Deplete locally, impact globally: Environmental history of shore-whaling in Barbados, W.I.

Creswell, J.E.¹; Romero, A.²

(1) University of Wisconsin, Madison, Environmental Chemistry & Technology Program 660 North Park Street, Madison, WI 53706-1484, U.S.A.
(2) Department of Biological Sciences, Arkansas State University. P.O. 599, State University, AR 72467, USA

jcreswell@wisc.edu

Archival research suggests that the exploitation of marine mammals in Barbados, which focused almost exclusively on humpback whales (Megaptera novaeangliae), was a marginal activity financed by local elites who found it easy to transfer labor and tools from agricultural activities to shore-whaling. Yet this marginal activity depleted the local population of whales in a relatively short period of time. There were wide fluctuations in whale oil production over the duration of this industry. The average annual production between 1868 and 1912 was 202 barrels per year, and our estimate of the total number of whales landed in the Barbadian shore whaling industry was at least 380. However, given that many more whales were struck than landed, using established methods, we arrived at a total estimate of 707 whales killed. Today humpbacks can be considered locally depleted. We believe that the Barbadian shore whaling industry contributed to the species’ global decline. Barbados, like many other former British colonies, exploited marine mammals through shore-whaling instead of pursuing dolphin fisheries, like many Latin American nations. Barbadian shore-whaling, like many marine mammal exploitation practices elsewhere in the Caribbean, was heavily influenced by industrialized nations. Our estimate of the minimum number of humpback whales killed in the southern Caribbean, including Barbados, due to shore-whaling operations alone, is 3,113. This figure is conservative, because it does not include whales taken for which data are not available. If we add the 3,113 whales killed by shore-whaling operations to the 1,617 killed by Yankee whalers in the region, we reach a minimum estimate of 4,730 whales killed in a little more than 100 years. We believe this number to represent a substantial percentage of the population of humpbacks in the southern Caribbean during that time period.