

Alien Invasion!

A review of Tinkering with Eden and Nature Out of Place

by Meredith Hall

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I love my hometown, but I have a bone to pick with a few of its inhabitants -- especially the green ones. It's not the lively Nader supporters of Portland, Ore., that I have hard feelings for, but rather the guileful botanic creepers that go by the common name English ivy. Botanic enemy number one is a luscious green forest dweller, a lazy gardener's groundcover, a symbol of old-world garden sophistication -- and, in Portland, an insidious invasive species. English ivy (*Hedera helix*, for the botanically savvy) infests more than half of the city's forests, choking out trees, ferns, and any other struggling forest undergrowth.

Portland's standoff with ivy is just one battle in the nation's war against alien species. That war is the subject of two new books, Kim Todd's [Tinkering with Eden: A Natural History of Exotics in North America](#) and Jason and Roy Van Driesche's [Nature Out of Place](#).

Todd weaves 17 tales of past and present exotic organisms that have staked their claim in North American soils -- abetted, of course, by their human companions. With a healthy dose of sympathy for her human characters, Todd clarifies the complicated, wonky world of Exotic Pest Plant Councils and feral animal eradication. She discusses introductions accidental and intentional; from across oceans and over the county line; of species as small as microbes and as large as reindeer; and introductions intended to battle previous introductions (a technique known as *biocontrol*).

Some exotic plants and animals snuck their way into North America against our wishes, like the zebra mussels now coating the bottom of the Great Lakes; others all but had a red carpet rolled out to welcome them. Anyone with half a heart for Northeastern forests would travel back to Medford, Mass., in 1868 to convince the plucky individual in search of a better silkworm that gypsy moths were not the way to go. Pigeons are such a familiar species these days that it's hard to believe they're actually exotic. They were treasured accessories of 18th-century French settlers, but Todd reports that the birds now cost U.S. cities about \$1.1 billion a year (that's nine bucks per pigeon per year), according to researchers at [Cornell University](#).

Many exotics exploit the gaps in the ecosystem created by human disturbance -- pigeons live in cities where most other birds can't survive, and brown trout often live in streams that other fish do not inhabit. But other invasives sweep right into perfectly intact ecosystems. English ivy grows in previously undisturbed forests, starlings (released in Central Park as part of an effort to introduce every bird mentioned by Shakespeare) scare native birds out of their own nests. Feral (i.e., escaped domestic) pigs in Hawaii trample native plants and destroy the habitat of the islands' dwindling endemic bird populations.

Weird Science

The cases of Hawaii's feral pigs, the Great Lakes' zebra mussels, and the Great Plains' leafy spurge plague are all explored in [Nature Out of Place: Biological Invasions in the Global Age](#). The Van Driesches examine invasives from a more scientific perspective than Todd. Jason authors chapters of case studies organized by region, while his father, Roy, a biological control researcher, gives ecological background on the issue. Compared to Todd's delightful prose and narrative style, the Van Driesches take the reader on a drier journey, culminating in a discussion of possible solutions.

One of the important lessons to be drawn from both books is that although plants and animals have always been on the go, spreading, colonizing, and invading new parts of the world, human beings have drastically increased the speed and physical scale of this movement. As Roy Van

Driesche writes, "Continents are floating arks -- each bearing its particular cargo of animals and plants -- and interchange only happens when the continents come together or when a plant or animal manages to cross the barrier between the continents. Under natural conditions, both of these events are extremely rare."

Today, in this age of overnight mail and global travel, it's all too easy to ship tree snakes to Guam (where they eat the birds), carry foot-and-mouth disease to the U.K., or send St. John's Wort across the country to your friend (whose favorite herbal antidepressant is also a weed plaguing much of the American West). Although invasive species are rarely mentioned at World Trade Organization meetings, the world's leaders are opening countries' doors to more than trade; by advancing trade without establishing safeguards to limit the movement of alien species, they are doing great damage to the world's agriculture, fishing, forestry, and tourism industries, not to mention its biodiversity.

But while we wait for decision makers to get their acts together, we can take the advice of the Van Driesches: Go "local in a global age." We can garden with local plants, volunteer with local groups to clean up community wildlands, and educate our pals about the invaders all around us -- you'll never run out of naughty plants to identify on a walk through the 'burbs.

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