# So, you want to engage society...about ecosystem restoration

Euan Ritchie Deakin University In the spirit of reconciliation, I acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea, and community. I pay my respects to their Elders past, present, and emerging.

Today we meet on the unceded Country of the Ngunnawal and Ngambri peoples

Overall, the state and trend of the environment of Australia is poor and deteriorating because of increasing pressures from climate change, habitat loss, invasive species, pollution and resource extraction.

- 2021 State of the Environment Report

"87 percent of scientists accept that natural selection plays a role in evolution, 32 percent of the public agree."

"87 percent of scientists think that climate change is mostly due to human activity, only 50 percent of the public agree."

#### THE CONVERSATION

Academic rigour, journalistic fla

Arts + Culture Books + Ideas Business + Economy Education Environment + Energy Health Politics + Society Science + Tech



The Hopeful Environmentalist The economic, social and cultural dimensions of environmental change

## Why academics are losing relevance in society – and how to stop it

Published: September 6, 2016 11.25am AEST



There's growing pressure for academics to get outside their comfort zones and to share their research with the broader public, campus via www.shutterstock.com



Academic rigour, journalistic flair

Arts + Culture Books + Ideas Business + Economy Education Environment + Energy Health Politics + Society Science + Tech

## Academics can change the world – if they stop talking only to their peers

Published: March 9, 2016 3.41pm AEDT - Updated: March 31, 2017 8.21pm AEDT



What's the point of academics producing amazing research if they don't share it widely with the general public? Shutterstock

"An average academic journal article is read in its entirety by about 10 people"

https://www.straitstimes.com/opinion/profno-one-is-reading-you 'Insanity is doing the same thing over and over again and expecting different results.'

– Rita Mae Brown, Sudden Death

#### 'Hey, we should restore ecosystems'

**Goal:** What outcomes/ impact are you seeking? What does success look like?

**Audience:** Who is your intended audience? Who will be most influential in helping you achieve your goal/s?

**Message:** Which message will allow you to best connect your goal with your audiences' needs?

**Platform:** Which channel / format is most relevant?

**Evaluation:** What's your measure of effectiveness?

**Refine & Reality:** How can you enhance what you're doing after reflection? But be realistic!

## Reflections, lessons, failures, and successes





Contents lists available at ScienceDirect

**Biological Conservation** 

journal homepage: www.elsevier.com/locate/biocon

## Why facts don't change minds: Insights from cognitive science for the improved communication of conservation research

#### Anne H. Toomey

Department of Environmental Studies and Science, Pace University, One Pace Plaza, New York, NY 10038, United States of America Center for Biodiversity and Conservation, American Museum of Natural History, Central Park West & 79th St, New York, NY 10024, United States of America

#### ARTICLE INFO

Keywords: Research-implementation spaces Evidence-based conservation Research impact Cognitive science Behavioral science

#### ABSTRACT

Conservation scientists increasingly seek to find ways to implement their research for improved policy and practice. However, such efforts may be ineffective, or even counterproductive, if they are based on outdated models of science communication and behavioral change. Insights from fields that study how information is processed in the brain, how and why humans make decisions and take action, and how change spreads across social networks can support and improve existing efforts to translate conservation research into practice and policy. However, little of this research has made its way into the conservation science literature, thus limiting the power of these ideas to influence how research is communicated and how impact is understood. This paper seeks to address this gap by discussing four common myths about how to best communicate science for decision making, namely, that facts change minds, scientific literacy will lead to enhanced research uptake, individual attitude change will shift collective behaviors, and broad dissemination is best. The article provides four alternative insights that can support effective science communication and impact: engaging the social mind for optimal decision-making, understanding the power of values, emotions, and experience in swaying minds, changing collective behavior, and thinking strategically for biggest impact. If we can understand how people process information, we can design interventions based on the best possible evidence of how humans make decisions for conservation management and policy.

