

THE NEW ZEALAND SEALING INDUSTRY

Ian Smith



Department of Conservation
Te Papa Atawhai

The New Zealand sealing industry

History, archaeology, and heritage management

Ian W.G. Smith

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The New Zealand sealing industry

History, archaeology, and heritage management

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ABSTRACT

A detailed examination of historical and archaeological records of the European sealing industry in New Zealand outlines its development through ten phases from 1791 to 1946. Modes of activity within the industry and specific areas of operation are identified in order to locate specific historic places that can be associated confidently with sealing. Prioritised recommendations are developed for the management of these places.

Keywords: fur seals, elephant seals, sealing industry, history, archaeology, heritage management, New Zealand, subantarctic islands, Macquarie Island

1. Introduction

1.1 OBJECTIVES

Commercial exploitation of seals for fur and oil was the first European industry on New Zealand's shores and the major stimulus for sustained European presence here during the late 18th and early 19th centuries. Sealing continued sporadically throughout the 19th and early 20th centuries. Despite its historical primacy and longevity, little is known of specific historic places associated with this industry.

The 'Historic resources national thematic study—Historic sealing sites' was a project designed to redress this situation. Its aim was to undertake a definitive study of historic places associated with the European sealing industry in New Zealand to provide a basis for informed prioritisation of protection and conservation work, interpretation, registration and statutory advocacy. Its primary objectives were to:

- Define specific eras in the history of the industry, establishing methods of operation and locations of activity through detailed analysis of historical sources
- Compile an inventory of all known and probable historic sealing sites, using historical and archaeological information
- Identify the range of site types and archaeological features associated with the industry, noting temporal and regional differences
- Recommend and prioritise further management and research work

Following the statutory definition of the term, **historic places**¹ of the sealing industry are identified here as terrestrial locations for which there is historical and/or archaeological evidence of a direct association with sealing activities. This includes both general localities where sealing is known to have occurred, and **historic sites** where historical and/or archaeological evidence discloses the precise location of past sealing activities. It also includes several cases where an inter-related set of closely adjacent sites can be identified as an **historic area**. The varying levels of precision in identifying historic places are taken into account in framing recommendations for future management and research.

1.2 SCOPE

Seal hunting was an important subsistence activity from the time of first human settlement in New Zealand (Smith 1985, 1989), and some of the early European explorers also took seals for food, used their skins to repair rigging and rendered their fat for lamp oil (McNab 1907: 24). However the focus of this study is exploitation for commercial gain rather than subsistence need.

¹ An historic place is 'any land (including an archaeological site) or any building or structure ... that forms part of the historical or cultural heritage of New Zealand ...' (Historic Places Act 1993)

As an industry, sealing began in New Zealand in 1791 or 1792 and continued until 1946. Although the principal concern of this study is with sealing on the New Zealand mainland, it is essential to consider this within a broader regional context (Fig. 1). Patterns of activity in New Zealand were strongly influenced by the discovery and exploitation of sealing grounds on islands further south, and sealing voyages 'to New Zealand' often also visited these subantarctic islands. There were also close links with Bass Strait and the south-eastern coast of Australia, particularly during the earliest phase of sealing (Hainsworth 1967).

The **New Zealand sealing region** is defined here as the New Zealand mainland and the Antipodes, Auckland, Bounty, Campbell, Chatham, Macquarie and Snares Islands (Fig. 1). Although Macquarie Island was, from 1825, a dependency of Tasmania, it is included here because it was clearly viewed by the sealers as part of the 'New Zealand grounds' and the vast majority of voyages touching there operated from or via the New Zealand mainland (Cumpston 1968). Evidence from throughout this region is utilised in reconstructing the historical development of the New Zealand industry in sections 3 and 4 of this study, but the more detailed consideration thereafter concentrates solely upon the New Zealand mainland coasts.



Figure 1. The New Zealand and Bass Strait sealing regions.

1.3 ORGANISATION OF THIS STUDY

This study uses both historical and archaeological information to identify historic places associated with the New Zealand sealing industry. There is a pronounced imbalance between these two sources of data. Primary historical records have been compiled, reviewed and synthesised at regular intervals since the 1860s. While these previous studies have some deficiencies in relation to the objectives of this study, they do provide a valuable starting point. In contrast, there has been no previous examination of the archaeological data, and prior to this study only eight recorded archaeological sites had been positively or tentatively associated with the sealing industry.

The approach used here involves reassessment of the historical record to identify when sealing took place and how it developed over the century and a half of its operation. Particular attention is focussed upon the nature of sealing activities and the strategies through which these were put into operation in order to evaluate their potential for leaving physical remains in the archaeological record. Consideration is then given to the locations in which sealing is reported to have taken place, and the available archaeological evidence is assessed to identify sites that can be positively or tentatively related to the historically documented or inferred activities. Finally, these sites are assessed in terms of priorities for future management and research.

2. International context

The international sealing industry had its origins as early as 1610, when Dutch sailors took African seals for both oil and hides, and by the early 18th century Russian traders were shipping fur seal skins from the Aleutian Islands to China (Busch 1985: 7-9). However it was not until the 1770s that sealing became a major commercial enterprise. In 1775 a fleet of American whaling ships congregated at the Falkland Islands to complete their cargoes with oil taken from elephant seals for sale on the English market (Busch 1985: 6). In 1778 both seal skins and oil were brought back by English sealers from South Georgia and the Magellan Straits (Jones 1986: 254).

Elephant seal oil was valued as an odourless and smoke-free fuel for lighting, and was also used as a lubricant. The skins of these animals were sometimes used for making leather, but those of the fur seals were most highly prized (Fig. 2). The fur could be removed from the skin and used in making felt, but the pelts could also be used for clothing as long as the coarse outer guard hairs were separated from the soft under-fur. An economical method for doing this was first developed in China about the middle of the 18th century (Busch 1985: 8), making this country the earliest major market for seal skins. Development of the American and European fur trade with China was stimulated largely by publication in 1783 and 1785 of accounts of James Cook's last Pacific voyage which described the enormous demand and high prices for furs in North China. By 1786 American traders were selling dried fur seal skins in Canton, as were

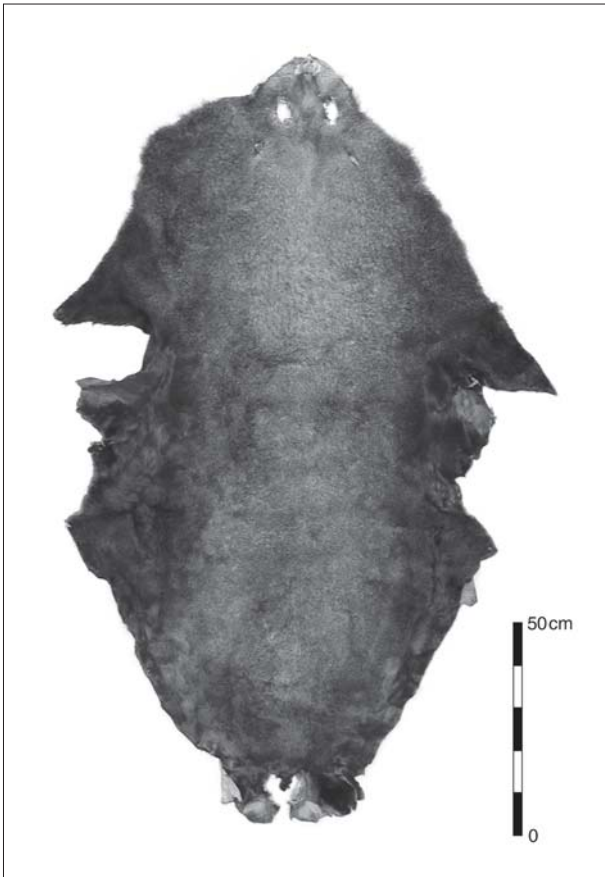


Figure 2. Skin of adult male fur seal. *Otago Archaeological Laboratories Reference Collection No. FA975*

British East India Company ships by 1793. Canton remained the major market until 1803 when oversupply caused a significant drop in price (Hainsworth 1972: 148; Richards 1995: 20).

The London market was being supplied regularly with seal skins and oil from the early 1790s, mostly by British South Sea whalers, as duties imposed on foreign cargoes discouraged American merchants from sending vessels there (Busch 1985: 6). Prices obtained for skins improved dramatically after 1796, when Thomas Chapman invented a process for separating fur from guard hairs, salt, and oil, which enabled their use in industrial processes, particularly the manufacture of hats (Hainsworth 1972: 149). This not only increased their commodity value, but also made it possible to preserve the skins for storage and transport by salting, rather than drying. Except in the first few years of the New Zealand sealing industry, its major market was in London, even after the 1808 financial crisis there and oversupply of skins brought sharp reductions in prices (Richards 1995: 20).

The high prices that could be obtained in the early years of the sealing industry led to intensive

exploitation and rapid depletion of known colonies, and an equally rapid search for new sealing grounds. Almost all of the places in which fur seals and elephant seals could be found were discovered and exploited between 1790 and 1810 (Busch 1985).

The establishment in 1788 of the Port Jackson convict settlement in what was to become Sydney, Australia provided the principal base from which this search extended into the southern Pacific. The first explorations in this area in 1791–92 were by British ships transporting convicts to the penal colony and seeking return cargoes that could be exchanged in Canton or Macao for spices, teas and silks for on-sale in Europe (Richards 1996: 41). American vessels involved in the fur trade are reported in Port Jackson from at least 1793, although probably only provisioning there en route to or from sealing grounds elsewhere (Busch 1985: 29). However the development of sealing in Australian and New Zealand waters was largely the work of Sydney-based merchants sending ships and men from Port Jackson.

3. Historical investigation of the sealing industry

3.1 HISTORICAL RECORDS

The earliest accounts of the New Zealand sealing industry by Heaphy (1863), Chapman (1893), and Carrick (1903) are valuable, but limited in temporal scope and by the information then available. A much more substantial body of primary data was located and drawn together by McNab (1907) for his history of southern New Zealand and the subantarctic islands to the end of the 1820s, and this has formed the basis of most subsequent accounts (e.g. Turbott 1952; Gaskin 1972). More recently several authors have provided additional data and revisited some of McNab's interpretations (e.g. Kerr n.d.; Molloy n.d.; Richards 1995, 1996; Salmond 1997).

More detailed localised studies include Cumpston (1968) on Macquarie Island, Richards (1982) on the Chatham Islands and Molloy (1987) on Westland, as well as the relevant portions of various local histories, especially Howard (1940) on Stewart Island, Entwistle (1998) on Otago, and Allan (1965) on Nelson. There have been detailed studies of some participants in the industry (e.g. Begg & Begg 1979; Bowden 1964; Hainsworth 1972; Ross 1987; Starke 1986; Steven 1965), and also several more popular treatments of the subject (Begg & Begg 1973; Hall-Jones 1976, 1979; Grady 1986).

These analyses have focussed largely upon the historical development of the industry, or less often its impact upon seal populations, the role of specific participants, or the interactions between sealers and local Maori populations. Although often providing relevant information, they have not closely considered precisely where and how sealing was conducted. To address these issues it is necessary to return to primary data.

There are very few primary descriptions of the activities of sealers on the New Zealand coast. Best known are the memoirs of Jorgen Jorgenson's brief visit in 1804-05 (Richards 1996) and the 1826-28 portion of John Boulton's journal (Starke 1986), along with relevant sections of Fanning's (1924) and Morrell's (1832) voyaging accounts, and the recollections of Reg Taylor's activities during the 1946 open season (Scadden 1996). There are also fragments drawn from contemporary newspaper reports (e.g. McNab 1907: 84, 102; Richards 1995: 105), and from transcripts of court proceedings (e.g. Entwistle 1998: 144-148) and evidence presented to the 1821 Bigge Commission on the state of the New South Wales colony.² Sealing vessels did not usually maintain logs, but several charts and maps compiled during the early years of the industry have survived (Appendix 1).

The most important primary sources of information on the New Zealand sealing industry are records of the movements and cargoes of sealing vessels. There is a

² Bonwick Transcripts, held in the Mitchell Library (ML), Sydney. Relevant portions are referenced separately.

partial surviving official record of shipping and customs returns from relevant ports, but a much better record is provided by shipping arrivals and departures information reported in Australian, British, American, and New Zealand newspapers. The essential details for most of these can be drawn from Cumpston (1964, 1968), Jones (1986), Nicholson (1977, 1983, 1985), Richards & Chisolm (1992) and Richards (1998). The most complete summary of this information for the New Zealand region, at least of that which was available up to the mid 1970s, was compiled by Ross (n.d.).

3.2 LIMITATIONS OF THE HISTORICAL RECORD

The value of this historical record is limited by both generic problems, common to any kind of historical analysis, and some that are specific to the sealing industry. Some data are always missing. It is certain that at least some of the ships that operated in the New Zealand sealing region didn't enter any of the ports for which data are available, and it is clear that others slipped in and/or out of port without being noticed. Prior to March 1803 there were no newspapers published in the region, and the most significant early source, the *Sydney Gazette*, was not produced between 19 April and 7 June 1807 or 30 August 1807 and 15 May 1808; nor were any official customs returns made between 26 June 1808 and 1 January 1810. A major deficiency is that there has not yet been a systematic published analysis of shipping data in relevant New Zealand newspapers.

The records usually note **reported** intended destinations and **reported** locations from whence returned. These cannot necessarily be relied upon. The sealing industry was highly competitive. Business interests frequently did not wish to reveal precise data on where they had been working, and sometimes provided clearly false or misleading reports.

Furthermore various legal restrictions encouraged silence or duplicity. Initially, there was a ban on shipbuilding in the Port Jackson penal colony, and the East India Company's monopoly prohibited any kind of trade by British vessels without a licence. When American ships first began to work Bass Strait and New Zealand waters they were prohibited from embarking Sydney men for sealing gangs. By 1805 these rules began to relax under New South Wales Governors keen to promote a viable income for the colony. But labour regulations were introduced to ensure adequate logistical support for sealing gangs; and as they defined the area under which these applied as 'north of latitude 43° 39' S', the coast of New Zealand south of Banks Peninsula was officially placed off limits for the Sydney sealers. While these restrictions did little to slow the growth of the industry in the New Zealand sealing region, they certainly impacted upon the quality of information available for its earliest years.

In 1873 concern for the conservation of seals prompted the New Zealand Government to legislate restrictions on their exploitation throughout New Zealand and its subantarctic islands. However these regulations did not apply to Macquarie Island which was a territory of Tasmania, and it is also clear that some illegal sealing continued in the New Zealand territories. The 1873 Seal Fisheries Act limited the capture of seals to an annual season between 1 June

and 30 September each year, and the Seal Fisheries Protection Act of 1878 provided for a complete ban on sealing to be imposed by regulation for up to three years at a time (Cumpston 1968: 80, 120). Closed seasons were declared in 1886, 1887 and 1889 and then continuously from 1894 to 1913. Sealing was again permitted between 1 July and 30 September throughout the region in 1914 and 1915, on Campbell Island in 1922 and 1924, and in 1946 on parts of the Otago, Southland and West Coasts (Sorensen 1969; Scadden 1996).

3.3 METHODS OF ANALYSIS

Historical data has been organised primarily around a database of sealing voyages in the New Zealand sealing region, compiled from the sources listed in section 3.1. Where possible this has recorded the name, tonnage, and rig of the vessel; its owner(s), and any charter arrangements; name of the master, and numbers of men and boats being carried; port and date of departure, and intended destination; information on locations visited; port and date of return, and reported location returned from; details of cargo; evidence of the kind of sealing activity undertaken; information on the activities of any sealing gangs with which the voyage may have been associated; and any other pertinent data.

This database facilitated the cross-checking of information from different data sources and provided a basis for quantitative analysis of some aspects of the sealing industry. At the same time it highlighted the existence of historical information that could not be associated with specific voyages. Such additional data were located for almost all periods of the sealing industry, but become more prominent after 1840, and by 1890 comprised almost the entirety of the historical record. For this reason the quantitative analyses reported below are confined only to the period up to 1890.

A total of 343 voyages during which some kind of sealing activity is known, suspected, or conjectured to have taken place have been included in the database. For 313 of these there is definite evidence of sealing activity, and there are another 19 for which it seems highly probable or at least possible. The remaining 13 have been suggested elsewhere as possible sealing voyages, but in my assessment there is sufficient doubt about the dates, itinerary or activities undertaken to exclude them from present consideration.

The most important data from these voyages for developing a general understanding of the development of the sealing industry are those concerned with the nature and quantities of **cargoes** carried on sealing voyages and the **subregions** in which they operated. Several general features of this evidence are summarised here, before they are used to develop an historical overview.

In the analyses that follow it should be noted that for quantitative purposes each voyage is counted only in the year of its commencement.

3.4 SEALING CARGOES

At least some information on cargoes is available for 87% of the voyages considered here, although this is not always in quantified form (Table 1). There were two major products of the sealing industry—skins and oil. The former were predominantly from New Zealand fur seals (*Arctocephalus forsteri*), which occurred throughout the New Zealand sealing region although small numbers of ‘hair seal’ skins, from the New Zealand sea lion (*Phocarctus hookeri*), were also reported. Most oil was derived from Southern elephant seals (*Mirounga leonina*), which occurred in greatest number on Macquarie Island. Although it is hardly mentioned in the cargo returns, there is evidence that on occasion oil was also recovered from fur seals (see 5.1.2 below). Other cargoes listed on voyages associated with sealing include whale oil, flax, timber, and pork. Those for which no cargo is listed were usually engaged in setting down, provisioning, or uplifting sealing gangs, although occasionally they represent unsuccessful sealing missions.

The figures in Table 1 demonstrate that skins were the major target of the industry. They were listed for 61% of voyages for which data is available, while oil was listed for just 39%. It is also apparent that there is a much higher survival rate of information on the quantities of skins (c. 90%) than there is for oil (c. 70%), even when both were returned on the same voyage. Thus some caution must be exercised when considering the relative productivity of the two main components of the industry.

TABLE 1. NUMBER OF VOYAGES WITH DATA AVAILABLE ON THE TYPE AND QUANTITY OF CARGO.

CARGO TYPE	NO. VOYAGES WITH TYPE LISTED	QUANTIFIED DATA	% QUANTIFIED
Skins	94	84	89
Skins and oil	34	for skins: 32 for oil: 27	94 79
Skins, oil and other	5	for skins: 3 for oil: 2	60 40
Skins and other	42	39	93
Oil	67	47	70
Oil and other	5	2	40
Other cargo	7	-	-
No cargo	35	-	-
No data	43	-	-
Total	332		

3.5 SUB-REGIONS

For all but two of the voyages under consideration there is some evidence of the general area(s) in which they operated, although in some cases there is not a great deal of certainty (Table 2). At least 24% of the voyages visited two or more island groups, and at least one called at five or more.

TABLE 2. NUMBERS OF VOYAGES TO EACH ISLAND GROUP IN THE NEW ZEALAND SEALING REGION.

	DEFINITE	POSSIBLE	TOTAL	%*
Macquarie Island	142	12	154	46.4
New Zealand	119	35	154	46.4
Auckland Islands	29	8	37	11.1
Campbell Island	24	5	29	8.7
Antipodes Islands	16	7	23	6.9
Chatham Islands	11	8	19	5.7
Bounty Islands	7	2	9	2.7
Snares Islands	5	2	7	2.1

* Percentage of the total number of voyages (332).

Macquarie Island and the New Zealand mainland and offshore islands stand out as the two major centres of activity, and changing patterns in the development of the New Zealand sealing industry can be attributed largely to the course of activity in these two areas. Also of importance, however, were the short bursts of activity at each of the other island groups within the region (see Fig. 4).

4. Development of sealing in the region

The New Zealand sealing industry commenced in either 1791 or 1792, but remained a sporadic activity until 1803 (Fig. 3). It reached an initial peak in 1809, but declined dramatically in 1813, persisted at a lower level through to the early 1820s, then underwent a major revival in the following decade before coming to a standstill in the early 1840s. There was only sporadic activity throughout the middle decades of the 19th century, until a further revival commenced in 1872 and continued into the 1890s. After 1894 seals could be taken only illegally, except during brief open seasons, the last of which was in 1946.

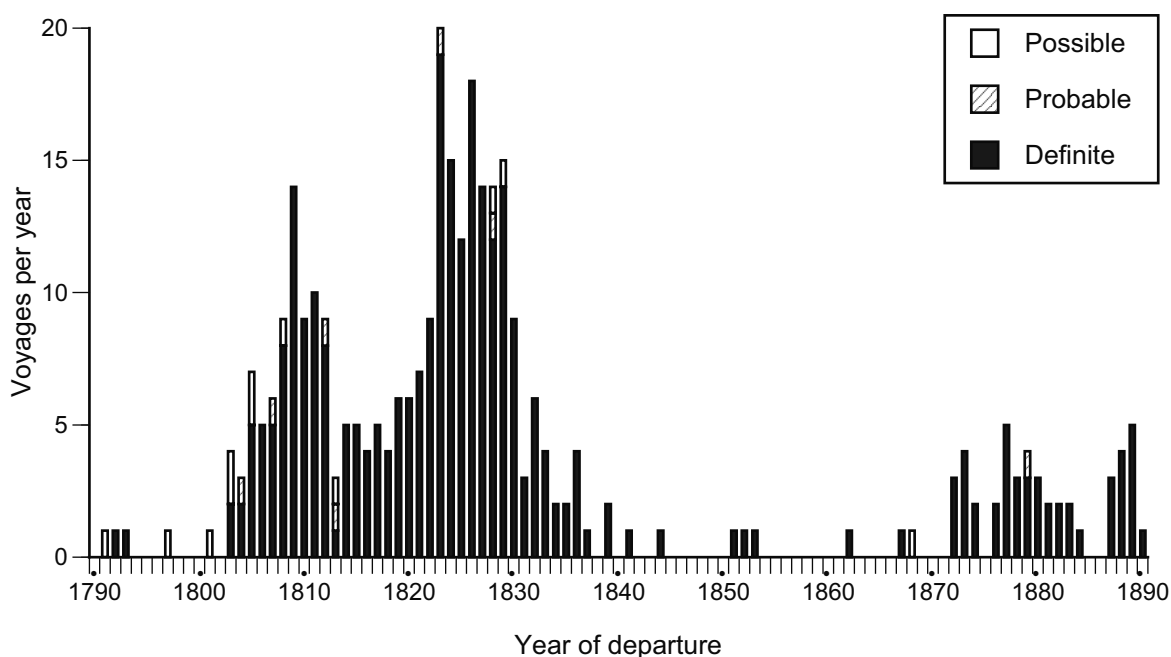


Figure 3. Sealing voyages per year in the New Zealand sealing region, 1791-1890.

The following review outlines ten phases into which the sealing industry can be subdivided in the period up to 1946. Although definition of these necessarily relates to the entire New Zealand sealing region, particular attention is given to the implications during each period for activity on the New Zealand mainland and immediate offshore islands.

Except for the first phase, where the evidence is most diffuse, details of specific voyages are not related here. These are held in a Sealing Voyages Database in the Anthropology Department, University of Otago.

4.1 THE EARLIEST SEALERS 1792 - 1802

The earliest phase of sealing was conducted entirely on the New Zealand coast (Fig. 4). It may have begun with the British convict transport and whaler *William and Ann* sailing out of Port Jackson in November 1791 and reputedly whaling off the New Zealand coast (Entwhistle 1998: 10-11). On returning to London its cargo included 68 tons of sperm whale oil and 8468 seal skins from 'New South Wales and Fishery' (Richards 1996: 89), but there is no clear evidence that these were taken in New Zealand.

The first confirmed activity commenced the following year. In October 1792 another convict transport and whaler, *Britannia*, deposited a sealing gang at Luncheon Cove, Dusky Sound, where they took 4,500 skins before the ship returned to collect them in 1793. It has also been suggested that skins may have been collected at Dusky Sound by *Mercury* when it rescued the last castaways from the *Endeavour* in 1797 (Richards 1996: 42-43), and by *Venus* which took ironwork from the *Endeavour* in 1801 (Salmond 1997: 295-296), but there is no confirmation of this.

Other possible indications of activity in New Zealand at this time include: Molloy's (n.d.: appendix 1: 1) unsourced reference to American ships leaving sealing gangs on the Murihiku coast in 1798-1800; Baudin's 1802 suggestion that one Port Jackson firm was operating in New Zealand (McNab 1907: 79); and Carrick's (1903: 56, 57, 59, 60) listing of five vessels apparently departing Port Jackson for China with New Zealand seal skins in 1802. However none of these has been independently confirmed.

With so much uncertainty about sealing activity during this period it is probably unwise to infer too much about sealing cargoes, but the limited data that is available suggests that seal skins were the only product recovered (Table 3).

