



Vitus Bering, leader of the eighteenth-century Great Northern Expedition, died en route and was buried here, in the Commander Islands (pictured in 1980).

POLAR EXPLORATION

The forgotten journey

Huw Lewis-Jones revisits a pioneering, ill-fated expedition to map the Arctic.

The Great Northern Expedition was an immense eighteenth-century enterprise that redrew the Arctic map. Led by Danish captain Vitus Bering, it set out in 1733 from St Petersburg, Russia. Over the next decade, a dwindling cavalcade crossed thousands of miles of Siberian forest and swamp and then, in ships built by hand, struck out towards the unknown shores of North America. Sponsor Peter the Great had envisioned a grand campaign to elevate Russia's standing in the world, with its scientific and geographic findings shared widely. However, he died long before its return, and under subsequent regimes much was buried in obscurity.

In *Island of the Blue Foxes*, Canadian author Stephen Bown retells the story of this epic undertaking. Although this book lacks the narrative drive of his previous accounts — excellent biographies of explorers Knud Rasmussen and Roald Amundsen — it should draw new readers to a neglected chapter in maritime history. Bering's voyage shows the lengths to which humans are driven by their curiosity, and demonstrates the environmental consequences of our greed.

Bown's subtitle dubs his subject the "world's greatest scientific expedition", which is a bit of a stretch when you compare it with, for example, the slightly later voyages of James Cook or Alexander von Humboldt.

Yet Bering's brainchild was certainly one of the largest, longest and most costly expeditions mounted in the eighteenth century. Its budget, at around 1.5 million roubles, was roughly one-sixth of the annual income of the Russian state. As an example of commitment to geographical discovery, it deserves to be better known.

The challenge for a historian is the elusiveness of source material. We don't have a verifiable contemporary portrait of Bering, and his journals have not survived. For much of the later stages of the expedition at sea, Bering was rarely seen on deck, confined to his cabin with scurvy. He was nearing 60 years old, and his energies were long spent. What we do have are two remarkable first-hand accounts: in the unvarnished journal of his second-in-command, Sven Waxell, and in the manuscripts of the cantankerous, diligent German naturalist Georg Steller. The harrowing later stages of the expedition, a saga of survival against gruesome odds, have been covered by previous



Island of the Blue Foxes: Disaster and Triumph on the World's Greatest Scientific Expedition
STEPHEN R. BOWN
Da Capo: 2017

books: Corey Ford's *Where the Sea Breaks Its Back* (Little, Brown, 1966) and *Steller's Island* (Mountaineers, 2006) by Dean Littlepage.

Bown's synthesis of these "tragic and ghastly" final months is well written. He also goes to great lengths to detail the arduous early phases, essentially an unending gauntlet of implausible logistics. Everything needed for the voyage — from shipbuilding gear and supplies to anchors, sails and cannonballs — had to be hauled overland, by sledge, horse and raft. Many of the thousands of men involved didn't even make it to the Siberian coast alive, let alone begin the sea voyage.

With no ready voice to be plucked from primary sources to make a charismatic figure out of Bering, the real star of Bown's narrative is Steller. Over the course of the odyssey, this difficult man transforms from unlikable savant to practical lifesaver, with his knowledge of flora and fauna ultimately saving his scurvy-ridden comrades. His efforts to 'do science' were frequently at odds with the naval command: time ashore was precious, and precarious at best. His explorations on Alaska's Kayak Island mark the first scientific discoveries in western North America, yet Steller would complain that ten years of preparation had resulted in just ten hours of investigation on a remote beach, as the ship's water barrels were fitfully replenished.

Later wrecked in the Commander Islands,

V. TARASEVICH/SPUTNIK/ALAMY

and given up for dead, he and his remaining companions had much more experience ashore than they would have ever wished for. Here, Steller observed and described the behaviour, diet and life cycles of several new and endemic species: sea lions and fur seals, a large flightless cormorant and a “special sea eagle with a white head and tail”, today known as Steller’s sea eagle (*Haliaeetus pelagicus*). He dissected a male fur seal, making many measurements to add to his multi-page description. It is said he also prepared a catalogue of birds and plants, although the island’s verminous blue foxes would sometimes carry off his papers or knock over his inkstand. Or worse: the foxes chewed on the corpses of the dead, and harassed the dying, until subdued by boot, axe or gunshot.

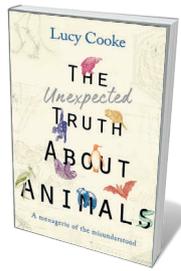
Stellar died on the way back to St Petersburg in 1746. Secrecy in protecting Russian imperial interests meant that his contributions were little known to the wider world. In Russia, however, Bering’s voyage inspired sailors and entrepreneurs to turn their attentions east. Steller’s legacy as a naturalist is worth remembering, but there is a sober consequence to this voyage, as with many others sent out in the name of science and state: namely, later bloody encounters with indigenous peoples and habitat destruction.