BIOLOGICAL CONSERVATION

## Communication - hopes and myths (Toomey et al. 2023)



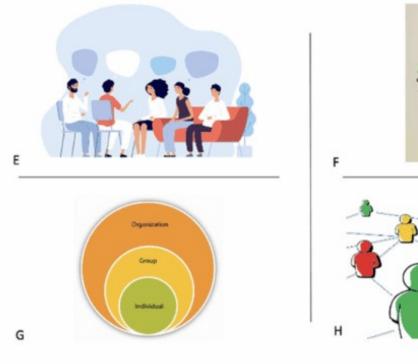
A - Facts change minds

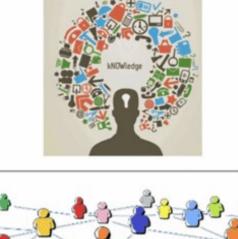
B – > scientific literacy = > research uptake

C - Individual behaviour change will shift collective behaviour

D - Broad dissemination is best

## Alternative communication priorities (Toomey et al. 2023)





E - Engage the social mind for optimal decision-making

F - Understand the power of emotions, values and experience in swaying minds

G - Change collective behaviour

H - Tap into social connectivity to amplify impact

# Words matter, they have power, use them <u>carefully</u>

Costs vs. Investments

Priorities vs. Neglect

Habitat loss vs. Habitat Destruction

Australia being unable to afford greater environmental protection is a government myth that refuses to die *Euan Ritchie* 

Redirecting massive defence spending and implementing a windfalls gains tax in the 2023 federal budget could go a long way to saving our environment

- Follow our Australia news live blog for the latest updates
- Get our morning and afternoon news emails, free app or daily news podcast



Australia's more than 1,900 threatened species in dire need of increased care are reduced to 110 priority species with insufficient additional funding.' Photograph: Brad Leue/Alamy

#### Effective communication and societal change demand honesty

#### Albanese government accused of trying to 'bury bad news' about health of Great Barrier Reef

Major report released at 4pm on Friday with no media release or a press conference from Tanya Plibersek

Follow our Australia news live blog for latest updates
Get our breaking news email, free app or daily news podcast



■ The minister for the environment, Tanya Plibersek, did not send out a media release or hold a press conference about the Great Barrier Reef Marine Park Authority's 600-page report into the declining health of the world heritage area. Photograph: Mike Bowers/The Guardian

## Great Barrier Reef teeters on UNESCO's 'in danger' status after Coral Sea's hottest summer in 400 years

By Christopher Testa ABC Far North

Great Barrier Reef

Thu 8 Aug





Researchers drilled into coral skeletal cores on the reef to obtain historic temperature data. (Supplied: Anne Hoggett, Lizard Island Research Station)

## An introduction to achieving policy impact for early career researchers

Megan C Evans 🖾 & Christopher Cvitanovic

Palgrave Communications 4, Article number: 88 (2018) Cite this article



Engaging policy makers

https://www.youtube.com/watch?v=Raul1tbS\_2k

## nature

Explore content ~	About the journal 🗸	Publish with us 🗸	Subscribe	
-------------------	---------------------	-------------------	-----------	--

nature > nature podcast > article

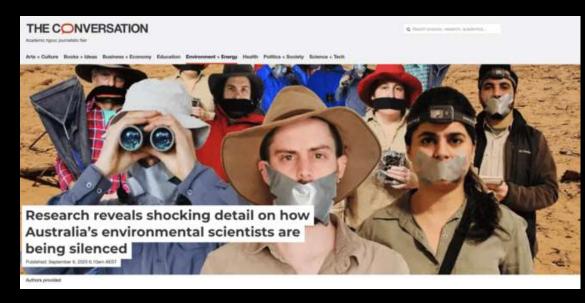
NATURE PODCAST 03 November 2020

# 'Stick to the science': when science gets political

A three-part podcast series explores the intimate relationship between politics and science.

By Nick Howe

## 52% of government respondents, 38% from industry, and 9% from universities were prohibited from communicating scientific information



"Due to 'risk management' in the public sector [...] ministers are not receiving full information and advice and/or this is being 'massaged' by advisors (sic)."

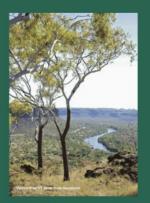
"I declared the (action) unsafe to proceed. I was overruled and properties and assets were impacted. I was told to be silent or never have a job again."

"I proposed an article in The Conversation about the impacts of mining [...] The uni I worked at didn't like the idea as they received funding from (the mining company)."

#### **Report Summary**

#### The State and Future of the Northern Territory's Savannas

By Professor Brett Murphy (Charles Darwin University), Professor John Woinarski (Charles Darwin University), Professor Euan Ritchie (Deakin University), Jabul Huddleston (Wagiman Traditional Owner) and Theresa Banderson (Wagiman Traditional Owner)



The tropical savannas of the Northern Territory (NT) are globally significant. They represent one of the world's last extensive and largely intact natural landscapes, rich in distinctive, diverse and fascinating communities of plants and animals. As Country, they are the lifeblood and foundation for diverse Indigenous communities, who maintain responsibility and care for the lands and waters, with knowledge and practice that has been honed over generations and persisted for millennia. The savannas are a cherished home and part of the essence of the lifestyle of Territorians, and the nature of this region is a fundamental drawcard for a significant tourist industry.

