

Responses to environmental tragedies often make matters worse, ethicists find

29 April 2019, by Steve Lundeberg

Without sound decision-making, responses to seeming environmental tragedies can often make matters worse, according to ethicists who analyzed a controversial goat removal program on an Australian island.

Michael Paul Nelson of the Oregon State University College of Forestry and collaborators from University of Technology Sydney have developed a framework to help [conservation managers](#) evaluate intervention options for effectiveness as well as possible unintended consequences.

Such a framework is needed, they say, to help prevent emotions and assumptions from clouding judgment as conservationists face the increasingly daunting and complicated task of dealing with human-caused problems. Beyond the Australia goat example, other recent cases involve [grizzly bears](#) in Canada and badgers in the United Kingdom.

"The future of conservation is filled with challenging conversations and decisions, for which we have largely been unprepared," said Nelson, a professor and the Ruth H. Spaniol Chair of Renewable Resources at OSU. "Our article outlines some of the ways the conservation community needs to prepare itself."

In an essay published in *Conservation Biology*, the authors recommend conservation practitioners follow a few key points to improve decision making: Be aware of the values of the community connected with a given intervention; don't over-rely on "normative constructs—essentially a group's assumptions or premises about what is good or bad; and be logically sound when building that justification.

"We also recommend five key attributes that practitioners should be attentive to when making conservation decisions," Nelson said. "Clarity,

transparency, scientific integrity, adaptiveness and compassion. And greater attention to the role of norms in decision-making will improve conservation outcomes and garner greater [public support](#) for actions."

The study by Nelson, Esty Yanco and Daniel Ramp uses the prism of the 2016 Pelorus Island Goat Control Program in Australia to show how conservation actions can create issues of their own when not grounded in science and solid reasoning.

The program's aim was to eradicate feral goats, descendants of animals introduced to the island as a food source for lighthouse keepers and shipwrecked sailors. Two centuries after goats were brought to the island, local elected officials decided they were causing an erosion problem and came up with a plan for getting rid of the goats: Bring to the island a quartet of dingoes captured from the Australian mainland and let predation take its course.

After two years, the dingoes would be shot so they themselves wouldn't become a problem, but if they proved too elusive, they were programmed to die anyway, having been implanted with capsules of poison designed to dissolve after 24 months.

Approved by a Queensland Animal Ethics committee and partially funded by the Australian Academy of Science, the goat control plan was quickly and widely criticized on animal cruelty grounds and then officially abandoned in response to the public backlash. However, the two dingoes that had been brought to the island before the program's discontinuation were, in fact, too stealthy to be shot, so they did end up killing some goats.

No [scientific evidence](#) supporting the need to remove the goats was ever made public. Effectively, the decision to take action was based on the normative construct that introduced goats were damaging the island's ecosystem. The

construct had come to be accepted as fact without being backed up by numbers such as [goat](#) population estimates, vegetation indices or erosion metrics.

"A well-meaning response to the perceived tragedy of the goats being on the island led to tragic consequences for animals in a program that was no longer approved but couldn't be reversed, which is a tragedy in and of itself," said Yanco, the paper's lead author and a graduate student at University of Technology Sydney. "Normative constructs were accepted as facts without scientific evidence, which allowed the project and its harms to be justified using poor reasoning and basic flaws in its argument.

A sense of urgency and our instinct towards restorative justice can shut down pathways that allow us to make well-reasoned decisions."

Recent history has produced numerous examples of that, the ethicists say.

"Canadian wildlife agencies manipulated scientific statements against grizzly bear hunting to support new hunting seasons despite evidence that bear populations haven't improved," said co-author Daniel Ramp, the director of UTS's Centre for Compassionate Conservation. "The UK government keeps killing badgers to mitigate the spread of tuberculosis to cattle, regardless of the scientific evidence that previous badger culls did not do anything to reduce TB."

Added Yanco: "On Australia's Macquarie Island, cats were eliminated and then rabbit populations increased, which completely changed the vegetation structure of the island; on the UK's Ascension Island, cats were eliminated and then rat populations increased and led to the decrease of sooty terns. Logic would suggest that mechanisms like cat removal don't produce the right outcomes because the managers aren't looking at the [islands](#) as a system."

Nelson elaborates that real tragedies can arise when [conservation](#) practitioners act as if the world is a machine in which pulling one lever produces only a specific and isolated response.

"The world is not a machine," Nelson said. "If we viewed the world as a system or an organism or something with emergent properties or as a living being, we'd think very differently about proposed solutions or what counted as success."

More information: Esty Yanco et al, Cautioning against overemphasis of normative constructs in conservation decision making, *Conservation Biology* (2019). [DOI: 10.1111/cobi.13298](https://doi.org/10.1111/cobi.13298)

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