TABLE 3. NUMBERS OF VOYAGES LISTING TYPES OF CARGO IN EACH TIME PERIOD.

CARGO	PRE-1803	1803-07	1808-12	1813-22	1823-29	1830-39	1840-71	1872-90
Skins	1	13	22	12	37	3	1	5
Skins/whale oil	1	2	1		1	2		
Skins/whale oil/other						5		1
Skins/seal oil			11	7	12	3		1
Skins/seal oil/other			1			4		
Skins/other cargo			1	1	18	9		
Seal oil				22	27		1	15
Seal oil/other cargo						1		5
Seal oil/whale oil								1
Other cargo	2		4			1		
No cargo	1	8	7	8	2	2	3	4
No data		2	5	4	11	3	3	14
Total	5	25	52	54	108	33	8	46

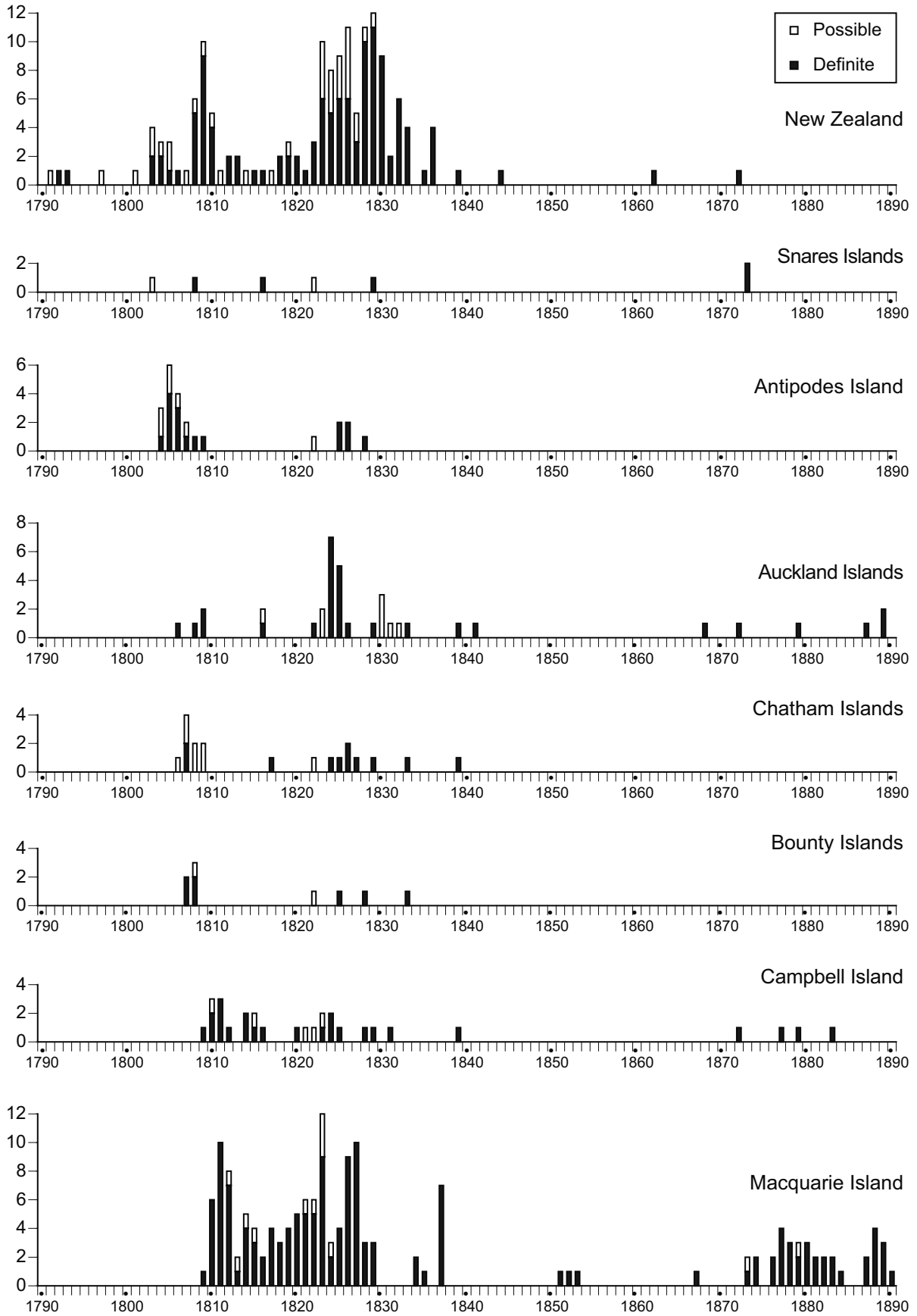


Figure 4. Voyages per year to island groups in the New Zealand sealing region, 1791-1890.

4.2 SEALING FOR SKINS 1803 - 07

The industry began in earnest in 1803 with two definite and two possible voyages operating on the New Zealand coast, one of which almost certainly visited the Snares as well. These voyages all appear to have concentrated on the Fiordland coast, and perhaps also the western and southern shores of Stewart Island. All voyages the following year appear to have visited the same parts of New Zealand and probably also the Antipodes Islands, beginning a rush to the latter area which dominated sealing activity for the next three years. More than 70% of voyages between 1804 and 1807 called at the Antipodes, while only 38% visited New Zealand. However as the Antipodes trade began to slacken in 1806-07 the first exploratory ventures to the Auckland, Chatham, and Bounty Islands took place.

With much better data for this period, it is clear that the initial phases of sealing were directed exclusively to the recovery of skins (Table 3, Fig. 5). Reported returns between 1803 and 1807 averaged more than 45,000 per year and just over 15,000 for each of the voyages for which quantities are listed. The only other cargoes listed for these voyages were whale oil, indicating that some whaling vessels were engaged in the initial stages of the sealing industry.

4.3 SKINS AND OIL 1808 - 12

With the decline of the Antipodes trade there was a significant shift back to New Zealand, which saw 64% of all voyages in 1808-10. Most of this activity was around Stewart Island and in Foveaux Strait, although the first confirmed voyages to Otago and Westland also occurred at this time. No more than 20% of voyages visited any other island group. However the discovery of Campbell Island in late 1809 and Macquarie Island in mid 1810 again drew most sealing activity away from New Zealand shores. All but one of the 19 voyages commencing in 1811-12 called at Macquarie, with four also visiting Campbell Island, and only two or three to New Zealand.

All of the voyages reporting cargoes during this period returned skins. The average annual return increased to just over 50,000 per year, but while the number of voyages per year more than doubled the return per voyage declined to about 7,000, suggesting depletion of fur seal stocks in the areas under exploitation. However declining prices for seal skins may also have contributed to merchants turning their attentions elsewhere (Hainsworth 1972: 148; Richards 1995: 20).

Recovery of seal oil began during this period, with the first reported returns from the Bounty Islands in 1809 (from a voyage commencing in 1808). There is one possible indication of elephant seal exploitation in New Zealand (Fig. 6), but the rise in this trade was due largely to the discovery of immense populations of this species on Macquarie and Campbell Islands. Oil returns during this period averaged 31 tons per voyage and 80 tons per year, but it should be noted that all of this was delivered by vessels that also returned skins. The strong focus of the industry on these two primary products is indicated by the small number of voyages listing other cargoes, such as logs, spars, or timber (4) and whale oil (3).

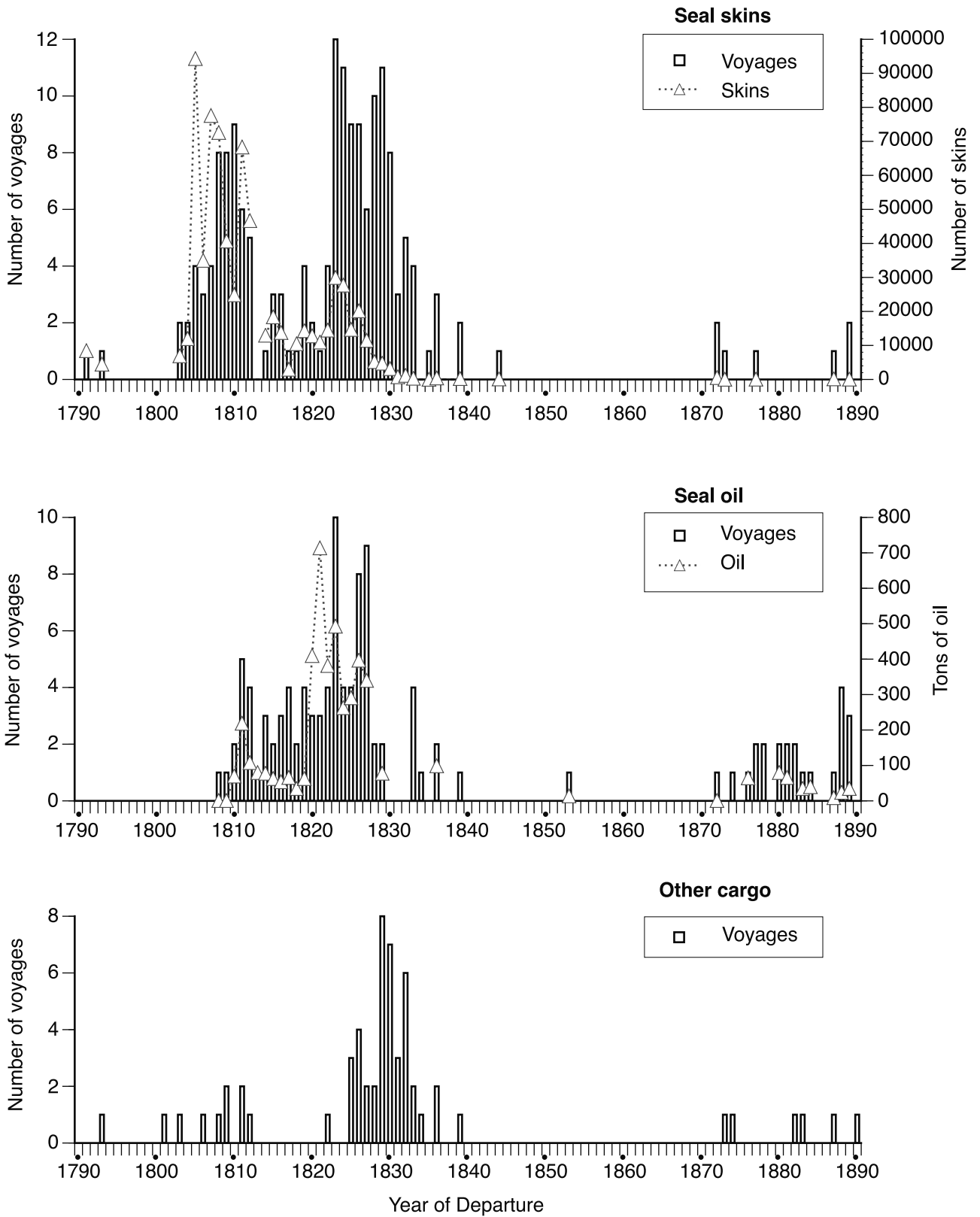


Figure 5. Numbers of voyages listing particular cargo types, and volumes of cargo reported per year, 1791-1890.

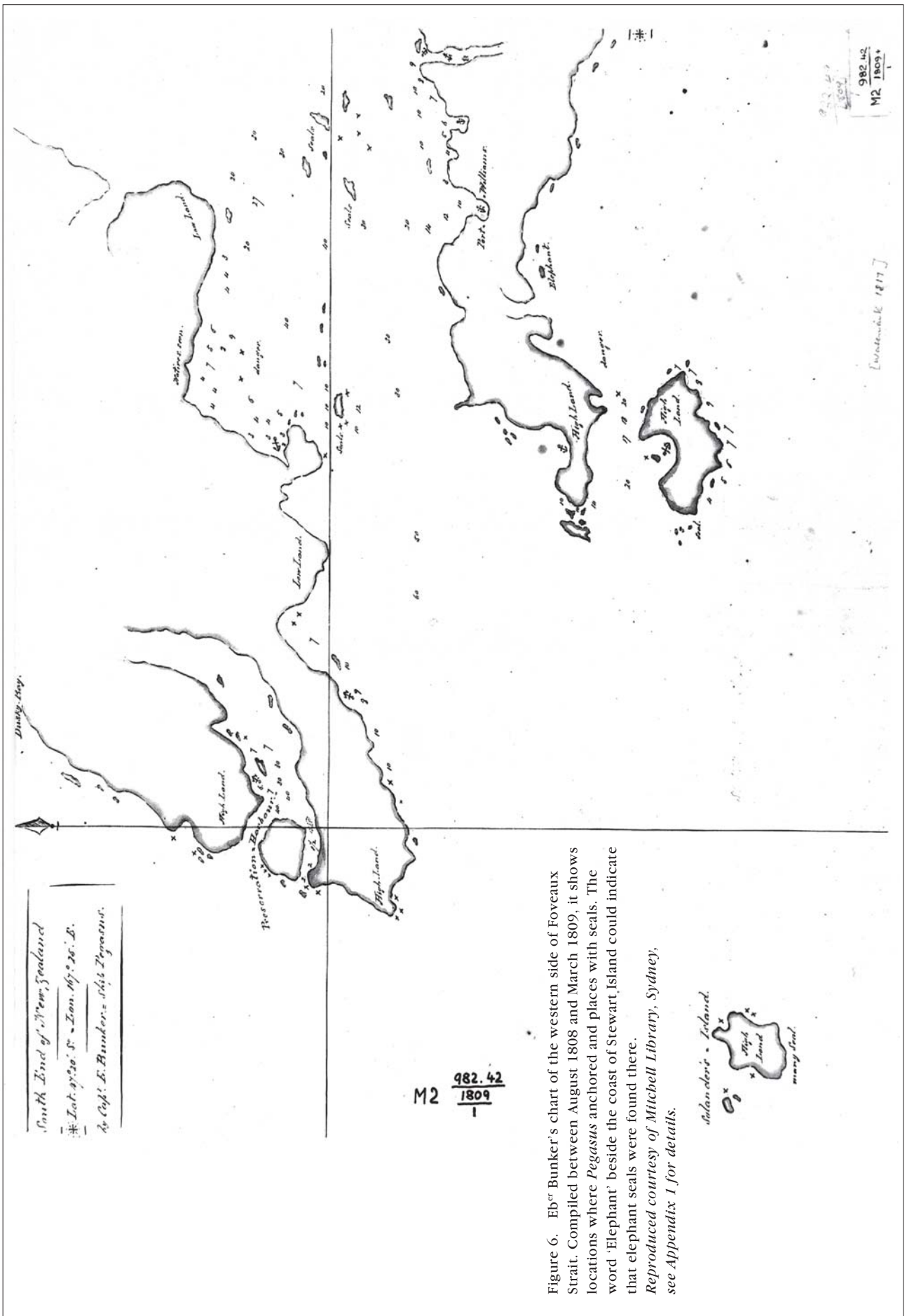


Figure 6. Eb^r Bunker's chart of the western side of Foveaux Strait. Compiled between August 1808 and March 1809, it shows locations where *Pegasis* anchored and places with seals. The word 'Elephant' beside the coast of Stewart Island could indicate that elephant seals were found there. Reproduced courtesy of Mitchell Library, Sydney; see Appendix 1 for details.

4.4 DECLINE 1813 - 22

In 1813 there was a marked decline in all sealing activity, with just two voyages to New Zealand and one or two to Macquarie, and in the ten years after 1812 there were about half the number of voyages per year that had occurred in the previous five years. In part this may have been due to continuing poor prices, but it was probably also a response to Maori attacks on southern New Zealand sealing gangs in 1810-11. It was the Macquarie trade that kept the sealing industry alive during this period, with 78% of the voyages between 1813 and 1822 calling there. New Zealand was probably visited every year, but seldom by more than one vessel until the final years of the decade. Fiordland, Foveaux Strait, Stewart Island, Otago, and Westland were all visited during this period.

The concentration on Macquarie led to a significant shift to oiling, with almost half the voyages focussed solely on this pursuit, and another 13% combining this with the recovery of seal skins. Reported returns of oil more than doubled to 195 tons per year and 67 tons per voyage. However returns of skins declined to about 5,500 per voyage and only c. 11,000 per year. The only other cargo reported from a sealing vessel in this period was a shipment of flax and potatoes from New Zealand in company with seal skins in 1822-23.

4.5 REVIVAL AND MIXED TRADE 1823 - 29

The final voyage of the preceding period signaled both a revival in sealing and a new focus for the industry. Between 1823 and 1829 there was a three-fold increase in the number of voyages per year (to 15.4), making this the period with the highest frequency of visits to the New Zealand region by sealing vessels. Every island group saw renewed activity, with a particularly strong burst of action at the Auckland Islands in 1824-25 and a slight increase in the number of voyages per year to Macquarie. However the greatest area of renewed activity was New Zealand which was visited during 61% of all the recorded voyages. Again, all of the New Zealand mainland sealing regions were visited with most voyages focussed on Stewart Island and Foveaux Strait.

In terms of cargoes, the most significant feature of this period was the rise of mixed trade. Shipments of seal products were supplemented by flax (on 17 voyages), salted pork (8), potatoes (2) and timber (1). Also notable was a revival of interest in seal skins which were reported from more than a third of all voyages, although returns amounted to just 1,700 per voyage and 16,000 per year. Returns from oiling also declined per voyage by almost a third to about 48 tons, although on an annual basis they reached about 266 tons per year.

4.6 DIVERSIFICATION AND DECLINE 1830 - 39

Diversification increased in the 1830s, as did the focus on the New Zealand mainland. At least 82% of recorded voyages called there, compared with about 20% at the Auckland Islands and 12% at Macquarie. On the New Zealand

mainland most of these voyages were directed towards Fiordland and the Westland coast.

Only three voyages were focussed solely on skins, another three on both skins and oil, while there were none that returned only seal oil. Instead skins and/or oil were brought in with various combinations of other cargoes including flax (11 voyages), whale bone (9), whale oil (7) and planks or spars (4). In part this signals an association of sealing with the newly formed shore whaling stations in southern New Zealand, but more importantly it reflects the diminished availability of seals. Voyages for which quantified data are available brought in an average of only 242 skins or 12 tons of oil at a rate of 629 skins or 9.9 tons of oil per year.

4.7 SPORADIC LOCAL SEALING 1840 - 71

Only eight voyages are recorded for the period between 1840 and 1871; four to Macquarie, three on the New Zealand coast, and one to the Auckland Islands. However there are scattered references to sealing activity at this time which cannot be associated with specific voyages (e.g. Carrick 1903: 158-159; Brunner 1959: 280, 287-288; Bathgate 1969: 367; Richards n.d.) so it is clear that the present data under-represents the extent of sealing activity during this period. However it seems unlikely that it was either frequent or highly productive. The two voyages for which quantified data are available brought in 14 tons of oil from Macquarie Island and 150 skins from New Zealand.

What is significant about this period is that virtually all of this sealing activity was being undertaken from New Zealand ports. Prior to 1840, 96% of recorded departures and 92% of returns from the New Zealand sealing region were from or to Australian ports (predominantly Sydney), with only one voyage commencing and finishing in New Zealand—that of *Harriet* from Te Awaiti to north Westland and back in 1836. In contrast, only one of the eight voyages between 1840 and 1871 operated out of Sydney, while at least four began and/or finished in Riverton or Bluff. Furthermore nearly all of the indications of other sealing activity listed above refer to the same ports.

4.8 MACQUARIE REVIVAL 1872 - 94

The revival of sealing in 1872 was focussed predominantly on the Macquarie oiling trade. Almost 80% of the voyages up to 1890 called at Macquarie, along with just five visits to the Auckland Islands, four to Campbell Island, two to the Snares and one to New Zealand. In part this was due to the introduction of legislation restricting the sealing season in New Zealand territories (section 3.2), but it also reflects the continued availability of elephant seals at Macquarie and the massive decline of fur seals elsewhere.

More than two thirds of the voyages for which data is available brought in seal oil either as sole cargo, or in conjunction with bone (5 voyages), whale oil (2), skins (2), live penguins (1) and a sample of penguin oil (1). Where data is available average returns were about 15 tons per voyage and 19 tons per year. In

contrast the seven voyages that returned skins averaged just 139 at a rate of 51 per year. Almost all of these voyages operated out of Dunedin, Invercargill, and Riverton.

In 1890 the Macquarie trade diversified into the production of penguin oil, and from this point onward it becomes very difficult to determine what proportion seal oil contributed to incoming cargoes, and no attempt has been made to extend the quantitative analysis beyond this point. Although 'elephanting' did continue after this time, it was reported in 1894 that 'the slaughter of sea elephants has practically ceased' (Cumpston 1968: 171).

4.9 ILLEGAL SEALING 1895 - 1913

No open seasons for sealing in New Zealand territories were permitted from November 1894 until 1 July 1913, although oiling continued on Macquarie Island until 1919 (Fig. 7). However, there are a small number of accounts that demonstrate that fur seals continued to be taken. During his residency in Dusky Sound from 1894 to 1910 Richard Henry regularly commented on the activities of vessels that he knew or suspected of sealing on the nearby coasts (Hill & Hill 1987: 150, 210, 214, 220-222, 266). Kerr (1976: 52-54, 86) notes that in 1910 and 1912 two Nova Scotian vessels were poaching seals in New Zealand waters and also purchased skins taken illegally by sheep farmers on Campbell Island. It is impossible to be sure of the extent of these activities or the methods used and locations at which they took place.

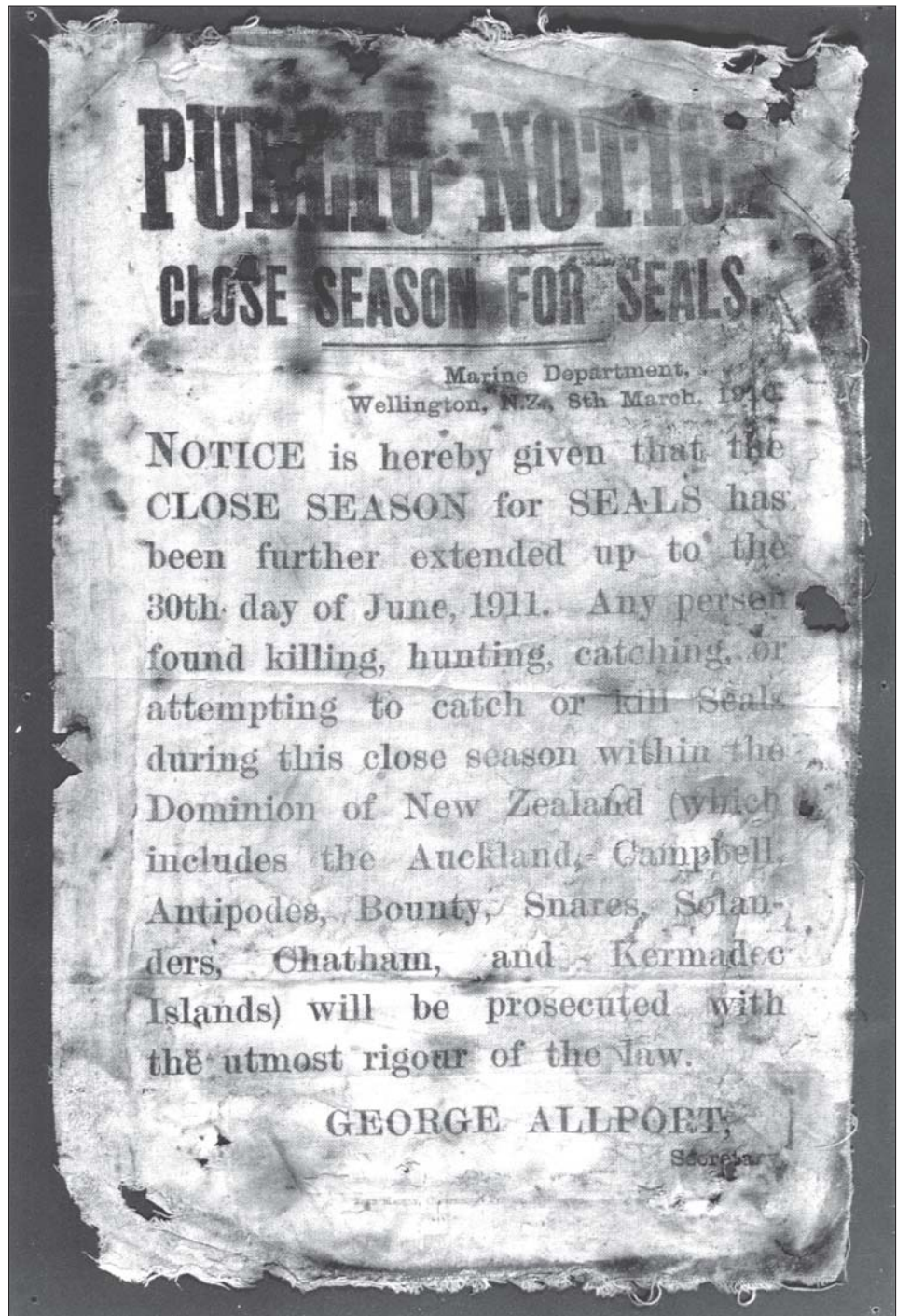
4.10 OCCASIONAL OPEN SEASONS 1914 - 46

The open seasons from 1 July to 30 September of 1914 and 1915 did not require hunters to obtain a licence and no official record was made of either the numbers of seals or where they were taken (Sorensen 1969). At least one ship operated in Fiordland and at Solander Island in 1914 for a return of only 91 skins, and in both 1914 and 1915 seals were also taken at Macquarie, Auckland, and Campbell Islands (Cumpston 1968: 271; Kerr 1976: 53, 57, 75).

