

BOOKS *et al.*

## RESTORATION ECOLOGY

# A walk on the wild side

By Christine Griffiths

The term “rewilding” evokes everything from fear to outrage in the minds of the public, as they imagine lions and elephants haphazardly released into city streets. The term first appeared in print in 1998 and was used to describe conservation methods that focused on reducing habitat loss and fragmentation by promoting “cores, corridors, and carnivores” (1). Much literature has indeed focused on reintroducing large herbivores and apex carnivores to North America and Europe, because these keystone species play crucial roles in maintaining the structure and integrity of ecological communities

In *Feral: Rewilding the Land, the Sea, and Human Life*, author George Monbiot challenges the reader to think more deeply on the subject of rewilding. He maintains that understanding how ecological communities persisted in the past and why they are degraded today is necessary to identify and set appropriate targets for restoration.

Monbiot’s dream is to rewild the world, starting with the barren and bleak British landscape and the depleted oceans.

## Feral

Rewilding the Land, the Sea, and Human Life  
George Monbiot  
University of Chicago Press,  
2014. 341 pp.



Monbiot bemoans how much of the British landscape that is perceived as wild and largely unspoiled is in fact damaged by overgrazing deer and sheep and argues that misguided local, national, and regional land management policies are to blame. His panacea is to supplant archaic subsidies that support unsustainable farming practices with an economy based on walking and wildlife.

Throughout the text, Monbiot presents compelling evidence that the benefits of rewilding—including its effects on carbon sequestration, tourism, hunting, recreation, soil recovery, water regulation, and quality of life—far outweigh the costs. But he insists that rewilding should not take place without public consensus.

Challenging public opinion that the restoration of rainforest or coral reefs, or the reintroduction of large herbivores and predators, is needed only in tropical areas

or vast uninhabited lands, he envisions restoring small corners and pockets of urban environments to their original states as well. Rewilding, according to Monbiot, can occur everywhere and on many scales.

Because humans now shape the future of the planet, the conservation and restoration of fauna and flora depend on our vision as much as on science. Yet, as Monbiot laments, our shifting expectations about what a healthy ecosystem looks like—an affliction referred to as “shifting baseline syndrome”—curtails our ability to identify problems and implement restoration efforts to protect biodiversity. Reconnecting with nature and examining our ecological history, he argues, is essential to appreciating what has been lost and is critical for repairing damaged ecosystems.

Throughout the book, Monbiot’s lyrical and provocative tales of his efforts to re-engage with the wild stimulate the senses and arouse an innate urge to affiliate with nature. His efforts are reminiscent of those of biologist Edward O. Wilson, who theorizes that contact with nature is needed to reverse what he sees as a growing dissatisfaction and emptiness in our lives (2).

In *Feral*, Monbiot takes you on an emotional roller coaster, at times plunging you into troughs of despair as he discusses the bleak plight of much of our wildlife and, at others, raising you up on peaks of hope as he discusses how much of the degradation can be reversed. Though daunting, his goals of renewing the public’s engagement with nature and raising perceived ecological baselines may ultimately be more easily tackled than other challenges in the field of restoration ecology. Convincing the public that certain critical ecosystem functions may only be restored by introducing functionally similar exotic species or by species de-extinction (by means of cloning technologies and/or synthetic biology), for example, might prove more difficult.

Part personal journal, part restoration ecology primer, *Feral* popularizes the concept of rewilding and will likely prompt wildlife managers, landowners, policy-makers, and the general public to question their perception of the natural world and its role in our lives. In addition to stressing the inherent need to restore ecological interactions, Monbiot’s thesis—that rewilding is in our own best interest—could become the catalyst for a rewilding movement.

## REFERENCES

1. M. Soule, R. Noss, *Wild Earth* 8, 19 (1998).
2. E. O. Wilson, *Biophilia* (Harvard Univ. Press, Cambridge, MA, 1984).

10.1126/science.1262000

The reviewer is at the School of Biological Sciences, University of Bristol, Bristol, UK. E-mail: christine.griffiths@bristol.ac.uk



## EXHIBITION

# Steampunk science

By Deborah Dixon

**L**ongitude Punk'd is part of an exhibit at the Royal Observatory in Greenwich that celebrates the 300th anniversary of the United Kingdom's Longitude Act, an act of Parliament that established the British Board of Longitude and offered a monetary prize to anyone who could develop a practical method for determining a ship's longitude while at sea.

The exhibition features the works of nine artists from the United Kingdom who relied on historical accounts and resources from the observatory to create a fictional retelling of the longitude prize competition. The exhibit is done in "steampunk" style—an



aesthetic known for futuristic inventions rendered in the style of the British Victorian era. The result is an often whimsical and amusing, while always clever, series of installations.

The Royal Observatory has played an authoritative role in providing precise and accurate observations of both space and time, and the artists playfully satirize this authority by appropriating the observatory's inventory and exhibition spaces to set the scene. The intent is not to blur fact and fiction but to create new stories of hubris and derring-do in the vein of Jules Verne and H. G. Wells.

*The reviewer is at the School of Geographical and Earth Sciences, University of Glasgow, East Quadrangle, University Avenue, Glasgow G12 8QQ, Scotland. E-mail: deborah.dixon@glasgow.ac.uk*

**Longitude Punk'd**Heloise Finch-Boyer,  
Curator

Flamsteed House,

Royal Observatory Greenwich

10 April 2014 to 4 January 2015.

[www.rmg.co.uk/whats-on/events/longitude-punkd](http://www.rmg.co.uk/whats-on/events/longitude-punkd)

The organizing conceit of the exhibition is the story of a fictional navigator, the Commodore, created by author Robert Rankin, who exploits the geographical awareness of kiwi birds to win the Board of Longitude's competition. Excerpts from "The Rime of the Ancient Commodore," a whimsical poem about his experience, appear on a series of signposts throughout the exhibit, creating a narrative for visitors to follow.

The upstairs rooms of the observatory's Flamsteed House, where part of the exhibit is displayed, are preserved as the apartments of previous Royal Astronomers and their families—with a twist. The rooms now feature reimagined costumes for occupants and visitors of the day, created by artists Jema Hewitt and Karen Grover. In the Octagon Room, for example, is Hewitt's Orrery Gown, a garment that combines period dress detail with a new model of the solar system, where all revolves around the moon. Downstairs, the usual contents of the "Time and Longitude" gallery have been replaced with fictional entries to the Board of Longitude competition. An example is artist Ian Crichton's "Precise Longitudinal Beacon," a traditional Georgian mansion with a steampunk slant. Crichton imagines a series of these stately homes hoisted 50 miles above the equator and adorned with flashing lights to indicate the lines of longitude.

The highlight of the exhibition, however, is Geof Banyard's alternative history project, which provides new titles and captions for paintings, sketches, and artifacts in the Royal Observatory's permanent collection. Simon de Vlioger's sublime oil painting, *A Ship Wrecked off a Rocky Coast* (1640), for example, is now called *From BENEATH you, it DEVOURS*—an homage to horror author H. P. Lovecraft.

In contrast to the National Maritime Museum's exhibition on the same subject, Longitude Punk'd does not purport to educate visitors about the realities of the past; rather, it emphasizes how a history of science can be told in a way that instills wonder and curiosity.

10.1126/science.aaa0415

IMAGE: © JEMA HEWITT

Super  
performance



Bring super sensitivity,  
reproducibility, and  
specificity to qRT-PCR  
with SuperScript® VIL0™  
Master Mix

Go super at  
[lifetechnologies.com/superscript](http://lifetechnologies.com/superscript)

Invitrogen™

life  
technologies

A Thermo Fisher Scientific Brand