#### THE CONVERSATION

Academic rigour, journalistic flair

Arts + Culture Books + Ideas Business + Economy Education Environment + Energy Health Politics + Society Science + Tech



Q. Search analysis, research, anademica,

Land clearing and fracking in Australia's Northern Territory threatens the world's largest intact tropical savanna

Published: June 30, 2023 6.01am AEST

Jill Marie Smith, Shutterstock

#### **On land clearing**

Claims about the lack of environmental considerations in the regulation of land clearing in the Northern Territory (NT News, August 9) are unfounded and misinformed.

It is particularly disappointing that such claims are made by academic scientists without any checking of the facts about the rigorous assessment processes in effect in the Territory.

Land clearing in the Northern Territory is regulated under the Planning Act 1999 (for zoned and unzoned land) and the Pastoral Land Act 1992 (on pastoral land) in consideration of the NT Land Clearing Guidelines. All applications to clear land are assessed against these guidelines and by experts on a range of environmental matters including buffers to riparian areas, wetlands and sensitive and significant vegetation, the requirement for wildlife corridors, the impact of slope on erosion risk, land management considerations and land suitability.

**Your Say** 

All applications are also assessed by experts for their potential impact on threatened species, sensitive and significant vegetation, riparian areas and wetlands.

Applicants must also consider whether their application requires referral under the Environment Protection Act 2019 and/or the Environment Protection and Biodiversity Conservation Act 1999 (Cth) and give consideration to potential greenhouse gas emissions as required by the NT Government's Large Emitters Policy.

Proposals determined to have the potential for a significant impact on the environment are also separately assessed by the Northern Territory Environment Protection Authority under the Territory's Environment Protection Act.

Despite claims to the contrary, such assessments have occurred and can be viewed on the NT EPA's website. The Territory continues to have less cleared land than any other State and Territory.

Over its vast landmass of nearly 1.3 million square kilometres, less than 1 per cent of the Territory is cleared and our annual rate of clearing permissions continues to be far less than most other jurisdictions.

Interested readers can view granted permits and the approved areas for clearing on the NT Land Clearing Page and on the Department's NR Maps web portal, respectively.

Jo Townsend, Chief Executive Department of Environment, Parks and Water Security

### Find and work with community champions



REVIEW https://doi.org/10.1071/RJ22002

#### Can dingoes increase graziers' profits and help maintain Australia's rangelands?

G. Campbell<sup>A</sup>, A. Emmott<sup>B</sup>, D. Pollock<sup>C</sup> and B. J. Traill<sup>D,\*</sup>

For full list of author affiliations and declarations see end of paper

\*Correspondence to: B. J. Traill Landholders for Dingoes, PO Box 31, Maleny, QLD, 4552, Australia Email: barry@cana.net.au

#### ABSTRACT

Australia's largest land carnivore, the dingo, has been targeted by control programs in many agricultural landscapes since European settlement because of the judgement that dingoes cause costs to producers through the killing of livestock. As Australian pastoralists, we challenge the assumption that dingoes will only cause costs to producers. Based on our personal experiences and from research, we provide an alternative view, namely that in certain circumstances, there are major economic and ecological benefits of maintaining dingoes in grazing landscapes by controlling the unmanaged grazing pressure. As cattle producers, we have obtained significant financial gains for our family businesses, and environmental benefits on our properties by maintaining dingoes. Dingoes greatly reduce high-density populations of larger kangaroo species and some feral animals, especially goats. Such unmanaged grazing is persistently identified as a major factor in landscape degradation across large areas of Australian rangelands. The Australian pastoral industry as a whole, and the government departments that support it, need to evaluate, consider and discuss the economic and ecological benefits as well as the costs of maintaining dingoes in Australian pastoral landscapes.

