## Whale catches from 19<sup>th</sup> century shore stations in Western Australia

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## ABSTRACT

This paper presents historical data from 19th century shore whaling stations along the Western Australian coast, complementing data already presented in an earlier 1985 analysis. In particular, catch records of the Castle Rock whaling station, Geographe Bay, Western Australia, for the period 1846–53 together with other contemporary records indicate that humpback whales (*Megaptera novaeangliae*) comprised the majority of the colonial shore whalers' catch. It is suggested that this could have been a result of a significant presence of American whale ships in the region in the early 1840s, which had presumably already reduced southern right whale (*Eubalaena australis*) numbers by the time these detailed colonial records were kept.

KEYWORDS: WHALING - HISTORICAL; INDIAN OCEAN; SOUTHERN OCEAN; STATISTICS

## INTRODUCTION

Bannister et al. (1981) and Bannister (1986) presented data on 19th century whale catches along the Western Australian coast by American pelagic vessels and colonial shore whaling parties. This paper presents further historical data on 19th century colonial shore-based whaling operations on the west and south Western Australian coasts, providing a synthesis of whale catch and oil production records for the period 1836-1879. It also attempts to establish the extent to which particular species were caught by these small-scale open-boat fisheries, as well as the seasonality of whale migrations and whaling operations and the catch efficiency and speed of decline of whale stocks, especially during the peak impact period of the 1840s. The focus is an analysis of the detailed daily records from the Castle Rock whaling station (Geographe Bay) for the period 1846-53, with broader patterns extracted from official government records, colonial newspapers and other documentary sources.

#### HISTORICAL BACKGROUND

Western Australia was colonised by the British in 1829, with shore-based whaling by the settlers commencing on the south coast in 1836 and the west coast in 1837. Despite initial expectations, by the early 1840s hopes that whaling would be a major contributor to the colonial coffers had already faded. High establishment costs with only modest returns resulting in part from a lack of skill drove many early operators out of business. However, several years later, the increasing numbers of pelagic whale ships operating in the region and willing to sell surplus equipment, as well as half a dozen shipwrecks where salvaged gear was auctioned to settlers, made it possible for the colonists to set up small stations quite cheaply (Gibbs, 1998). Similarly, deserting sailors from the pelagic vessels increased the available skill pool, even though these men were equally inclined to desert the shore parties if made an offer by a passing whale ship (e.g. Whitecar, 1860, p.219). However, whatever benefits were provided by the pelagic whalers was balanced against the direct and indirect competition as the American and

French vessels wintered on the coast and took whatever whale species were present (Bannister *et al.*, 1981; Gibbs, 2000).

The shore-based whaling operations on the west and south coasts were carried out independently, although production for western Australian fisheries was often reported for the colony as a whole (Gibbs, 1996). The technologies, techniques and strategies employed by these parties were consistent with other Australasian and international shorebased whaling enterprises of the era (Dakin, 1938; Lawrence and Staniforth, 1998; Pearson, 1983). In some instances, a whaling party might have a small schooner or other vessel assisting with transportation of crews or the flensing of whale carcasses, although most were low-key operations of limited means. Relatively few stations, generally fewer than eight in total, were established in any one year and the whaling parties themselves tended to be quite small in size, employing between two and four whaleboats with 15 to 30 men (Gibbs, 1996). Many of the parties remained based at a single station, waiting for the appearance of right or humpback whales and closing the season once it was decided that the main body of the migration, particularly of humpback whales, had passed. However, after the 1850s, parties on both coasts developed an alternative strategy where they shifted camp two or more times, tracing the migration (presumably of humpback whales) north to south on the west coast and west to east on the south coast. By the close of the industry in the late 1870s, stations operated as far north as the Dampier Archipelago and as far east as Cape Arid. The traditional open-boat shore whaling continued in western Australia until ca.1879 when limited returns finally made the industry non-viable (Gibbs, 1996).

