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## "Bowhead Whales in the Eastern Arctic, 1611–1911: Population Reconstruction with Historical Whaling"

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Allen, Robert C., and Ian Keay. "Bowhead Whales in the Eastern Arctic, 1611–1911: Population Reconstruction with Historical Whaling." *Environment and History* 12, no. 1 (Feb., 2006): 89–113. doi:10.3197/097634006776026791. As early as 1611 bowhead whales resident between the east coast of Greenland and the island of Spitzbergen were the subject of intensive commercial hunting effort by Dutch, German and British whalers. By 1911 there was no significant, permanent population of bowhead whales living in these waters. To understand the relationship between the commercial exploitation of the bowhead and their eventual extinction we must determine the chronology of their decline, starting with an estimate of the initial, pristine stock size. In this paper we compare and contrast four methodological approaches that can be used to estimate the Greenland-Spitzbergen bowhead stock size prior to, and during, commercial exploitation. Using species-specific biological parameters, a delayed-difference recruitment model, and historical whaling records, we reconstruct the Greenland-Spitzbergen bowhead population throughout the period of human predation. We estimate that there were approximately 52,500 adult bowhead whales resident in the waters between the east coast of Greenland and the island of Spitzbergen in 1611. All rights reserved. © 2006 The White Horse Press

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