



LIVING LEXICON
FOR THE ENVIRONMENTAL HUMANITIES

Invasion/Invasive

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My garden is being invaded by Japanese knotweed, as are those of my neighbors and those of many people who live in other places far from its native East Asia. I keep it more or less under control by eliminating individual extrusions, but I know that I am engaged in an open-ended struggle rather than a campaign leading to possible victory. The knotweed's root system is extensive and deep, making it nearly impossible to extirpate once it has become established. In Massachusetts, the Japanese knotweed is one of sixty-six species that have been designated "invasive" by the Massachusetts Invasive Plant Advisory Group (a nonprofit organization that works in coordination with state and federal agencies). Like the other sixty-five species on the blacklist, it has been banned for importation, propagation, and sale within the state; but given the robustness and vigor of the plant, these official sanctions seem a bit like closing the barn door after the horse has run away. The same may be true of ostensibly more draconian measures promulgated in other polities: in the United Kingdom, the discovery of Japanese knotweed on a property may reduce its assessed value, and in parts of Australia it is formally prohibited.¹

It is hard to think of anything good about "invasion." As the *Oxford English Dictionary* (OED) makes clear, whether its agents are nations, individual people, other animals, plants, or microorganisms, an invasion is at least "hostile" and very likely also "harmful." No one is eager to be invaded, whether personally or nationally or ecologically,

1. Information in the first paragraph comes from the following sources: Queensland Government, *Weeds of Australia*, keyserver.lucidcentral.org/weeds/data/03030800-0b07-490a-8d04-0605030c0f01/media/Html/Fallopia_japonica.htm (accessed January 8, 2017); Mass Audubon (Massachusetts Audubon Society), www.massaudubon.org/learn/nature-wildlife/invasive-plants (accessed January 8, 2017); and Campbell, "Japanese Knotweed."

and even the most self-satisfied invaders tend to characterize their invasions as liberation or restoration. If possible, the OED is even clearer about the connotation of the related term *invasive*,² which lacks the faintest whiff of triumph; along with its primary political and military senses, it collocates with diseases and unpleasant medical procedures as well as with organisms out of place (a sense only added in 2003—the Google Ngram for the phrase “invasive species” analogously reveals a striking increase in usage in the final years of the twentieth century).

Not that resorting to the dictionary is necessary: labeling a plant or an animal species as invasive seldom bodes well for it, at least to the extent that it inspires an orchestrated human response.³ For example, the website of the Massachusetts Audubon Society explains invasive species in a way that rings all these bells: the society “considers invasive species to be one of the greatest threats to the nature of Massachusetts because they out-compete, displace, or kill native species.”⁴ Confronting this threat is therefore among the society’s primary conservation goals. Nevertheless, its management strategy stresses control rather than annihilation. The justification for this relatively muted response is that, threatening though invasive species may be, “eradicating all the invasive species on our wildlife sanctuaries and preventing their return is a task that we cannot achieve with the resources available to us.”⁵ Operating on a much more extensive canvas, Invasive Animals Cooperative Research Centre of Australia (which draws support from both corporate and government sources) focuses on “food security” and “biodiversity assets” rather than on the vaguer and less economically grounded “nature.” Although its goals are consequently both more ambitious and more pragmatic, it admits to similar limitations, including “public concern for animal welfare and the withdrawal of many chemical control tools” among its challenges, along with “mouse plagues” and “expanding carp populations.”⁶

The practical and political difficulties of extirpating well-established invasive species thus tend to constrain the strategies devised to combat them. But no such modulation affects the accompanying rhetoric; even if success on the ground can only be relative, confidence in the identity and the valence of the targets remains absolute. This assurance neglects to acknowledge the instability and ambiguity inherent in both elements of the label “invasive species.” Of course, “species” itself has always been a philosophical problem (much too big a problem to discuss here); paradoxically, it is

2. *Oxford English Dictionary*, s.v. “invasion,” “invasive.”

3. A classic text on ecological invasion is Elton, *Ecology of Invasions*. For a set of recent essays that examine the biocultural terrain of ecological invasions, focusing on Australia, see Frawley and McCalman, *Rethinking Invasion Ecologies*. See also Ritvo, “Counting Sheep”; Ritvo, “Going Forth and Multiplying”; and Rotherham and Lambert, *Invasive and Introduced Plants and Animals*.

4. “Invasive Species,” Mass Audubon, www.massaudubon.org/our-conservation-work/ecological-management/invasive-species (accessed January 8, 2017).

5. “Invasive Species Management Strategy,” Mass Audubon, www.massaudubon.org/our-conservation-work/ecological-management/invasive-species/management (accessed January 8, 2017).