## METHODS

# Historical sources for colonial Western Australian whaling data

Official record-keeping of the production from the small 19th century Western Australian whaling stations was negligible, with the annual statistical record for the colony (the 'Blue Books'), being the only regular record. Even then, the level of detail varies enormously between years from a single value for whale oil and whalebone, to regional or station-by-station reports on the numbers of men and boats and the number, species and oil yield of individual whales. The two major Western Australian newspapers published between 1836 and 1880, the *Perth Gazette* and the *Inquirer* were also reviewed for any reports of whale catches. Although erratic, these often provide a better idea of the successes of individual stations but by no measure are complete accounts. Colonists and commentators sometimes reported on whaling in other documents but generally only present broad detail on whale sightings and the operation of the industry.

The daily diary of William Seymour<sup>1</sup>, manager of the Castle Rock whaling station established in a small cove in Geographe Bay east of Cape Naturaliste, appears to be the only surviving detailed catch record for a 19th century Western Australian whaling station. Castle Rock was occupied by various parties between 1846 and 1872, and used between two and three whaleboats each season, which was typical of the small Western Australian shore whaling stations (Heppingstone, 1993). Regrettably the diary covers only the period 1846–53, excluding 1851, with most of the entries consisting of a single sentence statement of what whales were chased, struck, and killed each day. The diary was analysed with regard to species sighted and the operational success of the station.

## RESULTS

## The 19th century whaling season

As noted, the small-scale Western Australian whaling operations were restricted to near-shore areas and usually within one or several adjacent bays. This in turn limited the available whale species to those which came in close proximity to the coast, primarily humpback and southern right whales.

The modern humpback whale population in this area (IWC Breeding Stock D) arrives on the southern and western Australian coasts as early as April, although the majority of the northbound group appears in June, moving to the subtropical waters of the northwest coast to calve and mate (Bannister, 2008; Chittleborough, 1965). Around mid-August they begin the southward journey, passing closer to shore and sometimes lingering in a bay or area with their calves for up to a week (Collier, 1993; Jenner et al., 2001). Although there are a few stragglers until late November, the migration through Western Australian waters has largely ended by late October. The humpback whale population does not pass along the south coast on their southward run (Chittleborough, 1965). The modern southern right whale population arrives on the southern and lower western Australian coast from about July to calve and mate, returning to subpolar or more southerly regions by mid-November (Bannister, 2008; Bannister, 1985).

The operational period (season) of the 19th century shore whalers was dependent upon the appearance of one or both of these key species. Unfortunately, species identification in

contemporary accounts is often lacking. Writing from the Fremantle region on the west coast, Ogle (1839, p.158) reported that whales frequented the west coast from late May to October. Landor (1847) stated that from about June the whales (presumably humpbacks) proceeded northwards, generally returning southwards around six weeks later. Another correspondent noted humpbacks could arrive off the Fremantle (lower west) coast as early as April (Perth Gazette<sup>2</sup>, 22/4/1837), although a decade later there are statements that the Fremantle stations did not normally catch anything before August (e.g. Inquirer<sup>3</sup>, 2/8/1848). The shore whaling season for this region appears to have closed by mid to late October (Perth Gazette, 6/11/1847; 23/10/1859). Although the dates when whales appeared on the less populated south coast are even less certain, the station at Cheyne Beach east of Albany reported making catches from late June or early July onwards (Inquirer, 7/7/1847; 27/6/1850; 15/7/1857; 21/6/1865). The close of the southern season appears to have been in late October or early to mid-November (Inquirer, 3/11/1847; 21/11/1849).

The Castle Rock diary of William Seymour shows a nearly two month variation in the commencement date of the whaling season in Geographe Bay, as early as 1 June and as late as 3 August, with the end date within a range of just over one month (30 October to 3 December). There are indications that the opening and closing dates may well have been arbitrary points within the general time frame of the whale migration, with the station manager probably hoping to catch the peak without keeping the station open longer than necessary.

## **Catch efficiency**

The Castle Rock station records were analysed to determine the efficiency of the operation over an eight year period from 1846 to 1853. Tables 1 and 2 present summaries of the Castle Rock operation by month and year. Seymour's diary suggests that the only reasons why the crews would not pursue a whale were extremely heavy weather, or because the men were already occupied in processing a whale. However, Table 3 shows only about a quarter of chases resulted in a whale being 'struck' with a harpoon, with the later years (1850-53) showing even lower rates of success. Once the whale was struck a variety of things could occur, including the harpoon drawing from the blubber, or the whale (especially humpbacks) turning and destroying the boat. The whale might also run so far out to sea that the men would be forced to cut the line so as not to risk not being able to make their way back to shore (Castle Rock diary, 23/10/46). Despite this, as shown in Table 3 a high proportion (averaging 60%) of struck whales was killed.