Limited seasons were allowed on Campbell Island in 1922 and 1924, with 284 and 66 fur seals taken in each of those years (Sorensen 1969: 1).

The final open season (from 1 June to 30 September 1946) allowed sealing under licence in an area from Nugget Point to Long Point in the Catlins; the islands east, south, and west of Stewart Island; and on the west coast of the South Island from Windsor Point to Jackson Head (Sorensen 1969: 16). A total of 43 licences were issued and 6187 fur seals taken; 6123 in the Southland region, 11 in Otago and 53 in Westland (Sorensen 1969: 2). About 4000 of these were taken on the several voyages by Harry Roderique's *Kekeno* to Fiordland and Solander Island (Grady 1986: 37-40). There are detailed accounts of two of these voyages (Sorensen 1969: 30-42; Scadden 1996).

Figure 7. Notices advertising closed seasons for seal hunting were placed at many potential seal hunting localities. This example was found at the Port Ross castaway depot, Auckland Island. *Photo courtesy of Southland Museum and Art Gallery*



5. Sealing activities

5.1 SEALING PROCEDURES AND EQUIPMENT

To facilitate the identification of sealing locations on the New Zealand coast it is pertinent to consider the types of activities that these are likely to represent, the equipment required, and their potential for leaving physical remains in the archaeological record. As an industrial process three general types of activity can be envisaged: **extraction** of the resource, **processing** of it, and the **logistical support** required for its participants.

5.1.1 Extraction

As the foregoing review indicates, sealing on the New Zealand mainland was directed almost exclusively to the recovery of skins, and the vast majority of these were from fur seals. Extractive activities must have been confined to locations frequented by fur seals. Although occasional fur seals can be found ashore almost anywhere throughout their range, they occur in numbers only at regularly occupied colonies. All of the information that can be gleaned from archaeological and historical sources (Smith 1985, 1989), post-exploitation studies of fur seal distribution (Wilson 1974) and recent analyses of re-colonisation (Bradshaw 1999) show that these are found only on exposed rocky coasts, frequently with steep cliffs backing the colony.

Historical descriptions of sealing operations show that colonies were usually approached from the sea in whaleboats. Frequently only some of a sealing gang could be landed as two or three would be required to hold the boat offshore (e.g. Heaphy 1863; Starke 1986: 53).

Minimal equipment was required: a seal hook, of iron with a wooden handle about 18 inches long, was used to hold the seals; a club, of hardwood and usually about 3 feet in length (Fig. 8), was used to despatch or stun them via a blow to the snout; sometimes a lance was used to kill the animals; and a knife and sharpening stone or steel was required for skinning them. When sealers entered sea caves to take their prey, burning torches were used for light. There are occasional reports of sealers shooting the animals, all after the 1820s, but this risked damaging the pelt, and appears to have become a common method only in the 20th century. Except in the small number of operations where fur seal oil was

Figure 8. A sealing club from Martins Bay, Westland. It is made of wood with an iron bolt inserted in the striking end and two holes drilled through the handle for attaching a wrist strap.
Photo courtesy of Southland Museum and Art Gallery



being recovered, the carcasses were abandoned once they had been skinned and the vast majority were presumably swept away by the next high sea. For these reasons it is unlikely that any direct archaeological evidence will have survived from the extractive component of the fur sealing industry.

Fur seals can be taken at any time of year. They are on shore in greatest number during the breeding season (December-February) and are least abundant after the weaning of pups in July or August (Crawley 1990: 253). It has frequently been stated that there were two main extractive seasons, on the basis of the evidence of John McDonald, a sealer with seven or eight years experience on the New Zealand coast, who told Commissioner Bigge in 1821 that:

‘the best season for taking seals for the China market is when the pups are six months old. This is in April. The other season is about Christmas, when the females come to the males’ (McDonald n.d.: 4570).

However, analysis of the times of year encompassed by all the voyages to the New Zealand mainland from 1803 to 1823 and the times of year that sealing gangs were ashore in the same period (Fig. 9), shows that most sealing was concentrated in the summer months. Fewer sealing vessels were present in

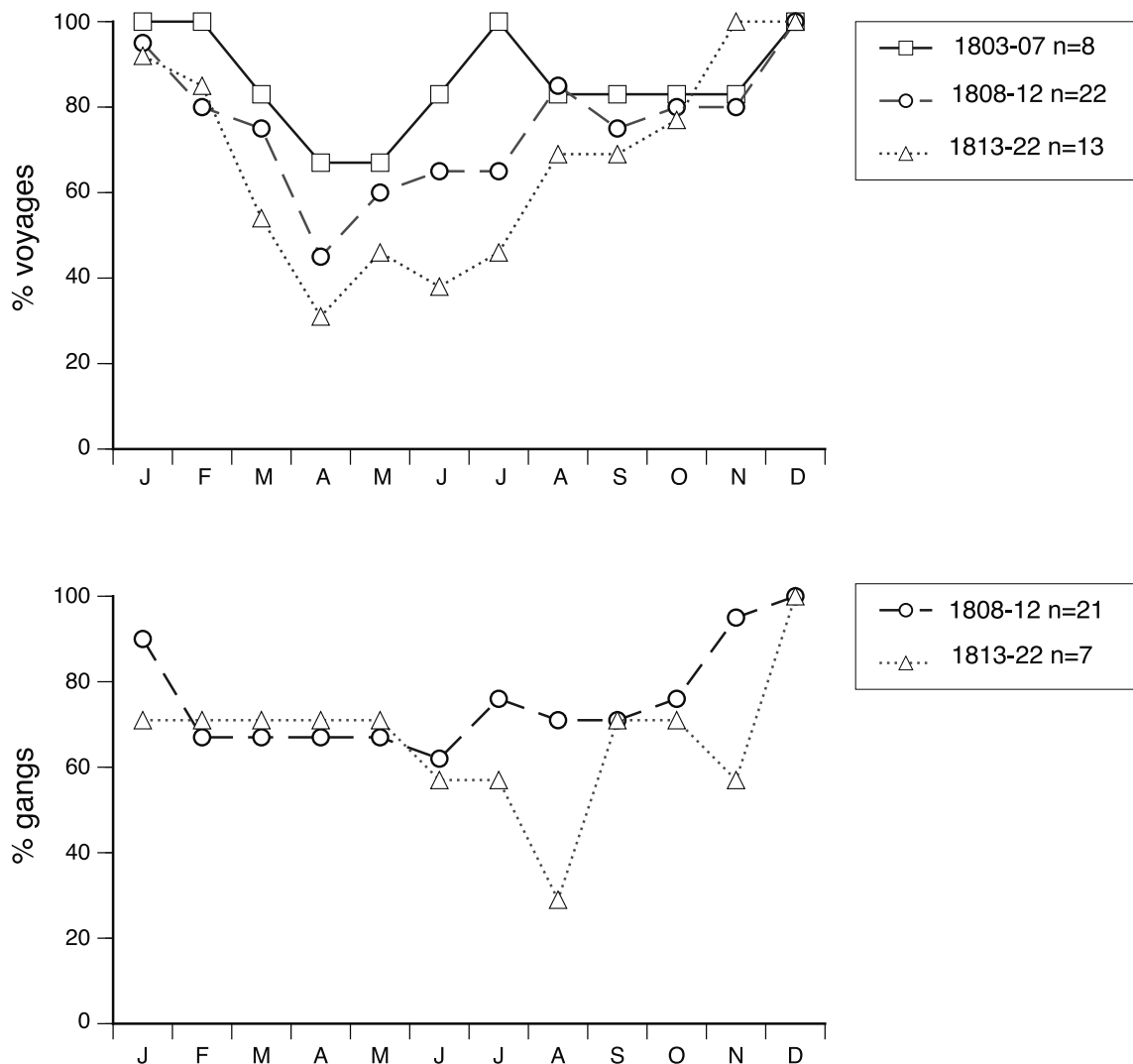


Figure 9. Seasonal presence of sealing vessels (above), and sealing gangs (below) on the New Zealand coast, 1803-22.

April than at any other time, and there was no increase in the presence of sealing gangs at this time of year. This was the case not only in the period when McDonald was active in the industry, but also in the earlier years when greater numbers of skins were being taken for the China market. Other evidence to the Bigge Commission makes it clear that the China trade still persisted in 1821, but was 'much diminished' (Riley n.d.: 3871–3872). It seems likely that McDonald's reference to an April season reflects a specialised aspect of sealing incorporated into some of the exceptionally long voyages undertaken by his master, John Grono, throughout the difficult years of the industry, rather than the typical extractive pattern.

5.1.2 Processing

McDonald described two methods for preparing skins.

'Those intended for the China market are dried on shore by laying them out with pegs ... The skins intended for the English market are cured with salt' (McDonald n.d.: 4571).

According to Heaphy (1863) the latter, after salting, were 'folded into a close, flat parcel, with the hair outward', then packed into a cask. Most of the skins taken in New Zealand were destined for London, because of the better prices they returned and probably also the greater suitability of the required processing method to New Zealand conditions. Nonetheless, references to dried skins occur occasionally throughout the sealing period.

Neither processing method would be expected to leave any direct archaeological remains. However the drying of skins on the shore implies a need for space, and perhaps also shelter. On the Patagonian coast it was reported that in good weather a skin could dry sufficiently in a day, but frequently required several weeks of constant turning (Busch 1985: 12). This is also likely to have been a problem in New Zealand, and it is interesting to note that the *Britannia* sealing gang, preparing skins solely for China, had a 'drying house' at their Luncheon Cove base (McNab 1907: 334).

McDonald also indicates that oil was obtained from New Zealand fur seals.

'A pup will give about two gallons more or less. A wig, that is an old male, will yield five or six gallons' (McDonald n.d.: 4571).

This does not appear to have been a common practice. There is only one sealing voyage for which it is reasonably certain that seal oil was recovered on the New Zealand coast, and interestingly it is an 1816–17 voyage by Grono's *Governor Bligh* on which McDonald was almost certainly present. As already noted (section 3.4), both the quantity and quality of data on oil returns is less adequate than that for skins, and the possibility that vessels returning from Macquarie Island with cargoes described simply as 'oil' might have collected seal oil from New Zealand cannot be ignored. Nonetheless, it seems most likely that McDonald's evidence again describes one of Grono's specialised activities rather than the typical pattern.

There was also some later recovery of seal oil, as it was reported in Hobart in 1828 that 40 gallons had been landed from New Zealand (Carrick 1903: 117), although which voyages these arrived on is not specified. At the time this was seen as a new development in the industry. A London trade circular of

November 1830 commented on ‘the folly of our sealers hitherto, in not availing themselves of so important and profitable an article’ (Carrick n.d.). The following year a Tasmanian sealer complained that seal oil ‘has been so long overlooked by our merchants’ before going on to describe the method by which it was procured.

‘The process of obtaining the oil is a very simple one. The casks should have two bottoms; the upper one a few inches above the other, and perforated in several places to allow the oil to pass through. Having removed the skins (which of course can be kept and rendered available as usual), put the flesh in the cask, placing a very light pressure on the top, and an oil of a beautiful white lucid colour is soon deposited. This, of course, is termed the cold-drawn oil, which is drawn off, and a heavier pressure placed on top, by means of which a second quality, somewhat thicker, and of browner hue, is obtained; still, however, superior to the black oil. The refuse may then be boiled down, and will afford a third quality’ (*Sydney Gazette* April 5 1831).

If only the cold-pressing method was employed, little would be expected to remain archaeologically. However any rendering by boiling, presumably in a trypot, would produce charcoal and ash residues, and perhaps also oil- or fat-derived deposits such as have been found at some whaling station try-works (Campbell 1994).

In the final stage of the industry New Zealand became the base for the recovery of elephant seal oil from Macquarie Island. It has not yet been clearly established whether the Dunedin merchants Cormack, Elder and Co, who operated this trade from 1878 to 1884, were simply re-exporting the oil or involved in processing it. However in 1888 Joseph Hatch began the production of ‘Elephant Brand Lubricating Engine Oil’ at his Invercargill factory.

5.1.3 Logistical support

The sealers engaged in extracting and processing skins and oil required transport, shelter, provisions, and equipment. The sealing vessels that provided transport to and from New Zealand ranged in size from 18 to 370 tons (mean 120 tons), but most voyages were undertaken by vessels of less than 100 tons (Fig. 10). These were preferred as their ‘shallow draft—eight or nine feet—and their hardiness in all winds and weather made them best for work close in shore’ (Jones 1986: 258–259). Only two are recorded as having been wrecked on the New Zealand shore—*Hunter*, on Kapiti Island prior to passing through Cook Strait in 1829 (Ross n.d.: 64), and *Industry* at Easy Harbour on Stewart Island in 1831 (Ross n.d.: 68)—although at least three others which disappeared without trace, and unrecorded sealing vessels, could also have entered New Zealand’s marine archaeological record.

The ships involved in the New Zealand sealing trade visited not only sealing locations, but also various ports and harbours to ‘wood and water’, undertake repairs, trade for provisions such as pork and potatoes, and at times to provide rest and recreation for their crews. Thus not every location mentioned in accounts of these voyages is a place at which sealing took place.

As already noted, access to the seal colonies themselves was generally by whaleboat. Although these came in a range of sizes they were typically open, double-ended, clinker-built craft of about 25–30 feet length, powered by four or

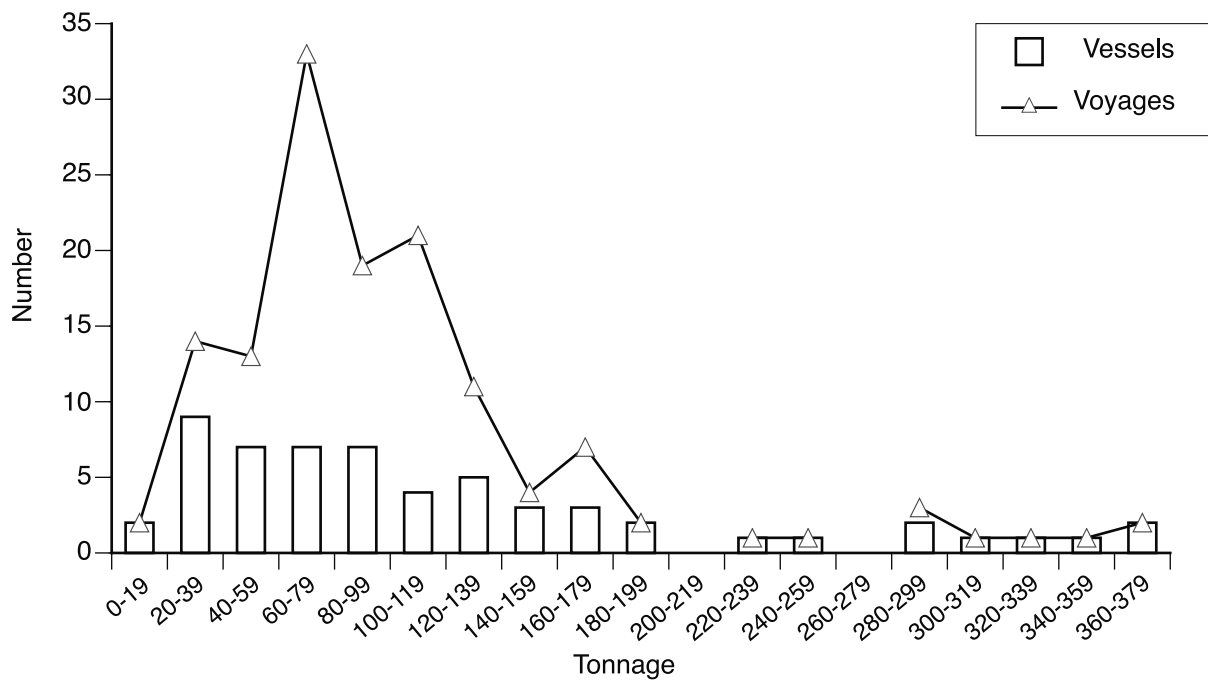


Figure 10. Size of sealing vessels on the New Zealand coast, 1791-1890.

sometimes six oars, and they usually carried a sprit or lugsail (Bathgate 1969: 361-362; Starke 1986: 49). Boulton's records indicate that in the right conditions distances of 50 miles could easily be covered in a day (e.g. Starke 1986: 36, 48), which would have permitted exploitation of seal colonies at some distance from ship or shore bases. Boats were at times left on the New Zealand shore with the intention of re-using them (McNab 1907: 84, 153), so clearly remnants such as metal fasteners or fittings could have entered the archaeological record.

The *Britannia* gang were accommodated at Luncheon Cove in 'a dwelling house 40 feet long, 18 broad and 15 high' (Raven n.d.) and covered in thatch (Murray n.d.). As noted above, they also had a drying house. These are the only known primary descriptions of the size and form of built accommodation for New Zealand sealer's and may not necessarily be typical. Huts were constructed by shore-based gangs from the *General Gates* at 'South Cape' (McNab 1907: 182) and Lee Bay, Chalky Inlet (Begg & Begg 1973: 119). They were also used by boat-based gangs. Boulton refers to sealer's huts at Arnotts River, Open Bay Island, Milford Sound, George Sound, Anchor Island, and Codfish Island (Starke 1986: 36, 40, 41, 48, 49, 52, 94). Huts can perhaps also be inferred at Jackson's Bay and Doubtful Sound (Starke 1986: 38, 51), but nowhere does he describe their size or form, although he frequently commented on the roaring fires. He also refers to the use of caves for accommodation at Arnotts Point, Cape Providence, and South Port (Starke 1986: 41, 54). It seems likely that one or other of these forms of accommodation were generally employed, although both Boulton and Palmer also indicate that temporary shelter was sometimes found under an upturned whaleboat (Starke 1986: 64; Hocken n.d.).

With the low potential for survival of evidence from the extractive and processing aspects of the industry, the accommodation places are the most

likely to have left an archaeological trace. As well as foundations of buildings, fireplaces, and within-cave structures, there is the potential for finding garden soils. Boulton notes that at least one of the huts had a garden established, with 'a few celery plants, cabbages, potatoes, and turnips' (Starke 1986: 40).

It is also pertinent to consider what kinds of faunal and artefactual material might be expected at such sites. The *Britannia* sealing gang was left with 'provisions and stores for twelve months' (Raven n.d.), although what they consisted of is not made clear. Typical rations are reported for other early gangs. A weekly per-person allowance of 'seven pounds of meat, ten of flour or biscuit, and one pound of sugar, together with ten bags of rice for the voyage, and tea or grain for coffee' was provided for men in a gang bound for the Antipodes in 1804 (Hainsworth 1972: 143). Men going to Macquarie Island in 1810 were allowed 7 lbs of salted pork, 8 lbs of bread or flour and 1 lb of sugar (Cumpston 1968: 22). Boulton mentions salted pork, flour, sugar and tea, and also the need to forage for indigenous resources including birds (with the aid of a dog), fish, crayfish, shellfish, and fernroot (Starke 1986: 37, 38, 48, 49, 52, 91, 93). Of the imported items, only bones from the salted pork could be expected to survive archaeologically, along with hoop iron from the casks in which provisions were usually transported and stored. The indigenous resources would contribute bones and shells, but on their own these would be difficult to distinguish from the middens of Maori settlements.

Salt, presumably also in casks, would have been an essential requirement on all except the earliest voyages. Other equipment was generally minimal. The *Active* gang were left on Open Bay Island in 1810 with an axe, an adze, and a cooper's drawing knife (Begg & Begg 1979: 143). Items mentioned by John Boulton include muskets, a keg of powder and 200 or 300 balls, a water bucket, grindstone, cooking pan and large iron pot, blankets, and clothes (Starke 1986: 36, 41, 48). Other artefacts that may be expected in archaeological deposits include clay tobacco pipes, glass bottles, and utilitarian ceramic vessels.

5.2 SEALING STRATEGIES

Four different strategies by which the various sealing activities described above were pursued can be identified from the historical record.

5.2.1 Shore-based sealing gangs

The type of activity most often described in previous accounts of the sealing industry (e.g. McNab 1907: 148-198), involved gangs of men deposited by a ship at a specific location on the New Zealand shore to harvest and prepare seal skins before being collected again. The tribulations of some gangs that were inadequately provisioned, abandoned for long periods or murdered on New Zealand shores attracted considerable contemporary newspaper comment and sometimes stimulated legal proceedings in Sydney courts, leading to a much richer historical record than other types of sealing activity. However the data under analysis here shows that this was not the only strategy employed, and suggests that it may not have been the most common.

Only 18.2% of the sealing voyages to the New Zealand mainland up to 1840 were definitely involved in either depositing a sealing gang on shore then departing for other activities, or returning to provision, replace or uplift the gang and collect the cargo that it had accumulated. Another 10% have possible evidence of such activity (Fig. 11). Clearly some of the voyages for which there is little surviving data were probably also servicing shore-based gangs, but for

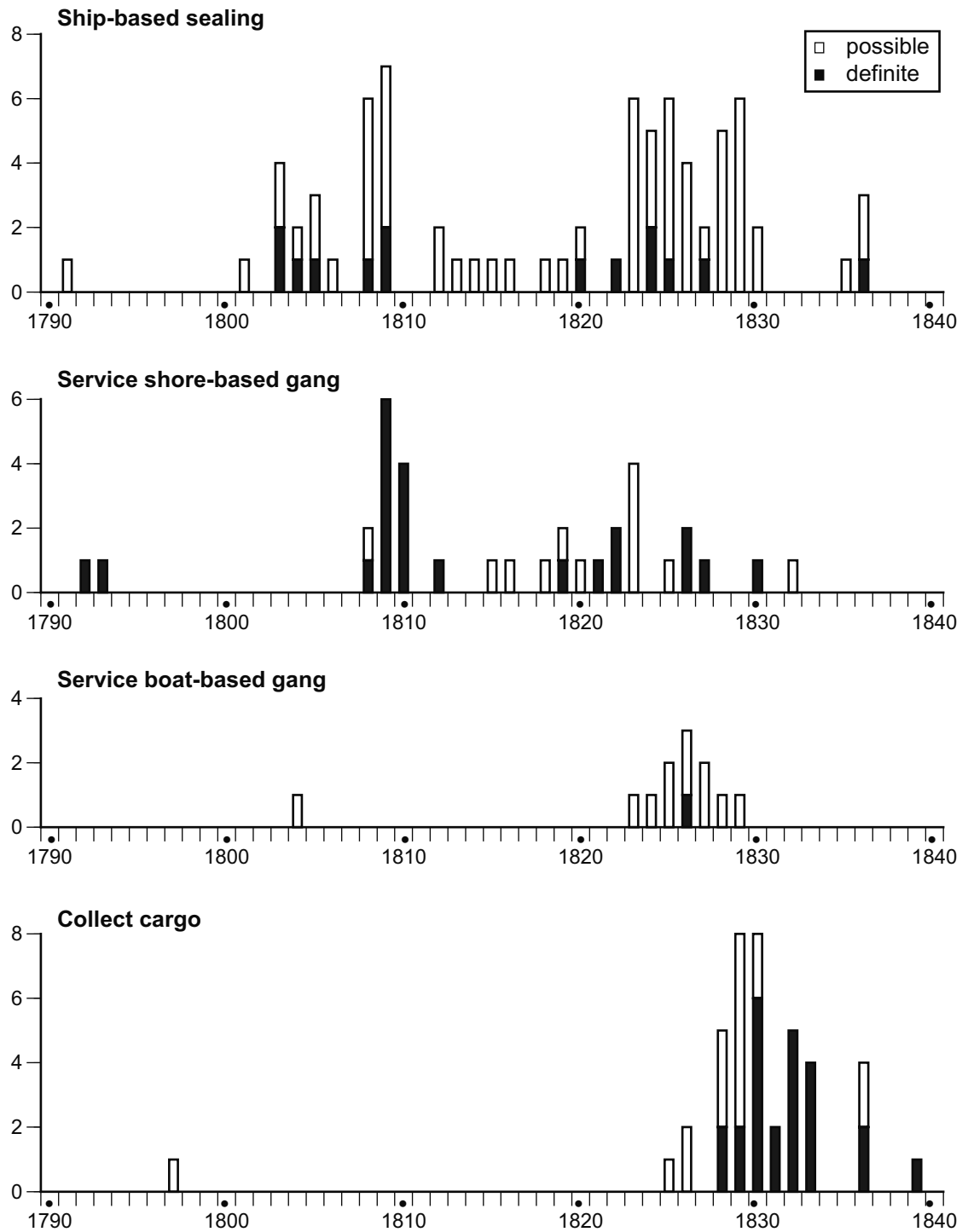


Figure 11. Sealing strategies inferred for voyages to the New Zealand mainland, 1791-1840. Note that some voyages are counted as possible candidates for more than one strategy, and that for 20% of voyages no strategy has been inferred because of insufficient data.

most of the remainder there are indications that other strategies were being employed. There are also several references to activities of gangs that cannot be related to specific voyages (e.g. Allan 1965: 13, Richards n.d.), and therefore cannot be included within the quantified data here. One further example is known from the 1946 open season.