Just a year after the expedition’s return, a shipload of hunters arrived home “with a cargo of sixteen hundred sea-otter, two thousand fur-seal, and two thousand blue-fox skins”. Steller’s sea cow (*Hydrodamalis gigas*), discovered in 1741 on the island that would later bear Bering’s name, was hunted to extinction in just 27 years. Despite the risks and hardships, the profits of the sea-otter trade also drew British and American traders north. This wave of hungry sailors wiped out the spectacled cormorant (*Phalacrocorax perspicillatus*) that Steller first observed, goose-sized and reportedly delicious.

To understand the full significance of this fateful expedition, compare maps. Before 1720, Siberia and the North Pacific are riddled with curious fantasies or swathes of white space. On charts created after Bering’s final voyage, the region emerges in its full complexity. Alaska finds form and the Pacific fur trade opens. A vast archive of manuscripts and observations from Siberia has not yet been fully recovered from Russian archives, let alone published in English, but work by scholars supported by the Carlsberg Foundation in Copenhagen is now bringing material into the public domain. There is much more to be discovered and, in terms of species loss, still so much that must be learnt. ■

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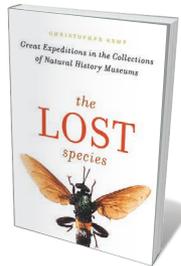
Books in brief



The Unexpected Truth about Animals

Lucy Cooke DOUBLEDAY (2017)

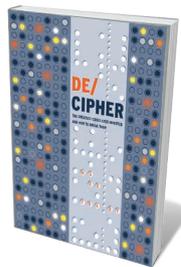
Sigmund Freud’s first paper involved the dissection of eels in an attempt to locate their testes. To his frustration, Freud failed to find any. The eel’s life cycle remains slippery, notes natural-history broadcaster Lucy Cooke in her deeply researched, sassily written history of “the biggest misconceptions, mistakes and myths we’ve concocted about the animal kingdom”, spread by figures from Aristotle to Walt Disney. Other chapters spotlight the sloth, culture, hippopotamus, panda, chimpanzee and others, and dismantle anthropocentric clichés with scientific, global evidence.



The Lost Species

Christopher Kemp UNIVERSITY OF CHICAGO PRESS (2017)

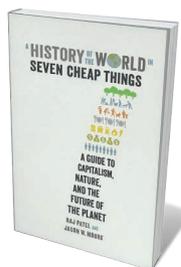
Only one-fifth of Earth’s species are named, observes Christopher Kemp. Our understanding of biodiversity resembles the sound of a symphony in which an orchestra plays every fifth note. A DNA barcode is an isolated note; only a taxonomist can determine whether an unmatched barcode signifies a new species. But taxonomists are a threatened species, too. This book pleads for their preservation with appealing stories of past and present discoveries, such as Charles Darwin’s rove beetle: found in Argentina in 1832, lost in a London collection and rediscovered and named *Darwinilus sedarisi* in 2012.



De/Cipher: The Greatest Codes Ever Invented and How to Break Them

Mark Fray MODERN (2017)

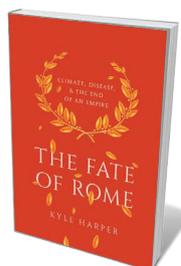
People often use the same password on multiple websites. Such bad habits remain the best hope for the codebreaker as encryption becomes increasingly unbreakable, notes science writer Mark Fray in this eclectic introduction to the mathematics, technology and personalities behind cryptography. It ranges from the baffling ancient Indus script to Alan Turing’s crucial Second World War codebreaking and the promise of quantum cryptography. Brief biographies of codebreakers both famous and obscure enliven the challenging codes and compensate for occasional inaccuracies.



A History of the World in Seven Cheap Things

Raj Patel and Jason W. Moore UNIVERSITY OF CALIFORNIA PRESS (2017)

Sociologist-cum-activist Raj Patel and environmental historian Jason Moore have written an informed, sometimes acute, polemic against capitalism’s half-millennium of colonial exploitation. They argue that the ‘Capitalocene’ age has triumphed by “cheapening” seven things: nature, money, work, care, food, energy and lives. They quote Christopher Columbus, who observed the Caribbean’s wondrous but unknown vegetation and wrote that many of its herbs and trees might be “worth much in Europe for dyes and for medicines”. To the authors, this unquestionably devalues nature; others might differ.



The Fate of Rome: Climate, Disease, and the End of an Empire

Kyle Harper PRINCETON UNIVERSITY PRESS (2017)

Ptolemy, the second-century geographer who lived in Roman-ruled Alexandria, Egypt, said it rained there every month but August. Now, the city has about one day of rain from May to September, says classicist Kyle Harper. He argues that environmental changes were as influential in destroying the Roman empire as human agency. His study mingles bacteria, volcanoes and solar cycles with emperors, barbarians, soldiers and slaves — including the Late Antique Little Ice Age and the first pandemic of bubonic plague. [Andrew Robinson](#)