

# 2022 Australian Wildlife Week Webinar Q & A

## Nicole Lynch, University of Sydney

**How long do your collars last, given they send information every five minutes?**

The collars last at least two weeks, not sure yet how much more we can get out of them yet.

## Adam Yaney-Keller, Monash University

**Can you share the most common items animals are entangled in?**

Yes! About half the entangling materials at Seal Rocks are recreational and commercial fishing gear - trawl nets, fishing lines, even the rubber hoses from spear fishing gear. Some is active fishing gear, but a lot is "ghost gear", which has been lost or discarded. Globally this is the most common entangling material. The other half of entangling materials at Seal Rocks however can be just about anything. On our last trip we disentangled a pup from a degraded baseball hat that had become stuck around its neck!

## Erica Nolasco, Queensland University of Technology

**Considering the significance of urban sprawl around the world, do you think Landcare projects/government bodies could do more (at least in Australia), in ways for people and communities with smaller properties to assist with helping our native species and to recover from landscape disturbances in urban environments?**

As a researcher and professional, I have seen great initiatives and government agencies willing to put effort to support landholders and wildlife. I do not believe they would financially support (that is what you have in mind) small properties by themselves without having a network of other properties that will support wildlife in the area. It would unlikely be efficient. Non-financial support would be more likely and realistic. Unfortunately, we have major differences in support among Australian councils.

## Nicholas Macdonald, Deakin University

**Is there any link between STDs transmission in humans that cause cervical cancers and the cancers transmitted in devils? Is there any correlation in transmission modes/immune response? Are there any vaccines?**

Transmissible cancers are a little bit different, the main difference in STDs and Transmissible cancer is that the cancer in STDs is caused by pathogens like viruses, and the cancer cells are host cells. Transmissible cancers are the equivalent of having a cancer transplant and the cancer cells are distinct from the host. There are currently vaccines that are derived from DFTD cells that are altered to try and trigger a response in the recipient of the vaccine, however the effectiveness of the vaccines is limited, though there is ongoing research to improve the vaccines.

**Is there any evidence that there is any natural immunity to DFTD, or that they might become naturally immune overtime? Also, are you looking at adaptive or innate immune genes?**

We are definitely seeing some cases of natural response to DFTD in devils, even some cases of devils that have been able to fight and get rid of the cancer. As for the genes, I will be looking at both adaptive and immune genes, covering areas such as cytokines, pathogen detection molecules and antibody pathways.

**Do we know how the cancers came about to start with?**

The origin of the cancers is still a bit of a mystery. Though the devils do have the biology necessary biology for the transmissible cancers to occur. As the biting behaviour causes frequent wounds and the low genetic diversity and devil susceptibility to developing cancer does make the transmissible cancers possible to occur.

**Is there still a chance of finding the origins?**

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The most we know for the origins is the cell type and sex of the devils they came from. Myelinating Schwann cells of a female devil for DFT1 and repair Schwann cell from a male devil for DFT2. But unfortunately, as the patient zeros for both unknown and have died long ago nailing the exact origins are difficult but researchers are continuing to try and know as much as possible of the origins.

### **Gary Dunnett, National Parks Association of NSW**

#### **What glider species are there?**

It is a good area for about the whole lot, but the greater glider, yellow-bellied glider, sugar gliders. I am not sure about squirrel gliders to be honest. It is what you would expect out of a landscape with lots of stags and high productivity forests.

NPA: [LINK](#)

### **Javiera Olivares-Rojas, Monash University**

**While you aim to investigate Australian ecosystem restoration your presentation appears NSW centric. Are you considering ecosystems in other states, e.g., Daintree (Qld far north), Victorian Volcanic Plains, Tasmanian west coast, WA wheatbelt?**

We would love to do several case studies across different states, however due to my PhD timeline I will not have enough time to cover more than two case studies. We initially were going to focus on other ecosystems in Queensland like Mabi forest or Brigalow, but because of reasons like data availability, and the different criterion that these ecosystems are listed under, we tried to choose two that cover most criteria so we can make the full assessment. We also wanted to align it closely with the IUCN Red list, and most of the ecosystems currently assessed by IUCN are biased towards NSW and Victoria unfortunately, and the EPBC assessments have big differences to the IUCN one. This is a great point to consider.

### **Dr Jodi Rowley, Australian Museum**

FrogID: [Download App](#)

### **Greg Irons, Bonorong Wildlife Sanctuary**

Sanctuary: [LINK](#)

### **Dirk Jansen, Mornington Peninsula Koala Conservation**

MP Koalas: [LINK](#)

### **Jennie Gilbert, Cairns Turtle Rehabilitation Centre**

CTRC: [LINK](#)

### **Prof. Kevin Kenneally, Botanist and Biogeographer**

PowerPoint Presentation: [LINK](#)