These data provide varying quantities of evidence on the activities of some 26 shore-based sealing gangs (Appendix 2). The earliest of these was the *Britannia* gang of 1792–93, but fully half of the recorded examples were set down in the 17 months between September 1808 and January 1810 during the initial rush to Foveaux Strait and Stewart Island. Another cluster were deposited in 1821–22 at the beginning of the revival in the New Zealand trade. It can be suggested from this that shore-based sealing was most effective as an exploitation strategy when seal numbers were greatest or had had some opportunity to recover, but was less effective when seal numbers were low.

Most of the ‘possible’ examples derive from the period 1813–22, for which there is little precise data about modes of operation. The large numbers of skins returned from some of the voyages in this period are suggestive of a shore-based strategy, but at the same time the long duration of these voyages makes ship-based sealing (see section 5.2.2, next) an equally likely alternative.

Shore-based sealing gangs were typically made up of between 6 and 12 men, and stationed for periods of about 6, 12, or 18 months, although in two cases abandoned gangs were on shore for about four years. The relative permanence of the base camps from which these gangs operated give them perhaps the greatest potential of any sealing sites for survival of evidence in the archaeological record. In addition, the rather better historical data available for them enhances their prospects of being located.

5.2.2 Ship-based sealing gangs

This strategy involved using the ship bringing sealers to the coast as a mobile base from which to exploit seal colonies. This was described, in a general way, by de Blossville in 1823.

‘When a ship is fitted out for an expedition of this kind, it is provisioned for the whole duration of the campaign... Having arrived on a shore which appears promising, they embark in boats, and leaving the ship sometimes for several days, they explore the smallest bays and storm beaten rocks, knowing that where the sea is the most stormy, there will the animals, which they pursue, be the most numerous. The least useful men are left on the ship as a guard. The vessel remains in a safe haven and receives any necessary repairs...’ (McNab 1907: 220).

Early whaling ships conjectured to have undertaken sealing on the New Zealand coast would almost certainly have operated in this way. The first detailed description of a voyage which fits this mode is that of the *Endeavour*, the first vessel to work the New Zealand coast in 1803 (McNab 1907: 80–81). Only a small number of other voyages provide similarly clear information. However reasonable inferences can usually be drawn from data such as length of voyage, places visited, and numbers of men aboard on departure and return, to suggest that this strategy was probably employed by 12% of voyages up to 1840, and possibly by another 51% (Fig. 11).

If these inferences are correct, then this was the most commonly employed strategy for sealing in New Zealand, and was in use throughout all stages of the industry, at least up to 1840. In particular it seems to have operated to the exclusion of other strategies between 1803 and 1807, when the mobility that it afforded would have aided the discovery of new seal colonies on previously unexplored shores. This ability to move gangs to where the seals currently were to be found would also have been an important strategic consideration after the major colonies had been depleted. It certainly appears to have been the predominant method used in the 1946 open season.

The major significance of this strategy for the present study is that it would have concentrated most of the domestic activities of sealers on ship rather than on shore, and in this way dramatically reduced any evidence in the archaeological record.

5.2.3 Boat-based sealing gangs

A third approach to sealing is described in Boulton's account of his first eight months in New Zealand (Starke 1986: 35–56). This involved setting down one or more gangs with their boats on a stretch of coast along which they would work, staying in huts, caves or simply camping on the shore, collecting provisions from supply depots and rejoining their vessel at an arranged rendezvous point.

While only one example of this is explicitly recorded in the historical literature, there is good reason to believe that this type of sealing played an important role in the mid to late 1820s. The earliest example may be O.F. Smith's exploration of the eastern shore of Stewart Island and eastern entrance to Foveaux Strait in 1804, although how much sealing was actually accomplished at this time is open to conjecture. Most of this activity, however, seems to have taken place in the 1820s (Fig. 11).

It is clear from Boulton's description that boat-based sealing was not new in 1826. The network of huts and supply depots was already established, and the locations of suitable caves were well known. Molloy (1987: 5, n.d.: 9) suggests that this pattern had emerged by the early 1820s, and it is proposed here that this strategy came to predominance about 1823. It has already been argued that mobility was an important strategic consideration after the initial depletion of seal numbers at major colonies. It has also been shown that the period after 1823 saw a significant shift towards mixed trade, seal skins being just one amongst a number of products in the cargoes of most ships. The boat-based strategy provided a way of integrating these two imperatives, allowing the sealers to cover a wide territory while the ship went elsewhere to secure flax, pork or other desired goods. However, the logistics of working by boat—carrying necessary provisions and storing and transporting all recovered skins on a small whaleboat—would be a viable strategy only when relatively low numbers of skins were ever likely to be recovered. Large quantities of skins simply could not be accumulated by this strategy and, as already noted, there was a marked reduction in the numbers of skins returned per voyage after 1823.

5.2.4 Resident sealers

As early as 1805 sealers and sailors occasionally deserted from their gangs or ships to live permanently on the New Zealand shore (Richards 1995: 22-25; Entwistle 1998: 43-49). Until the mid 1820's, most appear to have lived within Maori communities and there is little evidence that they continued to play an active part in the sealing trade. However about 1825 a larger group of deserters (perhaps from several ships and gangs) established a permanent settlement on Codfish Island (Howard 1940: 62-67; Entwistle 1998: 62-63, 173), from which they continued sealing. Boulton joined a boat crew from Codfish Island sealing around Stewart Island and Foveaux Strait in the summer of 1827-28. His descriptions of their activities (Starke 1986: 91-106) show that they operated much in the same way as a boat-based gang, except that they were much more dependent upon local resources. The only imported provisions to which they had access were small quantities, acquired from ships, in exchange for seal skins. Exactly how many ships acquired skins from the Codfish sealers is not known, but the shipping data do indicate that, from at least 1828, vessels calling at southern New Zealand for other cargoes (principally flax, pork, timber and whale oil) were also collecting small parcels of seal skins (see Fig. 11). Although its inhabitants increasingly became involved in other activities, the Codfish Island settlement can legitimately be considered a sealing site. Its main components are likely to have been huts and other features of domestic activity.

At least three other resident communities established about this time engaged in sealing as an adjunct to their primary activities. The whalers operating from George Bunn's shore whaling station in Preservation Inlet (1829-36) went sealing in their off-season, probably mostly on the Fiordland and Foveaux Straits coasts, but on at least one occasion as far away as the Auckland Islands (Ross n.d.: 66). The ships servicing this station regularly included seal skins in their cargoes. Inhabitants of William Stewart's ship building settlement in Port Pegasus probably engaged in occasional sealing throughout its occupation (1826-33), although confirmation of this comes only from the first year of its operation. Whalers from Te Awaiti, in the Marlborough Sounds, are reported to have made more or less annual sealing trips to the West Coast from about 1836 to at least 1845 (Richards n.d.). Another community that might have done a little part-time sealing is that established by James Spencer at Bluff in 1824, although there is no clear evidence of this activity. In contrast to the Codfish Island settlement, none of these could be considered primarily a 'sealing site'.

From about the middle of the 19th century Riverton was the main port out of which sealing was undertaken, along with Bluff, Invercargill, and Dunedin. However the only component of any of these settlements that can be explicitly associated with the sealing industry is Joseph Hatch's oil processing factory in Invercargill.

6. Sealing locations

Of the 154 sealing voyages that definitely or probably visited the New Zealand mainland and offshore islands up to 1890, 99 (64%) provide at least some evidence of the locations at which they operated. At a regional level these show a strong concentration on the southern and south-western coasts (Table 4). Of the

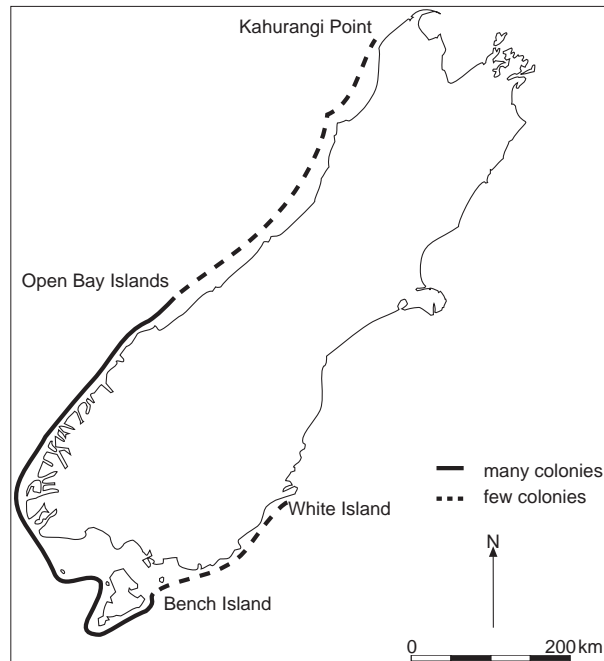


Figure 12. Postulated distribution of fur seal colonies at the beginning of the sealing industry (after Smith 1985, 1989).

voyages for which data on location can be inferred, Fiordland was visited during 42%, Foveaux Strait 33%, Stewart Island 31%, and Westland 19%. Not surprisingly, this closely matches the late 18th/early 19th century distribution of fur seal colonies (Fig. 12). At least some of the recorded visits to Otago, and all of those to Canterbury, Cook Strait, and the North Island are most likely to represent port visits or unsuccessful searches for seals rather than actual sealing activity.

TABLE 4. SEALING VOYAGE VISITS TO NEW ZEALAND REGIONS UP TO 1890.

REGION	SEALING	pre-1803	1803-07	1808-12	1813-22	1823-29	1830-39	1840-71	1872-90	TOTAL
Fiordland	Definite	2	5	1	5	5	3	-	-	21
	Possible	3	3	2	-	-	11	1	1	21
Foveaux Strait	Definite	-	2	12	3	4	-	-	-	21
	Possible	-	1	-	1	5	5	-	-	12
Stewart Island	Definite	-	1	7	4	7	-	-	-	19
	Possible	-	2	1	-	8	1	-	-	12
Westland	Definite	-	-	3	3	2	2	1	-	11
	Possible	-	-	1	4	3	-	-	-	8
Otago	Definite	-	-	2	-	-	-	-	-	2
	Possible	-	-	1	-	3	-	-	-	4
	Unlikely	-	-	-	2	1	-	-	-	3
Canterbury	Unlikely	-	-	2	1	1	-	-	-	4
Cook Str.	Unlikely	-	-	2	-	5	1	-	-	8
North I.	Unlikely	-	-	2	-	1	-	-	-	3
No data		-	1	4	6	38	6	-	-	55

The following discussion considers more detailed locational evidence for each region, drawing upon both the voyaging accounts and other forms of historical evidence. The principal focus of this discussion is to determine those locations most likely to have seen land-based sealing activities. For these locations the available archaeological evidence is reviewed in an attempt to determine specific historic places from the sealing industry. In addition, a small number of places are proposed on archaeological grounds alone. The specific localities identified here are summarised in Appendix 3.

6.1 WESTLAND

Many sealing vessels operating out of Sydney made their initial landfall on the Westland coast. However there are only 19 voyages for which there is definite or possible evidence of actual sealing there, and 10 of these provide evidence of location (Fig. 13).

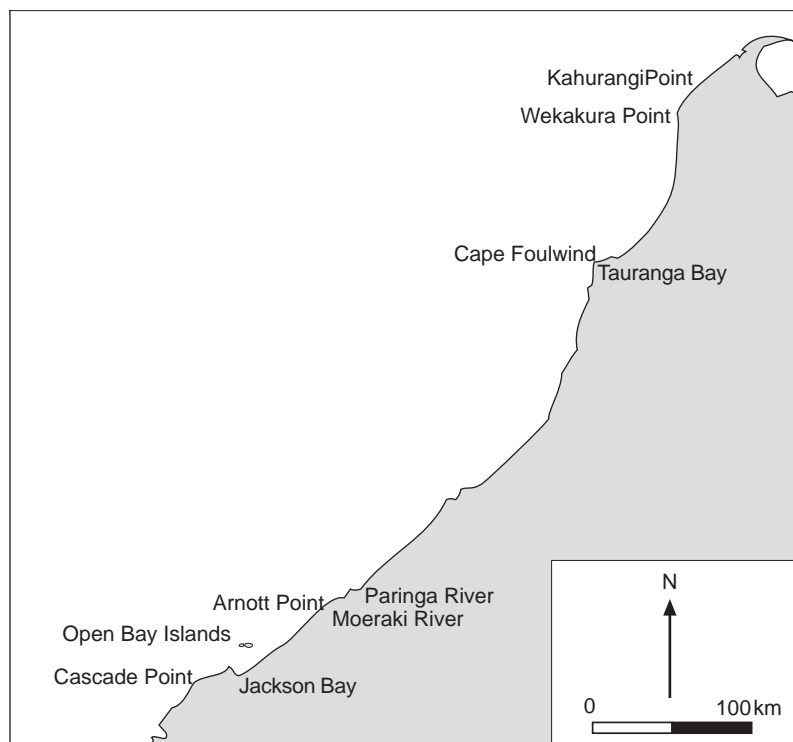


Figure 13. West coast of the South Island, showing major localities discussed in the text (section 6.1).

6.1.1 Kahurangi–Wekakura

History

Two voyages can be associated with the rocky coast between Kahurangi and Wekakura Points. In 1832 a gang from *Admiral Gifford* was massacred at Rocks Point, just north of Wekakura (Molloy 1987: 14), and in 1836 *Harriet* anchored at Awaruata (Big River) just north of Kahurangi Point (Heaphy 1959: 210) and landed a gang from the Te Awaiti whaling station. They appear to have operated at Toropuhi, close to Wekakura Point. The Te Awaiti whalers are reported to have made more or less annual expeditions to the northern part of the west coast between 1836 and 1845 (Richards n.d.), but Heaphy (1959: 214–215)

noted in 1846 that Toropuhi had not been visited for 'nine or ten years', which may suggest that only their earliest expeditions called there. Heaphy also reported that a sealing boat had been stove-in there 'about 15 years ago', indicating that sealing had begun there by 1831.

Archaeology

The Kahurangi-Wekakura area has not been systematically surveyed, and the only known sites appear to be pre-European ovens and pits. The probable presence of at least two shore-based gangs in this area suggest the potential for further surviving archaeological evidence.

6.1.2 Cape Foulwind

History

The Steeples, just off Cape Foulwind, were known to the sealers as 'Black Reef' (Heaphy 1959: 220) or 'Black Rocks' (Hocken n.d.), and seals could also be taken at Tauranga Bay on the mainland shore. There are only two voyaging references to sealing there, by *Sally* in 1826 (Hocken n.d.), and *Three Brothers* in 1844 (Allan 1965: 16). Both instances appear to have been ship-based sealing. Allan (1965: 13-16) also suggests that other sealing parties operated there in the 1820s, and that a gang from the Te Awaiti whaling station lived there for several months. As noted above, this is likely to have been between 1836 and 1845. Brunner (1959: 280, 287-288) noted that a 'sealing party and boat' had been there, and perhaps further south in the summer of 1846-47.

Archaeology

Numerous archaeological sites have been recorded around Cape Foulwind and Tauranga Bay. The only one suggestive of a possible association with the sealing industry is a large site (K29/1)³ at the northern end of Tauranga Bay. This appears to derive predominantly from prehistoric occupation, but lead grapeshot, porcelain fragments and a glass jar have been recovered from the upper part of the deposit. However its association with the activities of sealers is entirely conjectural.

6.1.3 'Open Bay'

History

Sealers used this title for that part of the Westland coast between Arnott Point and Cascade Point (Starke 1986: 38, 40). Five voyages are known to have operated in this vicinity. John Grono was probably there in *Governor Bligh* during 1809-10 (Kerr n.d.: 21), and a shore-based gang was set down on the Open Bay Islands by *Active* in January 1810 (McNab 1907: 153-155, Kerr n.d.: 36-38). They were not relieved until November 1813, indicating that few, if any, other vessels had been in the vicinity in the interim. Another gang is said to have been landed 'in Open Bay' by *King George* in 1818 (Richards 1995: 101). A boat crew from *Hope* was lost 'off Open Bay' in 1820-21, perhaps while ship-based sealing. *Elizabeth* had a boat-based gang there in 1825, using a hut on Open Bay Islands and sealing at Arnott River on the mainland coast. The

³ Site number in the New Zealand Archaeological Association Site Recording Scheme.

following year Boulton's boat-based gang, from the same vessel, used a hut on Open Bay Islands, another about a quarter of a mile up 'Arnott River', stayed in a cave at Arnott Point and camped at Jackson's Bay. Beattie (1919: 220) records the presence of another sealing gang at Paringa, although at what date and from which vessel is not clear.

Archaeology

Open Bay Islands—Two sites have been recorded on Open Bay Islands, and a third record is added here. A probable hut location near the eastern end of Taumaka, the larger of the two islands, was suggested by Burrows (1972: 30) on the basis of three test pits showing buried charcoal, in one case associated with a broken glass jar. This was reiterated by Begg & Begg (1979: 142) but no site record has been entered until now (F37/**)⁴. At the western end of Taumaka a rectangular stone structure, F37/18, (Fig. 14) has been interpreted as the remains of a sealers' hut or storehouse (Cassady St. Clair & St. Clair 1990). Timber remnants of another possible hut (F37/20) have been recorded on the smaller Popotai Island.



Figure 14. Wall of stone hut on Taumaka, Open Bay Islands, thought to have been built by sealers. Photo: Cassady St Clair and St Clair. (Deposited with NZAA Site Record Form F37/18, and reproduced here courtesy of NZAA Site Recording Scheme.)

Arnott Point—Begg & Begg (1979: 150–151) located a cave at Arnott Point which they suggested was that used by Boulton. They did not report any archaeological remains but it has been recorded here as a site (F36/**), pending further field assessment.

'Arnott River'—Begg & Begg (1979: 145) suggest that this was the Moeraki River, while Starke (1986: 41) proposed the Paringa. By my reading, Boulton's account does not make it possible to be sure which river he used. Neither appears to have been surveyed for archaeological sites.

⁴ Sites with sheet numbers followed by /** indicate newly submitted records that have not yet been allocated numbers.

6.1.4 Cascade

History

There are no voyaging references to the southernmost part of the Westland coast, but Boulton went ashore to seal or camp at 'Cascade Beach' (Starke 1986: 38), and in 1946 Kekeno took seals 'at Cascade' (Wilson 1974: 178), probably during ship-based sealing operations.

Archaeology

Cascade Beach might refer to a number of places in the vicinity of Cascade Point. A cluster of sites have been recorded here, but all appear to be Maori ovens and middens, with nothing to suggest that any should be classified as sealing sites.

6.2 FIORDLAND

Two places stand out in the historical references to Fiordland. Both Dusky Sound and Preservation Inlet are referred to or suggested in relation to 15 sealing voyages. Chalky Inlet receives seven mentions, Thompson and/or Doubtful Sound three, Milford Sound two, while Dagg, Breaksea, and George Sounds get one each. These are considered here along with several other localities not referred to in the voyaging accounts (Fig. 15).

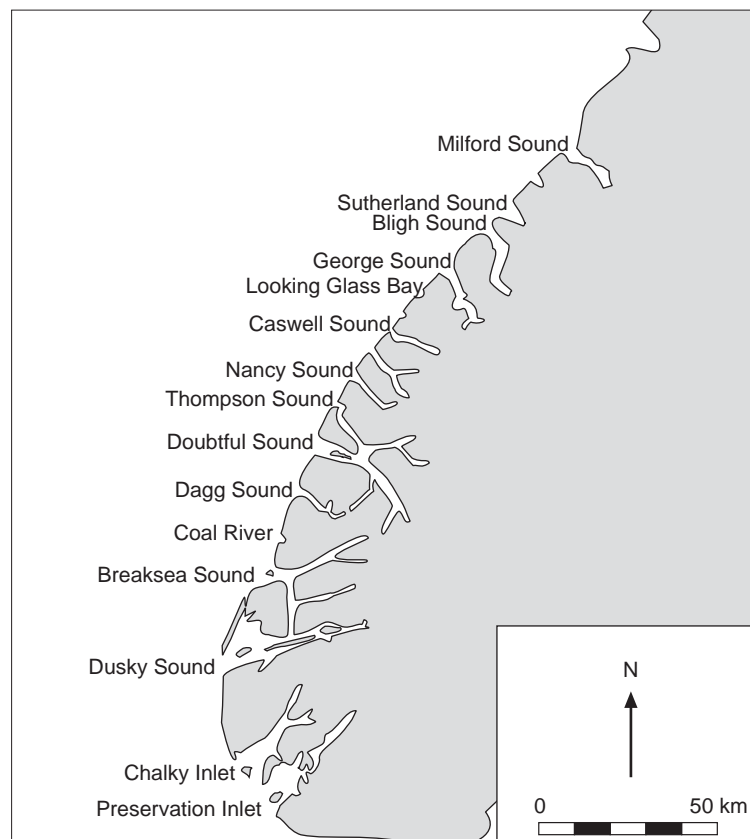


Figure 15. Fiordland, showing major coastal features mentioned in the text.

6.2.1 Milford Sound

History

Boulton's boat-based gang stayed twice 'at Milford Haven... [in] a hut, made by sealers' (Starke 1986: 36-37). The sound is said to have been named by Grono (Hall-Jones 1976: 16) and was described by de Blosseville in 1824 as 'recently discovered' (McNab 1907: 223) suggesting that this base was established during one of Grono's voyages in 1822-23. Begg & Begg (1979: 157-158) placed the location of the hut in the southwest corner of Anita Bay.

Subsequent use of this bay is indicated by Beattie's (1919: 219) account of an attack by sealers on a group of Maori there, apparently in retribution for the 1826 attack on Boulton's gang at Arnott Point (Begg & Begg 1979: 159). Milford Sound also appears to have been used in later periods, as a ship called there in 1873 'to look for some sealing boats which had been out for ten months' (Cumpston 1968: 80).

Archaeology

Surveys of Milford Sound have identified five sites (McGovern-Wilson 1985), all but one in the vicinity of Anita Bay. D40/1 appears to be the locality identified as a hut site by the Begg's. This site is recorded as a bowenite working floor, and is reported to have been used as a garden by the Milford Hotel about the turn of the century and subsequently for a Park Board hut (Coultts 1971: fig. 3). For these reasons archaeological confirmation of its status as a sealing camp is likely to be difficult. Another hut site (D40/8) near the centre of the bay was built in the 1930s (McGovern-Wilson 1985: S112/3).

6.2.2 Sutherland Sound

History

There are no historical references to sealing in this locality, but it is included here on archaeological grounds.

Archaeology

In 1952 Lockerbie (n.d.) excavated a cave (C40/1) in which the floor had been divided into room-like compartments by boulder walls. Midden refuse and adze-cut wood suggest Maori occupation, but Lockerbie concluded that the possibility 'that the shelter structure was the work of sealers could not be ruled out'. This association is clearly no more than conjectural.

6.2.3 Bligh Sound

History

There are no voyaging references to sealing in this locality. It is thought to have been named by Grono (Hall-Jones 1976: 16), but this may indicate no more than that he was pursuing ship-based sealing in the vicinity.

Archaeology

This sound has been surveyed (McGovern-Wilson 1985: 4), but none of the six recorded sites are suggestive of land-based sealing activity.

