

## The ZSL Wild Science Podcast: Show Notes

### Episode: ZSL #030 Can surveillance technology and social science address rule-breaking and wildlife crime?

Law breaking, such as poaching or fishing inside marine reserves, is a great challenge to conservationists because research is often complicated by ethics and data privacy. However, important technological progress has been made in recent years, especially in the fields of surveillance and vessel tracking. Join Monni as she finds out from a panel of experts how machine learning and technology developments in drones, infrared imaging, global positioning systems and cameras can help tackle wildlife crime. How can social science help us understand the motivations behind rule-breaking? And what rule is Monni so afraid of admitting that she once broke?

#### Guests:

- [Dr Tom B Letessier](#), Research Fellow at the Institute of Zoology, ZSL
- [Dr Kristina Boerder](#), Postdoctoral Fellow at the Dalhousie University
- [Professor Serge Wich](#), [Liverpool John Moores University](#)
- [Dr Colin Beale](#), Reader at the University of York
- [Dr Ana Nuno](#), NOVA University Lisbon and [University of Exeter](#)

#### Overview

- 00:53 Monni is joined by the co-host of today's episode, Dr Tom B Letessier, an expert in the use of drones and other technologies for marine protected area (MPA) surveillance, fisheries enforcement and megafauna monitoring.
- 03:49 Monni and Tom welcome Dr Kristina Boerder to discuss the use of automatic identification systems (AIS) to track illegal activity of fishing vessels in MPAs.
- 17:48 Professor Serge Wich joins the hosts to take the surveillance discussion on land, using drones and infrared cameras in tropical terrestrial ecosystems.
- 24:35 Dr Colin Beale discusses how to tackle wildlife crime in Africa using algorithms to analyse evidence of illegal activity in the bush and inform ranger-led patrols.
- 33:44 Monni and Tom are joined by their final guest, Dr Ana Nuno, to find out how social science can address rule breaking in conservation.

#### Resources:

- Guardian article on the use of technology to stop illegal trade: <https://www.theguardian.com/environment/2019/dec/08/wildlife-trafficking-science-technology-come-to-rescue-end-illegal-trade>
- Guardian article on drones and big data: <https://www.theguardian.com/education/2019/feb/18/drones-and-big-data-the-next-frontier-in-the-fight-against-wildlife-extinction>
- Global Fishing Watch: <https://globalfishingwatch.org/>

- Link to New York Times article on Palau vs the Poachers:  
<https://www.nytimes.com/2016/02/21/magazine/palau-vs-the-poachers.html>
- Review of the Outlaw Ocean book:  
<https://www.theguardian.com/books/2019/oct/02/the-outlaw-ocean-by-ian-urbina-review>