As indicated in Table 3, returning a whale carcass to shore by towing behind the whaleboat(s) without the assistance of a larger vessel must have had its own hazards. The mean success rate was only 69%, with carcasses being lost through various factors such as heavy seas, distance to shore or nightfall forcing the boats to cut the line, although it appears

<sup>&</sup>lt;sup>1</sup> Seymour, F.W. [no date]. Castle Rock diary of Frederick William Seymour. Unpublished manuscript, Battye Library, Accession number 2838A/2.

<sup>&</sup>lt;sup>2</sup> Perth Gazette and Western Australian Journal newspaper (1833–1864), later Perth Gazette and W.A. Times newspaper (1864–1874), Perth, Western Australia.

<sup>&</sup>lt;sup>3</sup> *The Inquirer* newspaper (1840–1855), later *The Inquirer and Commercial News* (1855–1890), Perth, Western Australia.

Table 1 Castle Rock whaling station summary of operations by month (1846–50, 1850–53).

Month	No. of days whales sighted	No. of days whales chased	Chase 'events' per month	Whales struck	Whales killed	Whales brought to shore
June	2	2	2	0	0	0
July	10	6	10	0	0	0
August	45	38	46	16	11	14
September	112	106	161	38	21	16
October	167	155	293	64	39	30
November	64	65	120	30	25	18
December	2	2	5	2	2	0
Total	402	374	637	150	98	78

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Castle Rock whaling station summary of operations by year (1846–50, 1850–53).

	1846	1847	1848	1849	1850	1852	1853	Total
Days sighted	72	59	80	43	36	65	47	402
Days chased	69	56	71	43	33	58	41	371
Chase events	117	108	121	83	46	95	68	638
Struck	31	28	31	25	7	6	14	142
Killed	20	24	21	17	4	3	4	93
Brought to shore	20	16	17	12	3	2	1	71

that if necessary the crews would row through the night. Although right whales floated when dead, other species including humpbacks could sink, with an effort being made to retrieve them several days later when the decomposition gasses had eventually returned them to the surface. While some of these bodies were re-located and successfully brought back to shore, some or all of the blubber may well have already been stripped by sharks and killer whales (Orcinus orca). Seymour's diary suggests that once ashore, the process of flensing a whale and trying-out and barrelling the oil took an average of three days. This could take longer if interrupted by whale chases, although in some instances Seymour (Castle Rock diary, 16/10/1846) mentions the lookout not being kept while trying-out was being completed. Cleaning the whalebone (baleen) seems to have been the least pressing task, done after the trying out was completed or at some later date (Caslte Rock diary, 21/8/1852). The oil retrieved was used for lubricants and lighting, especially the fine oil recovered from sperm whales if caught, as well as for other processes such as scouring and bleaching cloth and softening leather. The flexible baleen (whalebone) was used for various purposes including as corset stays and umbrella ribs and even carriage springs, with right whale baleen superior to that from humpbacks (Bannister, 2008, p.22).

It is interesting to note that over the eight years of records, the efficiency of the Castle Rock station actually appears to decline. Even though the decrease in whale sightings may partially account for a drop in performance, in general the rate of success at striking, killing and returning the whales to shore also fell. This cannot be easily explained by reference to Seymour's journal, although contemporary reports suggest poor management of whale carcases being towed by the boat crews (*Inquirer*, 19/10/1853).

#### Species of catch

The species of whale involved in each chase by the Castle Rock whalers is summarised in Table 4, while the number killed (but not necessarily brought to shore) is presented in Table 5. Humpback whales dominate the sample, forming 79% of the species chased, and 77% of the total killed. Right whales form the next and considerably smaller group at 15% of the species chased and 15% of the total kill. Overall, the catch of humpback versus right whales was in the order of a 5:1 ratio. However, for both species there was a 14% success rate between chasing and killing the animals, suggesting an equal degree of ease (or difficulty) in the pursuit of each type.

