

AIM

To comprehensively document the population genetic structure of foxes in Australia

This will lead to an understanding of:

- The scale of movement occurring in different Australian landscapes (directly relevant to the scale at which control should take place);
- Where barriers or conduits to dispersal exist;
- The effectiveness of control programs (for example, rates at which re-invasion occurs);
- Wildlife forensics: provide the background data required to identify the provenance of new and illegal introductions (such as occurred recently in Tasmania).

Approach – fox DNA fingerprints

Although each fox in Australia possesses a unique genome, some are more similar to others – reflecting a closer relationship or shorter time since they shared a common ancestor.

By accurately quantifying these individual relationships and plotting them spatially using Geographic Information Systems (GIS) in combination with various genetic analyses, we can accurately reveal the scale at which foxes disperse. We can also examine how this changes in response to pest-control, different landscape types (e.g. desert vs. forest, vs. pasture), or other relevant variables. This information would enable pest-control programs to be better targeted.

We are seeking your assistance to collect fox samples from across Australia

Whether they are road-kill or culled foxes, all samples are potentially useful.

DNA can be extracted from small pieces of tissue (1cm² or less). These samples should be collected into the tubes provided at a ratio of one part tissue to at least 5 parts preservative. The type of tissue is not important, so whatever part is most convenient (e.g. ears). The tubes contain a non-toxic preservative solution (lysis buffer).

It's important that as detailed a geo-reference as possible is included for each sample. If you do not have access to a GPS, a site description such as the distance to the closest feature (e.g. town, creek, or track junction). Alternatively, a lot number. If more than one sample is collected from a similar locality (such as a single lot), please estimate the distance between samples. All locality data will be kept confidential.

For your convenience, please use the reply paid envelope.



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Thankyou for your interest in the Fox DNA Project. The feral fox is a major pest in Australia, costing \$227.5 million annually. Using a novel DNA-based approach, we aim to provide key ecological data that will make fox control more effective.

Want to participate in this project?

Here, you can find out how you can assist by collecting fox samples for genetic analysis, as well as what the research will achieve, and how it will be conducted.

www.foxDNA.animals.uwa.edu.au

This project is funded by the Invasive Animals Cooperative Research Centre, and the National Feral Animal Control Program (Department of Agriculture Fisheries and Forestry).

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If you do not have sufficient room on the sample tubes, please number them and make notes about your samples here.

Please provide as detailed a geo-location as possible, as I will be translating them into distances between samples. For example, 2 km west of Doodlakine turnoff on Great Eastern Hwy, or Lot 23654, Mt Gambier. If providing lot or location numbers, please estimate the distance between samples if more than one is collected from a single lot. All locality details will be kept confidential.

Thankyou for your help. I look forward to analysing your samples.

Collector _____		Contact number _____	
Sample number	_____	Sample number	_____
Location (as detailed as possible)	_____	Location (as detailed as possible)	_____
Date	_____	Date	_____
Sex: Male / Female	Maturity Adult / Juvenile	Sex: Male / Female	Maturity: Adult / Juvenile
Notes			

Sample number		_____		Sample number		_____	
Location (as detailed as possible)		_____		Location (as detailed as possible)		_____	
Date		_____		Date		_____	
Sex Male / Female	Maturity Adult / Juvenile	Sex Male / Female	Maturity Adult / Juvenile	Sex Male / Female	Maturity Adult / Juvenile	Sex Male / Female	Maturity Adult / Juvenile
Notes							

Sample number		_____		Sample number		_____	
Location (as detailed as possible)		_____		Location (as detailed as possible)		_____	
Date		_____		Date		_____	
Sex Male / Female	Maturity Adult / Juvenile	Sex Male / Female	Maturity Adult / Juvenile	Sex Male / Female	Maturity Adult / Juvenile	Sex Male / Female	Maturity Adult / Juvenile

Other notes and comments (please enclose additional notes if you require more room):
