

History of whaling in Trinidad and Tobago

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ABSTRACT

Shore whaling for humpback whales (*Megaptera novaeangliae*) in Trinidad represents a largely overlooked aspect of North Atlantic whaling history. Literature and archival sources were searched for information on the chronology, nature and extent of this whaling. The first shore station began operations in about 1826 on one of the islands in the Dragon's Mouth, the strait connecting the southern Caribbean Sea with the Gulf of Paria. At least four stations were active in this area at one time or another and the maximum documented one-year catch was about 35 humpbacks. Whaling effort had begun to decline by the 1850s and was largely ended by the 1880s. Oil for domestic consumption as well as export was the main product. Removals by the shore whalers were in addition to those by American pelagic whalers who occasionally called at Port-of-Spain and whaled in the vicinity of Trinidad and along the Spanish Main. No evidence was found of organised shore whaling in Tobago.

KEYWORDS: DIRECT CAPTURE; EFFORT; WHALING - HISTORICAL; ATLANTIC OCEAN; SOUTH AMERICA; BREEDING GROUNDS

INTRODUCTION

When Henry Nelson Coleridge (1826) entered the northern Gulf of Paria in 1825, he observed

'enormous whales ever and anon lifting their monstrous bodies quite out of the water in strange gambols, and falling down created a tempest around them, and shot up columns of silver foam.'

These were without doubt humpback whales (*Megaptera novaeangliae*) and their conspicuous presence in near-shore waters of northern Trinidad had already been noted both by Christopher Columbus in 1498 and by local entrepreneurs who were setting in motion plans to establish a commercial whale fishery in the Dragon's Mouth, or 'The Bocas' as the straits area between Trinidad and Venezuela is called locally (Fig. 1).

Humpback whales were among the species hunted by American and European whalers throughout the North Atlantic Ocean during the 19th century (Mitchell and Reeves, 1983). Whaling vessels from New England began visiting the West Indies in the 1770s in pursuit of sperm whales (*Physeter macrocephalus*), humpbacks and blackfish (short-finned pilot whales, *Globicephala macrorhynchus*). In the months of January to May, they often anchored or cruised in bays and close along island shores. In addition to the activities of pelagic whalers, a number of shore-based operations targeting humpbacks were initiated during the second half of the 19th century in Caribbean coastal waters. The best-known and longest lasting was the fishery at Bequia (Adams, 1970; 1971; 1975; 1994; Price, 1985; Ward, 1988).

Mitchell and Reeves (1983), in their extensive study of humpback whaling in the western North Atlantic, noted the existence of one or more 19th century shore stations in Trinidad, but presented few details about them. In fact, the history of shore whaling in the extreme southeastern corner

of the Caribbean has been largely overlooked until recently. This paper represents a first attempt to identify the origins and describe the development of whaling in this region.

MATERIALS AND METHODS

In addition to an extensive literature search, discussions were held with individuals in Trinidad and Tobago who had special knowledge of marine affairs and local history. Following their advice, effort was focussed on three 19th century printed sources of information: local contemporary newspapers, yearbooks (almanacs) and colonial trade records (Table 1). Newspapers were examined in both the Trinidad National Archives in Port-of-Spain and the Public Record Office (PRO) in Kew Gardens, London. These were sampled for the period 1825-55. The advertising sections were scanned for notices concerning whale oil and the sale of whaling equipment and attention was focussed on the 'Shipping Intelligence' sections for information on whale-product imports and exports. The Trinidad newspapers during the first half of the 19th century were generally published on a three-day cycle. Only a few yearbooks were found, all of them in either the National Archives or the National Heritage Library in Port-of-Spain. Few Trinidad Blue Books, the official annual summaries of colonial accounts, are available in Trinidad or Tobago. Therefore, our search of these documents took place primarily at the Public Record Office in London. Reeves checked a nearly complete series of the Trinidad Blue Books from 1824-73. In addition to their summary lists of imports and exports (quantities in barrels, gallons, etc. and monetary values in Pounds Sterling), the Blue Books have a section called 'Returns of Manufactures, Mines, and Fisheries', and that is where most of the information on whaling activities was found. It was assumed that gallons (gal) were imperial gallons. Barrels (bbl) apparently contained approximately 25 imperial gallons (see 1856 entry in Table 3).

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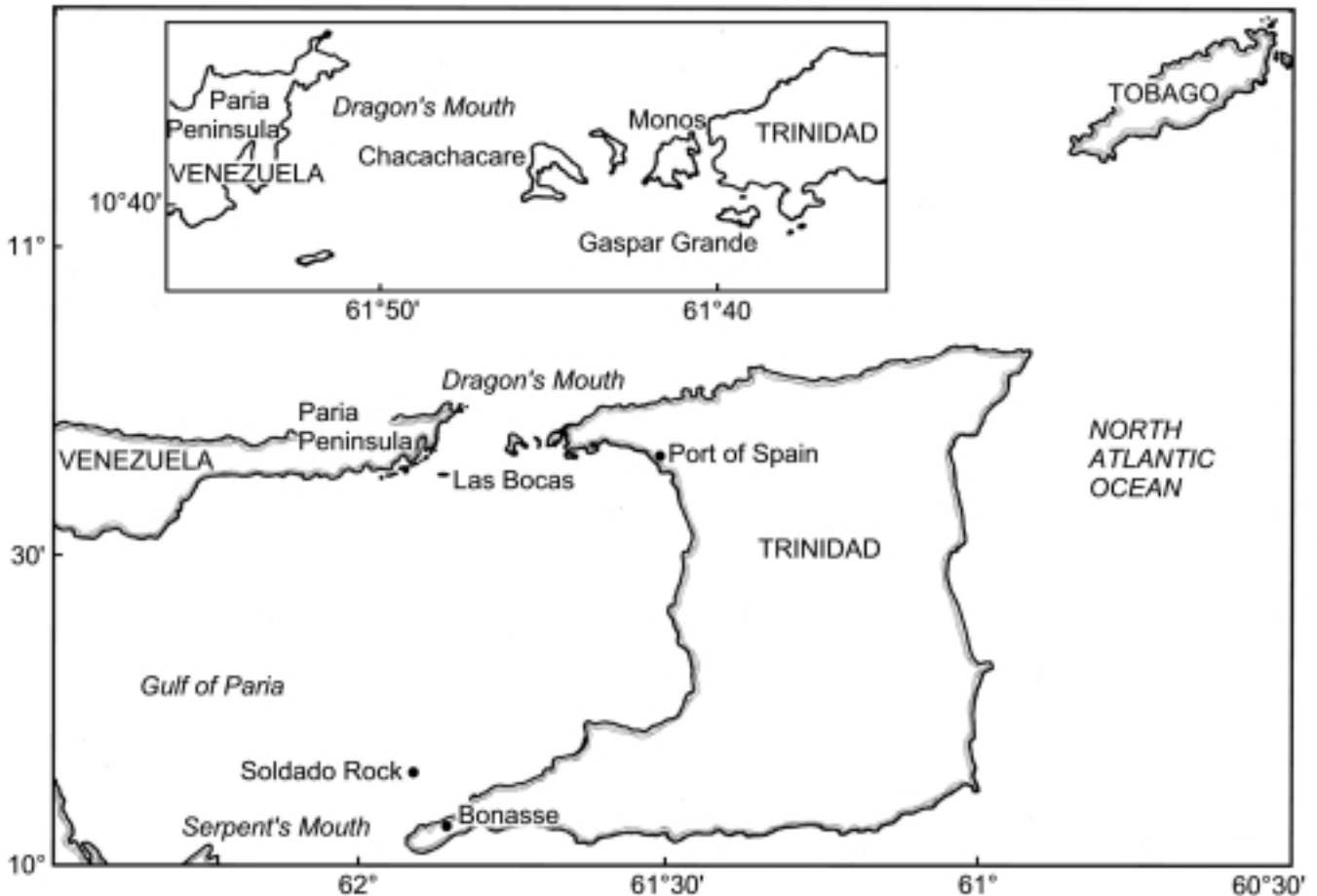


