FRANKLIN'S LOST SHIP: THE HISTORIC DISCOVERY OF H.M.S. *EREBUS*. By JOHN GEIGER and ALANNA MITCHELL. Toronto: HarperCollins Publishers Ltd. ISBN 978-1-44344-417-0. 201 p., maps, b&w and colour illus., endnotes, bibliography. Hardbound. Cdn\$39.99.

On 19 May 1845, HMS Erebus and Terror sailed from London under the command of Sir John Franklin, with the aim of completing the first transit of the Northwest Passage from the Atlantic Ocean to the Pacific. On 17 September 2014, underwater archeologists Ryan Harris and Jonathan Moore of Parks Canada dived on the wreck of HMS Erebus, to find it sitting almost upright and surprisingly intact in only 11 m of water in Queen Maud Gulf, in the general area where Inuit traditional accounts maintain that the ship had sunk. Harris and Moore were the first people to see the ship since Inuit had seen it shortly after the crew had abandoned it on 22 April 1848 off the northwest coast of King William Island. This dive to the wreck was the culmination of a sustained search by Parks Canada personnel starting in 2008. In 2014, an impressive array of institutions joined in the search, including the Royal Canadian Navy, the Canadian Coast Guard, the Canadian Ice Service, the Canadian Space Agency, the Canadian Hydrographic Service, Defence Research and Development Canada and the private partner, the Arctic Research Foundation. This operation was christened the 2014 Victoria Strait Expedition. It involved four ships: the icebreaker CCGS Sir Wilfrid Laurier, HMCS Kingston, and the Arctic Research Foundation's Martin Bergman and One Ocean Voyager, as well as three smaller vessels: Parks Canada's Investigator and the Canadian Hydrographic Service's launches Gannet and Kinglett.

As the name of the 2014 expedition implies, the plan was to focus on an area in Victoria Strait, off the northwest coast of King William Island, near where Erebus and Terror had been abandoned by their crews. However, that area was found to be ice-covered, although it had been relatively ice-free earlier in the season, and therefore the focus of the search shifted to the Queen Maud Gulf area farther south. On 1 September, two artifacts that could be identified as being from a Royal Navy vessel by the distinctive "broad arrow" mark, a metal pintle from a davit, and a wooden hawse-plug, were found on a small island (whose name has deliberately not been disclosed). As a result, a side-scan sonar survey began from Investigator in the waters off the island the next day. Very soon the image of a large wooden vessel showed up on the sonar screen. Thereafter a frustrating period of strong winds and heavy seas prevented any dives on the wreck, but on 17 September Harris and Moore enjoyed the remarkable privilege of seeing and photographing HMS Erebus. Their photos are quite awe-inspiring. Remarkably, on that first day Moore spotted the ship's bell lying exposed on top of the wreck. It was subsequently raised and taken to Ottawa. Only a few more dives could be made on the wreck before the ice threatened to close in. In April 2015, however, having landed on the sea ice in a Twin

Otter, Harris and his dive team were able to make further dives on the wreck via a hole cut in the ice. They were able to take a further series of spectacular photos of the wreck and to raise one of the ship's brass six-pounder cannons.

