Nordenskiöld, an Explorer and Scientist from the North

Seija A. Niemi

Summary

During his 1878-79 expedition, the Finnish-Swedish scientist Adolf Erik Nordenskiöld (1832–1901) became the first European explorer to sail through the Northeast Passage - the northern sea route connecting the Atlantic with the Pacific Ocean along the Russian Arctic coast. Nordenskiöld's various expeditions to the Arctic considerably expanded scientific knowledge of the polar regions.



Portrait of Adolf Erik Nordenskiöld (1902)

Adolf Erik Nordenskiöld by Axel Jungstedt (1902)

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he Finnish-Swedish scientist Adolf Erik Nordenskiöld (1832–1901) was the first European explorer to sail through the Northeast Passage, which he did on an 1878–1879 expedition. Between the years of 1858 and 1883, he conducted a total of ten expeditions to the Arctic, which covered an area from Greenland and Spitsbergen all the way to the Bering Strait—a quantity and size, respectively, that is considered a feat for his time. He described his explorations in several publications in several languages, considerably expanding scientific knowledge of the polar reions. An expert on various subjects, including geology, mineralogy, cartography, meteorology, zoology, botany, history and ethnology, Nordenskiöld's expeditions were among the best prepared and equipped at the time. As an expedition leader, he was as precise and accurate as possible, and his scientific expedition staff always included old and young scientists, in order to give the younger opportunities to learn from the older. He usually insisted that his staff also include at least one or two fellow Finnish countrymen. Among his many accomplishments, he charted Spitsbergen and the north coast of Siberia, and, later in life, he became a passionate collector of historical maps and books, which can be found today in the National Library of Finland as *The Nordenskiöld Collection*.

Nordenskiöld had extensive knowledge of Arctic history and conditions, and he seemed to have a high environmental literacy. (Environmental literacy is an organized way of thinking about the environment that includes knowledge, attitudes, and active involvement, and requires the ability to think beyond the conventional categories.) For example, on his first expedition to Spitsbergen in 1858, Nordenskiöld described how greedy eider hunters collected all the eggs and killed most of the birds for their feathers. It was a miracle that the bird colonies were not completely exterminated. A couple of years later he wrote: "If the hunters saved the birds, which they are now shooting just for the expensive feathers, and if they stopped collecting eggs from the beginning of July or took only the fresh eggs, perhaps the number of eiders would multiply." Nordenskiöld's concern for the environment was something new in Europe at that time.

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Nordenskiöld was a celebrated hero after sailing the Northeast Passage and circumnavigating the Eurasian continent with his vessel the "SS Vega".

Postcard by Jacob Hägg (1839–1931)
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Nordenskiöld often strayed far from prevailing scientific opinions. For instance, many of the distinguished scientists of the nineteenth century considered sailing through the Kara Sea, which was called the "ice house" of the Arctic Ocean, to the Siberian rivers to be an impossible task. Whalers had occasionally tried to enter the Kara Sea but failed, because of either thick floating ice or bad weather. But Nordenskiöld figured most of the ice would melt during the summer, when rivers such as the Ob and Yenisei would bring in masses of warm water, rendering the sea navigable during the autumn. Upon his successful journeys into the Kara Sea, Nordenskiöld found it full of life—e.g., huge isopods and serpent stars, masses of starfishes, and fish lice—proving scientific circles, who had previously believed the sea to be lacking in fauna, wrong.

Throughout his journeys, Nordenskiöld encountered and wrote about the various destructive changes in nature he observed and the vulnerability of the environment. His deep historical perspective on environmental change made him one of the pioneers in the awakening of environmental awareness in Europe.

Further readings:

- Heer, Oswald. *Die schwedischen Expeditionen zu Erforschung des hohen Nordens vom Jahr 1870 und 1872 auf 1873.* Zürich: Friedrich Schulthess, 1874.
- Kish, George. *North-east Passage. Adolf Erik Nordenskiöld, his Life and Times.* Amsterdam: Nico Israel, 1973.
- Nordenskiöld, Adolf E. "Account of an Expedition to Greenland in the Year 1870." *Geological Magazine* Vol. 9,

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97(1872): 289–306, 355–368, 409–427, 449–463, 516–524.
- Nordenskiöld, Adolf E. “Sketch of the Geology of the Ice Sound and Bell Sound, Spitzbergen.” *Geological Magazine* III (1876): 16–23, 63–75, 118 –27, 255–67.
- Nordenskiöld, Adolf E. “The Nordenskjöld Greenland Expedition.” *Nature*, Vol. 29, Nov. 1 (1883): 10–13, Nov. 8(1883): 39–42.
- Raurala, Nils-Erik, ed. *Nordostpassagen från vikingarna till Nordenskiöld*, 206–226. Helsingfors: Helsingfors Universitetsbibliotek, John Nurminens stiftelse, 1992.

Related links:

- Nordenskiöld, A. E. Voyage of the Vega round Asia and Europe Vol. I
  http://archive.org/details/VoyageOfTheVegaVolI
- The Adolf Erik Nordenskiöld Map Collection
  http://www.nationallibrary.fi/services/kokoelmat/adolferiknordenskioldinkarttakokoelma.html
- For environmental literacy see enviroliteracy.org
  http://www.enviroliteracy.org/

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Websites linked in this text:

- https://www.environmentandsociety.org/arcadia/nordenskioeld-early-pioneer-nordic-conservation

Websites linked in image captions:

- http://en.wikipedia.org/wiki/File:Adolf_Erik_Nordenski%C3%B6ld_by_Axel_Jungstedt_1902.jpg
- http://en.wikipedia.org/wiki/File:SS_Vega.jpg

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Seija A. Niemi is an environmental historian with a wide range of interests. At the University of Turku she completed her MA in Cultural History with a thesis on the Finnish Tango King Olavi Virta in 2003 and earned her PhL in Finnish History

with an environmental thesis on the history of birch tree in the Finnish forests in 2005. She is currently working on her doctoral thesis which discusses the Finnish-Swedish explorer and scientist Adolf Erik Nordenskiöld (1832 – 1901) and his place in the history of Finnish conservation.
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