6.2.4 George Sound

History

The only direct voyaging reference to George Sound is from 1826 when two boat-based gangs, one including John Boulton, were deposited there by *Elizabeth* (Starke 1986: 36). However Boulton's description makes it clear that several huts were already established there (Starke 1986: 49), indicating previous use by shore-based or boat-based gangs. Begg & Begg (1979: 160) suggest that this base was on the north side of the stream draining Lake Katherine at the head of the Sound.

Archaeology

George Sound has been thoroughly surveyed (McGovern-Wilson 1985: 4) and only one site previously recorded. Added as part of this project is a record for the huts reported by Boulton (C41/13). Surface assessment of this site is required.

6.2.5 Looking Glass Bay

History

There are no voyaging references to sealing here, but Boulton's boat-based gang went ashore here briefly to seal or camp (Starke 1986: 50).

Archaeology

There have been no surveys in this bay (McGovern-Wilson 1985: 4), and it seems unlikely that recognisable evidence of the brief activity recorded there could be found.

6.2.6 Caswell Sound

History

There are no voyaging references to sealing here, but the Sound is thought to have been named by Grono (Begg & Begg 1979: 128) or his son-in-law Alexander Brooks (Hall-Jones 1976: 17). Boulton's boat-based gang either camped or took seals on Styles Island at the entrance to the Sound (Starke 1986: 50).

Archaeology

Partial survey (McGovern-Wilson 1985: 4) has identified four sites. A copper stud reported amongst midden at one of these (C41/7) raises the possibility that it might be a sealers' camp.

6.2.7 Nancy Sound

History

There are no historical references to sealing here, but the Sound is thought to have been named by John Grono (Hall-Jones 1976: 16).

Archaeology

There have been no archaeological surveys (McGovern-Wilson 1985: 4).

6.2.8 **Doubtful Sound and Thompson Sound**

History

These two interconnected fiords appear to have been used repeatedly by John Grono. The former is shown on Shortland's map of southern New Zealand as 'Gronows', while the latter was named by him after the owner of two of his vessels (McNab 1907: 109-110). However there are no specific voyaging references to his presence there. It seems likely that his first visit was in either 1805 or 1809, as the above reference to his naming of Thompson Sound was from another vessel apparently engaged in ship-based sealing there in 1809-10. It seems likely that most of Grono's activities there were either ship-based, or utilised a shore base in Doubtful Sound. This is widely reputed to have been at Grono Bay on Secretary Island (Hall-Jones 1976: 15), although I can find no primary evidence to confirm this. Boulton also travelled through Thompson Sound in 1826, and stayed in 'a small harbour at the S. end of the Sound' (Starke 1986: 51) which probably indicates continued use of Grono Bay by boat-based gangs.

Archaeology

There has been little surveying in these sounds (McGovern-Wilson 1985: 4), and only three sites were previously recorded. Added here is a record for Grono Bay (B43/9) based upon historical and recent references. Surface assessment of this site is required.

6.2.9 **Dagg Sound**

History

The only voyaging reference to this fiord is the supposition that it was visited in 1803-04 by William Dagg, captain of one of the first British whale ships to have done some sealing on the New Zealand coast, and after whom it appears to have been named (Richards 1995: 17). His activities were clearly ship-based and are unlikely to be represented in the archaeological record.

Archaeology

The sound has not been systematically surveyed (McGovern-Wilson 1985: 4), and no sites have been reported.

6.2.10 **Coal River**

History

There are no voyaging references to this locality, but Boulton camped there briefly in 1826 and encountered another boat-based gang (Starke 1986: 51).

Archaeology

There has been incomplete survey of this bay (McGovern-Wilson 1985: 4). Two archaeological sites have been reported, but neither appears to be related to sealing.

6.2.11 **Breaksea Sound**

History

The only specific references to sealing activity here are from 1803 when one sealer from a ship-based gang was drowned while trying to land on Breaksea

Island (McNab 1907: 80), and 1946 when *Kekeno* worked an island there (Scadden 1996: 86–87). Boulton's boat-based gang passed through the entrance of this fiord to gain access to the Acheron Passage (Starke 1986: 51), which provides a sheltered northern entrance to Dusky Sound, and other sealers using this route may well have taken seals from the islands at its mouth.

Archaeology

There has been limited surveying in this sound (McGovern-Wilson 1985: 4) and only five sites have been reported. None have disclosed any indications of sealing activity.

6.2.12 Dusky Sound

History

Dusky Sound is the only locality in New Zealand mentioned in relation to voyages commencing prior to 1803, and is suggested for 6 of the 8 known voyages to Fiordland between 1803 and 1807, indicating that it was the major focus of early sealing activity. It was also definitely visited in 1825, 1826, and 1862, by poachers after 1894, and during the 1946 open season. It seems highly likely that numerous other sealing voyages also touched here.

The only place within Dusky Sound to which specific reference has been made in relation to voyaging accounts is Luncheon Cove on Anchor Island, which was the base for the *Britannia* sealing gang of 1792–93. It is probable that Boulton's 1826 reference to a sealing base on 'Iron Island' (using mariner's slang for an anchor) is to the same place (Starke 1986: 52), and in 1899 Richard Henry (n.d.b) recorded the recollections of a sealer who had frequented that place in earlier years. *Kekeno* used it as a base for ship-based sealing in 1946 (Sorensen 1969: 30–42; Grady 1986: 37; Scadden 1996: 88).

Other places in Dusky Sound that have been suggested as potential sealing camps include Henry's (n.d.a) reference to the remains of a sealing camp at Goose Cove and Begg & Begg's (1966: 51–52) suggestion of one at Cascade Cove.

Archaeology

Dusky Sound has been extensively surveyed (McGovern-Wilson 1985; Smith & Gillies 1997, 1998) and 65 archaeological sites have been recorded. Three of these are listed in CINZAS⁵ as 'Sealers' Camps'. For reasons outlined below these are all rejected as sealing sites, and another one definite and five possible sealing sites are added.

Anchor Island—Five sites at Luncheon Cove are associated with sealing. The *Britannia* base has been identified as A44/4 (Fig. 16). Two of the localities suggested for its main house have been excavated and shown to relate to other activities: ship-building, also undertaken by the gang; and a later dwelling (Smith & Gillies 1997). There are numerous other localities around this harbour with surface indications of dwellings, including one large and two small

⁵ Central Index of New Zealand Archaeological Sites. This is an electronic index to information held in the NZAA Site Recording Scheme, maintained by the Department of Conservation.

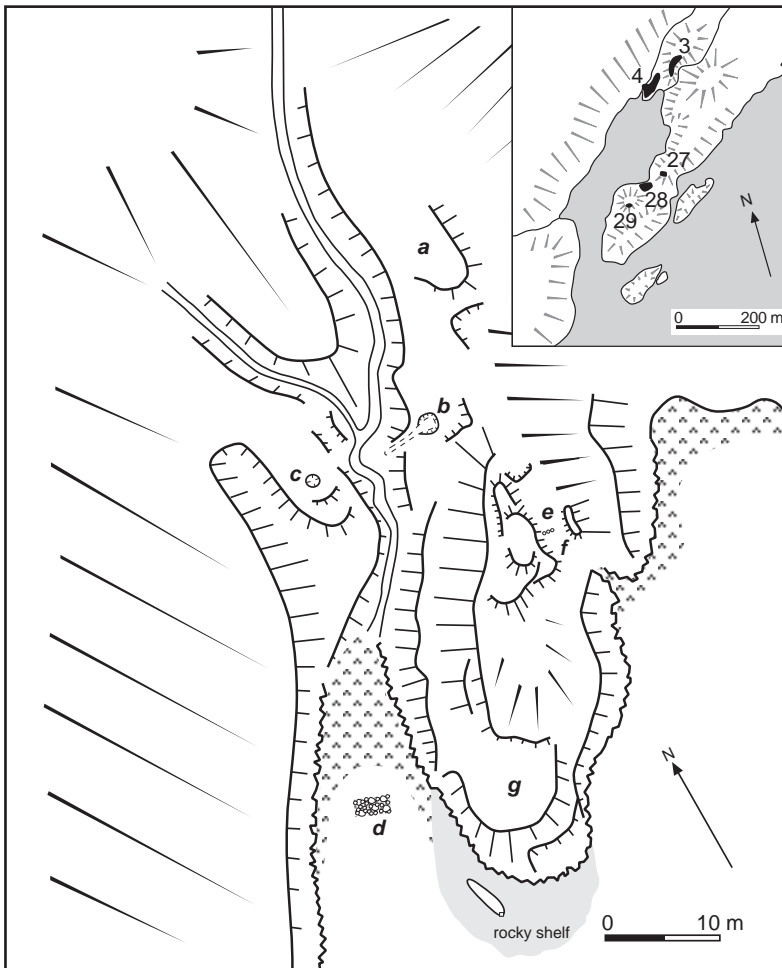


Figure 16. Site of the *Britannia* settlement at Luncheon Cove, Anchor Island (A44/4). Features include: **a**—probable site of *Britannia* gang's house; **b, c**—pits associated with their ship-building activities; **d**—probable keel support structure; **e, f**—collapsed ponga huts; **g**—site of later dwelling. **Inset:** Positions of site A44/4, and four other NZAA sites in the area.

terraces at A44/4, and terraces (some with collapsed ponga huts) at A44/3, 27, 28, and 29 (see Fig. 16, inset). It is likely that further archaeological remains will be discovered there providing information about the first European settlement in New Zealand, and its longest serving and most frequently used haven for sealers.

CINZAS lists A44/15 as a sealers' camp, although the justification for this seems minimal. The record is based upon Coutts (1969: 207) reading of Richard Henry's (n.d.a: 57) description of a 'possible trypot site' 'on an island at the head of the lake on Anchor Island' which I cannot find at the quoted source. This seems a most unlikely place for a sealing site, and no rationale for its association with the industry has been posited. It has never been relocated.

Nook Harbour—A boat run (B44/33) at the southern end of this small harbour in Duck Cove is 'one of the best examples in Dusky Sound' (McGovern-Wilson 1985: S156/58) and was said by

fishermen in the mid 1970s to be an old sealer's boat run. On this basis, however, its association with the sealing industry must be considered conjectural at best.

Cascade Cove—Begg & Begg's report of a sealers' camp and boat run (B45/3) is almost certainly the same location that Henry (1895: 52) described as 'a hut with an iron chimney which may have been 10 or 12 years deserted', suggesting that it probably post-dates the main sealing period. It is not considered here to be a sealing camp.

Goose Cove—A44/14 was recorded on the basis of Henry's (n.d.a: 50, 60) description of an old sealing camp at the south end of Goose Cove. This was probably the hut of William Wheeler, taxidermist, who lived there from the 1870s until 1882 (Begg & Begg 1966: 86; McGovern-Wilson 1985: S156/28). It has not been relocated.

6.2.13 Chalky Inlet

History

Chalky Inlet was sighted during *Endeavour's* pioneering voyage in 1803, and may have been worked the following year by *Contest*, probably pursuing ship-based sealing. More definite references to Chalky Inlet derive from seven voyages, all in the period 1821–30. Five of these are associated with the three shore-based gangs known to have been stationed there between 1821 and 1824,

and the other two appear to have been ship-based sealing in the vicinity in 1829–30. Boulton's boat-based gang also visited there in 1826.

Three specific localities are alluded to in the historical record. The location of huts used by at least one of the shore-based gangs is shown on de Blosseville's chart at the head of Lee Bay, Southport (Begg & Begg 1973: 119, 135). Boulton's boat-based gang stayed in a large dry cave 'at the head of the harbour' (Starke 1986: 54), which Begg & Begg (1979: 165) also place at Southport. Another probable base was in a large cave on the outer shore of Cape Providence, the northern entrance to the inlet. Boulton referred to the cape as 'Cave Point' (Starke 1986: 54), suggesting that it was well known to the sealers; and in 1905 a piece of slate (Fig. 17) was found there, inscribed with messages by crew or gangs from two separate vessels, probably in late 1823 (Begg & Begg 1973: 110–111, 121). Boulton also mentioned a safe harbour at Chalky Island, and here, at Sealers Bay (Begg & Begg 1979: 165), it is said that 'a few sealers lived at one time, cultivating the soil for vegetables' (Begg & Begg 1973: 102).

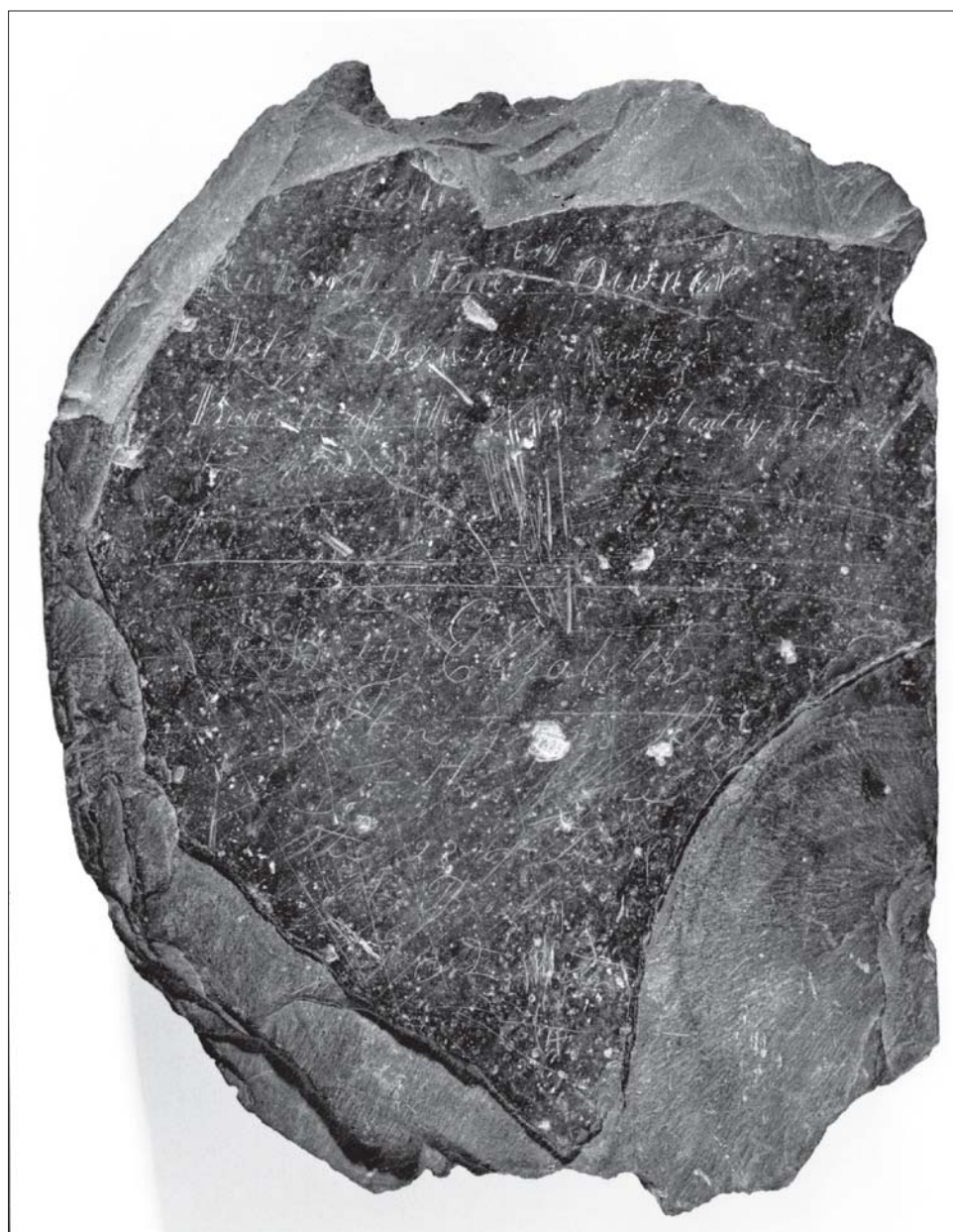


Figure 17. Piece of slate found in Grono's Cave by Harry Roderique in 1905 bearing two messages inscribed in 1822 or 1823. The first, by the master of the *Samuel*, is incomplete and reads 'Lon.../Richard Jones Esq. Owner/John Dawson master/ Beware of the Natives plenty at/ Preservation'. The second, by Grono or one of his crew, reads 'Brig Elizabeth/ John Grono Mas/called at this place/the 23rd December/Brooks/Edward Norton'. *Photo courtesy of Southland Museum and Art Gallery*

Archaeology

Chalky Inlet has been thoroughly surveyed (McGovern-Wilson 1985) and 61 archaeological sites have been recorded. Two of these are listed in CINZAS as sealers' camps, and another 10 are considered here as potential sealing sites. All but one of these sites are clustered around either Southport or Cape Providence.

Cape Providence—Grono's Cave (A45/8) on the outer shore of the Cape is the site in which the inscribed slate was found, and further evidence recovered there (Hall-Jones n.d.) indicates that it can be identified confidently as a repeatedly used sealers' camp. Two caves (A45/1, A45/2) within 200 m to the south of this site have also disclosed evidence suggestive of use during the 19th century and thus should also be considered as possible sealing camps. A rock-shelter (A45/5) about 500 m north of Grono's Cave, is 'streaked with black smoke suggesting that at some time in the past seal fat had been burnt here' (Hall-Jones n.d.: 1), raising the possibility that this could have been a site at which seal blubber was rendered into oil. He also suggested that the headland above this site was an ideal lookout for vessels coming down from Dusky Sound, or round from Chalky Inlet. A fifth site (A45/13) on the inner shore of the Cape has evidence for use during the 1890s in the form of names and a date on the cave ceiling.

South Port—A new site (B45/78) has been recorded at the eastern side of Lee Bay, where de Blosseville's 1824 chart indicates what appear to be three sealers' huts. A later timber mill (B45/48) was located at the western side of this bay, and this or other activity may have obscured evidence of their presence, but further field survey is warranted.

Three of the caves (B45/20, 29, 30) excavated by Coutts (1972) at the northern end of Southport contained European artefacts (Fig. 18), which he interpreted as evidence of contact between Maori occupants of the cave and European seamen. However the subsequent emergence of historical evidence for the use of a cave at Southport by Boulton's boat-based sealing gang makes it likely that at least some of these items derive from their activities, and perhaps those of other sealers. Coutts (1972: 131) noted that similarities in textiles, buttons, and glass artefacts suggested direct connections between the sites, and it is proposed here that all three should be considered as probable sealing camps. In addition two small caves on Garden Island (B45/23, 63) have yielded possible evidence of 19th century occupation and can be considered as potential sealing camps.

Sealers Bay, Chalky Island—The only site recorded in this bay is a cave (B45/9) which appears to have had historic period occupation, and in the light of the historical evidence should be considered as a possible sealing camp.

6.2.14 Preservation Inlet

History

This harbour was also sighted by *Endeavour* in 1803 (McNab 1907: 80), but no sealing appears to have been done there. It may have been one of the 'four new harbours' explored by *Contest* in 1804–05 (Richards 1996: 23), probably for ship-based sealing. The only definite reference during the early phases of sealing is from Bunker's 1808–09 chart, which shows that *Pegasus* anchored there between the Cording Islands and Cuttle Cove, presumably during ship-based sealing (see Fig. 6). Other than one mention in 1822–23, all of the other voyaging refer-

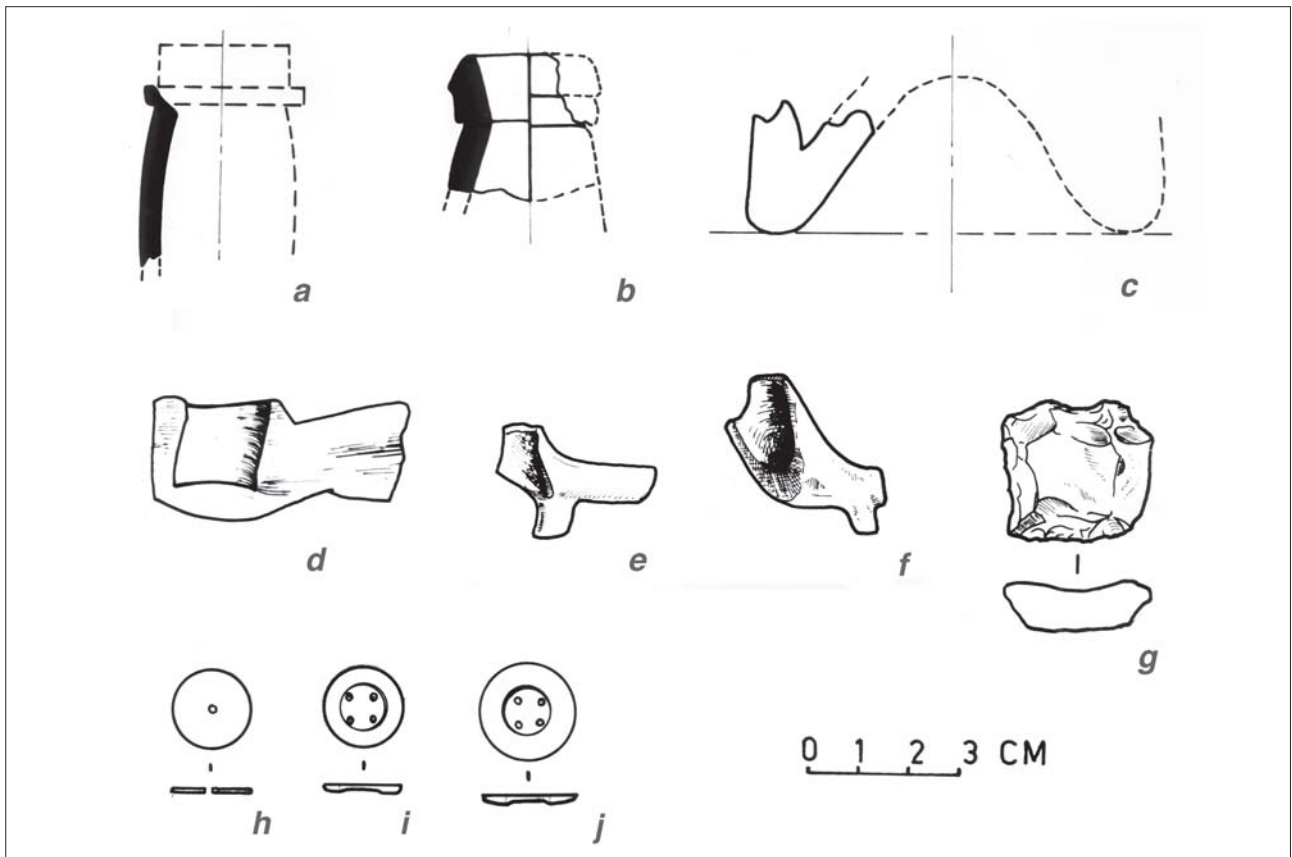


Figure 18. Selected artefacts excavated from the Southport Caves (after Coutts 1972). **a, b, c**—glass bottle fragments; **d, e, f**—pipe fragments of wood (*d*) and clay (*e, f*); **g**—gun flint; **h, i, j**—bone buttons. (*a, b, c*—B45/20; *d, f, g, h, j*—B45/21; *e, i*—B45/11). Reproduced by permission of the Anthropology Department, Otago University, Dunedin.

ences are from the period 1830–36, and relate to ships returning small parcels of skins from the Cuttle Cove whaling station. Ship-based sealing at Gulches Head—the northern entrance to the sound—was undertaken at least twice by *Kekeno* during the 1946 open season (Sorensen 1969: 30–42; Scadden 1996: 86).

Archaeology

Archaeological surveys of Preservation Inlet (McGovern-Wilson 1985) have covered all of its accessible shorelines and identified 73 archaeological sites. For none of these has any association with the sealing industry previously been proposed.

Neither the foregoing review of sealing strategies, nor the historical information summarised above, suggest that this interpretation should change. All of the early sealing appears to have been ship-based, which would leave little or no archaeological trace. Part-time sealing was later undertaken from Cuttle Cove (B45/26), which was first and foremost a whaling station, and it is difficult to see how anything distinctive to the sealing industry could be found there. The sealing undertaken from Cuttle Cove was almost certainly by boat-based gangs, who might have camped for short periods in caves or rock-shelters. Thirty-one of these with evidence of occupation have been recorded in Preservation Inlet, but all except one are within 5 km of Cuttle Cove and, significantly, no closer to the mouth of the sound where the seal colonies

occurred. Furthermore, surface observations of the occupation deposits in these sites have not disclosed artefacts or faunal remains indicative of 19th century occupation, although as suggested earlier ephemeral sealing camps may not have left such remains.