The next most commonly-pursued species at Castle Rock was the blue whale (*Balaenoptera musculus*), referred to in Seymour's journal as 'sulphur bottoms'. These animals also migrate north from the Antarctic and along the Western Australian coast as they head towards Indonesian waters (Cousteau and Paccalet, 1988). Up to half a dozen sightings of blue whales were made from Castle Rock each year between August and November. In August of 1853, Seymour (Castle Rock diary, 19/8/1853) also recorded sighting a cow and calf sulphur bottom passing by the station.

Despite chasing blue whales whenever they were within range of the station, the Castle Rock crews were usually unable to strike these animals with their harpoons. This was possibly owing to the 'famed swiftness' of the species (*Inquirer*, 24/9/1851) which was able to flee at up to 15 knots (28km per hour) or faster (Bannister, 2008, p.51). Most whaleboats could only be rowed at about 8km per hour (Ansel, 1978). There is only one report of the Castle Rock party fastening to a blue whale, although on that occasion they were forced to cut the line for unspecified reasons (*Inquirer*, 24/9/1851). There are in fact only two records of

Castle Rock: success and efficiency of operations (1846-50, 1850-53).

	1846	1847	1848	1849	1850	1852	1853	Mean
% chases where whales struck	24	26	26	30	15	6	20	21
% struck whales killed	64	86	68	68	57	50	29	60
% killed whales successfully brought to shore	100	67	81	71	75	67	25	69
% chases resulting in whales killed and brought to shore	17	15	14	14	7	2	2	10

Table 4 Species of whales chased at Castle Rock whaling station (1846–50, 1850– 53).

2 1853	3 Total
45	506
13	98
3	21
7	13
68	638
	45 13 3 7 68

Table 5

Species of whales killed by the Castle Rock whaling station (1846–50, 1850–53).

	1846	1847	1848	1849	1850	1852	1853	Total
Humpback	11	20	19	16	3	1	2	72
Right	2	4	2	1	1	2	2	14
Other	7	0	0	0	0	0	0	7
Unidentified	0	0	0	0	0	0	0	0
Total	20	24	21	17	4	3	4	93

Western Australian shore-whalers being able to kill blue whales, at the lower west coast station of Bunbury in November 1858 (*Inquirer*, 1/12/1858), and Fremantle in March 1859 (*Perth Gazette*, 1/4/1859). Although the Fremantle whale was lost in transit, the carcass brought in at Bunbury was reported as not yielding as much oil as an ordinary right whale, while its bone was also inferior, if better than that taken from humpback whales (*Inquirer*, 1/12/1858).

Seymour records several sightings of 'finbacks', possibly referring to fin whales (*Balaenoptera physalus*) or Bryde's whales (*Balaenoptera edeni*) (cf. Baker, 1990; Bannister, 2008). The Castle Rock crews are recorded as unsuccessfully chasing finbacks during the 1840s, so that by the 1850s there are sightings of 'lots of finbacks' without any indication of pursuit (Castle Rock diary, 16/9/1853). The fleeing speeds of these species, the former at up to 20 knots, or 37km per hour (Bannister, 2008, p.56) was also well beyond the capabilities of the whaleboats. There are no historical references to other Western Australian shore stations sighting or chasing finbacks, although this may be because of limited recording.

There is a single account of the Castle Rock whalers hunting sperm whales (Physeter macrocephalus), a species which normally does not approach the shore. In mid August of 1846, Seymour (Castle Rock diary, 14/8/1846) recorded that 'a score' of sperm whales (i.e. 20) was raised in Geographe Bay, despite a contemporary report stating that over 200 were seen (Perth Gazette, 22/8/1846). Although Seymour's diary suggests that only seven were taken by the Castle Rock crews, it is possible that as many as 25 were eventually killed by them and another nearby station (Inquirer, 2/9/1846). A cow sperm whale with its calf was also taken by the Castle Rock boats just over a decade later (Inquirer, 30/9/1857). The only other report of a Western Australian shore station capturing a sperm whale was in 1846, when the Torbay (south coast) crews with assistance from a small vessel, captured a single animal (Perth Gazette, 3/10/1846).