6. Invasive Animals CRC, www.invasiveanimals.com/about-us/ (accessed January 8, 2017).

both always essential and often misleading. The issues surrounding “invasive” are more concrete. For defenders of “native species,” the critique implicit in the term ahistorically assumes the previous existence of a static biota without intruders, in which relations among the constituent species were balanced, if not harmonious. For defenders of agricultural productivity, the term itself elides the provenance of cash crops and livestock (as well as the provenance of the defenders themselves).

That is to say, not all introduced species are tarred with the “invasive” brush, and the status of individual species can change with circumstances. Although many species currently designated as invasive were introduced to their adopted homelands accidentally, as by-products of the long-distance transportation that has become increasingly efficient over the last few centuries, many others arrived as invited guests or guest workers. Thus the descendants of camels imported to perform essential services in nineteenth-century Australia, like the descendants of horses and burros who filled similar roles in western North America, are now considered invasive pest species, at least by some people.⁷ During the same period, the mongoose was introduced to islands in the Caribbean and the Pacific in an attempt to control accidentally introduced rats; its introducers did not foresee that hungry mongooses would also control a variety of other small animals to which there existed no human objection. And many current invasives were introduced for less practical reasons. The North American gray squirrels that have outcompeted the indigenous red squirrels of Britain were imported by nineteenth-century acclimatizers hoping to enhance and diversify local wildlife.⁸ At present, rhododendrons rank among the most aggressive botanical invasives in Great Britain and Ireland; like many plants now considered problematic, including Japanese knotweed, they were introduced with other exotic ornamentals as part of the expansion of domestic horticultural possibilities that shadowed European commercial and political expansion.⁹

In most places, the massive anthropogenic environmental impacts of the last few centuries have included significant changes to populations of plants and animals. Species have appeared and disappeared, and their relative numbers have altered. I am not advocating quiescence in the face of all of these changes. But I would suggest that in many cases the proliferation of introduced species is a symptom rather than a cause, and that a reconsideration of the morally loaded rhetoric in which discussions of biological migration and transplantation are often couched might make it easier to identify those causes and even to do something about them.

In the meantime, my struggle with the knotweed continues.

7. Gibbs, Atchison, and MacFarlane, “Camel Country.”

8. Benson, “Urbanization of the Eastern Gray Squirrel”; Coates, *Red and Grey*; O’Connor and Sykes, *Extinctions and Invasions*.

9. Another example is Australian eucalypti in California. See Farmer, *Trees in Paradise*. For further discussion of North American examples, see Coates, *American Perceptions of Immigrant and Invasive Species*. For examples of the Indian Ocean’s ecological influence on Australia, see Rangan and Kull, “Indian Ocean.”

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References

- Benson, Etienne. “The Urbanization of the Eastern Gray Squirrel in the United States.” *Journal of American History* 100 (2013): 691–710.
- Campbell, Lisa. “Japanese Knotweed: The Scourge That Could Sink Your House Sale.” *Guardian*, September 8, 2012. www.theguardian.com/money/2012/sep/08/japanese-knotweed-house-sale.
- Coates, Peter. *American Perceptions of Immigrant and Invasive Species: Strangers on the Land*. Berkeley: University of California Press, 2006.
- . *Red and Grey: Toward a Natural History of British Anti-Americanism*. London: British Library, 2013.
- Elton, Charles. *The Ecology of Invasions by Animals and Plants*. 1957; Chicago: University of Chicago Press, 2000.
- Farmer, Jared. *Trees in Paradise: A California History*. New York: Norton, 2013.
- Frawley, Jodi, and Iain McCalman, eds. *Rethinking Invasion Ecologies from the Environmental Humanities*. London: Routledge, 2014.
- Gibbs, Leah, Jennifer Atchison, and Ingereth MacFarlane. “Camel Country: Assemblage, Belonging, and Scale in Invasive Species Geographies.” *Geoforum*, no. 58 (2015): 58–67.
- O’Connor, Terry, and Naomi Sykes, eds. *Extinctions and Invasions: A Social History of British Fauna*. Oxford: Oxbow, 2010.
- Rangan, Haripriya, and Christian Kull. “The Indian Ocean and the Making of Outback Australia: An Ecocultural Odyssey.” In *Indian Ocean Studies: Cultural, Social, and Political Perspectives*, edited by Shanti Moothy and Ashraf Jamal, 45–72. New York: Routledge, 2010.
- Ritvo, Harriet. “Counting Sheep in the English Lake District: Rare Breeds, Local Knowledge, and Environmental History.” In *Noble Cows and Hybrid Zebras: Essays on Animals and History*, 186–202. Charlottesville: University of Virginia Press, 2010.
- . “Going Forth and Multiplying: Animal Acclimatization and Invasion.” *Environmental History*, no. 17 (2012): 404–14.
- Rotherham, Ian D., and Robert A. Lambert. *Invasive and Introduced Plants and Animals: Human Perceptions, Attitudes, and Approaches to Management*. London: Earthscan, 2011.