Geiger and Mitchell describe the exciting events of the 2014 expedition in considerable detail, and their text is accompanied by spectacular photos of the wreck and of the Arctic landscape. Having no expertise in the technical aspects of the underwater search, this reviewer has to assume that the descriptions of the search are accurate. The various stages of the search and the dives are covered in chapters that alternate with chapters on the history of Sir John Franklin, his final voyage, and the extensive searches that were subsequently mounted for the missing ships. Unfortunately these chapters are strewn with errors, which greatly lower the value of the book as a historical source. Both of Franklin's ships were powered by steam enginesminimally modified railway locomotives. In a caption on p. 13, there is a reference to the "puzzle of the source of the locomotives"; there is no puzzle, however, since that source is well established. The engine on board Erebus came from the London and Greenwich Railway and that in Terror probably from the London and Birmingham Railway (Savours, 1999:180). On p. 24, muskoxen are described as "diminutive"; in fact, an adult bull measures 1.5 m at the shoulder and weighs up to 480 kg (and even up to 650 kg in captivity). In 1836, HMS Terror, then under the command of George Back, was severely damaged by ice in Frozen Strait, Foxe Channel, and Hudson Strait, but was not "forced up onto shore" as stated on p. 37. On p. 38, Franklin's second North American expedition is described as "across the barren lands"; but in fact, this was a coastal voyage by boat. On p. 85, we read that in 1845 Franklin attained a latitude of 77° N, "a feat not repeated for more than half a century." In reality, quite apart from earlier voyages, right back to that of Robert Bylot and William Baffin in 1616, which reached Smith Sound (at about 78° N), Franklin's "record" was exceeded repeatedly in Nares Strait: by Kane in Advance in 1854-55 (78° 37' N), by Hayes in United States in 1860-61 (78° 20' N), by Hall in *Polaris* in 1871 (82° 11' N) and by Nares in Alert in 1875-76 (82° 28' N), while by 1895, 77° N had also been exceeded by numerous expeditions in East Greenland, Svalbard, and Franz Josef Land. On p. 87 we are told that the three members of Franklin's expedition who were buried at Beechey Island were preserved "by the cold, dry climate"; in fact, they were preserved in the permafrost. On p. 90 we find the statement that James Knight's expedition to Hudson Bay in 1719 vanished with no survivors. This statement is very probably incorrect. During the period 1738–44, one of the Hudson's Bay Company's sloop captains reported that the Inuit at Whale Cove referred to one of their number as "the English Man"; he was of an appropriate age that he might well have been the son of an English survivor from Knight's expedition and of an Inuk (Barr and Williams, 1995:115-116). And the statement that with the exception of the Knight expedition, Franklin's was the only expedition to vanish leaving no

survivors is certainly incorrect. Vladimir Aleksandrovich Rusanov's expedition in Gerkules disappeared in the Kara Sea in 1912-13 along with its crew of 11, including Rusanov's French fiancée, Juliette Jean-Saussin (Tsvetkova, 1945), and Jules de Blosseville's La Lilloise disappeared without a trace in East Greenland waters in 1833 (Holland, 1994:208)-not to mention various individual parties from several expeditions that have disappeared. On p. 111, we are informed that expeditions aimed at searching for the Franklin expedition began in 1848; the first such expedition was that of whaling captain William Penny in St. Andrew in 1847, although the ice prevented him from even reaching Lancaster Sound (Holland, 1970:34-35). On p. 126 we are informed that in 1853-54 John Rae was trying to survey the Northwest Passage; however, he was aiming to survey the last uncharted section of the Arctic mainland coast-a totally different task.

A recurring error (e.g., pages 11, 38, 94) is the reference to Franklin's wife/widow as "Lady Jane Franklin." This would be the correct form of her name only if she had been the wife/widow of an Earl, Marquess, or Duke; as the wife/ widow of a Knight, she was simply Lady Franklin. Another recurring error is the adoption of the unfortunate popular mistake, presumably based on the custom (for which there is no rational explanation) of aligning maps with North at the top, whereby North becomes equated with 'top" and South with "bottom." The result is such unfortunate references as "the top tip of King William Island" (p. 2), when the northern tip is what is meant. In an extreme case, this mistake leads to the mind-boggling absurdity (p. 45) of Franklin's two previous, coastal expeditions being described as "across the bottom of the Arctic Ocean" when what is presumably intended was "along the southern edge of the Arctic Ocean."

And finally, in terms of style, the language is often irritatingly florid; thus on p. 93, the authors pose the question, "How could the ice be so furious, so fat, so relentless?" Apart from making this question incomprehensible, such language is totally inappropriate in what one assumes is intended to be a serious historical work.

While I can strongly recommend the sections of the book describing the events and achievements of the 2014 Victoria Strait Expedition, I must warn the reader to place no reliance on many of the statements in the historical sections, which in many places can only be described as disappointingly shoddy. The members of the 2014 Victoria Strait Expedition, especially the divers, not to mention the 129 members of Franklin's expedition who died in the Arctic, deserve better.

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