Fig. 1. Reported yield of whale oil (tuns) from Cheyne Beach and Castle Rock stations 1846–1866 (Source: Gibbs, 1996).

Although no other detailed whaling station catch records survive, comparison of the oil yield from Castle Rock against Cheyne Beach, a contemporary south coast station, provides some correlation of major trends. It should be noted that Castle Rock was usually a three-boat west coast fishery, while Cheyne Beach was usually a two-boat south coast fishery (Gibbs, 1996). Even though it might be expected that increasing skill and experience would result in increased production, Fig. 1 shows that the returns of oil at both stations declined over time. From peak yields of 41 tuns<sup>4</sup> and 71 tuns respectively in the late 1840s, by the early 1860s both parties appear to have been reduced to annual returns of consistently less than 15 tuns. As both exhibit almost identical declines in production, this could be indicative of declining whale stocks in the region.

#### Catch strategy

Although there are no explicit references in Seymour's journals to catch strategies, an American whaler who observed the Castle Rock and Bunbury fisheries in the mid-1850s noted:

'If a whale is attended by a calf, they always fasten to the latter first, knowing that the mother, in her solicitude for her offspring, is very careful not to use her tremendous flukes; or if a humpback, her sweeping fins: but woe betide the boat, unless an experienced boat-header directs it, that is in the vicinity when she discovers that her calf is dead' (Whitecar, 1860, p.91).

The consistent capture of cow and calf pairs is certainly borne out by Seymour's records. Over the seven years covered by the diary, 18 cow and calf pairs of humpbacks (36 individuals) were killed, representing 50% of the total humpback catch, or 39% of all whales taken by the station in that period. A high proportion of the remaining catch also represents cows or calves which were taken while the other half of the pair escaped. No cow and calf pairs of right whales are recorded as being taken at Castle Rock.

<sup>&</sup>lt;sup>4</sup> The standard unit for measuring oil was the tun, equal to 252 gallons (954 litres), or seven barrels of 36 gallons (136 litres) each.

Table 6 Comparison of species specific reports of right and humpback catches 1845–65 (Sources: *Perth Gazette; Inquirer*; Bannister, 1986).

	Per	Perth Gazette		nquirer	Bannister (1986)		
Year	Right	Humpback	Right	Humpback	Right	Humpback	
1845	_	_	_	_	20	0	
1846	2	1	_	_	32	7	
1847	1	_	_	_	10	44	
1848	2	3	_	_	14	9	
1849	2	2	_	_	0	27	
1850	3	5	_	_	2	27	
1851	_	_	_	_	8	10	
1852	_	_	_	_	4	16	
1853	_	_	5	1	5	12	
1854	2	_	4	1	8	11	
1855	_	_	_	_	19	11	
1856	1	4	_	_	6	25	
1857	_	16	_	_	14	18	
1858	1	8	_	_	18	19	
1859	_	4	_	_	0	29	
1860	_	_	_	7	0	10	
1861	_	_	1	4	1	11	
1862	_	_	_	7	2	16	
1863	1	_	_	_	0	29	
1864	_	_	_	_	0	26	
1865	_	_	_	_	1	39	
Total	15	43	10	20	164	396	

#### Total catch for Western Australian shore whaling

As noted, Seymour's diary provides the only detailed record of catches for a single station, so an attempt was made to determine if the general trends in his records were applicable to the rest of the Western Australian shore whalers of the period. Reports from the *Inquirer*, *Perth Gazette* and the Blue Books (annual colonial statistical return) were collated to extract any specific mention of the species of catches (Table 6). The newspaper sources are irregular and variable in quality, particularly with regard to the south coast, while the Blue Books depended on the information collected by regional government officials, which was most frequently

Table 7Distribution of whale species caught 1845–65.

