



A bear raids a vegetable patch in Rutland, Massachusetts.

CONSERVATION

# Backyard jungles

Stuart Pimm explores today's collision between bears, beavers and US suburbanites.

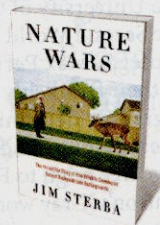
It's a spring Monday morning and the departmental office puts a phone call through. I can already guess it's someone calling to ask for "an ornithologist". I know the caller will be irate and expecting me to solve his problem. Yes, I have the answer; no, he's not going to like it. So, I listen to the tirade about how woodpeckers drum on his home at 5 a.m. at the weekend. Will I remove them? No. Can he shoot them? No. What can my distressed caller do?

With insight that makes him think I'm a modern-day Sherlock Holmes, I tell him he lives in a cedar-clad home (such homes resonate to woodpecker drumming better than trees). It is surrounded by forest (that's where woodpeckers live). He probably also has Canada geese on his lawn and white-tailed deer eating his vegetable garden, I confidently suggest.

Jim Sterba's *Nature Wars* is about the extraordinarily inconsistent attitudes to the natural world harboured by Americans today. We love nature, hate nature;

want it near us, but not too close; want it to be not, well, too natural. As Sterba writes: "This book tells the story of how we turned a wildlife comeback miracle into a mess." The book covers the relatively familiar tale of how we tamed and cleared the wilderness, and details how the forest returned and how, after the Second World War, we moved into it.

The singular fact is that for more than a decade, most Americans have lived in suburbia, and those east of the Mississippi in suburban forests. As Sterba puts it, "we are essentially forest dwellers". Drive the 3,000 kilometres north from Florida to New



**Nature Wars: The Incredible Story of How Wildlife Comebacks Turned Backyards into Battlegrounds**  
JIM STERBA  
Crown: 2012. 368 pp.  
\$26, £17.99

England along Interstate 95 and it is forest almost all the way. By contrast, on the drive north on the M1 from London, England's green and pleasant land is still mostly cropland and pasture — as is much of western Europe.

The fact that the eastern United States was radically deforested more than a century ago is obvious. The trees are still too small to be "old growth" and they get larger each year. Heading north in the direction of Sterba's weekend home, and well inside New York City, forests have reclaimed fields still delineated by stone walls. The low point of US forest cover occurred in about 1870. By then, young men were moving west, where they and their families were to almost completely and permanently convert the prairie ecosystems into rich croplands. In the depleted forests that they abandoned, wildlife had taken a beating.

Some forest species, such as the passenger pigeon and the ivory-billed woodpecker, dwindled to extinction. Others

became merely rare, but recovered as the forest returned. Some did very well indeed. Bears, deer and turkeys had close calls. Beavers — “North America’s first commodity animal” — which were hunted for their fur, disappeared across much of the country. It is ironic, as Sterba notes, that their comeback has reminded us of their immense destructiveness.

By far the best part of this book is its catalogue of our responses to such species. Yes, my phone caller wants his nice forest home, but he doesn’t feel he signed up for the deer, coyotes and black bears that come with it. Deer carry ticks that spread Lyme disease. Yet he might post cheques to an animal-rights group campaigning to stop official annual deer culls, even as his gun-toting neighbour burns to join the cull.

Meanwhile, trendy restaurants serve venison — nearly all of it imported from New Zealand, Sterba tells us. The blood and guts involved in killing a deer and cutting it up for the freezer is just too much for many. And whereas taking out young females would be the most effective way to control deer populations, many hunters think that killing males is the only sporting thing to do.

It isn’t all one way, of course. Pet cats wreak havoc on millions of small birds — many lured in by bird feeders. The stores that sell the feeders and the food to go in them thrive: bird feeders have even altered the wintering ranges of several species.