6.3 FOVEAUX STRAIT

The known and probable voyages operating in Foveaux Strait provide much less precise locational data than those in Fiordland. In part this may be because many of the seal colonies initially exploited there are likely to have been on small islets and reefs in the Strait, thus favouring a ship-based strategy. In addition at least some of the shore-based activities in the Strait operated from

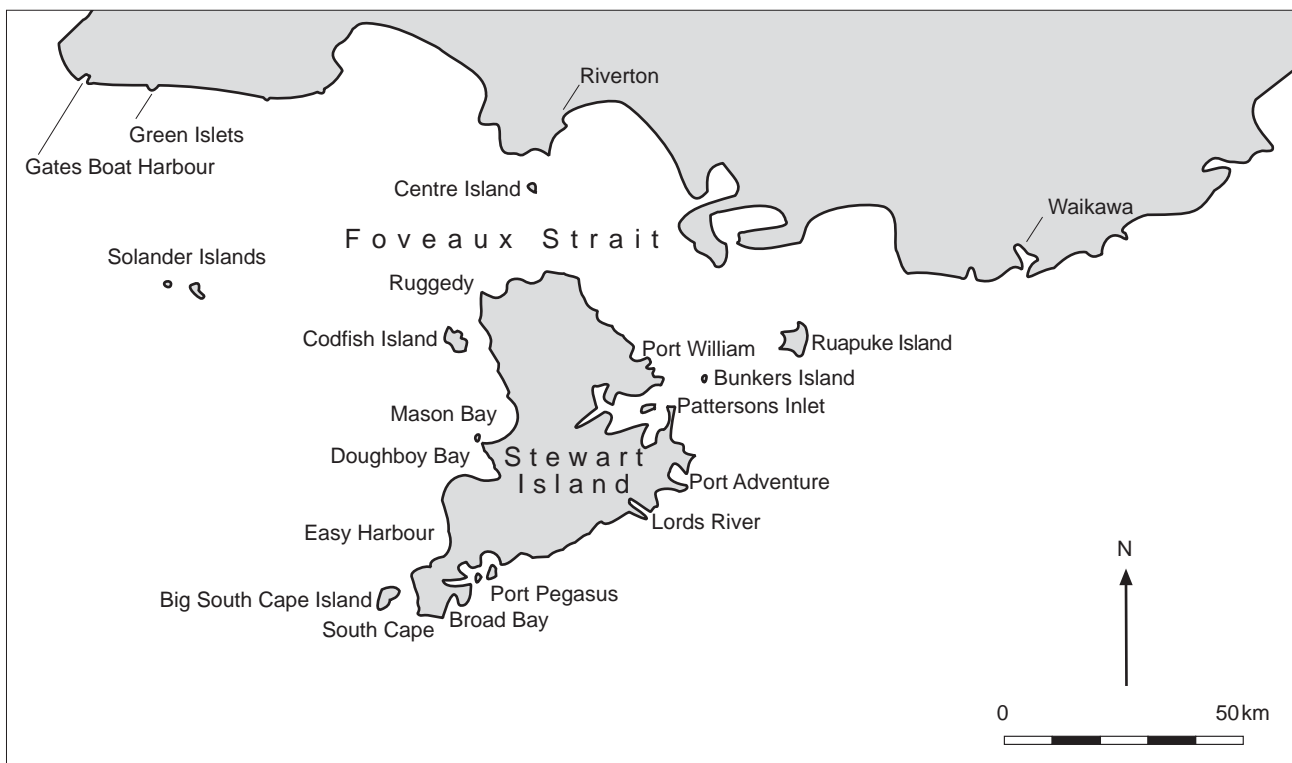


Figure 19. Foveaux Strait and Stewart Island, showing major localities discussed in the text.

the northern shores of Stewart Island, and are considered here as part of the latter area (Fig. 19).

6.3.1 Gates Boat Harbour

History

A gang set down by *General Gates* during August 1821 in Chalky Inlet spent some of its time at Gates Boat Harbour. Soon after encountering the *Snapper* at Chalky Inlet in December 1822 they returned to Gates Boat Harbour to recover their cache of skins (Richards 1995: 33). No further details of their activities there are known.

Archaeology

Of the two sites recorded here (B46/18) is the most likely to relate to sealing. It is a rock-shelter with midden. European materials, some at least relatively recent, occur on the surface.

6.3.2 Solander Islands

History

Because of their prominent position at the western entrance to Foveaux Strait the Solander Islands are mentioned in passing in many voyaging accounts, but only five or six of these describe sealing activities there. The first, *Endeavour* in 1803, was clearly conducting ship-based sealing. *Pegasus* in 1808–09 may also have done this, as ‘many seals’ is inscribed beside the islands on Bunker’s chart (Fig. 6). The remaining voyages relate to the setting down and uplifting of shore-based sealers, at least some of whom were there from 1809 to 1813 (Ross n.d.: 19, 22, 30). A ship-based gang, separated from their vessel on the West Coast, also spent several months on the island in 1809–10 (Kerr n.d.: 32–33).

Other activity there is indicated by Edwin Palmer’s recollection that there were English sealers there in 1826, and that he had been sealing there some time later while he lived at Codfish Island (Hocken n.d.). In 1914 *Antelope* was engaged in ship-based sealing there (Cumpston 1968: 271), as was *Kekeno* in 1946 (Sorensen 1969: 30–42) before returning to set down a gang which camped for part of its stay in ‘Sealer’s Cave’ in East Bay on Big Solander Island (Grady 1986: 37–39; Scadden 1996: 85–86, 88).

Archaeology

The *Kekeno* gang reported that charcoal from earlier occupation of Sealers Cave could be observed in 1946 (Grady 1986: 39), and on these grounds it is recorded here as an archaeological site (B47/1). However they also found that the cave was flooded by heavy seas, which may explain why the only archaeological survey there (Gillies 1985) was unable to locate any evidence of 19th century occupation. This survey also tested two rock-shelters in East Bay (B47/2, 3) and found charcoal stained soil, although no convincing evidence of the age of occupation. It is possible that caves and rock-shelters elsewhere on both of the islands in the group have evidence of occupation. The Southland Museum and Art Gallery has a small sealskin purse (Fig. 20) from Solander Island, although its precise origins and associations are not known.



Figure 20. Sealskin purse with brass button, reputed to have been found on Solander Island. Photo courtesy of Southland Museum and Art Gallery

6.3.3 Ruapuke Island

History

Bunker's chart shows seals in the vicinity of Ruapuke (see Fig. 6), suggesting that *Pegasus* may have conducted ship-based sealing in the vicinity. The only confirmed voyaging account is also of this type; during *Snapper's* 1823 visit 'one boat was almost always employed in seal hunting, and a good number were always killed' (McNab 1907: 204). Boulton visited Ruapuke several times during 1827, and reported at least two Europeans (probably deserted sealers) there (Starke 1986: 86), but gives no indication that they were engaged in the trade.

Archaeology

Twelve sites have been recorded on Ruapuke, of which at least five have evidence of early historic occupation (Cutts & Jurisich 1972), although which of these were visited by sealers in the 1820s is not clear. What is clear is that these were Maori hamlets, rather than sealing sites.

6.3.4 Waikawa

History

In late 1809 the *Sydney Cove* set down a gang at 'Molyneux's Straits', evidently meaning Foveaux Strait (Howard 1940: 36). Richards (1995: 20) suggests that this may have been at Waikawa Harbour, although neither confirmation of that nor more precise locational data is available.

Archaeology

Some 30 sites have been recorded around the harbour (Teal 1976). At least six of these show evidence of 19th century activity, but these can be attributed to the whaling and timber milling known to have taken place there.

6.3.5 Other localities

History

Other places at which ship-based activity probably took place may be inferred from Bunker's chart (see Fig. 6) which shows that he anchored in the vicinity of Green Islets and Riverton on the south coast. The chart also shows 'seals' in the vicinity of Centre Island and two islands in the vicinity of Ruapuke. Bunker's Island is named on Edwardson's 1823 chart of Foveaux Strait (Begg & Begg 1973: 140). None of this activity would be expected to leave an archaeological record.

6.4 STEWART ISLAND

The number of specific localities recorded for Stewart Island is similar to that for Fiordland, although for many of these the number of recorded visits is small and detail of activities limited (see Fig. 19).

6.4.1 Codfish Island

History

There are only two sealing voyage accounts referring directly to this island, although other evidence makes it clear that it was utilised more frequently. The earliest reference is on Bunker's 1808 chart, which shows that *Pegasus* anchored there in Sealers Bay (see Fig. 6), and subsequent evidence indicates that a shore-based gang was landed and at that time the place was known as Pegasus Island (Ross n.d.: 20; Richards 1982: 25, 1995: 19). *Pegasus* replaced this gang on a second voyage the following year, returning later in the same voyage to collect them (Richards 1982: 26).

Edwardson's 1823 sketch plan of the anchorage at 'Codfish Island' (Begg & Begg 1973: 142) shows 'sealers' huts' towards the western end of Sealers Bay and, considering the time elapsed since the *Pegasus* gangs were there, it seems likely that there had been subsequent shore-based activity there. As noted above (section 5.2.4) a resident community was established by sealers here about 1825, although Boulton's observations suggest that most of the men were living with their Maori wives at Mason's Bay in 1827-28 (Starke 1986: 94). The more substantial community established there soon afterwards persisted through to about 1850 (Howard 1940: 66), although it seems unlikely that much sealing was undertaken from there after about 1830.

Archaeology

Two sites are reported from Sealers Bay. D48/5, at the western end of the bay was recorded from literature as the location of a resident community established c. 1825, and coincides with the position of the huts in Edwardson's chart. D48/21 near the eastern end of the beach has yielded a midden and ovens along with clay pipe fragments and barrel hoops, and thus is potentially of similar age.

6.4.2 Mason's Harbour

History

Located at the southern end of Mason Bay, in the lee of the Ernest Islands, this harbour is said to have been named after Robert Mason, mate of the *Pegasus* on its voyage in 1808-09 (Begg & Begg 1979: 207), suggesting that this ship may have called there. It was visited briefly by *Gurnet* in 1827 (Starke 1986: 91), but only to deliver Boulton to a Maori village there, rather than for sealing, and it is recalled elsewhere as 'a known heavedown for sealers in easterly weather' (Anderson n.d.). Although Howard (1940: 37) proposed it as a suitable locale for shore-based operations, there is at present little evidence that this took place.

Archaeology

Fourteen sites have been recorded in Mason Bay, including one (D49/28) which is almost certainly the village visited by Boulton. This has recently been excavated (Anderson pers. comm.). Neither this, nor any of the remaining sites can be considered to be sealing sites.

6.4.3 Doughboy Bay

History

There are no historical references to sealing activity here, but Howard (1940: 36) suggested it as a possible location for shore-based gangs.

Archaeology

A cave site (D49/3) was recorded as a 'sealers' base' on the basis of hearsay. No evidence of historic occupation has been located there, but it is reputed that a more recent regular inhabitant of the cave systematically scraped off all the sealers' graffiti 'because he couldn't bear the thought that other people had been there before him' (NZAA Site Record Form D49/3).

6.4.4 Easy Harbour

History

There are only two direct voyaging references to sealing at Easy Harbour. In 1826 *Alligator* was reported leaving Port Pegasus for sealing there, and in 1830 *Industry* was wrecked in a gale there. However it is clear that there had been earlier activity. A sealing gang is known to have been located there in 1809 (Howard 1940: 36), and de Blosseville recorded that an English sealer had escaped from Maori by hiding in a cave on Kackakow (Mokinui or Big Moggy) Island, just off Easy Harbour (McNab 1907: 206), and Palmer related a similar story involving a Scotsman, a Tasmanian woman, and her son (Hocken n.d.). These stories may relate to one of the *General Gates* gangs. Palmer also suggests that he went sealing on 'Cundy's' (Kundy) Island immediately north of Easy Harbour.

Archaeology

No sites have been recorded in the vicinity of Easy Harbour, and it appears that no surveys have been undertaken there. Both the shores of the harbour and its outlying islands have archaeological potential, and remnants of the *Industry* wreck may also survive.

6.4.5 'South Cape'

History

At the outset of the sealing period the whole southern end of New Zealand was referred to as 'South Cape', and even after the discovery of Foveaux Strait both this term and 'South Cape Island' continued to be applied generally to Stewart Island, making precise attribution of place difficult. Of the eight direct voyaging references that have been recorded, three are almost certainly to places elsewhere on the island, and this is almost certainly the case for one or two of the shore-based gangs said to have been landed there. The voyages about which there is reasonable certainty, and the shore-based gangs with which they were associated, derive from the periods 1809-10 and 1819-24. Palmer's recollections (Hocken n.d.) indicate that there was also boat-based sealing in the vicinity in 1826-27, although this might have been by a gang based in Port Pegasus.

There is limited evidence for exactly where the shore-based gangs may have been situated. The earliest, in mid 1809, was landed 'on the island off the South Cape' (Richards 1982: 25) which is probably Big South Cape Island. Murderer's

Cove on this island is likely to have been the base for at least one of the shore parties, as it is reputedly the scene of the massacre of a sealing gang, although this or another attack may have taken place at 'Yankee Boat Harbour', on the Stewart Island coast opposite (Howard 1940: 38, 125; Richards 1995: 33). Both these localities, and perhaps others in the vicinity have the potential to yield surviving archaeological evidence.

Archaeology

There has been no systematic archaeological survey of the South Cape area and its outlying islands, and the only recorded site is a findspot of prehistoric artefacts on Big South Cape Island. While there is clearly potential for the discovery of sealing sites in this area, it is likely to be difficult to distinguish them from sites of both earlier and more recent Maori activity there.

6.4.6 Broad Bay

History

There are no historical references to sealing activity here, but Howard (1940: 36) suggested it as a possible location for shore-based gangs.

Archaeology

Partial survey (Williams 1982) has identified five sites, including two rock shelters (D50/8, D50/9) with indications of European occupation. However these appear to be more recent than the sealing era, and they are not considered here as sealing sites.

6.4.7 Port Pegasus

History

Port Pegasus ranks alongside Dusky Sound as one of the earliest and most frequently visited sealing harbours. Known initially as 'Port South' or 'Southern Port' its attraction seems to have been at least in part as a sheltered port for 'wooding and watering' *en route* to or from the subantarctic islands. Twelve voyages appear to have undertaken some sealing there. Two voyages in 1804-05 relate to the setting down and uplifting of O.F. Smith's boat-based gang, and the vessel from which the harbour takes its name appears to have been engaged in ship-based sealing there in 1809. The remaining visits were all between 1823 and 1829, and most appear to have been for ship-based sealing, but one shore-based gang was there in 1826-27. Boulton's boat-based gang also visited there in 1827, and the shipbuilders resident from 1826 to 1833 also appear to have done some sealing. There is no precise historical information about where any of these gangs based there operations.

Archaeology

All of the shores of Port Pegasus have been surveyed for archaeological sites (Cave 1980; Williams 1982) and 33 have been recorded. These include D49/17 which has been identified through archaeological investigation as the location of William Stewart's shipbuilding settlement (McGovern-Wilson & Bristow 1994), from which some part-time sealing was undertaken. Of the remaining sites known around the harbour, three (D49/18, D49/19, D50/5) consisting of clusters of hut terraces seem the most likely candidates for sealing camps.

6.4.8 Lords River

History

There are no direct voyaging references to this harbour. It is shown on Smith's 1804 sketch of Stewart Island as 'Port S.E.', and was presumably named after Simeon Lord, owner of several sealing vessels, probably by Bunker or Stewart in 1808-09, although perhaps by Grono (Begg & Begg 1979: 128). There is nothing to indicate anything other than ship-based sealing here.

Archaeology

Archaeological sites were recorded here in 1979 (Cave 1980), but none are suggestive of sealing activity.

6.4.9 Port Adventure

History

There are no direct voyaging references to this harbour, although inferences have been drawn from its names. Smith's 1804 sketch shows it as 'Port Honduras' prompting speculation that *Honduras* was stationed there at the time, and from what is known of its movements in 1804-05 it could well have been engaged in ship-based sealing there (Ross 1987: 25-37). It is presumed that the modern name is after *Adventure* which was sealing in Foveaux Strait in early 1809 (Richards 1995: 19), and may also have operated from there.

Archaeology

Port Adventure was surveyed in 1979 (Cave 1980) and six sites have been recorded there. None of these are suggestive of sealing activity.

6.4.10 Pattersons Inlet

History

Smith named this 'Port N.W.' in 1804, and Bunker's chart showed that *Pegasus* anchored in two different locations there in 1808-09 (see Fig. 6), probably during ship-based sealing operations. It has been suggested that the absence of this prominent harbour from all other charts up to 1834 may indicate that it was not frequented by sealers (Howard 1940: 340-341).

Archaeology

None of the 36 sites recorded on the shores or islands of Patterson's Inlet is suggestive of activity by sealers.

6.4.11 Port William

History

There are seven voyaging accounts relating to this harbour which appears to have been one of the major bases for early sealing operations in Foveaux Strait. Bunker's chart shows that *Pegasus* anchored there in 1808-09 (see Fig. 6). Three voyages relate to the setting down, provisioning and uplifting of a shore-based gang in 1809-11, and another two vessels may have undertaken ship-based sealing from there in 1823.

This record almost certainly underestimates the extent of shore-based activity there. Edwardson's 1823 chart shows the location of a 'house where the boy

Eben' Denton was killed' (Begg & Begg 1973: 145). Denton [or Deaton as in Richards 1995: 33] was a member of a gang set down by *General Gates* at 'South Cape' in 1821. Boulton also visited there in 1827, finding a cask of flour belonging 'to some sealers or other' (Starke 1986: 67).

Archaeology

Two contact-period villages are recorded in Port William, Potirepo (E48/6) at the northern end of the beach and Maori Beach (E48/1). Neither is shown on Edwardson's chart, so presumably were not in use in 1823, although the shore-based gang in 1809–11 appear to have lived with a Maori community (Anderson 1998: 65) which may have occupied one of these localities. The position of the house shown on Edwardson's chart appears to be at or close to the location of E48/1, so in this case use by sealers can be confirmed.

6.4.12 Other localities

History

Other places on Stewart Island suggested by Howard (1940: 36) as potential locations of shore-based stations include Bungaree, Murray River, Christmas Village, Lucky Beach, and Ruggedy, all along the northern coast. Of these only Ruggedy is mentioned in the voyaging accounts, as a possible destination for men deserting from the *Brothers* sealing gangs and as 'something of a meeting place for sealers' (Entwhistle 1998: 31–32, 178).

Archaeology

Archaeological sites have been recorded at all of these places, but appear to be either pre-European or later historic settlements.

6.5 OTAGO

Most of the recorded voyages by sealing vessels to Otago appear to represent port visits to acquire provisions. There are only two definite and four possible instances of sealing. Of the latter, the earliest is *Unity* in early 1809. Entwhistle (1998: 21–23) has argued that this was the first vessel to enter 'Port Daniel' (Otago Harbour) and that it may have been sealing on the coast, but there is no confirmation of this. Later possibilities include *Wellington* and *Samuel* in 1823, and *Gurnet* in 1827, although in none of these cases is there any clear indication that they took seals on the Otago coast. However seals were still present, at least on the South Otago coast, as Palmer reported that in 1826 he went by open boat from Ruapuke to Taieri Heads and back 'sealing all the way down' (Hocken n.d.). In the 1946 open season 11 seal skins were taken on the Catlins coast (Sorensen 1969: 26).

6.5.1 'Isle of Wight' and 'Ragged Rock'

History

In November 1809 *Brothers* landed 8 men on the 'Isle of Wight' and three on 'Ragged Rock' just south of Port Daniel. It has generally been presumed that the former is White Island (e.g. Salmond 1997: 521), but Entwhistle (1998: 21, 29)

has argued that it is more likely that the 'Isle of Wight' was Green Island and 'Ragged Rocks' the modern White Island. Both gangs had abandoned these stations before their ship returned for them.

Archaeology

There is an 'unconfirmed report of midden remains possibly associated with early sealers' on White Island (NZAA Site Record Form: I44/113), but this appears to have been recorded from literature rather than field observation. No survey appears to have been conducted on Green Island. While potential for archaeological remains cannot be ruled out, the small size and storm-swept nature of both these islands suggest that it is not likely.

6.6 OTHER REGIONS

6.6.1 Canterbury

History

There are four known visits by sealing vessels to Banks Peninsula, but none of these involved sealing there. Indeed, the earliest investigation suggests that there were no seals there. The master of *Pegasus*, S.R. Chace, reported that in late 1809 'we then surveyed Banks Island, it joins to the main ... We found no seals' (Richards 1982: 26). The following year Robert Mason, in *Brothers*, sailed south from Cook Strait 'examining the coast all the way along to Banks Island where I anchored one night' (Enwhistle 1998: 145). McDonald (n.d.: 4573) reported that while serving on *Governor Bligh*, probably in 1815-16, two weeks were spent in a harbour on 'Banks Island' trading for potatoes and mats. *Antarctic's* unsuccessful search for seals in New Zealand during 1830 included a visit to Port Cooper (Ross n.d.: 62).

6.6.2 Cook Strait

History

At least eight sealing vessels are reported in or around Cook Strait, and it is likely that many more passed through it. However none of these provide any evidence of sealing there. In 1809 *Pegasus* 'discovered several small islands but no seals on them' (Richards 1982: 26) as did *Brothers* in 1810 (Enwhistle 1998: 145). Most of the remaining visits appear to have been for provisioning, repairs, or simply passing through the strait. In 1829 the sealer *Hunter* was wrecked on Kapiti Island *en route* to the sealing grounds (Ross n.d.: 64). There is one report of seal skins arriving in Sydney from Te Awaiti, on *Waterloo* in 1832 (Ross n.d.: 82), but it seems likely that these were taken by gangs working along the west coast.

This evidence contrasts with Sherrin's (1886: 235) report that seals 'were found in Cook Strait at an early period in immense numbers' and Heaphy's (1863: 175) assertion that sealers had visited the Brothers Islands. Neither author provides any supporting evidence. It is also noteworthy that during all Cook's visits to Queen Charlotte Sound between 1773 and 1777 he reported only one sea lion and made no mention of fur seals (Smith 1985: 437-438).

6.6.3 North Island

History

The available evidence suggests that there were no successful sealing voyages to the North Island. There are two recorded attempts to find seals. In 1810 *Brothers* 'went to the islands near Cape Egmont & did not get seals there' (Entwhistle 1998: 145) and in 1826 *Sally* 'stood for Taranaki close to Sugar loaves. Then first landed to get pigs for muskets. Then went north for seals but found none' (Hocken n.d.). That both these vessels looked for seals on the Sugarloaf Islands might suggest that others had found them there, but there is no existing evidence that this was the case. It has been reported elsewhere (Molloy n.d.: 14) that *Star* was sealing at Mercury Bay on the Coromandel. However its cargo of skins was almost certainly taken at the Chatham Islands before visiting the New Zealand coast (Ross n.d.: 23).

7. Discussion

Four factors need to be considered in developing a management strategy for historic places of the European sealing industry:

- Accurate definition of place
- Appropriate representation of variation within the industry
- Potential threats to their heritage values
- Opportunities for their interpretation

These are discussed below, and specific management recommendations are outlined in Appendix 4.

7.1 DEFINITION OF PLACE

Some of the localities considered above should be discounted as historic places of the European sealing industry. Although the North Island, Marlborough Sounds, Canterbury, and Otago Harbour were sometimes visited by sealing vessels, there is no convincing evidence that the industry was ever pursued there. At a more specific level, several sites previously attributed to the activities of sealers in Dusky Sound appear to have alternative, more recent explanations. The same is probably the case for most of the beaches along the north coast of Stewart Island (section 6.4.10).

There are 30 localities for which land-based sealing activity can be suggested. These vary considerably in terms of the precision with which the location of the activities can be defined (see Table 5 and Fig. 21, next pages). There are 12 places for which the historical evidence provides reasonably precise locational information. At least half of these (group 1) have already been confirmed by archaeological observations. In each case one (or more) specific archaeological sites have already been identified, and others with untested potential located, indicating that they are best considered as **historic areas**. These must be considered the premier historic places of the industry, and managed accordingly. The localities in group 2 have equally precise historical data on location, but await proper archaeological assessment at the conjectured sites. Further investigation by survey and/or test excavation is clearly a priority.

For most of the remaining places the historical data provides only a general indication of the location of sealing activities. For nine of these (group 3) one or more archaeological sites have been proposed as a possible specific location. Further investigation of these may provide confirmation of this possibility. A similar situation obtains for one archaeological site (group 4) which has conjectured sealing associations but no direct historical data. Further investigation of this unusual site should be considered a priority.

