BEQUIAN WHALING

A Statement of Need

By

The Government of Saint Vincent and the Grenadines

Background. St. Vincent and the Grenadines is an island nation in the eastern Caribbean Sea made up of the eponymous main island of St. Vincent and a number of smaller islands collectively called the Grenadines. The largest of the Grenadines is Bequia, which lies only a few miles from St. Vincent. The population as of 2010 in St. Vincent and the Grenadines was 97,064, of which about 91,064 live on St. Vincent and about 6000 live on in the northern Grenadines. The main occupations on Bequia are tourism and fishing, and services. Tourism is seasonal, and supports mainly part-time employment. Fisheries have suffered recently owing to new sanitary standards that require refurbishment or construction of processing and packing facilities in order to export product to the European Union (EU) and United States (US) markets. Average per capita income from full and part-time employment is about \$2700EC (Eastern Caribbean dollars or \$900 US)¹.

From early times, even before the Europeans arrived, what is now St. Vincent and the Grenadines, akin to other island states in the eastern Caribbean, used the smaller cetaceans as a source of meat for food. Later, in the late 18th and early 19th century whale oil became the important commodity and item of trade and was much in demand to light homes and buildings in the Americas and Europe. American and European whaling ships passed through the islands using them as transshipment points for whale oil, and also to hire seamen to work on board. These men learnt how to hunt the great whales, and passed the methods on to the islanders of the eastern Caribbean (Hisashi 2001).

The islanders learnt to catch whales using the American Nantucket-type whaleboat and hand thrown harpoons. Later, shore based stations were established in the islands and Vincentians hunted humpback, sperm and pilot whales or "black fish" (Adams 1971, Ward 1995). In St. Vincent and the Grenadines shore whaling was started by a man named William Wallace who sailed aboard an American whaler in the 1860's, and learnt the trade. He came home to St. Vincent, bought two whaleboats and established a shore station on Bequia. A few years later Joseph Olliverre built a second station on a tiny island next to Bequia named Petit Nevis. Shortly thereafter the sons of the Olliverres built a third station (Hisashi 2001). Most of the whale oil was exported, and the meat was eaten locally (Ibid.). Even after petroleum replaced whale oil for lighting, whaling continued in Bequia for food and because there were other uses for whale oil in industry.

By the late 1920's humpback whales in the north Atlantic had been hunted to such a low population size by whalers of the industrialized nations that commercial whaling for humpback whales for all purposes stopped; nevertheless, small catches by the natives of Greenland and by Bequians of St. Vincent continued.² However, whaling at Bequia also declined and between 1950 and 1984 and Price (1985) reported that only 44 whales were

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 $^{^{1}}$ \$1 EC = \$0.37 US

²North Atlantic humpbacks were declared a protected species by the IWC in 1955. The aboriginals of Greenland were allowed to continue to take up to 12 humpback whales annually until 1982, when concern by the Scientific Committee over the estimated low population size of NAH, and the reported kills as bycatch by in the Canadian gill net fishery for cod, resulted in the Committee recommending that the Commission withdraw the Greenland quota. The Bequian fisher was allowed to continue, however, as St. Vincent was a non-member government, and IWC had no control over their take.

caught. Two of the shore stations closed and only the station on Petit Nevis (rebuilt in 1961) continued to operate (Ward 1995). In 2006, the owners indicated that the Petit Nevis was no longer available and an old station located on Semple Cay was restored to facilitate the continuation of the aboriginal whaling operations.

In 1981 St. Vincent and two other eastern Caribbean nations were recruited to join the International Whaling Commission to vote for the moratorium on commercial whaling, which passed in 1982. As part of the agreement for the moratorium, the IWC allowed St. Vincent to continue whaling under the Aboriginal Whaling provision of the IWC, and St. Vincent was given a quota of three whales a year on condition that none of the products could be exported from the area. This quota was reduced in 1998 to two humpback whales annually at the request of the Government of St. Vincent and the Grenadines (IWC 2000). ¹

Aboriginal whaling in Bequia. The Bequian whaleboat is made of wood and locally built to design almost unchanged since the early 19th century. At present there are two boats operating. The boats are about 8.2 m long by 2.1 m wide and 1 m deep. They do not have engines. They have a mast, sails and oars. Each carries a crew of six men: Four oarsmen, a harpooner and the captain (Adams 1971, Hisashi 2001).