Fig. 1. Map of Trinidad and Tobago showing the main locations mentioned in the text.

Table 1
Documents searched.

Names of documents	Years published	Years available	Years searched	Collections
(Guppy's) <i>Trinidad Commercial Register and Almanac</i>	1866-1880s	1866-79	1866-79	National Heritage Library, Port-of-Spain
(Collens') <i>Trinidad Commercial Register and Almanac</i>	?	1882, 1886 1893	1882, 1886 1893	National Archives, Port-of-Spain National Archives
Trinidad Blue Books	1821-1935	1876-77, 1880-81, 1901-02 1821-1935 (a few years missing)	1876-77, 1880-81, 1901-02 1824-73	National Archives Public Record Office, London
<i>Port of Spain Gazette</i>	1825-1956(?)	1826-? 1828-55 (incomplete)	1826-36 1828-44, 1854-55	National Archives Public Record Office
<i>Trinidad Standard and West Indian Journal</i>	1838-1946(?)	? 1837-42	1842-44 1837-40	National Archives Public Record Office
<i>Trinidad Gazette</i>	?	?	1821-23	National Archives
<i>Trinidad Guardian</i>	?	1826/27-1830/31	1828-29	Public Record Office
<i>Trinidad Spectator and Port of Spain and San Fernando Advertiser</i>	1845-48	1845-48	1845-48	Public Record Office
<i>The Trinidadian</i>	1848-	1848-53	1848-53	Public Record Office

Logbooks or journals are available for several American whaling voyages that included visits to Trinidad or Tobago (Table 4). Some of these were examined and the relevant information is reported in this paper (also see Reeves *et al.*, 2001).

RESULTS AND DISCUSSION

Beginnings of shore whaling and development of a domestic whale oil market

Whale oil was being imported in 1823, e.g. on the schooner *Francis* of Bermuda (*Trinidad Gazette*, 8 November 1823). Train oil (i.e. oil from marine mammals) was still being

imported in large quantities through 1829 (11,003gal that year, from Great Britain and British colonies) but the quantity imported dropped sharply in 1830 (to only 270gal) and was thereafter nil until the 1860s according to the Blue Books. The arrival in November 1851 and October 1852 of ships from Baltimore with 10 and 50bbl of whale oil on board, respectively, may indicate that the domestic oil supply was by then insufficient to meet demand (advertisements in *The Trinidadian*, 7 and 12 November 1851; 9 and 16 October 1852). In 1826, local entrepreneurs were advertising oil, 'fresh from the Trinidad Whale Fishery, of a better quality, and at a lower rate than it can possibly be imported' (*Port of Spain Gazette*, 18 March 1826). The 1826

Trinidad Blue Book states that the whale fishery was established that year by C.A. White, employing a sloop and three whaleboats. The catch of five 'cows' and six 'calves' yielded only 6,000gal of oil: 'From being the first essay much blubber was lost'.

In 1831, a local newspaper called attention to 'the praiseworthy exertions of the proprietors of the Whale Establishment' (*Port of Spain Gazette*, 19 January 1831). A large whale had been taken on 18 January and the editorialist saw fit to encourage local consumption of the oil:

'To the planters particularly of this, as well as of the neighbouring colonies, we would recommend the use of the oil produced at the above establishment [at Gaspar Grande] - its quality, we have been assured by several persons who have used it, is equal to that of any imported, and the saving which may be effected by its very low price, we need scarcely add, presents an invitation most acceptable in these times, and, therefore, do we take it upon ourselves thus publicly to call the attention of the community to it. The fashionable will derive much sport from the operations of the Fishery, which are certainly worth witnessing.'

Both before and after that date, advertisements for locally produced whale oil appear from time to time in Port-of-Spain newspapers (e.g., 25 January 1828 ['lamp oil']; 22 September 1830; 17 November 1830; 29 January 1831; 9 February 1831; 28 January 1832; 4 February 1832; 11 February 1832; 30 November 1832; 28 March 1834; 8 May 1835; 9 February 1838; 14 August 1838; 24 January 1839; 24 January 1840; 1 February 1844; 7 March 1849; 2 March 1850; 3 June 1854). One of these notices emphasises that whale oil, 'after being refined by a particular process, is fit to be used in lieu of Coco Nut Oil'. It is said, in comparison to coconut oil, to have no smell and to give as good a light, last longer, and cost less (*Port of Spain Gazette*, 18 February 1832). A major challenge facing Trinidad's first whalers, in addition to catching and processing the whales, was to make inroads on the market for coconut oil. Although most evidence points to burning in lamps as the chief use of whale oil (cf. Stackpole, 1972), De Verteuil (1994) noted that in Trinidad it was also used (mixed with honey) as a flu remedy.

After the whaling season in 1828, Richard Joell announced his intention to fix the retail price of whale oil at seven shillings for the 1829 season, and he promised a 'further reduction' of the price if his enterprise were to prove successful (*Trinidad Guardian*, 20 June 1828). In 1830, Joell endeavoured to obtain pre-season orders for lamp oil from his whaling station, offering subscribers committed to receiving deliveries of 100gal or more a special price of five shillings/gal. In this way, he proposed to ensure that 'a sufficient quantity of Oil may be retained in the Colony for its consumption' (*Port of Spain Gazette*, 17 November 1830). The retail price of Trinidad whale oil in the early 1830s was generally six shillings/gal (*Port of Spain Gazette*, 22 September 1830, 29 January 1831, 9 February 1831, 4 February 1832).