There are also six known or probable sealing localities (group 5) which have not yet been surveyed to determine the presence of specific sealing-related archaeological sites. Of these, the Kahurangi-Wekakura, Easy Harbour, and South Cape areas would appear to be particularly promising. Another four

localities (group 6) have been partially or completely surveyed, but none of the recorded sites are suggestive of association with the sealing industry. While this may be due to inadequacies in the archaeological surveys, or the loss of sites through erosion, it is perhaps more likely to reflect the ephemeral nature of the sealing activities in these places. The best recognition of these localities is an acknowledgement of the generalised, or putative association with sealing in the presentation of heritage information concerning the place.

TABLE 5. LAND-BASED SEALING LOCALITIES GROUPED BY QUALITY OF LOCATIONAL DATA.

LOCALITY	SITES CONFIRMED	SITES CONJECTURED
1. Precise historical data, confirmed by archaeological observation		
Open Bay Islands	F37/18, **	F37/20
Luncheon Cove	A44/4	A44/3, 27, 28, 29
Cape Providence	A45/8	A45/1, 2, 5, 13
Southport—Caves	B45/11, 20, 21	B45/23, 63
Solander Is	B47/1	B47/2, 3
Sealers Bay, Codfish Is	D48/5	D48/21
2. Precise historical data, further archaeological assessment required		
Arnott Point		F36/**
Anita Bay, Milford Sound		D40/1
Head of George Sound		C41/13
Grono Bay, Doubtful Sound		B43/9
Southport—Huts		B45/78
Port William—Denton's Hut		E48/1
3. Generalised historical data, conjectured archaeological associations		
Cape Foulwind		K29/1
Caswell Sound		C41/7
Nook Harbour		B44/33
Sealers Bay, Chalky Is		B45/9
Gates Boat Harbour		B46/18
Doughboy Bay		D49/3
Port Pegasus		D49/18, 19, D50/5
Port William—Murray's Camp		E48/1 or 6
White Island		I44/113
4. No historical data, conjectured archaeological associations		
Sutherland Sound		C40/1
5. Generalised historical data, no archaeological survey yet undertaken		
Kahurangi-Wekakura		
'Arnott' River		
Looking Glass Bay		
Easy Harbour and adjacent islands		
South Cape and adjacent islands		
Green Island		
6. Generalised historical data, surveyed but no likely sites located		
Cascade Beach		
Coal River		
Waikawa		
Broad Bay, Stewart Is		

** Sites with sheet numbers followed by /** indicate newly submitted records that have not yet been allocated numbers.

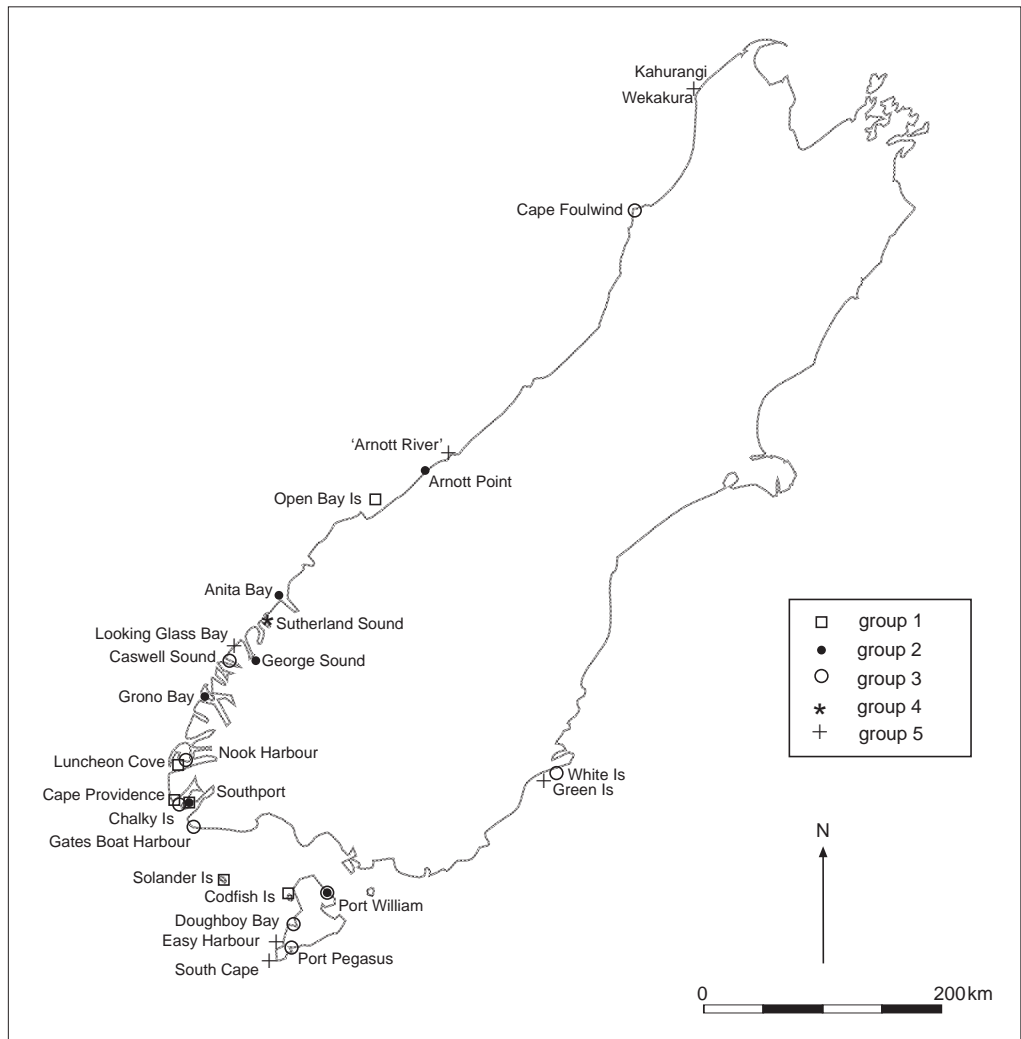


Figure 21. Historic places of the New Zealand sealing industry. Groups 1 to 5 are defined in the text (under section 7.1) and listed in Appendix 4.

A final group of localities can be more or less securely identified with sealing, but, on present evidence, the activities there seem to have been ship-based rather than shore-based, and it is highly unlikely that any physical evidence of them will have survived. These include Bligh, Nancy, Dagg, and Breaksea Sounds, Ruapuke Island, Masons Harbour, Lords River, Port Adventure, and Pattersons Inlet. For all but three of these (Breaksea, Ruapuke, Patterson's) their connection with sealing is celebrated through their place-names, which were either bestowed by or commemorate sealers. Any attempts to change these place-names should be resisted, and their associations with sealing should be highlighted in the presentation of heritage information.

7.2 REPRESENTATION OF VARIATION

The six proposed **historic areas** (group 1) encompass a broad-ranging sample of potential variation in site type, chronology and land-based sealing activity (Table 6). Significant features of this are summarised briefly below.

TABLE 6. SITE TYPES AND TEMPORAL OCCURRENCE OF LAND-BASED ACTIVITIES AT SEALING LOCALITIES.

GROUP LOCALITY	TYPE	1792-1802	1803-07	1808-12	1813-22	1823-29	1830-39	1840-71	1872-94	1895-1913	1914-46
1. Luncheon Cove	Huts +	S	?	?	?	B	?	?	?		
Open Bay Islands	Huts			S	?	B					
Sealers Bay, Codfish Is	Huts			S		S/R	R	R			
Solander Is	Caves			S		S					?
Cape Providence	Caves +				?	S					
Southport—Caves	Caves					B					
2. Grono Bay, Doubtful Sound	?huts			?	?	B					
Southport—Huts	Huts				S						
Port William—Denton's Hut	Hut				S						
Head of George Sound	Huts				?	B					
Anita Bay, Milford Sound	Hut					B					
Arnot Point	Cave					B					
3. Port William—Murray's Camp	?huts			S							
White Island	?open			S							
Gates Boat Harbour	?cave				S						
Port Pegasus	?huts					S/B					
Cape Foulwind	?huts						S	S			
5. South Cape	no data			S							
Easy Harbour	no data			S							
Green Island	no data			S							
Wekakura-Kahurangi	no data						S				

Notes: + = and other site components, S = Shore-based gang, B = Boat-based gang, R = Resident sealers, ? = land-based activity suspected

Luncheon Cove is the earliest sealing place in New Zealand. It was the only place from which land-based sealing was undertaken in the 18th century, and was undoubtedly the most frequently used haven for shore-, boat-, and ship-based gangs throughout the entire course of the industry. It has also been used extensively by other maritime industries, so it is not necessarily the case that all physical features there derive from the activities of sealers. Archaeological features that can be confidently identified with sealing include dwelling structures and remains of industrial activities undertaken by sealers as an adjunct to their primary pursuit. This is the only 'open-air' sealing locality at which archaeological excavations have been undertaken. Although this showed very poor survival of organic remains, it illustrated that valuable information about aspects of sealer's activity can still be recovered, and that further sealing-related archaeological remains are likely to be present at Luncheon Cove.

The **Open Bay Islands** were home to one of the longest-serving marooned shore-based gangs, as well as later boat-based gangs. There appear to be at least two, and possibly three huts there, including what is possibly the only stone dwelling constructed by sealers. It is likely that archaeological remains there have suffered less disturbance than at most other sealing sites. For this reason they may provide the best opportunity for future research-oriented archaeological investigation.

Sealers Bay, Codfish Island was also a base for early shore-based gangs, but its major significance is as the location of the only substantial resident-sealing settlement in New Zealand. The condition of archaeological remains there has not been properly assessed, but it seems likely that further investigations there would be productive.

Solander Island was used by shore-based gangs not only in the first quarter of the 19th century, but also during the final open season of the industry and probably at unrecorded times in between. Recent archaeological assessment of the best-known site on the island suggests that no physical evidence survives, although this is not the case for two other recorded sites, and the possibility of other sites there has not yet been tested.

Cape Providence may provide one of the most complete 'sealing landscapes'. There is at least one cave that was used by shore-based gangs, a possible oil-rendering site and probable lookout. Test excavations have shown that there is archaeological evidence of occupation by sealers, as well as earlier Maori. Further archaeological investigation is likely to produce valuable information about both phases of occupation.

The **Southport caves** were used by boat-based gangs in the mid 1820s. They are the only caves used by sealers to have seen substantial archaeological excavation. This demonstrated the richness of the archaeological record of both sealer and earlier Maori occupation that can be recovered from cave sites. The extent of previous excavations suggests that there is only limited potential for further archaeological investigation.

There are two main weaknesses in the representation of the sealing industry provided by this group of localities. On a regional basis, the northern part of Fiordland, Westland, Stewart Island, and Otago regions are poorly represented in this sample. In chronological terms it does not include any places with confirmed activity during the 1813–22 period, and post-1830 sealing is represented only at Codfish Island, which is probably atypical. These deficiencies can be addressed, in the main, by prioritising further investigation at group 2–6 localities.

7.3 THREATS TO HERITAGE VALUES

By their very nature most localities associated with the sealing industry are remote, and few are likely to be threatened by development. Fossicking has been in the past, and will continue to be, the major threat to the archaeological integrity of these localities. The premier historic areas in frequently used harbours such as Luncheon Cove and Southport are probably at greatest risk,

but all of the group 1 localities should be monitored regularly to detect fossicking, and mitigative action taken when it occurs. This may take the form of recording what is possible from disturbed archaeological deposits, or where the deposits are under serious threat, organising salvage excavation. A similar monitoring regime should be instituted at group 2 localities, but cannot be considered a high priority for localities in the remaining categories.

Almost all of the places identified in this study have amenity values independent of their association with the sealing industry, principally because of their natural heritage status or associations with other historical events. In most situations this is likely to enhance site protection, but the possibility that these other values might conflict with preservation of sealing heritage cannot be ignored. In view of the very small number of places that can be confidently associated with the sealing industry, it is proposed that consideration of this aspect of heritage should take precedence over other amenity values.

7.4 OPPORTUNITIES FOR INTERPRETATION

Remote location limits the potential for on-site interpretation of sealing sites to a wide audience. The greatest opportunities would seem to exist at four of the Group 1 and 2 localities. Grono Bay is well located to take advantage of existing tourist traffic in Doubtful Sound, and the Denton's Hut site at Port William is right on a major Stewart Island walking track. As already noted the harbours at Luncheon Cove and Southport are well-frequented. In these, and any other cases, careful consideration needs to be given to balancing the positive value of interpretation against the increased threat to site integrity that it might encourage in these remote localities.

8. Conclusion

The sealing industry brought a significant number of both temporary and permanent residents to New Zealand shores in the late 18th and early 19th centuries. With only a few exceptions, the places where these sealers operated and lived have not been well known. Detailed analysis of both historical and archaeological information has been employed to redress this. Careful examination of the available data shows that only six specific historic places associated with this industry can be identified with certainty, while another six can probably be added after further archaeological examination. A further 18 localities have less certain or precisely locatable associations with the sealing industry. Recommendations for heritage management have been prioritised to reflect the significance of the small number of places that can be confidently related to this industry.

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10. References

- Allan, R.M. 1965: Nelson: A history of early settlement. A.H. and A.W. Reed, Wellington.
- Anderson A.J. 1998: The welcome of strangers: an ethnohistory of southern Maori 1650-1850. Otago University Press, Dunedin.
- Anderson, J.C. n.d.: Placenames Card Index. Alexander Turnbull Library, Wellington.
- Bathgate, M.A. 1969: Maori river and ocean going craft in southern New Zealand. *Journal of the Polynesian Society* 78 (3): 344-377.
- Beattie, H. 1919: Traditions and legends collected from the natives of Murihiku. *Journal of the Polynesian Society* 28: 212-225.
- Begg, A.C.; Begg, N.C. 1966: Dusky Bay. Whitcombe and Tombs, Christchurch.
- Begg, A.C.; Begg, N.C. 1973: Port Preservation. Whitcombe and Tombs, Christchurch.
- Begg, A.C.; Begg, N.C. 1979: The world of John Boulton. Whitcoulls, Christchurch.
- Bowden, K.M. 1964: Captain James Kelly of Hobart Town. Melbourne University Press, Melbourne.
- Bradshaw, C.J.A. 1999: Population dynamics and colonisation modelling of New Zealand fur seals. Unpublished PhD Thesis, University of Otago, Dunedin.
- Brunner, T. 1959: Journal of an expedition to explore the interior of the middle island, New Zealand, 1846-48. Pp. 257-320 in Taylor, N.M. (Ed.) Early travellers in New Zealand. Oxford University Press, London.
- Burrows, C.J. 1972: The flora and vegetation of Open Bay Islands. *Journal of the Royal Society, New Zealand* 2(1): 15-42.
- Busch, B.C. 1985: The war against the seals: A history of the North American seal fishery. McGill-Queen's University Press, Kingston Ont.
- Campbell, M. 1994: Excavation at Wellers Rock try-works, Otakou whaling station, Otago Harbour, New Zealand. *New Zealand Journal of Archaeology* 16: 33-53.
- Carrick, R. (Ed.) 1903: Historical records of New Zealand South prior to 1940. Otago Daily Times and Witness Newspapers, Dunedin.
- Carrick, R. n.d.: Carrick papers: Stewart Island, outlying islands, whaling and sealing. Ms-Papers-0017-21, Alexander Turnbull Library, Wellington.
- Cassidy St Clair, C.; St Clair, R. 1990: Evidence of sealers on Open Bay Island, South Westland. *Archaeology in New Zealand* 33(2): 100-103.

- Cave, J.B.J. 1980: The southern inlets of Stewart Island: Port Adventure, Lords River and Port Pegasus archaeological site survey. *Southland Museum Publication 1980/1*, Invercargill.
- Chapman, F.R. 1893: Notes on the depletion of the fur seal in southern seas. *Canadian Record of Science 1893*: 446-459.
- Coutts, P.J.F. 1969: Archaeology in Fiordland, New Zealand. *New Zealand Archaeological Association Newsletter 12(3)*: 117-123
- Coutts, P.J.F. 1971: Greenstone: the prehistoric exploitation of bowenite from Anita Bay, Milford Sound. *Journal of the Polynesian Society 80(1)*: 42-73.
- Coutts, P.J.F. 1972: The emergence of the Foveaux Straits Maori from prehistory: a study of culture contact. Unpublished PhD thesis, University of Otago, Dunedin.
- Coutts, P.J.F.; Jurisich, M. 1972: The results of an archaeological survey on Ruapuke Island. Anthropology Department, University of Otago, Dunedin.
- Crawley, M.C. 1990: New Zealand Fur Seal. Pp. 246-256 in King, C.M. (Ed.) *The handbook of New Zealand mammals*. Oxford University Press, Auckland.
- Cumpston, J.S. 1964: Shipping arrivals and departures, Sydney 1788-1825. Roebuck Society, Canberra.
- Cumpston, J.S. 1968: Macquarie Island. Antarctic Division, Department of External Affairs, Melbourne.
- Entwhistle, P. 1998: Behold the moon: The European occupation of the Dunedin District, 1770-1848. Port Daniel Press, Dunedin.
- Fanning, E. 1924: Voyages and discoveries in the South Seas 1792-1832. Marine Research Society, Salem, Mass.
- Gaskin, D.E. 1972: Whales, dolphins and seals: with special reference to the New Zealand region. Heinemann Educational Books, Auckland.
- Gillies, K. 1985: Solander Island site survey. *New Zealand Archaeological Association Newsletter 28(4)*: 243-245.
- Grady, D. 1986: Sealing and whaling in New Zealand waters. Reed Methuen, Auckland.
- Hainsworth, D.R. 1967: Exploiting the Pacific frontier: the New South Wales sealing industry 1800-1821. *Journal of Pacific History 2*: 59-75.
- Hainsworth, D.R. 1972: The Sydney traders. Cassell, Melbourne.
- Hall-Jones, J. 1976: Fiordland explored. A.H. and A.W. Reed, Wellington.
- Hall-Jones, J. 1979: The south explored. A.H. and A.W. Reed, Wellington.
- Hall-Jones, J. n.d.: A report on the Cape Providence caves. Unpublished report to the Fiordland National Park Board, Te Anau, 1972.
- Heaphy, C. 1863: A chapter on sealing. *Southern Monthly Magazine 1(4)*: 173-176.
- Heaphy, C. 1959: Notes of an expedition to Kawatiri and Araura, on the western coast of the middle island. Pp. 203-249 in Taylor, N.M. (Ed.) *Early travellers in New Zealand*. Oxford University Press, London.
- Henry, R. 1895: On Dusky Sound. *Transactions of the New Zealand Institute 28*: 50-54.
- Henry, R. n.d.a: Correspondence, Henry to Maitland, 21 March-4 June 1898. Department of Lands and Survey, Draft transcript of Richard Henry's Service as Curator of Resolution and adjacent Islands, 1894-1904. MS 540, pp. 60-61, Hocken Library, Dunedin.
- Henry, R. n.d.b: Correspondence, Henry to Maitland, 1 October 1899. Department of Lands and Survey, Draft transcript of Richard Henry's Service as Curator of Resolution and adjacent Islands, 1894-1904. MS 540, pp. 81-83, Hocken Library, Dunedin.
- Hill, S.; Hill, R. 1987: Richard Henry of Resolution Island. John McIndoe, Dunedin.
- Hocken, T.M. n.d.: Recollections of Edwin Palmer recorded by Dr Hocken, 12 July 1879. MS 4/32, Hocken Library, Dunedin.

- Howard, B. 1940: Rakiura: A history of Stewart Island, New Zealand. A.H. and A.W. Reed, Dunedin.
- Jones, A.G.E. 1986: Ships employed in the South Seas trade 1775-1861. Roebuck Society, Canberra.
- Kerr, I.S. 1976: Campbell Island: A history. A.H. and A.W. Reed, Wellington.
- Kerr, I.S. n.d.: Sealers in southern New Zealand 1803-1812. Typescript (1978), Ms-Papers-1682-2, Alexander Turnbull Library, Wellington.
- Lockerbie, L. n.d.: Human occupation in the Sutherland Sound area. Unpublished report (1951), Otago Museum, Dunedin.
- McDonald, J. n.d.: Evidence of J. McDonald. Pp. 4569-4581 in Bigge, J.T. Report, evidence taken in New South Wales 1819-1821. Bonwick Transcripts, CY1552. Mitchell Library, Sydney.
- McGovern-Wilson, R. 1985: Fiordland National Park: A gazetteer of historic and archaeological sites. Department of Lands and Survey, Invercargill.
- McGovern-Wilson, R.; Bristow, P. 1994: William Stewart's shipbuilding site, Port Pegasus, Stewart Island, archaeological survey. Report to Department of Conservation, Invercargill.
- McNab, R. 1907: Murihiku and the southern islands. William Smith, Invercargill.
- Molloy, K. 1987. Whaling and sealing in Westland. Department of Conservation, Hokitika. [A reprint of two reports (Parts 1 and 2) which were first published by the New Zealand Forest Service, Hokitika, 1985. Reprinted again, with the addition of Part 3, in 1990, under the title: Navigators, sealers and whalers West Coast, South Island 1642-1851.]
- Molloy, K.P. n.d.: The range and magnitude of the European sealing effort in New Zealand waters, 1790-1830. Submission to Waitangi Tribunal, Wai-27.
- Morrell, B. 1832: A narrative of four voyages to the South Sea, North and South Pacific Ocean, Chinese Sea, Ethiopia and Southern Atlantic Ocean, from the year 1822 to 1832. Harper, New York.
- Murray, R. n.d.: Journal of a voyage from England to Port Jackson, New South Wales, in the years 1792, 1793, 1794 and 1795. Microfilm. Hocken Library, Dunedin.
- Nicholson, I.H. 1977: Shipping arrivals and departures, Sydney 1826-1840. Roebuck Society, Canberra.
- Nicholson, I.H. 1983: Shipping arrivals and departures, Tasmania 1803-1833. Roebuck Society, Canberra.
- Nicholson, I.H. 1985: Shipping arrivals and departures, Tasmania 1830-1840. Roebuck Society, Canberra.
- Raven, W. n.d.: Correspondence, Captain W. Raven to Lieutenant-Governor King, 2 November 1793. Pp. 94-96 in Bladen, F.M. (Ed.) Historical records of New South Wales, Volume II (1893). Government Printer, Sydney.
- Richards, R. 1982: Whaling and sealing at the Chatham Islands. Roebuck Society, Canberra.
- Richards, R. 1995: 'Murihiku' re-viewed: A revised history of southern New Zealand from 1804 to 1844. Lithographic Services, Wellington.
- Richards, R. 1996: Jorgen Jorgenson's observations on Pacific trade; and sealing and whaling in Australian waters before 1805. Paremata Press, Wellington.
- Richards, R. 1998: Honolulu, centre of trans-Pacific trade. Shipping arrivals and departures 1820-1840. Paremata Press, Wellington.
- Richards, R. n.d.: Sealing from Foveaux Strait: The last century from 1840 to 1946. Unpublished manuscript, Department of Anthropology, University of Otago, Dunedin.
- Richards, R.; Chisolm, J. 1992: Bay of Islands shipping arrivals and departures, 1803-1840. Paremata Press, Wellington.
- Riley, E. n.d.: Evidence of E. Riley. Pp. 3866-3898 in Bigge, J.T. Report, evidence taken in New South Wales 1819-1821. Bonwick Transcripts, CY1563. Mitchell Library, Sydney.
- Ross, J.O. 1987: William Stewart, sealing captain, trader and speculator. Roebuck Society, Canberra.

- Ross, J.O. n.d.: The precolonial maritime activity on the New Zealand coast. Manuscript, Ms 1500-25. Alexander Turnbull Library, Wellington.
- Salmond, A. 1997: *Between worlds: Early exchanges between Maori and Europeans 1773-1815*. Viking, Auckland.
- Scadden, K. 1996: The sealing season 1946. *Seafood New Zealand*, October 1996: 84-88.
- Sherrin, R.A.A. 1886: *Handbook of the fishes of New Zealand*. Wilson and Horton, Auckland.
- Smith, I.W.G. 1985: Sea mammal hunting and prehistoric subsistence in New Zealand. Unpublished PhD thesis, Anthropology Department, University of Otago, Dunedin.
- Smith, I.W.G. 1989: Maori impact on the marine megafauna: pre-european distributions of New Zealand sea mammals. Pp. 76-108 in Sutton, D.G. (Ed.) *Saying so doesn't make it so: Papers in honour of B. Foss Leach*. New Zealand Archaeological Association, Dunedin.
- Smith, I.W.G.; Gillies, K.B. 1997: Archaeological investigations at Luncheon Cove, Dusky Sound, February 1997. Report to New Zealand Historic Places Trust, Wellington, held by Department of Anthropology, University of Otago, Dunedin.
- Smith, I.W.G.; Gillies, K.B. 1998: Archaeological investigations at Facile Harbour, Dusky Sound, February 1998. Report to New Zealand Historic Places Trust, Wellington, held by Department of Anthropology, University of Otago, Dunedin.
- Sorensen, J.H. 1969: New Zealand fur seals, with special reference to the 1946 open season. *New Zealand Marine Department Fisheries Technical Report No. 42*, Wellington.
- Starke, J. (Ed.) 1986: *Journal of a rambler: The journal of John Boulton*. Oxford University Press, Auckland.
- Steven, M. 1965: *Merchant Campbell, 1769-1846: a study of colonial trade*. Oxford University Press, Melbourne.
- Teal, F.J. 1976: Waikawa Harbour to Tokanui river mouth site survey. Report to New Zealand Historic Places Trust, Wellington.
- Turbott, E.G. 1952: Seals of the southern ocean. In: Simpson, F.A. (Ed.) *The Antarctic today*. A.H. and A.W. Reed, Wellington.
- Williams, L.J. 1982: Archaeological site survey in Port Pegasus and Broad bay, Stewart Island. April 1981. *Southland Museum and Art Gallery Publication 1982/2*, Invercargill.
- Wilson, G. 1974: Distribution, abundance and population characteristics of the New Zealand fur seal (*Arctocephalus forsteri*). Unpublished MSc thesis, Department of Zoology, University of Canterbury, Christchurch.