When there is wind the boats use their sails while searching for whales and to pursue them. When the boat gets close to the whale the harpooner throws a harpoon. Once the whale is struck the harpooner throws a second and third harpoon if he can, and the bow oarsman lowers the sail and mast. The boat is then hauled close and the whale is killed with a lance, or a bomb lance if needed. The whale is towed ashore to the station on Semple Cay and flensed. The meat, blubber and bone are shared out to the crew (Hisashi 2001). An old darting gun is currently being used and efforts are currently being made to improve the technology to reduce the time to death of each whale harvested.

Establishing Need. There are three aspects to the exercise of establishing "Need" for whales by Bequia, St. Vincent and the Grenadines. These are: 1) social and cultural, 2) food, and 3) economics.

1. Social and cultural. On Bequia people consider whales to be a resource that should be used as long as the use is sustainable. The whalers are honored because whaling in Bequia is an old tradition that requires skill and bravery on the part of the whalers. The islanders take pride in their success and welcome the contribution of meat and fat to the island diet. Whalers and whale songs are part of the folk-art of Bequia (Ward 1995). Hisashi (2001) has witnessed the blessing of the whaleboats that takes place before the whaling season begins each year. He noted that the Anglican priest bless the boats, prays for the safety of the crews, and for a successful hunt before the boats are launched.

For forty years Athneal Olliverre, the grandson of Joseph, has been instrumental in keeping the whaling tradition alive in Bequia, despite the fact that catches were few for many years, and the years 1994 to 1998 went by with no whales taken. Athneal was the harpooner in his own boat. He killed many whales, his boat was struck several times by whales, and was once dragged underwater. He died in July of 2000 at the age of 79, having made his last whaling trip only five months before his death (Hisashi, 2001). He was a legend on Bequia.

According to Hisashi (op. cit.) Athneal Olliverre was known as "the last harpooner" in the several magazine articles about the Bequian whale fishery. He was highly revered in Bequia; picture postcards of him are sold in souvenir shops, and a beach on the island was named after him. His fame was increased by the fact that some members of the IWC and some anti-whaling activists in their attacks on Bequian Whaling expressed the desire that it would die out along with the old harpooner.²

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¹The late Commissioner for St. Vincent and the Grenadines Hon. Stewart Nanton asked for the reduced quota of two whales to discourage the attempt to take a second pair of humpbacks, which would have likely resulted in landing only the larger of the second pair. (S. Nanton, 1998, personal communication).

²See, *inter alia*, discussion of N. Atlantic humpbacks in IWC Rpt 44. The Hon. Stewart Nanton warned the Commissioners that such talk would only make the people of Bequia determined to continue whaling: a prophecy that was fulfilled when a

When a whale is landed it is a major event in St. Vincent, and people come from the other islands to try to get some fresh whale meat. The fresh meat and blubber are shared out to the crew and owners of the boats, and they give some to friends and relatives, and sell some to the other Bequians.

None of the products can be exported, but the meat is much appreciated as food and so much in demand that there is never enough. The blubber is rendered into oil, which is believed to have medicinal properties, and it too is much in demand. Athneal said it was whale oil that kept him strong, and who can argue with him. In the past Bequia whale meat that was not given away was sold for \$4 EC¹ a pound. Blubber was sold for the same price (Hisashi 2001). However, in recent times the meat and blubber are sold for 5 EC\$ per pound.

2. Nutrition. Bequia is a low, small island. It lacks the trade wind generated rainfall that high islands like St. Vincent enjoy, so agriculture is limited both from lack of water and lack of suitable land. Most of the foodstuff is imported. Small quantities of goats and chickens are raised on the island, but not enough to contribute appreciably to animal protein sufficiency. Locally caught fish is consumed on the island. The amount available is difficult to estimate, as much of it does not enter established markets that permit tracking. That quantity that does enter the market now commands a higher price (\$6-9 EC/lb.) than meat or poultry (\$3-4 EC/lb.) The larger amount of the more valuable species of fish is transported to St. Vincent and exported to the other Eastern Caribbean islands. Recent HACCP and EU regulations have restricted export to the French and Dutch Antilles, and seriously disrupted trade in fresh fish. At present there are no data on whether or not the disruption of trade has resulted in more fish being available on Bequia and at a lower price.

Table 1 calculates that the inhabitants of Bequia have an estimated annual need of about 610,000 lb. of animal protein expressed as meat equivalent.