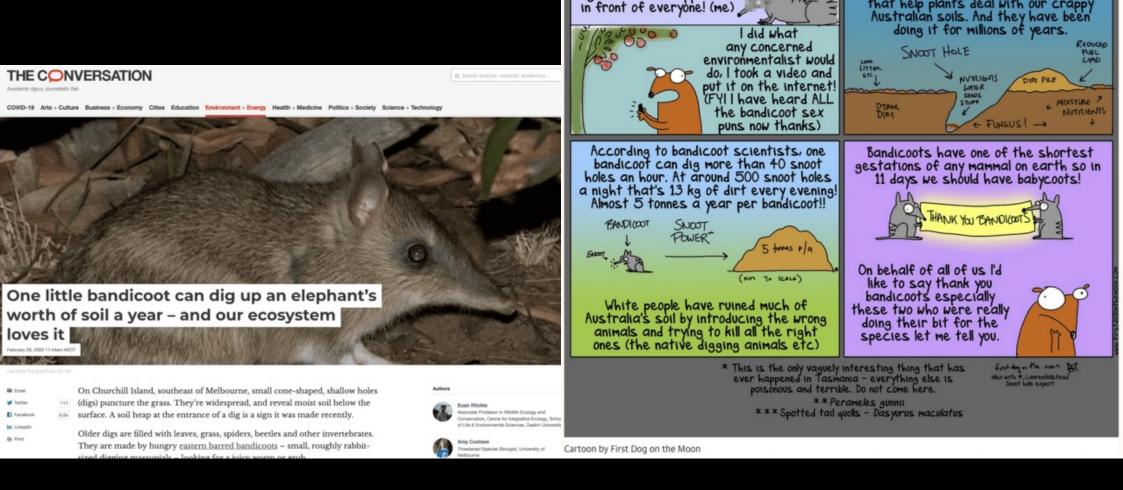
RANGELAND JOURNAL

Keywords: commercial beef cattle enterprises, dingo ecology, dingoes, ecological benefits, economic benefits, feral goats, grazing pressure, herbivores, kangaroos, land management, overgrazing, pastoral enterprises, profits, profitability, rangeland management.



1.8K followers · 83 following

## Trojan bandicutes



These normally shy bandicoots

WERE TOTALLY DOING IT!

Right under the apple tree

THE SCIENCE OF THE SNOOT HOLE

Bandicoot snoot holes break through the hard ground to let water, seeds and

nutrients in. They reduce fires by lowering fuel loads and spread important fungi

that help plants deal with our crappy

Login/Sign Up | Newsletters | Q | 🎰 | 🛞

#### COSMOS

Space |Tech |Nature |Earth |History |People |Health |Core Sciences |Subscribe Now

#### **O AUSTRALIAN MAMMAL OF THE YEAR**





AUSTRALIAN MAMMAL OF THE YEAR December 30, 2023 What happened next? The southern bent-wing went like a bat out of hell

ANIMALS April 11, 2024

#### Turns out wombats \*can\* run at 40km/h



NATURE August 30, 2023 To save our mammals we need to know them



AUSTRALIAN MAMMAL OF THE YEAR August 24, 2023

Talking the goldentipped bat, winner of Australian Mammal of the Year



AUSTRALIAN MAMMAL OF THE YEAR August 24, 2023

The golden-tipped bat is the 2023 Australian Mammal of the Year!



AUSTRALIAN MAMMAL OF THE YEAR August 21, 2023

Australian Mammal of the Year Top 3 – vote in the final round!

### Tell your stories, you never know who might be listening...and what might happen next

ABC		
<b>M</b> RN	Home Schedule Programs Articles	o 11:004.00 how with Daniel Browning
	Australia's new extinction cris	sis
	Rroadcast Wed N / Feb 2018 at 10-40pm	
	Austrillin ner etisztes enns	Ð
	Over the past few years; Australia has lost the Christmas Island pipistrells Christmas Island skink and the Bramble Cay melonys - the first mammal i world to have been wiped out by human-caused climate change.	
	Has the creation of the government's threatened species strategy and a Threatened Species Commissioner helped? Or is red tape actually hinder conservation efforts?	ng
	Guests	
	Euan Ritchie	

Sarah Allen illustrator @SarahAllen095 · Apr 22 · Just had an interview with @StephanieFizer about making children's books. I shared the lightning bolt moment of hearing @EuanRitchie1 talking about Australia's extinction crisis on @RadioNational which led me to writing and illustration nature picture books. /





#### THE CONVERSATION

Academic rigour, journalistic flair

Arts + Culture Books + Ideas Business + Economy Education Environment + Energy Health Politics + Society Science + Tech



Here's why more Australian scientists should team up with authors on books about animals

