Should you agree to participate, you would be asked to read a short document describing the background to the project and a description of the information we are seeking from you. You will then be asked to fill out a series of small tables in which you will use using your expert knowledge to estimate the likelihood that species in each functional group will persist for at least 20 years under increasing intensities of threat. Potential threats include introduced animals, agricultural land use, altered flow regimes, barriers to longitudinal connectivity, proliferation of aquatic weeds and altered fire regimes. For each functional species group (maximum of 10), threatening process (maximum of 8) and level of threat (low, medium and high), we will ask you to give your best guess and bounds for worst-case and best-case scenarios (between 0 and 1) plus give a level of confidence (between 0 and 100%) that the true estimate will be between these bounds. We anticipate that you will be able to read the background information and complete the survey within 4 hours (maximum).

Your survey responses will be combined with responses from other experts (by averaging and other methods) to generate single estimates of species persistence to varying levels of threats. We will send you (via email) a summary of the outcomes of the expert survey (i.e. the combined responses from all experts who will remain anonymous)

and invite you revise you own responses in light of the combined responses (across all experts), if you feel this is necessary. We anticipate that this process will take 1 hour maximum to complete.

We recognise your expertise and time are valuable and therefore have the resources to pay you up to a maximum of $500 (including GST and on-costs) to participate in this expert survey. If you wish to be compensated, please inform Dr Mark Kennard and he will contact you separately to arrange payment (via invoicing).

The basis by which participants will be selected or screened

The experts selected for this survey comprise specialists in one or more faunal groups (i.e. waterbirds, fish and/or turtles) and have been identified by their track record, experience and preferably, knowledge of the fauna in northern Australia. Preference was also given to those with experience in expert elicitation as well as knowledge of ecological responses to threatening processes and conservation management actions. We aim to survey at least five experts for each of the three faunal groups (maximum of 20 experts will be surveyed). You have already been contact by telephone/email and agreed to consider participating in this expert survey.

The expected benefits of the research

The Daly River catchment is widely recognised for its high ecological values and sustains important cultural, spiritual, and socioeconomic activities for Indigenous and non- Indigenous people. However, several major threatening processes are potentially affecting the long-term persistence of freshwater species and the important goods and services they provide for people living in the Daly River catchment. The outcomes of this project will assist natural resource managers make decisions about prioritising conservation management actions to improve persistence of freshwater biodiversity in the Daly River catchment.

Risks to you

By participating in this project we assert that you will not be exposed to physical, economic or legal harms. We consider that by expressing your personal expert opinions the risks to you of psychological harms, devaluation of personal worth or social harms to be negligible. This is because we have an appropriate management strategy in place to protect your anonymity and the confidentiality of your responses to the fullest possible extent, within the limits of the law (see next section).

Your confidentiality

We intend to protect your anonymity and the confidentiality of your responses to the fullest possible extent, within the limits of the law. Your name and contact details will be kept in a separate, password-protected computer file from any data that you supply, which will only be accessible to the researchers. You are welcome to access any information you provide on request to the researchers. No information that can be used to identify you as an individual will be published in any publications or audio-visual presentations. The data will be kept securely at the Australian Rivers Institute, Griffith University for five years from the date of publication, before being destroyed.

Your participation is voluntary

Please be advised that your participation in this study is completely voluntary. Should you wish to withdraw at any stage, or to withdraw any unprocessed data you have supplied, you are free to do so without prejudice. The researchers are not involved in the ethics application process. Your decision to participate or not, or to withdraw, will be completely independent of your dealings with the ethics committee, and we would like to assure you that it will have no effect on any applications for approval that you may submit. If you are a member of Griffith University, or a member of an organisation that collaborates with Griffith University, you decision to participate or not will in no way impact upon your relationship with Griffith University.

Questions / further information

Should you require any further information, or have any concerns, please do not hesitate to contact Dr Mark Kennard via telephone/email (contact details given above).

The ethical conduct of this research

This research has been approved by the Human Ethics Committee of Griffith University (*Protocol number: ENV/46/13/HREC*). Griffith University conducts research in accordance with the *National Statement on Ethical Conduct in Human Research*. If potential participants have any concerns or complaints about the ethical conduct of the research project they should contact the Manager, Research Ethics on 3735 54375 or **research-ethics@griffith.edu.au**.

Feedback to you

Upon completion of the expert survey process to determine species persistence to varying levels of threats, the final combined results will be emailed to you as a courtesy. The project team will use the combined results in a broader set of analyses to determine conservation management priorities in the Daly River. This will be written up in one or more academic publications (e.g. journal articles). These publications will be emailed to you once published. It is also possible that the results will be presented at academic conferences.

Privacy Statement – non disclosure

The conduct of this research involves the collection, access and/or use of your identified personal information. The information collected is confidential and will not be disclosed to third parties without your consent, except to meet government, legal or other regulatory authority requirements. A de-identified copy of this data may be used for other research purposes. However, your anonymity will at all times be safeguarded. For further information consult the University's Privacy Plan at http://www.griffith.edu.au/privacy-plan or telephone (07) 3735 4375.

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CONSENT FORM

Research Team Dr Mark Kennard,
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Dr Virgilio Hermoso
Australian Rivers Institute, Griffith University
Contact Phone: 07 3735 7401
Contact Email: m.kennard@griffith.edu.au

By signing below, I confirm that I have read and understood the information package and in particular have noted that:

- I understand that my involvement in this research will include undertaking a survey to elicit information on the potential responses of freshwater-dependent species to different threats. This will involve reading short background material and completing a series of tables;
- I have had any questions answered to my satisfaction;
- I understand the risks involved;
- I understand that the only potential direct benefit to me from my participation in this research will be financial compensation up to a maximum of $500 (including GST and on-costs);
- I understand that my participation in this research is voluntary;
- I understand that if I have any additional questions I can contact the research team;
- I understand that I am free to withdraw at any time, without explanation or penalty;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project; and
- I agree to participate in the project.

Name	
Signature	
Date	

INFORMED CONSENT FORM

Principal investigators: **Jorge G. Álvarez-Romero and April Reside**
Project title: **Expert elicitation to estimate the response of terrestrial species and ecosystems to threats in focal catchments of northern Australia**
School: **Science and Innovation, ARC Centre of Excellence for Coral Reef Studies**

I understand the aim of this research study is to **elicit expert knowledge about the potential responses of terrestrial species to different threats, which will serve to develop methods to prioritize management actions directed to conserve biodiversity in selected catchments in northern Australia**. I consent to participate in this project, the details of which have been explained to me, and have been provided in written in the 'survey instructions'.

I understand that my participation will involve **background reading and survey completion (both should take less than one workday) and another 2-3 hours to review the summary that will be provided by researchers and adjusting my responses (if necessary)**, and I agree that the researcher may use the results as described in the 'survey instructions'.

I acknowledge that:

- Taking part in this study is voluntary and I am aware that I can stop taking part in it at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;
- I will be able to access any information that I have provided on request to the researchers;
- Any information I give will be kept strictly confidential, and no information that can be used to identify me as an individual will be published in any publications or audio-visual presentations without my approval; and
- The data will be kept securely in accordance to James Cook University data management guidelines.

(Please tick to indicate consent)

I consent to complete the electronic survey	☐	**Yes**	☐	**No**
I consent to be contacted by the researchers to revise my responses if needed	☐	**Yes**	☐	**No**

Name:	
Signature:	**Date:**