	Inquire	er	Perth Ge	azette
	Humpback	Right	Humpback	Right
West coast				
Port Gregory	11	2	13	0
Fremantle	10	9	5	12
Bunbury	8	5	5	4
Castle Rock	17	11	19	9
South coast				
Torbay	5	0	_	_
Barker Bay	2	0	_	_
Cheyne Beach	20	1	0	1
Total	73	28	42	26

presented as only a gross oil and bone return for each station, or simply for the whole colony. Pre-1845 newspapers rarely noted species, while after the mid-1860s they appear to have lost interest in reporting on local shore whaling except as a filler item. These can be compared to Bannister's (1986) attempt to determine the total humpback and right whale catches by Western Australian shore stations through applying formulae to the annual oil and bone returns reported to the Blue Books.

Bannister's (1985) methodology can be divided into two parts, the first being the use of a ratio of whalebone to oil to ascertain which species was being taken at each station (when this was not stated in the original report). By taking several instances where the bone and oil returns for a known number of individuals of a particular species were provided, Bannister determined that if the reported ratio of oil to bone is greater than 25:1, the animals which had been taken were most likely humpbacks, while a ratio of equal to or less than 25:1 indicates right whales. This is consistent with Morton's (1982, p.53) research which suggests right whales taken in New Zealand waters provided approximately 100 tons of oil

Years	Humpback (tuns)	Mean (tuns)	Right (tuns)	Mean (tuns)
Perth Gazette				
1836-40	_	_	_	_
1841-45	_	_	_	_
1846-50	2, 3	2.5	8, 8(2), 6	5.5
1851-55	_	_	12	12
1856-60	3, 8(2), 10(3), 17.5(4)	3.2	3	3
1861-65	_	_	_	_
1866-70	_	_	_	_
Mean		2.85		6.83
Inquirer				
1836-40	_	_	_	_
1841-45	_	_	_	_
1846-50	4,3, 4(2), 2, 2	2.5	5, 6, 8, 7, 1, 8(2), 8, 4	5.2
1851-55	_	_	5, 8, 8	7
1856-60	3, 1.75, 4, 8(2), 5, 10.5(3)	4.25	10, 8.75, 12	10.25
1861-65	_	_	10	10
1866-70	_	_	_	_
Mean		3.38		8.11
Blue Books				
1853	4, 1.5	2.75	24(3), 5.5	7.37
1854	_	_	14(4)	3.5
1860	20(6)	3.3	_	_
1862	24(6), 1	2.5	_	_
Mean	× //	2.85		5.4

 Table 8

 Reported oil yields (tuns) from individual whales [8(2) represents a report of 8 tuns from 2 whales]

to 5 tons of bone (20:1). Once the whale species had been established, Bannister then determined the number of individuals from the reported oil return by an using an average of 5 tuns of oil per right whale, based on three instances where the oil yield from a single animal was reported in the Blue Books. He acknowledges that this is low in comparison with other areas and may be as much as two tuns lower than the average figure obtained using a much wider range of reports from Western Australian newspapers (see also Table 8, discussed below).

Table 7 presents the species of whales caught from the various south and west coast stations as reported in contemporary newspapers between 1845 and 1865.

#### Oil yield

An analysis of reported oil yields from individual whales caught throughout Western Australia, taken from newspaper and Blue Book accounts (Table 8), shows that while right whales were frequently reported as producing eight tuns of oil or more (up to a maximum of 12 tuns), humpbacks did not usually produce more than four tuns. The mean yield by individuals (Table 8) represents a combination of bulls, cows and calves, and should not be confused with an average yield from an adult of either species. There are, unfortunately, insufficient data to see if the mean yields for humpbacks and right whales change over time.

#### Oil and bone export

Table 9 shows the reported production of oil and bone by the Western Australian shore-whaling stations on the south and west coasts over the period 1836–79. An overall decline is evident, despite a brief resurgence in the early 1870s due to a late surge in whaling activity, mostly in the newly-opened Dampier Archipelago area (north-west coast).

## Impact of foreign whaling

Bannister's analysis of the logbooks of American whaling vessels operating in the 'Coast of New Holland Ground' suggested that by the mid-1840s, right whales were becoming shy of whaling vessels or the population itself had

 Table 9

 Reported oil and bone production (Source: *Blue Books*).