In December 1833, Joell posted a notice that he wished to hire 10-15 'able Boatmen, for his Whale Fishery at Gasparil, to carry on the Whale Fishery' (*Port of Spain Gazette*, 24 December 1833). In 1837, Trinidad Foundry advertised 'a few superior Whale Harpoons' for sale (*Port of Spain Gazette*, 9 May 1837) and another concern at King's Wharf (Simon Agostini) reported earlier in the same year having received whaling harpoons in shipments on the *Rosalind* of London and *Hardware* of Liverpool (*Port of Spain Gazette*, 31 January 1837). By the early 1830s the Trinidad whaling industry was a well-established feature of the island economy.

Exports of whale oil and baleen

Some exportation of whale oil appears to have taken place from the beginning of the Trinidad fishery (Table 2) even though much, and probably most, of the oil was consumed within the colony. The Blue Books provide only limited, sometimes ambiguous, data on exports. One of the problems is that in many years, whale oil apparently was subsumed under the heading of 'sundry' or 'other' oils rather than being listed as a separate commodity. Blue Books rarely specify the importing colony, so most of what is known about the actual distribution of Trinidad whale oil comes from the newspaper information on departures from Port-of-Spain. Large shipments were made at least occasionally to London and Glasgow. Within the Caribbean region, oil was shipped to various British colonies between Jamaica in the north and Demerara (British Guiana) in the south (Table 2). It is emphasised that the data in Table 2 are biased by the fact that our newspaper search centred on the 1830s and 1840s.

Starting in 1846, small amounts of baleen (whalebone or whale fins) were exported, primarily to Great Britain. Records in the Blue Books give no insight concerning the dates of export, but the whalebone shipments reported in newspapers were mainly in July. This might be interpreted to mean that the whalers set the baleen aside and waited until the whaling season was over before cleaning and packaging it for shipment. A small market existed for humpback baleen in the corset manufacturing industry (Mitchell and Reeves, 1983), but no direct information was found regarding the nature or size of the market for this baleen from Trinidad.

Target species

One non-scientific source (De Verteuil, L.A.A., 1858) identified the species hunted at Trinidad as the 'Rorqual (*Balaenoptera Boops*)' (p.118) or 'balaenoptera (razor-back)' (p.279). Both of the Latin names used by De Verteuil in describing the Trinidad whales - *Balaenoptera* and *Boops* - are in the 19th century synonymy of *Megaptera novaeangliae* (Hershkovitz, 1966), so it is not particularly surprising that he used them. However, the term 'razor back' was historically applied to the fin whale (*Balaenoptera physalus*) and perhaps other balaenopterines but not to the humpback. Thus, his account causes genuine confusion. This confusion is compounded by De Verteuil's (1994) claim that Trinidad's 'razor-back whales' were up to 80ft long, 'dark on top and pure white underneath'. Such a description more clearly fits the fin whale than the humpback. However, De Verteuil's (1858) account stands alone in suggesting that any species other than the humpback formed the basis of the early 19th century Trinidad whale fishery. All of the circumstantial evidence, e.g. the whales' seasonal appearance in the region, the near-shore occurrence of mother-calf pairs, the ability of the whalers to capture them using oar-powered open boats and hand-thrown harpoons, the whales' oil yield (see below) and the lack of references to whalebone as a valuable product, points to the humpback. Moreover, whaler logbooks (Reeves *et al.*, 2001) and various contemporary accounts other than De Verteuil's (cf. Anon., 1869; Clark, 1887; and references in Mitchell and Reeves, 1983) make it clear that the humpback was the primary, if not sole, species hunted. The implication in Ottley *et al.* (1988) that pilot whales were the primary targets of early shore whaling is completely without foundation, although the possibility that they were taken occasionally by whalers in The Bocas when opportunity arose cannot be ruled out.

Table 2

Trinidad exports of whale oil (and other products, as noted). POS: Port-of-Spain; unspec. = unspecified; bbl = barrels; trc = tierces; bdl = bundles; csk = casks; pun = puncheons; hhd = hogsheds. 'Whale fins' are baleen (as are whalebone and whale bones).

Year	Amount	Destination (nominally given in newspaper record of POS departure)	Reference source
1826	24pun, 5trc, 1bbl	Demerara	<i>POS Gazette</i>
1830	3pun, 3hhd	Barbados	<i>POS Gazette</i>
1831	4csk	Grenada	<i>POS Gazette</i>
	4csk	St Vincent	
	2butts	London	
1832	5csk	London	<i>POS Gazette</i>
1833	20bbl	Barbados	<i>POS Gazette</i>
1835	10bbl	London	<i>POS Gazette</i>
	15bbl	Grenada	
	10bbl	St Thomas	
1836	21bbl	Grenada	<i>POS Gazette</i>
	20bbl + 2 unspec. shipments	Barbados	
	13bbl	Greenock	
	23bbl	Glasgow	
	100bbl, 25csk + 2 unspec. shipments	London	
	6 quarter-casks + 2 unspec. shipments	St Thomas	
	Unspec.	St Lucia	
	Unspec.	St Vincent	
1837	10bbl + 1 unspec. shipment	Grenada	<i>POS Gazette</i>
	Unspec.	St Vincent	
	Unspec.	Liverpool	
	Unspec.	St Thomas	
1838	9bbl	Bermuda	<i>POS Gazette; Trinidad Standard</i>
	3bbl + 2 unspec. shipments	Grenada	
	100bbl	Glasgow	
	60csk	Barbados	
	Unspec.	St Thomas	
	Unspec.	London	
	1bbl	St Vincent	
1839	8bbl, 5csk + 4 unspec. shipments	Grenada	<i>POS Gazette; Trinidad Standard</i>
	8bbl + 1 unspec. shipment	Barbados	
	12bbl	St Kitts	
	Unspec.	St Vincent	
	Unspec.	Jamaica	
1840	20bbl	St Thomas	<i>POS Gazette; Trinidad Standard</i>
	4csk, 1bbl + 8 unspec. shipments	Grenada	
	1bbl	St Lucia	
	2bbl	St Vincent	
	3bbl + 2 unspec. shipments	Tobago	
	Unspec.	Antigua	
1841	3 unspec. shipments	Grenada	<i>Trinidad Standard</i>
	Unspec.	St Vincent	
1842	2 unspec. shipments	Grenada	<i>Trinidad Standard</i>
	Unspec.	Barbados	
1843	2 unspec. shipments	Barbados	<i>Trinidad Standard; POS Gazette</i>
	7 unspec. shipments	Grenada	
	Unspec.	St Thomas	
1844	2bbl	St Vincent	<i>Trinidad Standard; POS Gazette</i>
	Unspec.	Barbados	
	4 unspec. shipments	Grenada	
1846	5bbl + 1 unspec. shipment	Grenada	<i>Trinidad Standard; Trinidad Spectator</i>
	50bbl + 1 unspec. shipment	Jamaica	
	11bbl	Barbados	
	50bbl	Antigua	
	Some whalebone	London	
	Some whalebone	St Thomas	
1848	2bbl	Grenada	<i>Trinidad Spectator; Trinidadian</i>
	Unspec. 'whale bone'	London	
1849	5bbl + 2 unspec. shipments	Grenada	<i>Trinidadian</i>
	2 unspec. shipments	Barbados	
	1bbl	St Martin's	
	9 'bales whale oil' (<i>sic</i>), 10 'bags whale bone'	London	
1850	'whale bones' (<i>f9</i> worth)	Great Britain (of which 8 bales to London on 3 July; <i>The Trinidadian</i>)	Blue Book
	865gal (<i>f73</i>)	British West Indies (of which: 1 bbl Antigua; 2 casks, 5 bbls and 2 unspec. shipment Grenada; unspecified to Demerara; <i>The Trinidadian</i>)	
	Some oil (<i>f3</i> worth)	Foreign states other than USA	
1851	'whale bones' (<i>f3</i> worth)	Great Britain	Blue Book
	480gal (<i>f42</i>)	British West Indies (of which: 3 unspec. shipments Grenada; <i>The Trinidadian</i>)	