Appendix 1

NEW ZEALAND MAPS AND CHARTS OF THE SEALING ERA

Maps consulted in the course of this research include the following.

Sketch of a strait dividing the Southern Island of New Zealand. O.F. Smith, 1804. Alexander Turnbull Library F-96061-1/2. Reproduced in Howard (1940: 18). Shows harbours on the eastern shore of Stewart Island.

South end of New Zealand. Eber Bunker, 1808–09. Mitchell Library Z M2 982.42/1809/1. Reproduced in Begg & Begg (1973: fig. 7). Shows the south-western portion of Fiordland, western half of Foveaux Strait, and northern part of Stewart Island.

Sketch of Southern Port on S.E. of Stewart Island. William Stewart, 1809. Reproduced by Howard (1940: 30). Detailed chart of Port Pegasus.

Map of Foveaux Straits. W.L. Edwardson, 1823. Reproduced by Begg & Begg (1973: fig. 21). Shows central portion of Foveaux Straits, northern and western shores of Stewart Island.

Sketch of the anchorage of Goulburn Island. W.L. Edwardson, 1823. Reproduced by Begg & Begg (1973: fig. 20). Sketch chart of Henrietta Bay, Ruapuke Island.

Codfish Island at the entrance of Foveaux Strait. W.L. Edwardson, 1823. Reproduced by Begg & Begg (1973: fig. 22) and Howard (1940: 63). Sketch chart of 'Codfish Anchorage' showing Sealers Bay on Codfish Island and the adjacent coast of Stewart Island.

Sketch of Port William in Foveaux Straits. W.L. Edwardson, 1823. Reproduced by Begg & Begg (1973: Figure 23) and Howard (1940: 54). Sketch chart of Port William, Stewart Island.

Baie Chalky. Jules de Blosseville, 1824. Reproduced by Begg & Begg (1973: fig. 19). Chart of Chalky Inlet, based on information supplied by Edwardson.

South West extreme of New Zealand. M. Duperrey, 1824. Reproduced by Howard (1940: 51). Foveaux Strait and Stewart Island, mostly based on Edwardson, but western and southern shores of Stewart Island based on map by Norie, 1820 [not consulted], which appears to have derived from Stewart's 1809 observations (Howard 1940: 127).

Chart of New Zealand from original surveys. T. McDonnell, 1834. Mitchell Library, Z M3 980 1834/1. Probably based on some first-hand observations (Howard 1940: 127).

Chart of Stewart Island. Wing, 1844. Reproduced by Howard (1940: 124). Western coast based on recollections of Edwin Palmer, who had been sealing there from 1826.

Southern districts of New Zealand. Shortland (1851). Reproduced by Begg & Begg (1979: fig. 15). Mostly based on 1838 Admiralty chart, but Fiordland coast taken from a drawing by Edward Meurant, a sealer who had worked there at some time prior to 1844.

Appendix 2

SHORE-BASED AND BOAT-BASED SEALING GANGS IN NEW ZEALAND

GANG REF.	LOCATION(S)	MEN	DEPOSITED/ UPLIFTED	SHIP(S)	MONTHS ASHORE	TYPE	COMMENTS
Britannia	Luncheon Cove	12	D. Nov 1792 U. Oct 1793	<i>Britannia</i> <i>Britannia</i>	11	Shore	
Smith's	East Coast of Stewart Island	?	D. ?Dec 1804 U. ?Jan 1805	<i>Honduras Packet</i> <i>Independence</i>	2?	Boat	Exploring/mapping Stewart Is. en route to Antipodes
Pegasus A	Codfish Island	?	D. c. Sep 1808 U. c. Jul 1809	<i>Pegasus</i> <i>Pegasus</i>	10	Shore	
Fox A	Solander Island	5	D. late 1808? U. May 1813	<i>Fox</i> <i>Perseverance</i>	c. 52?	Shore	
Pegasus B	Codfish Island	?	D. c. Jul 1809 U. c. Jan 1810	<i>Pegasus</i> <i>Pegasus</i>	10	Shore	
Pegasus C	I. off 'South Cape'	?	D. c. Jul 1809 U. c. Jan 1810	<i>Pegasus</i> <i>Pegasus</i>	10	Shore	
Fox B	Port William	≥7	D. Oct 1809 U. Jan 1811	<i>Fox</i> <i>Boyd</i>	15	Shore	Provisioned July 1810
Endeavour	Solander Island	6	D. c. Jul 1809 U. c. Dec 1810	<i>Endeavour</i> <i>Santa Anna</i>	17	Shore	Boat crew separated from ship on West Coast, made own way to Solander
Brothers A	'Isle of Wight'	8	D. Nov 1809 U. May 1810 (2)	<i>Brothers</i> <i>Brothers</i>	6+	Shore	
Brothers B	'Ragged Rock'	3	U. mid 1810 (2) U. Jan 1811 (3)	<i>Governor Bligh</i> <i>Boyd</i>		Shore	9 deserted, 4 killed
Sydney Cove A	'South Cape'	6	D. Nov 1809	<i>Sydney Cove</i>	4-7	Shore	Attacked Mar-Aug 1810, Caddell survives
Sydney Cove B	'Molyneux Strait'	?	D. Nov 1809 U. late 1810/ early 1811	<i>Sydney Cove</i> <i>Sydney Cove</i>	12?	Shore	3+ desert to 'Ragged Rock' Apr/May 1810, 3 killed late 1810
Easy Harbour	Easy Harbour	?	1809	?	?	Shore?	Reported by Howard (1940: 36)
Sydney Cove C	'South Cape'	?	D. Jan 1810 U. ?	<i>Sydney Cove</i> <i>Sydney Cove</i>	?	Shore	
Active	Open Bay Islands	10	D. Jan 1810 U. Nov 1813	<i>Active</i> <i>Governor Bligh</i>	45	Shore	
King George	'Open Bay'	11	1818	<i>King George</i>	?	Shore	Reported by Marmon (Richards 1995: 101)
Gen. Gates A	'South Cape'	?	D. late 1819 U. Aug 1821	<i>General Gates</i> <i>General Gates</i>	22	Shore	May have included Tasmanian woman and 2 children
Gen. Gates B	'South Cape' (Port William?)	6	D. Aug 1821 U. Oct 1821 (2)	<i>General Gates</i> <i>Gov. Macquarie</i>	3	Shore	4 killed

GANG REF.	LOCATION(S)	MEN	DEPOSITED/ UPLIFTED	SHIP(S)	MONTHS ASHORE	TYPE	COMMENTS
Gen. Gates C	Chalky Inlet/ Gates Boat Harbour	12	D. Aug 1821 U. Dec 1822	<i>General Gates</i> <i>GG/Snapper</i>	16	Shore	Moved when attacked, 4 killed
Gen. Gates D	Chalky Inlet	?	D. Dec 1822 U. Jan 1823	<i>General Gates</i> <i>Elizabeth</i>	2	Shore	'Arrested' and removed by Grono
Gen. Gates E	South Cape Is.	?	D. Dec 1822	<i>General Gates</i>	4-7?	Shore	All killed c. Apr-Jun 1823
Elizabeth A	Chalky Inlet	?	D. Dec 1822 U. Sep/Oct 1823	<i>Elizabeth</i> <i>Elizabeth</i>	20	Shore	
Wellington	?no data ?Codfish Island	40?	D. May/June 1825	<i>Wellington</i>		Shore? Boat?	Deserters may have estab. Codfish sealers' settlement
Elizabeth B	Open Bay/?West Coast?		1825	<i>Elizabeth</i>	?	Boat	Inferred from Boulton
Elizabeth and Mary	Port Pegasus	?	D. Apr 1826 U. May 1827	<i>Eliz. and Mary</i> <i>Eliz. and Mary</i>	13	Shore	
Elizabeth C Elizabeth D Elizabeth E	West Coast	24?	D. Apr 1826 U. Sep 1827	<i>Elizabeth</i> <i>Elizabeth</i>	18	Boat Boat Boat	3 mobile boat crews, Boulton and some others desert
Chaseland's	Fiordland	?	?1826	?	?	Boat	encountered by Boulton
English sealers	Solander Is.	?	?1826	?	?	Shore?	reported by Palmer (Hocken n.d.)
Price's	Stewart Island/ Foveaux Strait	?	1827	-	-	Boat	'Resident' sealers from Cod- fish, joined by Boulton
Industry	Foveaux Strait	?	D. Nov 1830	<i>Industry</i>	?	?	Ship wrecked Feb 1831. No info. on gang
Admiral Gifford	Rocks Point	?	D. May 1832	<i>Admiral Gifford</i>	?	?	Killed
Te Awaiti A	Toropuhi	?	1836	<i>Harriett</i>	2-3?	Shore?	Whalers from Te Awaiti
Te Awaiti B	Cape Foulwind	?	Between 1836 and 1845	?	?	Shore?	Reported by Allan (1965)
Te Awaiti C	Cape Foulwind	?	1846	?	?	Boat	Reported by Brunner (1959)

Appendix 3

INVENTORY OF HISTORIC PLACES OF THE SEALING INDUSTRY

The following inventory summarises historical and archaeological information for each locality with a definite or probable association with the sealing industry. Where possible, the following information is given: a brief summary of the historical association with sealing; [where specific archaeological sites have been identified] NZAA Site Number, Site Name, Grid Reference, Brief site description and assessment; category [groups 1 to 7] for heritage management recommendations (see section 7 of main text, and Appendix 4, next).

Kaburangi–Wekakura

Historically recorded area of shore-based sealing in 1830s, but specific sites have not been reported. Requires systematic archaeological survey. Group 5.

Cape Foulwind

Probable location of shore-based sealing in 1830s or early 1840s.

K29/1 Tauranga Bay GR: 2381800 5936900

Midden and ovens with European artefacts in upper part of deposit. Association with sealer activity is conjectural. Group 3.

Arnott Point

Historically recorded location of cave used by boat-based gang in 1820s.

F36/ Arnott Point GR 2204600 5713900**

Cave site, recorded from literature. No archaeological remains were reported, but requires field inspection to assess archaeological value. Group 2.

Open Bay Island

Historically recorded location of marooned shore-based gang 1810-13, and hut and garden used by boat-based gangs in the mid 1820s. Three recorded archaeological sites, all Group 1.

F37/18 Open Bay Island 1 GR: 2178900 5696900

A rectangular stone structure, probably a hut or storehouse. This site has considerable potential for archaeological investigation.

F37/20 Open Bay Island 2 GR: 2178600 5696800

Four pieces of timber that are possible remains of a hut. Requires closer investigation to determine its status.

F37/ Open Bay Island 3 GR: 2179400 5697100**

Charcoal and European artefacts that probably represent a former hut location. This site has considerable potential for archaeological investigation.

Anita Bay, Milford Sound

Historically recorded location of a hut used by boat-based sealing gangs in the mid 1820s. Probable location suggested at:

D40/1 Anita Bay 1 GR 2095000 5611600

A prehistoric stone-working area, late 19th century garden area, and reputed site of early 19th century hut. Little prospect of intact archaeological remains of sealers' activities. Group 2.

Sutherland Sound

No historical record of sealers' activity, but this possibility was raised by the excavators of the site.

C40/1 Sutherland Sound 1 GR: 2081000 5594400

Cave with floor divided into room-like compartments by boulder walls. Excavation in 1951 was not able to determine age of structure. Potential for further investigation. Group 4.

George Sound

Historically recorded location of huts used by boat-based gangs in the mid 1820s.

C41/13 George Sound 2 GR: 2071700 5565500

Hut site, recorded from literature. Requires field survey to assess archaeological value. Group 2.

Caswell Sound

Historical reference to boat-based sealing in the mid 1820s. Possible site on basis of artefact content.

C41/7 Caswell Sound 2 GR: 2053200 5561100

Campsite with midden and artefacts, including a copper stud. Further investigation may clarify association with sealing industry. Group 3.

Grono Bay, Doubtful Sound

Historically recorded location of huts used by boat-based gangs in mid 1820s, and probable location for earlier shore-based gangs.

B43/9 Grono Bay GR: 2035100 5529400

Recorded from literature. Requires field survey to assess archaeological value, but potentially very significant site. Its location gives it potential for interpretation to tourist market. Group 2.

Luncheon Cove, Dusky Sound

Historically recorded location of the first shore-based sealing gang in 1792-93, huts used by boat-based gangs in the 1820s, and a port for numerous sealing ships throughout the entire history of the sealing industry. One archaeological site is definitely related to these activities, and another four are probably related. All Group 1.

A44/4 Luncheon Cove 1 GR: 2006500 5473900

Hut sites and location of ship building activity by sealing gang in 1792-93. Excavated in 1997. A very significant site with considerable potential for interpretation.

A44/3 Luncheon Cove 2 GR: 2006500 5473900

Three terraces, probably hut sites. Possibly related to activities of sealers.

A44/27 Luncheon Cove 4 GR: 2006600 5473800

Terrace with collapsed remains of ponga hut. Possibly related to activities of sealers.

A44/28 Luncheon Cove 5 GR: 2006500 5473700

Terrace with collapsed remains of ponga hut. Possibly related to activities of sealers.

A44/29 Luncheon Cove 6 GR: 2006600 5473800

Large terrace, probably a hut or larger dwelling site. Possibly related to activities of sealers.

Nook Harbour, Dusky Sound

Based solely on 1970s report that the feature derives from the activities of sealers.

B44/33 **Nook Harbour 2** **GR: 2015400 5477300**

A large boat run, said to be one of the best examples in Dusky Sound. Group 3.

Cape Providence, Chalky Inlet

Historically recorded location of caves used by shore-based gangs in the the early 1820s. Five archaeological sites. All Group 1.

A45/8 **Grono's Cave** **GR: 2003600 5447100**

Large cave from which a slate inscribed with two messages from sealers was recovered. Excavation in 1972 revealed evidence of prehistoric Maori occupation as well as European sealers.

A45/1 **Grono's South 1** **GR: 2003600 5447100**

Cave with evidence of prehistoric Maori occupation and probable evidence of sealers. Excavated in 1972.

A45/2 **Grono's South 2** **GR: 2003700 5446900**

Cave with evidence of prehistoric Maori occupation and probable evidence of sealers. Excavated in 1972.

A45/5 **Sealer's Point** **GR: 2003300 5447400**

Overhanging cliff blackened by smoke with old seal bones nearby. Possible lookout on headland above.

A45/13 **Landing Bay 2** **GR: 2004700 5446700**

Cave with midden, Maori rock drawings, and a partially legible list of European names with an 1890s date.

South Port, Chalky Inlet

(a) Historically recorded location of caves used by boat-based gangs in the mid 1820s.

B45/11 **Southport 1** **GR: 2014900 5444700**

Cave with evidence of prehistoric and historic period occupation, the latter almost certainly relating to activities of sealers. Excavated in 1969. Group 1.

B45/20 **Southport 10** **GR: 2014900 5445100**

Cave with evidence of prehistoric and historic period occupation, the latter almost certainly relating to activities of sealers. Excavated in 1969. Group 1.

B45/21 **Southport 11** **GR: 2014900 5445100**

Cave with evidence of historic period occupation, probably by both Maori and sealers. Excavated in 1969. Group 1.

B45/23 **Garden Island 1** **GR: 2014300 5444200**

Cave with midden and 19th century artefacts. Association with activities of sealers conjectural. Excavated in 1969. Group 2.

B45/63 **Garden Island 7** **GR: 2014300 5444500**

Cave with evidence of prehistoric and historic occupation. Association with activities of sealers conjectural. Excavated in 1969. Group 2.

(b) Historically recorded location of huts used by shore-based gangs in the early 1820s.

B45/78 **Lee Bay 2** **GR 2015700 5442200**

Hut site, recorded from de Blosseville's chart. Requires field survey to assess archaeological value. Group 2.

Sealers Bay, Chalky Island

Reputed location of sealing camp and gardens, but no historical documentation.

B45/9 Chalky Island 2 GR: 2010200 5443100

Cave with midden and European artefacts. Association with activities of sealers conjectural. Group 3.

Gates Boat Harbour

Historically recorded location of shore-based gang in early 1820s.

B46/18 Gates Harbour 2 GR: 2022300 5426300

Rockshelter with midden and European artefacts. Group 3.

Solander Island

Historically recorded location of shore-based gangs 1809-13, in the mid-1820s and 1946. Three newly recorded archaeological sites. All Group 1.

B47/1 Solander Island 1 GR: 2041600 5387000

Large cave in which charcoal from earlier occupation was reported in 1946, but no evidence was discovered during test excavations in 1985. Wave action during heavy seas may have destroyed archaeological remains.

B47/2 Solander Island 2 GR: 2041600 5386800

Rockshelter test-excavated in 1985 showing charcoal-stained soil. Association with sealing is conjectural.

B47/3 Solander Island 3 GR: 2041600 5386700

Rockshelter test-excavated in 1985 showing charcoal-stained soil. Association with sealing is conjectural.

Sealers Bay, Codfish Island

Historically recorded location of shore-based gangs in 1808-09, huts used by boat-based gangs in the mid 1820s and a resident community of sealers from 1825 to 1850. Two archaeological sites, both Group 1.

D48/5 Sealers Bay 1 GR: 2100700 5369300

Recorded from literature. Requires field survey to assess archaeological value, but potentially very significant site.

D48/21 Sealers Bay 2 GR: 2101300 5369000

Midden and ovens along with 19th century artefacts.

Doughboy Bay, Stewart Island

Reputed location of shore-based sealing gang, but no historical documentation.

D49/3 Doughboy Bay Cave GR: 2107300 5339900

Cave reputedly used by sealers, but no surviving archaeological evidence. Group 3.

Easy Harbour, Stewart Island

Reputed location of a shore-based gang in 1809, and the documented shipwreck of a sealing vessel in 1830. No sites have been reported. Systematic archaeological survey of the harbour and outlying islands is required. Group 5.

South Cape, Stewart Island

Historically documented activities of shore-based gangs at 'South Cape' in 1809-10 are conjectured to have been at Murderers Cove on Big South Cape Island and at Yankee Harbour on the adjacent coast. Boat-based gangs may also have operated there in the mid 1820s. No sites have been reported. Systematic archaeological survey of the entire South Cape area and adjacent islands is required. Group 5.

Port Pegasus, Stewart Island

Historically documented location of shore-based and boat-based gang activities in the mid 1820s. Three archaeological sites, all Group 3.

D49/18 Islet Cove 1 GR: 2103400 5320700

Hut sites, apparently European. Association with the activities of sealers is conjectural.

D49/19 Islet Cove 2 GR: 2103500 5320900

Hut sites, apparently European. Association with the activities of sealers is conjectural.

D50/5 Kelp Point 1 GR: 2102500 5319700

Hut sites, apparently European. Association with the activities of sealers is conjectural.

Port William, Stewart Island

Historically recorded location of shore-based gangs in 1809–11 and 1821, and boat-based gangs in the mid 1820s.

E48/1 Maori Beach GR: 2134800 5361200

Recorded from literature as a former Maori village. Its location corresponds with that of a sealers hut (Denton's) shown by Edwardson in 1823. Requires field survey to assess archaeological value. Group 2.

E48/6 Potirepo GR: 2134800 5363500

Recorded from literature as a contact-period Maori village and later whaling, goldmining, and fishing station. Association with activities of sealers is conjectural. Group 3.

Green Island and White Island, Otago

The 'Isle of Wight' and 'Ragged Rocks' are historical recorded locations of shore-based gangs in 1809–10, and it is conjectured that these are respectively the modern Green and White Islands. Neither has been surveyed archaeologically although one site has been recorded.

I44/113 White Island GR: 2315900 5471900

Unconfirmed report of midden possibly associated with the activities of sealers. Requires field survey to assess archaeological value. Group 3.

Appendix 4

HERITAGE MANAGEMENT RECOMMENDATIONS

Heritage management recommendations concerning the known or potential historic places of the New Zealand sealing industry are summarised below. They are organised in relation to the six groupings of sealing localities (identified in this study, see section 7.1) which are listed below by DOC Conservancy. Further locational information for each locality is discussed in relevant parts of section 6 and Appendix 3.

A4.1 Site groups

SITE GROUP	CONSERVANCY		
	SOUTHLAND	WEST COAST	OTAGO
1.	Luncheon Cove Cape Providence Southport—Caves Solander Island Sealers Bay, Codfish Island	Open Bay Islands	
2.	Anita Bay, Milford Sound Head of George Sound Grono Bay, Doubtful Sound Southport—Huts Port William—Denton's Hut	'Arnott Point'	
3.	Caswell Sound Nook Harbour, Dusky Sound Sealers Bay, Chalky Island Gates Boat Harbour Doughboy Bay Port Pegasus Port William—Murray's Camp	Cape Foulwind	White Island
4.	Sutherland Sound		
5.	Looking Glass Bay Easy Harbour and adjacent islands South Cape and adjacent islands	Kahurangi-Wekakura	Green Island
6.	Coal River Waiakawa Broad Bay, Stewart Island	Cascade Beach	

A4.2 Recommendations

Group 1

These localities have precise historical information about the location of past sealing activity that has already been confirmed by archaeological observation. They are the premier historic places of the New Zealand sealing industry and should be acknowledged and managed accordingly.

- They should be registered as **historic areas**.
- Their association with the sealing industry should have primacy over other considerations in management.
- They should be monitored regularly to detect site damage.

- Salvage archaeological investigation should be undertaken when site integrity is threatened.
- Favourable consideration should be given to research-oriented archaeological investigations designed to enhance understanding of sealers and sealing.

Group 2

These localities have reasonably precise historical information about where sealing took place with at least one archaeological site suggested as a possible location of this. However appropriate archaeological assessment has not yet been undertaken.

- Archaeological survey and/or test excavation of conjectured sites should be conducted in the near future.
- Where the precise location of sealing activities can be confirmed they should be managed as for Group 1 localities.
- Where precise location cannot be confirmed they should be managed as for Group 6 localities

Group 3

These localities have generalised historical information about the location of past sealing activity with one or more archaeological sites conjectured as a specific location.

- Archaeological survey and/or test excavation of these conjectured sites should be conducted in the medium-term future.
- Where the precise location of sealing activities can be confirmed, consideration should be given to inclusion of these sites in the Group 1 management regime.
- Where precise location cannot be confirmed, they should be managed as for Group 6 localities.

Group 4

This group contains a single site without any historical evidence of sealing associations, but archaeological features that could relate it to the industry.

- Archaeological survey and/or test excavation of this site should be conducted in the medium-term future to determine its association with the sealing industry.
- If its sealing associations can be confirmed, consideration should be given to inclusion of this site in the Group 1 management regime.

Group 5

These localities have generalised historical information about the location of past sealing activity but have not yet been surveyed archaeologically.

- Archaeological surveys should be conducted in the medium-term future to locate potential sealing sites and assess options for their management.
- Areas that would appear to be particularly promising include Kahurangi-Wekakura, Easy Harbour, and South Cape.

Group 6

These localities have generalised historical information about past sealing activity but do not have specifically identifiable historic places relating to the industry.

- The historical association of these localities with the sealing industry should be acknowledged in presentation of heritage information.
- The possibility that sealing-related historic places may yet be discovered should be considered during any future archaeological investigations.

Group 7

An additional group of localities which were associated with ship-based sealing activity and do not have any land-based historic places, but have place names that were either bestowed by, or commemorate sealers.

- The historical association of Bligh Sound, Nancy Sound, Dagg Sound, Masons Harbour, Lords River, and Port Adventure, should be recognised through the retention of these place-names, and be acknowledged in presentation of heritage information about these places.