The expedition of the HMS Rattlesnake is little known in the history of science. The Rattlesnake: A Voyage of Discovery to the Coral Sea by Jordan Goodman provides some account of the innovative research on marine invertebrates that Huxley conducted during the voyage, and cites at length from his colourful diary and letters. But what The Rattlesnake really provides is the other side of the picture painted by Huxley, his biographers and historians of marine biology; namely a portrait of everyday life on a survey vessel where natural history occupied a comparatively small place. Drawing on an impressive range of archival and printed material, Goodman assembles an account of the voyage that includes the diverse perspectives of officers, midshipmen, naturalists and navvies. Tapping into exchanges between the Hydrographical Office, the Lords of the Admiralty and the Australian Government, he also documents the complexities of naval and colonial politics in which the captain of the Rattlesnake, Owen Stanley, was enmeshed.

From such rich and varied sources, a view of imperial science emerges that is rather different from the one often found in heroic narratives of exploration or post-colonial studies of knowledge and power. The tentativeness and fragility of the endeavour undertaken by the Rattlesnake are evident from the start, with conflicting commissions pressed upon Stanley from different departments. The enterprise of discovery was frequently threatened by the loss of specimens, shortage of provisions and risk to life. And yet the trajectory of Goodman’s narrative remains traditional, describing a triumph of perseverance, technology and skill over hostile climes and particular interests that produced navigational knowledge which would ultimately secure British possessions in the South Pacific, and help make the region between the Pacific and the Indian Oceans a safe passage for commerce and future conquests.

At times, the liveliness of Goodman’s narrative is strained in recounting every leak, storm and nautical mile. But the strength of The Rattlesnake, and much of its appeal to historians of science, is its detail, which provides something of what is lost or missed in broader imperial histories or more analytical studies of encounter. A sixteen-year-old cadet reports his day’s surveying: over nine hours seated continuously in a cramped position, watching the dial of the patent log and noting all soundings at every half-tenth of a mile. Vivid sketches are drawn of colonial life at various ports of call: Madeira, where Huxley and the Reverend Robert King were offended by the smell of ‘garlicky humanity’ at Christmas mass; Mauritius, where the ship’s officers made a pilgrimage to the tombs of fictional characters from Bernardin de Saint-Pierre’s popular novel Paul et Virginie; and Port Essington, a remote colonial outpost in Northern Australia, notable for its busy cemetery. Stanley’s unofficial activities convey a sense of the survey ship as a gentleman’s estate, outfitted with comfortable sofas for his sisters en route to Madeira for convalescence and a magic lantern for entertaining guests. During the first stay of the Rattlesnake in Sydney harbour, Stanley converted its deck into a ballroom for the local elite.

One fissure suggested by the evidence but relatively unexplored, is the relationship between geography and natural history as forms of science. The Hydrographer’s remit and Stanley’s buoyant letters home both convey a model of science in which the sounding of ocean depths is undertaken hand in hand with excursions for local flora and fauna. Stanley was generous with the space and resources that were allocated to the naturalists on the Rattlesnake – John MacGillivray and Huxley. The height and length of waves were measured, birds were shot and skinned, tow nets were filled and physiognomies sketched. However, tensions surfaced between geographical collecting, often painstakingly slow and sedentary, and natural historical research, requiring frequent movement both on land and at sea. Such friction was most apparent in the final extended duty of the Rattlesnake, when Stanley completed his survey of the Louisiade archipelago with scarcely a visit to its largely unknown shores, while those with natural historical aspirations – Huxley, MacGillivray and the surgeon John Thompson – all complained of his cowardice and management of exchanges with island peoples. On his return from the voyage, when he was struggling to further his career as a naturalist within the navy, Huxley depicted science at sea as gloomy and decrepit: the life of discovery often scuppered by official regulations and duties. The contested status of geography and natural history as forms of knowledge deserves further consideration. Yet Goodman’s narrative remains interesting and enjoyable for its wealth of material on the practice and experience of natural history at sea, and its thorough research on little known facets of imperial science.