Table 2 continued.

Year	Amount ¹	Destination (nominally given in newspaper record of POS departure)	Reference source
1852	2 unspec. shipments 'whalebones' (f47 worth) Some oil (f84) Some oil (f3)	Grenada Great Britain British West Indies Foreign states other than USA	<i>Trinidadian</i> Blue Book
1853	'whale fins' (f19 worth) Unspec. (f14 worth)	Great Britain British West Indies (of which at least 1 unspec. shipment Grenada; <i>Trinidadian</i>)	Blue Book
1854	'whale fins' (f2 worth) Unspec. (f40 worth)	Great Britain British West Indies (of which at least 1 unspec. shipment Grenada; <i>POS Gazette</i>)	Blue Book
1855	'whale fins' (f13 worth) Unspec. (f53 worth)	Great Britain (of which 9 bales to London on 18 July; <i>POS Gazette</i>) British West Indies (of which at least 5 unspec. shipments Grenada; <i>POS Gazette</i>)	Blue Book
1856	10bdl 'whale fins' (f10) 5bbl (f4)	Great Britain Grenada	Blue Book
1857	43bdl 'whale fins' (f25 worth) Apparently some (f2 worth)	In British vessels Barbados	Blue Book
1858	10trc oil, 17 bales 'whale fins' (altogether worth f175)	Great Britain (however, unclear whether these quantities were trans-shipped or produced in Trinidad)	Blue Book
1860	'sundry packages' of 'whale fins' (f10,12s,6d)	In British vessels	Blue Book
1861	Same entry as 1860 5bbl	Questionable France	Blue Book
1877	Unspec. (worth f6,10s) Unspec. (worth f15,14s)	British West Indies Venezuela	Blue Book

Whaling sites

At least four and possibly five whaling stations existed at one time or another on three separate islands: Gaspar Grande (also known as Gasparee or Gasparil), Monos, and Chacachacare (De Verteuil, L.A.A., 1858; Carmichael, 1961). In the mid-1830s there were said to be three whaling stations in The Bocas, the earliest having been established by R. Joell (Joseph, 1838). By 1838, there were four stations, one at Gaspar Grande, two at Monos and one at Chacachacare (1838 *Trinidad Blue Book*; Anon., 1847). The 1846 *Blue Book* refers to four stations but lists only three owners: Dominique and Celestin Tardieu, Jean Baptiste Tardieu and Mr. Charbonné. Starting in 1848, the *Blue Book* no longer refers to four whaling stations but rather indicates that whaling was being carried on by 'two or three private individuals'.

The following sections attempt to identify the sites, their ownership and their periods of operation.

Gaspar Grande (also known as Gasparee or Gasparil)

A whaling station at the west end of the island was auctioned in March 1828, comprising seven quarrées of land along with the buildings, boilers, whaleboats, 'and every thing appertaining to the Whaling Establishment' (*Port of Spain Gazette*, 8 March 1828). The newspaper announcement is signed by George Fitzwilliam and Son. As the name Fitzwilliam has not arisen in the literature on whaling in Trinidad, it is uncertain whether he was a sales agent or in fact the owner of the station at the time. At any rate, this auction advertisement confirms that the large station at Pointe Baleine existed by the mid- to late 1820s, which is consistent with the information in other sources (Carmichael, 1961; De Verteuil, A., 1994; A. De Verteuil, pers. comm., Sept. 2000). The Pointe Baleine station was defunct long before the 1920s, when Russell (1922) mentioned that 'the remains of an old whale-oil refinery' could still be observed at the site.

A second station existed on the south coast at Belle Vue (also known as St Joseph's), owned by the Tardieu's (Carmichael, 1961; De Verteuil, A., 1994; A. De Verteuil,

pers. comm., Sept. 2000). According to Brierly (1912), writing from the perspective of the early 20th century, the Tardieu's had owned 'several whale-fishing depots, and the tanks in which the whale oil was stored can still be seen on the western shore of Gasparee'.

Monos

The station at Copperhole (also known as Jenny Point or La Jeune Point[?]) was owned initially by the Gerold's (De Verteuil, A., 1994) and later by Messrs Gerold and Urich (A. De Verteuil, pers. comm., Sept. 2000). In 1832, the 'whale expert and harpooner' at this station was named Hilsen (Urich, 1995).

The whaling station at La Jeune Point was sold in 1838 by Louis Charbonne, and the sale notice (*Port of Spain Gazette*, 22 June 1838) summarises the inventory of what may be considered a typical Trinidad whaling station:

'... comprising Eleven Quarrées of Land, on lease from the Cabildo; a new Dwelling House, two Boat Houses, also new; the oil Manufactory, with Boilers, Cisterns, Store, Harpoons, Lances, Axes, Saws, Knives, etc. Four Fishing Shallops, two of which are Bermudian built, one American and the other constructed in the island; a large Store for Ropes and other fishing utensils, all in perfect order; a new Building for the boats' crew, etc.'

A newspaper advertisement for oil from a Monos whaling station (*The Trinidadian*, 7 March 1849) demonstrates that it was active and had some success in 1849. An active station on Monos is also mentioned in the logbook of an American whale ship, the *Solon*, in 1853 (see later under 'Relations with American pelagic whalers'). In 1859, Trollope (1859) observed the Monos whaling site and was impressed by its crudeness:

'From the look of the place I should not say that the trade was flourishing. The whaling huts are very picturesque, but do not say much for the commercial enterprise of the proprietors.'

Chacachacare [Chicachicara]

One source (Hart, 1866) claims that there were 3-4 whaling establishments on this island, apparently during the 1860s. These were said, by Hart, to have been owned by Messrs

Gerold and Urich, Tardieu, and F. Urich and Son. However, we consider Hart's statement to apply to The Bocas generally and not to Chacachacare alone. No evidence was found that there was more than a single whaling station on this island.