Published: August 23, 2024 10.17am AEST



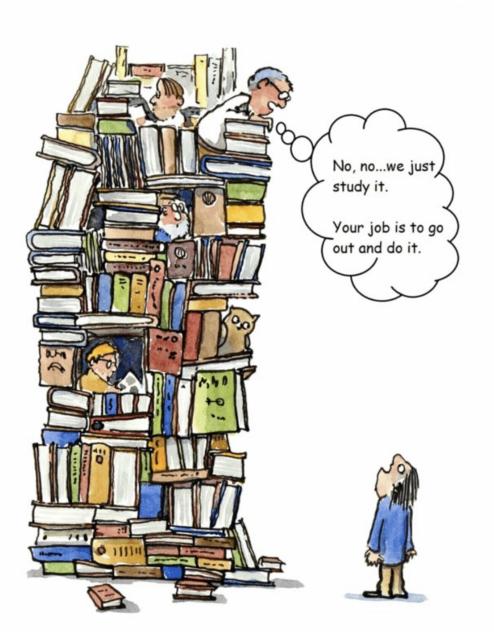
Bettongs eating truffles and spreading mycelium from my picture book Jumping Joeys. Now available in board book edition from Kmart and other book retailers. Feels like a subversive act of gentle activism. My dream making environmental education mainstream. @EuanRitchie1

X



🎔 266 🄍 Reply 🕜 Copy link

STEKLO, Shutterstock



# Go to and work with communities

## <u>Listen</u>

## Then speak, maybe, and work together

https://www.brookings.edu/articles/from-ivory-towers-to-the-classroom-how-can-we-make-academic-research-useful-in-the-real-world/

## 'It's devastating': Concern for threatened animal amid state's trapping plan

Michael Dahlstrom · Environment Editor Updated 12 May 2020 · 5-min read

£

WARNING - GRAPHIC CONTENT: There are fears for the future of newly discovered genetically pure dingoes in Victoria, after the government began "wild dog" trapping close to its home range.

Although Victoria's dingoes are classified as vulnerable to extinction, the species has been declared unprotected across much of the state – meaning they can be baited, trapped and shot within 3km of private land.

While the government acknowledges the environmental importance of the dingo as an apex predator, eradication is encouraged when the animals are seen near livestock or residential areas.



DNA testing of these dingo carcasses found in the Omeo region came back pure according to Dingo

#### THE CONVERSATION

Academic rigour, journalistic flair

Arts + Culture Books + Ideas Business + Economy Education Environment + Energy Health Politics + Society Science + Tech



'The boss of Country', not wild dogs to kill: living with dingoes can unite communities

#### Angus Emmott

Published: October 2, 2023 12,26pm AEDT

Email X X (Netter) E Facebook In Unkedin

Aside from humans, dingoes are Australia's largest land-based predator. They are arguably our most maligned, <u>misunderstood</u>, and mismanaged <u>native species</u>.

But <u>evidence</u> suggests this iconic canine helps maintain healthy ecosystems. They're also a <u>tourist draw-card</u>. And they hold <u>deep values for First Nations</u> peoples.

Since colonisation, Australian governments and land managers have <u>trapped</u>. <u>shot</u>, <u>poisoned</u> and <u>excluded</u> dingoes from large parts of their Country. Policy and practices have frequently overlooked First Nations' perspectives.

It doesn't have to be this way. We can hear the diverse voices and values of First Nations peoples, livestock producers, ecologists, and others as we shape future policy and practices. By collaborating and drawing from both Indigenous and Western knowledge, we can find ways to live in harmony with our apex predator.





Sonya Takau Girringun Aboriginal Corporation Communications Officier and Founder of Dingo Culture, Indigenous Venetication



Girringun Aboriginal Corporation Indigenous Protected Areas Coordinator and Acting Executive

Q. Search analysis, research, academics...

#### Science is humanity's best method for objectively understanding our world

Indigenous groups call for an immediate stop to Dingo culling



ger Konzern Cogenite heit beigen Tree konze Coge Tree konze Coge Space Wei wir St. Det konzern Projek Son die sond (in source) in die source) in die source (in source) in die sou

## Victorian government ends wild dog control in parts of state to save dingoes from extinction

ABC Rural / By Angus Verley, Else Kennedy, and Emile Pavlich Posted Sat 16 Mar 2024 at 7:49am, updated Sat 16 Mar 2024 at 8:44am



Victoria is the first Australian state to protect dingoes on private land. (ABC Open contributor: @outdoorsnap)

#### But, when science, art & storytelling combine we can change the world