		Oil (tuns)				Bone (tons)				
Year	West	South	Total	Value (£)	West	South	Total	Value (£)	Total value (£)	
1836		13	13	520	_	7	7	630	1,150	
1837	71	45	116	_	4	2	7	540	_	
1838	57	48	105	_	_	_	_	_	_	
1839	_	_	_	_	_	_	_	_	_	
1840	_	_	_	_	_	_	_	_	_	
1841	_	_	_	_	_	_	_	_	_	
1842	_	_	_	_	_	_	_	_	_	
1843	_	_	90	_	_	_	_	_	_	
1844	94	13	107	_	=	=	5	800	_	
1845	_	_	100	2	_	=	7	910	2.935	
1846	98	77	163	3.871	=	=	4	848	4,719	
1847	141	55	196	2,972	1	1	2	300	3.272	
1848	46	71	118	1 820	0	6	6	570	2,390	
1849	_	_	90	1 450	_	_	2	290	1 740	
1850	42	60	102	2 119	2	2	3	209	2 328	
1851	38	63	101	2,660	2	2	4	735	3 395	
1852	20	47	68	2,000	0	2	2	222	2 723	
1853	39	25	64	3,038	1	1	3	345	3 383	
1854	46	30	76	2 940	1	0	1	206	3 146	
1855	113	18	131	4 983	0	0	0	30	5 013	
1856	104	0	104	3,962	2	0	2	560	4 274	
1857	53	41	04	3 438	0	0	0	0	3 430	
1858	-	41	40	5,450	0	0	0	0	5,757	
1850	60	55	115	2 364	1	1	2	637	3 001	
1860	20	21	41	2,304	1	1	1	276	1 684	
1861	20	21	41 54	1,408	1	1	1	138	2 078	
1862	25	22	60	2,060	1	0	1	130	2,078	
1862	20	21	42	2,000	1	0	1	140	1,200	
1805	20	21	42	1,770	1	0	1	207	1,070	
1865	40	40	120	5 424	1	1	2	250	4,027	
1005	40	40	130	2,424	1	0	2	250	2,074	
1800	49	20	/3	5,025	1	5	4	134	5,179	
1007	22	4	43	1,070	0	0	0	0	1,070	
1000	52	1	54	1,340	0	0	0	0	1,540	
1809	43	12	100	1,723	0	0	0	0	1,723	
10/0	90	15	109	5,620	0	0	0	20	4,370	
18/1	100	19	119	0,807	0	0	0	38	0,905	
18/2	61	24	84	2,754	1	0	1	54	2,809	
18/3	45	10	52	1,/33	0	0	0	52	1,/85	
18/4	0	10	10	312	0	0	0	0	312	
18/3	2	40	45	1,350	0	0	U	0	1,350	
18/6	-	14	14	397	0	U	0	0	397	
18//	21	12	52	402	0	0	0	0	402	
18/8	-	_	-	-	-	-	-	_	-	
18/9	-	-	-	185	-	-	-	—	185	



Fig. 2. Foreign whaleships reported in Western Australian waters 1835– 1880 (Source: Gibbs, 1996).

decreased (Bannister *et al.*, 1981, p.257). Although it was not possible to extend Bannister's logbook research, a database of foreign (i.e. non-Australian) whaling ships known to have visited the south and western Australian coasts was compiled as a means of further defining periods where fishing by pelagic whalers may have had an impact (Fig. 2). Although the database only recorded presence rather than activity, it does indicate a significant a peak in the early 1840s which presumably also suggests heavy fishing in the region (Gibbs, 1998).

## CONCLUSION

While the data from the historical Western Australian whaling records are insufficient to make any clear contribution on the nature or decline of right and humpback whale populations along the Western Australian coasts during the 19th century, they do provide further details of the nature of the whaling activity in the region. Analysis of the Castle Rock records clearly indicates an emphasis on the capture of humpbacks during the mid-1840s to mid-1850s, while consideration of other contemporary records confirms more humpbacks than right whales being caught by colonial shore parties elsewhere in the region in that period. Based on the presence of large numbers of American pelagic vessels operating near and on the Western Australian coasts in the early 1840s, immediately before the colonial shore whalers began operation, it is possible likely the right whale population had already suffered serious impacts, in line with the generally accepted trajectory of Southern Hemisphere right whales over the period 1815-1850 (Best et al., 2001, p.25).

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