Henry Joell is believed to have established the whaling station on Chacachacare some time in the 1820s (A. De Verteuil, pers. comm., Sept. 2000). Upon his death in 1842, it was sold, including 'all the Boats, Whaling Implements, and Apparatus thereto attached' (*Trinidad Standard*, 6 October 1842).

Whaling in Tobago

The American whaling innovator Thomas Welcome Roys visited Tobago and took 'several' humpbacks there (Schmitt *et al.*, 1980) during an experimental expedition on the brig *William F. Safford* of Sag Harbor. The whales apparently were taken in the last few days of December or first week of January (the vessel having arrived at Barbados on 10 January 1859; Schmitt *et al.*, 1980). The literature reveals few other observations of humpbacks at Tobago in spite of Lindeman's (1880; see True, 1904) reference to 'fair results' experienced there by American whalers. The brig *Annawan* of Rochester (*Annawan*, 1836-37¹) passed along the north shore of Tobago on 3 February 1837, but did not linger before heading to the Dragon's Mouth and Gulf of Paria in search of humpbacks (see below).

In 1878, the *Rising Sun* sailed directly to Tobago from Provincetown and began daily cruises for humpbacks on 26 February (*Rising Sun*, 1875-83²; see Reeves *et al.*, 2001). Although humpbacks were sighted at Tobago on 1-4 March, the schooner headed northwards on 7 March to spend the next month humpbacking near St Vincent and the Grenadines. The brig *Falcon* of Salem was at Tobago on 20 February 1865 'clean' (no oil since sailing on 11 January), then shipped home 105bbl of humpback oil and 470lb of baleen from Barbados on 3 May (Starbuck, 1878; Wood, n.d.). It is unclear, however, where or when (between the stated dates) the humpbacks were taken.

No written evidence of shore whaling in Tobago was found and it was therefore concluded that organised whaling did not take place there. However, some salvaging of stranded whales certainly occurred, with the blubber being tried out in iron kettles and distributed for local use (Winston Dillon, pers. comm.).

Whaling season and methods

Whaling activity in Trinidad was strictly confined to the boreal winter and spring, particularly the months of January to May. This is when North Atlantic humpbacks are in low latitudes at the breeding end of their annual migration. According to De Verteuil (1858), the whales began arriving in local waters in December but were 'wild' and thus difficult to hunt until later in the season. He also noted that

they left the area by the end of May. His statement that the peak whaling season was February-May is consistent with the evidence found in our newspaper searches and with notes that appear occasionally in the Blue Books. Another source indicates that the season was January to March (Anon., 1869).

Catch levels

The Blue Books provide information on catches for some years (Table 3). The highest reported one-year catch was 34 whales (in 1838) or 'about' 35 (in 1848). Other evidence in newspapers confirms good catches in some years. For example, an advertisement in September 1830 indicates that one whaler (Richard Joell) had on hand 'a good supply of Oil, manufactured at his Whaling Establishment at Gasparé Island' (*Port of Spain Gazette*, 22 September 1830). Other advertisements for locally produced whale oil (see above) prove that catches were made in at least 1828, 1830-32, 1834-35, 1838-40, 1844, 1849-50 and 1854. For some of these years (1834, 1854), the Blue Books are silent concerning whaling but the newspaper evidence provides a basis for interpolation. On one occasion in February 1844, 50bbl was advertised, suggesting a recent catch of at least one or two humpbacks in January (*Trinidad Standard*, 1 February). Exportation of whale oil can also be interpreted as indicating a whale catch, and such evidence exists for at least 1826, 1830-33, 1835-44, 1846, 1848-58 and 1861 (Table 2). Again, this evidence helps to fill gaps in the Blue Book data (e.g. for 1836-37, 1843, 1853-54). Of particular importance are the years 1836-37, for which no Blue Books were available. In these years, more than 210 and 14bbl of oil, respectively, were exported (assuming at least 1bbl for each 'unspecified' shipment and that a cask is equivalent to a barrel). In 1853, a year when no catch is given in the Blue Book and only small amounts of oil and baleen were exported (Table 2), at least two whales were taken at Monos in February (see later under 'Relations with American pelagic whalers').

The Blue Book data on number of whales caught or amount of oil produced apparently are not always based on actual returns from the fishery. For example, the total Trinidad catch in 1840 is given as 29 whales, producing 28,545gal of oil worth £2,931 at 2s.1d./gal. The next year's reported catch is 28 whales, producing 27,561gal valued at £2,872 (also see Anon., 1847). As the average yield is exactly the same (984gal/whale) both years, either the numbers of whales must have been derived from the oil production figures or *vice-versa*.

Writing in the 1850s, De Verteuil (1858) gave the annual secured catch in Trinidad as 25-30 whales, producing about 20,000gal of oil. It can be inferred, having checked the Blue Books for this period, that De Verteuil either consulted the same source as the Blue Book compiler or in fact used the Blue Books for his rough guess at 'average' annual catch (see Table 3). Using De Verteuil's numbers, the *per capita* yield of oil can be estimated at about 660-800 imperial gal. Humpbacks taken at Bequia were said (Brown, 1945) to yield 400gal (small individuals), 800gal (medium) to 1,500gal ('very large'), the average being slightly more than 1,000gal (Adams, 1971). It is unclear whether these authors were using imperial or standard gallons, but we suspect that they were using the former. Taking the Trinidad Blue Book data at face value, the one-year average yield ranged from 400-1,200gal/whale.

¹ *Annawan*. 1836-1837. Journal kept by Charles Hammond aboard the brig *Annawan* of Rochester, Charles B. Hammond, Master. 16 December 1836-18 June 1837. Kendall Whaling Museum, Sharon, Massachusetts, USA.

² *Rising Sun*. 1875-1883. Journal kept by T. Taylor aboard the schooner *Rising Sun* of Provincetown, T.S. Taylor, Master. 27 March 1875 - 12 September 1883. Phillips Library, Peabody Essex Museum, Salem, Massachusetts, USA.

Table 3

Information on Trinidad whaling contained in the Blue Books, 1826-65. Note: Blue Books for 1824-25 and 1866-73 were checked, but these make no mention of whaling.