Population of Bequia, 2012	6000
Protein need/day/person (note a)	1.5 oz.
Annual need for 6000 people	206,513 lb.
Annual need, meat equivalent (note b)	607,392 lb.

Notes:

- a. Calculated at 43 gm/person/day
- b. Assumes half protein need is met from meat (meat est. at 17% protein)

Table 1. Estimated need in 2012 for animal protein in Bequia expressed as meat equivalent.

Meat from whales taken in the Bequia hunt substitute for imported animal protein. Some of the production is sent to St. Vincent, so this estimate of percent substitution is biased. The degree of bias is not estimated. Table 2 provides the calculated percent substitution by the meat from two whales for imported meat. The calculations are for three periods: 2002 and 2007, the years when the quotas of four whales were established, and 2012. The table is calculated for the take of four whales in 2012 to demonstrate a continuing need.

new boat with a younger crew was built and launched in 1996. Since the 1998 season, the quota has been filled every year. Again in March (2002) the Bequians took two whales. The fishermen say that there are many more whales now.

¹ The selling price for whale meat has been constant since 1993 (Hisashi 2001).

Year	2002	2007	2012
Population of Bequia	6000	6000	6000
Protein need/day/person (note a)	1.5 oz. oz.	1.5 oz.	1.5 oz
Annual need for Bequians	206,513 lb. lb.	206,513 lb.	206,513 lb
Annual need, meat equivalent (note b)	607,392 lb. lb.	607,392 lb.	607,392 lb.
Amount of meat from adult whale (note c)	24500 lb. lb.	24500 lb.	24500 lb.
Amount of oil from adult whale (note c)	14000 lb. lb.	14000 lb.	14000 lb.
Need for Bequia – annual	607,392 lb. lb.	607,392 lb.	607,392 lb.
Whale meat from four whales	54,600 lb	54,600 lb	54,600 lb.
Whale as percent animal protein need (note d)	12%	12%	12 %
Cost for imported animal protein (note e)	\$2,429,567 EC	\$2,429,567 EC	\$3,644,352EC
Value of whale products from four whales (note f)	\$165,200 EC	\$165,200 EC	273,000 EC
Foreign exchange savings as percent	7%	7%	7.5%

Notes:

- a. Calculated at 43 gm/person/day
- b. Assumes half protein need is met from meat and that meat is 17% protein.
- c. Adult whale weighs 35 tons; Yields: meat 35%, blubber (adult only) 20%
- d. Whale meat is 22% protein
- e. At \$4.00 in 2002 and 2007 and \$6.00 EC/LB in 2012
- f. Meat and oil at \$5.00 EC/LB

Table 2. Calculated percent substitution meat from two whales for imported meat.

In 2002 and 2007, the whales are estimated to substitute for 12-percent of the animal protein need. The 2012 population of Bequia remained relatively constant, and four whales continues to substitute for about 12-percent of the annual animal protein need.

3. Economics.

The third aspect to be considered in evaluating the need in Bequia for whale meat is economic. Table 2 indicates that in 2002, the meat from two whales substitute for 7% of the value of the imports in terms of foreign exchange savings. Foreign exchange savings from food produced locally are extremely important to island economies that are not self-sufficient in foodstuffs. By 2007, the foreign exchange savings generated by the distribution of the products of Bequian whaling are calculated to remain relatively constant.

Conclusions. The cultural and nutritional need for whale products by Bequia was established by, and accepted by, the IWC in 2007. There appears to have been no quantitative estimation process used, and instead the level was established to be the level currently taken on average, namely two whales. It should be noted that the take of four whales in 2007only satisfied 12% of the nutritional need, and 7.0 percent of the foreign exchange savings from substituting whale meat for imported meat and poultry. St. Vincent was allowed a take of four to greater need. Four whales would have been utilized had the abundance or availability been such that more could readily be taken.

Since that date the need continues given that the population remains fairly constant on the island. In order to satisfy an equivalent 12% in terms 2012 of population size, a quota of four humpback whales is needed. The

relation between need and population size may not be sustainable in the long term, but should not be of concern here where the resource clearly is capable of meeting the need with a sustainable harvest.¹

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¹ In 1982 the Scientific Committee considered there was a "minimum plausible stock size of 1200" for NAH. At that level the Committee expressed concern with an estimated catch and the bycatch by Canada of NAH on the order of 32. The current estimate for this stock is over 10000, which suggests that a take of 4 whales is sustainable, even in the absence of an ASWMP.