My most unwelcome advice to my phone caller? I love woodpeckers; I think beavers are extraordinary animals, the quintessential ecosystem engineers; and I eat the venison my graduate students shoot. Bears demand respect, but are not quite as terrifying as the lions that sniff around

**“We love nature, hate nature; want it near us, but not to close; want it to be, well, not too natural.”**

my tent in Africa when I’m doing fieldwork. So, I advise my caller to lie back and enjoy his home, woodpeckers and all. He hangs up in fury.

As Sterba so ably explains, the great

majority of Americans are now disconnected from nature and live mostly indoors. Viewing “a goldfinch on the bird feeder outside the living room window” is perfection. The outside, itself, is altogether too messy, too threatening and too noisy at 5 a.m. on a spring morning. ■

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## Books in brief



### Regenesi: How Synthetic Biology Will Reinvent Nature and Ourselves

George M. Church and Ed Regis BASIC BOOKS 304 pp. \$28 (2012)

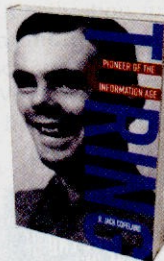
The life sciences emerge as the new high-tech in this paean to synthetic biology. Geneticist George Church and science writer Ed Regis show how reprogramming “genetic software” radically skews outputs, from microbes that create plastic by metabolizing maize (corn) sugar to potentially reverse engineering Neanderthals from a human stem cell. Each step in the genome’s evolution serves as a springboard for expositions of how synthetic biology will revolutionize renewable energy, multivirus resistance and more.



### Near-Earth Objects: Finding Them Before They Find Us

Donald K. Yeomans PRINCETON UNIVERSITY PRESS 192 pp. \$24.95 (2012)

As Earth creeps on its course around the Sun, it is exposed to a relentless barrage of asteroids and comets. Donald Yeomans, who manages NASA’s Near-Earth Object Program Office, offers an introduction to the science of these lethal monsters, one of which may have seen off the dinosaurs 65 million years ago and created the Chicxulub crater. Yeomans shows how the threats are balanced by potential boons, such as the theoretical delivery of the building blocks of life on Earth. Can these reeling masses even become interplanetary pitstops on the road to Mars?



### Turing: Pioneer of the Information Age

B. Jack Copeland OXFORD UNIVERSITY PRESS 320 pp. £14.99 (2012)

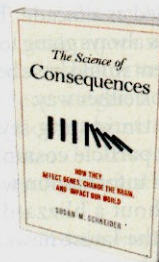
A tangle of speculation surrounds Alan Turing’s last two years. Jack Copeland takes it on with aplomb in this expertly integrated life and work, based on years of discussion with Turing’s colleagues and friends. A well-drawn portrait of the man — moody, humorous, seriously *sportif* and brimming with momentous ideas — this is also a catalogue of his fundamental achievements in computing and artificial intelligence. Crucially, Copeland’s fresh take on the lead-up to Turing’s death, from the hormone therapy he endured to his final hours, is based on a sober assessment of compelling evidence.



### A Man of Misconceptions: The Life of an Eccentric in an Age of Change

John Glassie RIVERHEAD 352 pp. \$26.95 (2012)

He thought Earth hollow, influenced Leibniz’s ideas on the binary system, predicted germ theory — Baroque Jesuit Athanasius Kircher was doubly endowed with avid curiosity and variable judgement. In an era in which science teetered at the edge of the rational, Kircher’s investigation of optics, Egyptian hieroglyphs, magnetism and more led to flashes of brilliance in swathes of murk. And, as John Glassie demonstrates, some of the findings inspired or seeped into the work of later pioneers, from Mesmer to Champollion.



### The Science of Consequences: How They Affect Genes, Change the Brain, and Impact Our World

Susan M. Schneider PROMETHEUS 352 pp. £18.99 (2012)

Biopsychologist Susan Schneider, a protégé of twentieth-century behaviourist B. F. Skinner, reveals the effects of actions’ consequences on evolution, the genome and the brain. Learning from consequences, she argues, helps to reconfigure the brain across species. And, she avers, such insights can inform real-life applications, from the treatment of depression to solving global issues such as overfishing.