Year	Whaling effort	Whale catch	Production of oil; value (sterling)	Other information
1826	1 sloop, 3 boats	5 'cows', 6 'calves'	6,000gal; 3s,0d/2 per gal	'Whales abundant in the Gulph of Trinidad from January to May'.
1827	No mention	-	-	-
1828	3 boats, 25 men	1	1,200gal; f270	-
1829	4 boats, 18 men	2	1,600gal; f216,13s,4d	-
1830	4 boats	14	6,000gal; f1,300	-
1831	1 sloop, 4 boats	13	10,000gal; f1,100	-
1832	2 sloops, 6 boats	22	24,000gal; f2,600 (2s,2d/gal)	'Whales abundant in the Gulph of Paria from Jany to May'.
1833	8 boats	-	6,500gal; f704,5s,4d (2s,2d/gal)	-
1834	No mention	-	-	-
1835	9 boats	30	-; f1,170	-
1836-37	Blue Books not available	-	-	-
1838	12 boats	34	-; f2,100	4 'fisheries': 1 at Gasparee, 2 at Monos, 1 at Chacachacara; 'The Oil sold last Year at about 30 Cents the Gallon'.
1839	16 boats	22	22,000gal; f1,604,3s,4d	4 stations (as above); 'The Oil sold last year at about 35 Cents the Gallon'.
1840	16 boats	29	28,545gal; f2,931	4 stations (as above); 'The oil sold last year at about 2/1 pr. Gallon'.
1841	16 boats	28	27,561gal; f2,871,15s,9d	4 stations (as above); 'The Oil sold at about 2/1 pr. Gallon'.
1842	16 boats	-	-	4 'fisheries' (as above); 'Price of Oil 35 Cents pr. Gallon'.
1843	Blue Book not available	-	-	-
1844	16 boats	'about' 20	-; f1,530	'There are 4 Establishments for the manufactory of whale oil situated on the Islands of the Bocas'.
1845	16 boats	24	-; f1,836	4 establishments (as above)
1846	-	22	-	4 establishments (as above); catches took place 'From 28 th Jany. to 5 th April'.
1847	16 boats	5	-; f113.8	4 stations still operating
1848	-	'about' 35	c. 40,000gal; f2,000	'Carried on by two or three private individuals'.
1849	-	'about' 25	c. 20,300gal; value 2s,1d/gal	2-3 private individuals (as above)
1850	-	18	7,200gal; value 2s,1d/gal	2-3 private individuals (as above)
1851	-	18	12,000gal; ave. price 2s,8d/gal	2-3 private individuals (as above)
1852	-	15	16,875gal; ave. price 2s,6d/gal	2-3 private individuals (as above)
1853	-	-	-	2-3 private individuals (as above)
1854	No mention	-	-	-
1855	-	18	14,800gal; ave. price 3s/gal	2-3 private individuals (as above)
1856	-	20	500bbl ('equal to about 12,500 Galls.');	2-3 private individuals (as above)
			price 3s/gal	
1857	-	18	13,150gal; ave. price 3s/gal	2-3 private individuals (as above)
1858	No mention	-	-	-
1859	10 boats	13	489bbl ('of 25 imperial gallons each'); -	'Carried on by only a few private individuals'
1860	10 boats	-	-	'The Whale fishery is carried on by a few private individuals at the Bocas, and usually produces about 500 gallons of oil [<i>sic</i>]'
1861	15 boats	16	13,075gal; f1,743,6s	-
1862	-	9	7,700gal; f962	-
1863	-	7	5,275gal; f844	-
1864	-	6	c. 4,522gal; c. f724	-
1865	-	5	159bbl; f636	-

Inferred take levels based on oil production would be negatively biased because of the large amounts of blubber scavenged by sharks. Killed whales were towed to protected bays and flensed in the water as near to shore as possible. Several descriptions of whaling in Trinidad emphasise that large numbers of sharks always gathered round the whale carcasses and usually succeeded in removing substantial quantities of blubber before flensing could be completed (Joseph, 1838; De Verteuil, L.A.A., 1858; Kingsley, 1871). According to De Verteuil (1858), 'great waste' attended the fishery.

It was standard practice among the Trinidad shore whalers to attack and wound humpback calves so that their mothers could be more easily secured (De Verteuil, L.A.A., 1858; Urich, 1995). This ensured high mortality of injured or orphaned calves.

Hunting loss

The loss of harpooned whales has been a feature of all whaling operations and Trinidad's were no exception. There is no basis for quantifying the hunting loss in the Trinidad fishery but several sources refer to occasions when harpooned whales escaped or sank (e.g. Cothonay, 1893). One nineteenth-century source (De Gannes, 1872, quoted in De Verteuil, A., 2000) emphasises that, notwithstanding the romantic gloss imposed by literary accounts, Trinidad whalers experienced their share of gear damage and loss, as well as personal injury. His reference to the fact that documentation for these aspects could be found in the Gerold and Urich account books implies that such documents may still exist, perhaps in a company's warehouse or a family's attic. If they do, it would be beneficial to examine them for catch and other data.

Table 4

American (and other) whaling vessels known to have called at Port-of-Spain (POS).
Some supplemental data (usually in parentheses) from Starbuck (1878).

Vessel, master, port	Date(s)	Comments	Reference source
<i>Harmony</i> , Nantucket	31 Dec. 1833	Definitely intended to whale in Gulf of Paria	See text
Schooner <i>Harmony</i> , Swain, Nantucket	23Feb. 1836	Arrived 'in distress'	<i>POS Gazette</i>
Bark <i>Popmunnitt</i> , Nicholson, Falmouth	30Jan. 1837	Arrived with 'Apparatus for catching Whales'	<i>POS Gazette</i>
Bark <i>Little Catherine</i> , Henderson, London	31Jan. 1837	Arrived 'with Apparatus for catching Whales'	<i>POS Gazette</i>
Brig <i>Annawan</i> , Hammonds, Rochester and St Vincent	4 Feb. 1837	Arrived 'with Apparatus for catching Whales'	<i>POS Gazette</i> ; also see text
Schooner <i>Primrose</i> , Swain, Nantucket	28 Mar. 1837	Arrived 'on a whaling voyage' with 'Apparatus for Whaling; sailed same date	<i>POS Gazette</i>
Brig (Schooner?) <i>Harmony</i> , Crosby (Coleman?), Nantucket	23 Feb. 1838	Arrived 'from a Whaling Voyage' with 'oil and Implements for Whaling' on board; no indication of sailing date	<i>POS Gazette</i>
Bark <i>Popmunnett</i> , Nickerson, Falmouth	14 Mar. 1838	Arrived 'from a Whaling Voyage' with 'oil and implements for whaling' on board; sailed 16 Mar. 'on a Whaling Voyage'	<i>POS Gazette</i> ; <i>Trinidad Standard</i> ; also see text
Schooner <i>Primrose</i> , Gifford, Nantucket	23 Mar. 1838	Arrived 'with implements for Whaling'; sailed 24 Mar. 'on a Whaling Voyage'	<i>POS Gazette</i> ; <i>Trinidad Standard</i>
Brig <i>Imogene</i> , Small, Provincetown	25 Mar. 1838	Arrived 'from a Whaling Voyage'	<i>Trinidad Standard</i>
Brig <i>Imogene</i> , Small, Boston (Provincetown?)	4 Feb. 1839	Arrived 'with whaling apparatus'; no indication of sailing date	<i>POS Gazette</i>
Bark (Brig?) <i>Sarah</i> , Buringbie (Purrington?), (Rochester?)	10 Jan. 1842	Arrived 'from a Whaling Voyage'	<i>Trinidad Standard</i>
Bark <i>Fairy</i> , Geron (Genn?), Provincetown	21 Jan. 1843	Arrived 'from a Whaling Voyage'; sailed 24 Jan. 'on a Whaling Voyage'	<i>Trinidad Standard</i>
Brig <i>Edward</i> , Taber, Mattapoisett	25 Feb. 1843	Arrived 'from a Whaling Voyage'	<i>Trinidad Standard</i>
Bark <i>Solon</i> , Smith, Westport	Late Jan.- early Feb. 1853	Hunting humpbacks in northern Gulf of Paria	See text

