

Letter

'The Denialists Are Coming!' Well, Not Exactly: A Response to Russell and Blackburn

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Russell and Blackburn's [1] call to action against 'invasive species denialism' appears to be invasion biology's desperate last stand. Invasion biologists' insistence that species introductions constitute a unified ecological crisis is losing support from both the scientific community and the informed public. It is being replaced by a more equivocal notion of ecological novelty, which can accommodate recognizing and responding to a spectrum of phenomena ranging from great good to great harm, with a good deal of relative insignificance in between.

Academic critiques of invasion biology have never consisted of simplistic denial. Rather, we have called for appropriate nuance, complexity, and objectivity. We have often taken pains to acknowledge the serious harms resulting from introduced pathogens and pests in various contexts, and from predators introduced to otherwise insular ecosystems [2,3]. If we have denied anything, it is that introductions *per se* need be considered fundamentally harmful. Rather, we seek more emphasis on understanding effects and discerning functions, and less on date of arrival and place of origin [3].

If, as it seems, Russell and Blackburn are (at last) conceding the role that personal values and agendas play in evaluating introduced species, they will find support among critics of invasion biology. They have, in effect, tentatively joined us in emphasizing the roles of such contingencies, and in recognizing that invasion biology was founded on one particular normative bias. However, it also appears to be a case of 'one step forward, two steps back'. Constructing an ostensible category of 'denialists' reflects invasion biology's traditional reliance on inflammatory exaggeration to impose and enforce a dichotomous doctrine. Originally, they considered native species to be good and non-native species bad. Eventually, they chose to further distinguish between non-native species (potentially bad) and invasive species (very bad indeed). Now they have explicitly declared invasion biologists to be good and supposed denialists bad. Nature does not lend itself well to a binary representation [4] and neither does ecological science.

Russell and Blackburn reiterate invasion biology's keystone ideological premise that invasive species greatly imperil present-day biodiversity. The claim that invasive species represent the second greatest threat to biodiversity [5] made a splash almost 20 years ago and became an object of veneration, but has since been revealed as a canard that only die-hard true believers and the poorly informed continue to invoke [2,6]. More recent assessments of biodiversity effects demote invasive species to a subsidiary role [7].

Invasion biology organized itself in the early 1980s to advocate one narrow,

preliminary view of a complex, multifaceted story, and has stuck to that agenda ever since. However, invasion biologists' traditional narrative has been superseded. In an increasingly cosmopolitan world, their ability to enforce it is diminishing. Russell and Blackburn's new accusations now require us to deny that their feared 'denialists' actually exist. That the pair have so thoroughly misrepresented our views and motivations suggests that they do not really understand our work, and/or that they are trying to shore up their dwindling authority over an obsolescent endeavor. Perhaps they take others improving on their science as a personal affront, and feel compelled to respond with name-calling. We can only guess. We would much rather be welcoming them into the multidisciplinary community of scholars and researchers trying to understand ecological novelty rather than merely complain about it.

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