In 1838, a civil suit was reported involving the capture of a whale in The Bocas (*Port of Spain Gazette*, 6 February 1838). The claim was for £1,500, 'being the value of a Whale taken by the defendant [Joell] after being harpooned by the Whalers in the employ of the plaintiff [Charbonné]'. It was noted that

'there was much property in the Island [Trinidad] embarked in the Whale fisheries of the Gulph of Paria; and it was but right that a good understanding should become at, as to the right of property in Whales by those who first struck them, as otherwise much hostility would result not only from people of this Island who fished for Whales, but also Americans of the United States who were in the habit of carrying on Whaling here during the season.'

The chief justice noted that

'if the Americans carried on their whaling out of this jurisdiction, it was useless to talk about it, but they certainly ought not to be allowed to fish for Whales off this Island to the detriment of the inhabitants who were employed in the Whale trade, as the inhabitants of Trinidad would certainly not be permitted to carry on this pursuit on the shores of the United States.'

Jean Louis Antoine, a whaleboat captain, was called as a witness. He stated that in the previous March (1837), 'near the Bocas', he saw a whale 'and aimed a harpoon at it, which he drove into the Whale up to the hilt.' The whale reportedly 'dived as usual on such occasions, and took down 160 fathoms of line.' At that point, with no more line to pay out, the boat was pulled 10 feet under water, forcing the crew to cut the line. As they scrambled onto the upturned boat, the whale surfaced 'bleeding profusely'. It was 'floundering about very sick (*bien malade*) as though it was dying.' Antoine then called for assistance from two boats owned by Tardieu. Tardieu's men 'aided them to right the boat and then went, at the witness's request, in pursuit of the Whale'. However, in the meantime, one of Joell's crews, 'who were a head of the Whale, intercepted it, struck, and killed it'. A Tardieu spokesman requested half the blubber as was thought to be customary, but Joell's group refused to share the proceeds. They did, however, return the harpoon after recovering it from the carcass. The matter was referred to

arbitration by the Port-of-Spain harbour master. A report on the outcome could not be found in subsequent issues of the newspaper.

Relations with American pelagic whalers

American whaling vessels visited Trinidad waters occasionally in pursuit of humpback whales (Mitchell and Reeves, 1983; Reeves *et al.*, 2001). This visitation seems not to have begun until the 1830s and it continued into the late 1860s or early 1870s (Reeves *et al.*, 2001; Table 4). Although no evidence was found of outright hostility between the shore and pelagic whalers, it is clear that the shore whalers viewed the Americans as interlopers. For example, when the schooner *Harmony* of Nantucket arrived at Port-of-Spain on 31 December 1833 and sought permission 'to take Whales in the Gulph of Paria', local whalers petitioned against it (Hill, 1834). Recognising that he had no legal grounds on which to exclude the *Harmony* from whaling in the Gulf, the governor simply refused to confer an explicit permit to whale. He also warned that the *Harmony* would not be allowed to use Trinidad's shores or harbours for processing whales, and that if the vessel were to remain within three miles of the coast it would need to come into port. In the event, the *Harmony* 'sailed ... for the Shores of the Spanish Main' (Hill, 1834). According to Starbuck (1878), the *Harmony* obtained only sperm oil in cruises spanning the winters of 1834 and 1834-35 (although there is ambiguity in his tables - see e.g. his pp. 300-01, where a *Harmony* voyage is indicated to have started on 14 November 1833 and ended on 17 September 1833 [*sic*], with a combined catch of '15 whale' [i.e. 15bbl of whale oil] for this voyage and an earlier one beginning 12 June 1833 [no end date given]). It is therefore uncertain whether the *Harmony* made any effort to catch humpbacks off Trinidad in the winter of 1833-34.

As the brig *Annawan* of Rochester approached the Dragon's Mouth on 3 February 1837, the master reported in his journal, 'Saw a great number of humpbacks'. After a brief visit to Port-of-Spain, the vessel cruised westwards

along the Spanish Main (apparently staying inside the Gulf of Paria on the coast of Venezuela) for about ten days. Humpbacks were encountered near shore and chased daily from 5-11 February, including a cow-calf pair on 6 February. At least two other vessels were humpbacking in the same area - an English bark and the bark *Popmunnet* of Falmouth (with 30bbl of humpback oil on board on 7 February). The *Popmunnet* apparently had preceded the *Annawan*, having called at Port-of-Spain on 30 January (Table 4). After several days of finding no whales, the *Annawan* left the Gulf on 17 February and headed rapidly northwards to Puerto Rico (*Annawan*, 1836-37¹). The *Popmunnet* seems to have been more successful than the *Annawan*, returning in September 1837 from a nine-month cruise with 300bbl of humpback oil on board (Wood, n.d.). Several seasons later (1843-45) the *Popmunnet*, then sailing out of Sippican, visited Trinidad on the outbound leg of a cruise to the South Atlantic (February 1844). On 25 March 1845, upon leaving Bahia, Brazil, to head home, the bark was said to be 'bound to Gulf Para for humpbacks' (Wood, n.d.).

Judging by events recorded in the logbook of the bark *Solon* of Westport, Americans persisted in their attempts to whale within the Gulf of Paria (*Solon*, 1852-53³; see Reeves *et al.*, 2001). In late January 1853, the *Solon* sailed directly from Barbados to the north coast of Trinidad. While steering for Boca Grande ('Grand Boca') the 28 January logbook entry states: 'Saw Plenty of Humpbacks'. However, in the interior of the Gulf of Paria and towards the Serpent's Mouth, they found 'no signs of whales'. The south side of the Gulf was 'bare enough of whales'. At Bonasse on 29 January the captain went ashore 'to see if there was any signs of whales & found some but rather early'. The first few days of February were spent anchored off the south shore of Monos Island, paying a concession of 2bbl of oil for the right to whale in Trinidad territory, taking water on board and securing boats and crew. The *Solon* logbook refers to the shore-based whaling operation on Monos which was active at the time. By 4 February the *Solon* was anchored in Boca Grande (in company with the bark *Corvo* of Orleans) and humpbacks were reported to be plentiful just outside the Boca (one was struck but lost). For the rest of the month the *Solon* worked back and forth across the Gulf of Paria between Monos and Isla Soldado ('Soldier Islet'; Soldado Rock) and along the south side of the Paria Peninsula ('Paria Land'). Humpbacks were seen, chased and occasionally struck. At least two were secured by the shore whalers at Monos, one on 19 February and one on 25 February.

An editorial footnote to a paper by Adams (1973) on blackfish whaling at Barrouallie, St Vincent, challenges Adams's emphasis on 19th century Yankee knowledge and technology, pointing to the whale fishery [for humpbacks] established in Trinidad in the 1820s (Higman, 1973). Higman claims that the Trinidad fishery was 'based on local know-how and the labour of blacks from Bermuda'. There certainly was a Bermuda connection of some sort. A 'retired sea Captain from Bermuda', C.A. White, is said to have petitioned the Cabildo in 1827 'to open a subscription list to establish a whaling industry' in Trinidad (De Verteuil, A., 1994). Indeed, the 1826 Blue Book refers to White as the 'proprietor' of the fishery established that year, involving a sloop and three boats. Perhaps a whaling station on land had not yet been constructed in 1826. White apparently managed the large whaling station at Pointe Baleine (cf. Carmichael, 1961). Another 'Bermudan whaler' known as Old Abraham

lived at Monos and participated in the whaling there (De Verteuil, A., 2000). Finally, as indicated above, some of the whale boats used in Trinidad were built in Bermuda.

The end of shore whaling

At least one of the whaling stations was still operating in 1870 although 'the whales had not yet come in' by early January of that year, when Kingsley (1871) visited the site. The Blue Books make no mention of a whaling industry's existence in Trinidad after 1865, suggesting that whaling activity was only sporadic and desultory after this time. Whaling had certainly ended as a regular enterprise in Trinidad by the 1880s. Collens (1888) noted that 'several' whaling stations still existed near The Bocas in his time and that whales were 'still occasionally caught, though not often'. According to Russell (1922), 'Whaling was till comparatively recent times a considerable industry in the Gulf of Paria.' There is no reason to believe, however, that the Trinidad shore whaling industry lasted to the end of the 19th century.

CONCLUSIONS

Whaling in Trinidad seems to have developed as a result of local initiatives, supplemented by important involvement of experienced whalers from Bermuda and Germany (De Verteuil, A., 1994). No evidence was found suggesting that American ('Yankee') whalers played a direct or instigative role in the early years. They did, however, hunt whales in local waters from at least as early as the mid-1830s, and they certainly had some interaction with the shore whalers.

It is curious that no reference to the local consumption of whale meat in Trinidad was found. This contrasts with the situations in Barbados (Archer, 1881; Sambon, 1923), Bermuda (Jones, 1884) and the Grenadines (Fenger, 1913; Adams, 1970; 1971) where whale meat was relished and thus provided a major incentive for the development and continuation of the whale fisheries. It appears that in Trinidad, oil, and for a time small amounts of baleen, were the sole products of the whale hunt.

It is unclear why shore whaling ended in Trinidad, but depletion of the local humpback population is one plausible hypothesis. The American hunt for humpbacks reached its peak of intensity during the 1860s-1870s and had become more or less desultory by the 1880s (Mitchell and Reeves, 1983). In addition, regional sources of whale oil were becoming increasingly available as the whale fisheries in Barbados and the Grenadines flourished during the 1870s. In fact, Archer (1881) reported that his own export market for Barbados whale oil in Trinidad became glutted, apparently sometime in the 1870s, by 'the great influx of oil from Grenada, St. Vincent, etc.' Perhaps in the face of declining numbers of humpbacks visiting The Bocas, together with increased availability of kerosene and the alternative of importing whale oil from other Caribbean islands, whaling was simply no longer sufficiently profitable in Trinidad to keep the industry alive. Recent surveys confirm that humpbacks still occur off the north and east coasts of the island but they appear not to have returned to The Bocas and the northern Gulf of Paria (Swartz *et al.*, 2000).

It is worth emphasising that this study did not specifically attempt to reveal all aspects of Trinidad whaling that would be of interest to historians, e.g. economic structure, social dimensions and technology. Our principal concerns centred on biological aspects of the fishery and on the magnitude of removals from the whale population. It is hoped that other

³ *Solon*. 1852-1853. Logbook of the bark *Solon* of Westport, Joseph E. Smith, Master. 10 July 1852 - 15 October 1853. Old Dartmouth Historical Society, New Bedford, Massachusetts, USA.

scholars will pursue those features of Trinidad (and Tobago?) whaling that were either overlooked or ignored in this paper.

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); Historio di Trinidad e Tobago (io); Geschichte Trinidad und Tobagos (de); História de Trinidad e Tobago (pt); History of Trinidad and Tobago (en); 0ª0š0±ùš0@ 0ª0±ùšù†ùš0-0š0- ù0ªù0-0š00ù^ (ar); ç%o'ç««â ° ¼è³/4³/4â'CEâ#šâ·â“¥âž†â² (zh); Trinidad ir Tobago istorija (lt) Wikimedia-Geschichts-Artikel (de) História de Trindade e Tobago (pt). Subcategories. This category has the following 12 subcategories, out of 12 total. â–º History of Trinidad and Tobago by periodâ€Ž (2 C). â–º Trinidad and Tobago by yearâ€Ž (15 C). * â–º Events in Trinidad and Tobagoâ€Ž (3 C). F. â–º Historical flags of Trinidad and Tobagoâ€Ž (4 C). G. â–º Governors of Trinidadâ€Ž (3 C A Guide to the United Statesâ€™ History of Recognition, Diplomatic, and Consular Relations, by Country, since 1776: Trinidad and Tobago. Summary. Under first Spanish and then British colonial rule, the two islands that constitute the state of Trinidad and Tobago achieved independence in 1962. At that time, it joined the British Commonwealth. Since the 1960s, Trinidad and Tobago has emerged as one of the most industrialized countries in the English-speaking Caribbean, and is an active member of the international community. Today, the United States and Trinidad and Tobago enjoy cordial relations. Modern Flag of Trinidad and Tobago. Recognition. U.S. Recognition of the Independence of Trinidad and Tobago, 1962. Environmental History of Marine Mammal Exploitation in Trinidad and Tobago, W.I., and its Ecological Impact. Aldemaro ROMERO1 ruth baker joel e. creswell. Environmental Studies Program and Biology Department Macalester College 1600 Grand Ave., St. Paul, MN 55105-1899, USA. ANURADHA SINGH. Department of Life Sciences University of West Indies St. Augustine Trinidad & Tobago, W.I. Trinidad and Tobago has been characterised by land-based whaling, organised during most of the nineteenth century by local elites. Dolphin fisheries have been rare and restricted to by-catches. Trinidad has the last remaining population of manatees among the eastern Caribbean islands, which is composed of a small number of individuals confined to a small swamp.