

INSTITUTE OF CURRENT WORLD AFFAIRS

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Seals of the South

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Cambridge, England

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Dear Dick,

Intentionally omitted from the Antarctic Treaty signed in Washington last December was any mention of any possible economic development of the Antarctic, this being too vague and too touchy an issue, one which, if raised, might have scuttled the whole treaty conference - so better left alone. There was, in fact, no immediate need to consider this uncertain aspect of the future, and Antarctica's present economic contributions were placed, by definition, beyond the scope of the treaty. When ratified, the treaty will apply "to the area south of 60° South Latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area."

= The high seas proviso leaves out Antarctica's only significant economic contribution, the pelagic whaling industry; the 60° south boundary, an arbitrary but expedient one, excludes from the treaty area the island of South Georgia with its land whaling stations and ancillary elephant seal industry, which until just recently represented the only current commercial exploitation of seals in the Antarctic. The latitudinal boundary also excludes the South Sandwich Islands, Bouvetøya, the Prince Edward Islands, Iles Crozet, Iles Kerguelen, Ile Amsterdam, Ile Saint Paul, Heard Island, Macquarie Island, and Campbell Island - all major Antarctic or sub-Antarctic islands and most targets of early nineteenth-century sealing operations.

As the quest for fur seals played such an important role in the early discoveries of the sub-Antarctic and Antarctic, which had political overtones now muted, temporarily at least, by the recent treaty, it might be of some interest to glance at the present status of the southern seals.

Sealing began as early as 1766 at the Falkland Islands, and some 25 years later the slaughter started at South Georgia. Other islands followed, among them Iles de Kerguelen, Iles Crozet, and Macquarie Island. The South Shetland Islands, discovered in 1819, immediately became the scene of intense activity, and of considerable rough competition between American and British sealers. Even modern writers show bias: Walter Sullivan, in Quest for a Continent, quotes the log of the Nantucket sealer 'Huntress', which refers

to another Yankee sealer which had been robbed of skins by Britons; Frank Debenham, in Antarctica, says of Kipling's "Rhyme of the Three Sealers," "some lines might apply" to the Antarctic of those days:

But since our women must walk gay and money buys their gear
The sealing boats they filch that way at hazard year by year
English they be and Japanee that hang on the Brown Bear's flank
And some be Scot, but the worst of the lot and the boldest thieves
be Yank

The depredations of these early sealers were enormous: some 112,000 fur seals killed on South Georgia in one season, at least 1,200,000 in the half century following 1778; between 1819 and 1822 over 70 sealing expeditions are known to have visited the South Shetlands, and the list is still far from complete; in 1821 and 1822, 320,000 fur seals were killed in the South Shetlands, leaving some 100,000 pups to die.

By 1822 the fur seals were nearly wiped out in the South Shetlands, but in the ensuing fifty years the stocks made a recovery - only to be wiped out again from 1872 - 1888, this time more thoroughly. The story was much the same on the other seal islands of the Southern Ocean: in the fifty years following the first massacre the seals recovered to a certain extent, but further slaughter then led to near-extirmination.

In addition to the fur seals, elephant seals were exploited for their oil. Though less attractive commercially, they also were hunted until so reduced in numbers as to make further exploitation unprofitable. This point was reached about 1880 at South Georgia, but recovery was fairly rapid. By the time that profitable exploitation could be resumed, however, restrictive measures had been put into force, preventing unlimited slaughter.

There are today some thirty surviving species of seals, of which seven are of commercial importance. Of these seven, only one - the Southern Elephant Seal - is an Antarctic or sub-Antarctic inhabitant. The fur sealing industry is now totally extra-Antarctic. There are two southern hemisphere operations, one on Lobos Island, Uruguay (providing 4000 to 5000 skins a year), and one based on the islands off South West Africa (providing about 30,000 skins a year), but these are both overshadowed by the Pribilof Islands's production of some 70,000 skins annually.

But to continue with Antarctica's contribution, the elephant seal...

The first regulatory measures governing the exploitation of the South Georgia elephant seal herds were introduced by the Falkland Islands government in 1899. In 1910 the first sealing license was issued, to South Georgia's oldest whaling company, "Compania Argentina de Pesca, which still has a monopoly of this industry.

The coasts of South Georgia are divided into four main regions, three of which are worked each year. Cia Argentina de Pesca uses three obsolete whale catchers for its sealing operations, which are carried out by crews who

are mainly expatriate Poles and who converse in a mixture of Spanish and Norwegian. A gunner and several sealers are put ashore on a seal beach, the bulls are driven down to the water's edge, shot, and flensed. The skin and blubber are hauled out to the ship by cable, the carcass being left on the beach.

The annual catch is limited to 6000 surplus adult bulls, with stipulations that only those over $11\frac{1}{2}$ feet in length may be killed, and that 10% of the bulls over this size are to be left on each beach. The average oil yield is about two barrels per animal, for a total yearly production of some 12,000 barrels (2000 tons), worth roughly \$420,000. It is estimated that the carcasses would provide another half barrel of oil each, but as they may weigh up to four tons apiece, they cannot be handled under the present system.

The South Georgia elephant seal industry is under biological control. A lower canine tooth is extracted from each twentieth bull killed, for age determination. This random sampling will show the age composition of the catch, comparison of which for successive years will make possible determination of the maximum rational harvest of the stock, estimated to be over a quarter million animals, excluding pups.

On the Iles de Kerguelen, the last elephant sealing operations ended about 1931, but controlled killing is reported to have begun this past summer. One recent population estimate put the total number of elephant seals there at less than 100,000. If this be so, and the South Georgia kill used as a basis, the annual harvest from Kerguelen ought to be about 2500 bulls, or less.

The only other substantial elephant seal populations are on Macquarie Island (some 70,000) and on Heard Island (about 40,000). A year ago, it was rumored that a commercial syndicate was to make an elephant seal census on Macquarie, and if it were commercially satisfactory, seals would be killed and the meat sent to the U. S. The Australian and Tasmanian governments were said to have okayed this, even though Macquarie had been made a wildlife sanctuary in 1933. Nature lovers rose in wrath, both in the Tasmanian press and in the Letters to the Editor column of The Times (the place for all Causes), and in due course the Tasmanian government announced that, after consideration of all aspects of the matter, no sealing licenses would be issued, and Macquarie would remain a sanctuary.

The comeback of the elephant seal has been considerably more auspicious than that of the more extensively and mercilessly hunted fur seal. South Georgia boasts a population now of some 15,000 fur seals. The South Shetlands, so important to the sealers of 140 years ago, don't even get honorable mention in current lists of fur seal colonies. As for the other seal islands, one authority suggests that the total population of Bouvetøya, Marion and Heard Islands, Iles de Kerguelen, Crozet, Amsterdam, and Saint-Paul may not surpass 4500 to 5500, and says, "Commercially, the species is extinct." Another authority, however, considers that international cooperation might make sealing on all of the sub-Antarctic islands profitable, whereas catches from only some would be unprofitable; but this seems a remote possibility.

The South Georgia fur seal herd may prove the basis of an industry at some future date, but when one considers that from a stock of some half a million fur seals on the islands off South West Africa comes a harvest of about 30,000 skins a year, and that from the million and a half animals of the Pribilofs come some 70,000 skins annually, it's evident that the 15,000 fur seals of South Georgia have **far** to go before they play any significant economic role.

To turn now to the hair seals... or perhaps we'd better turn back, belatedly, to the broad classifications, to separate the one from the other:

Under Seals (Pinnipedia),

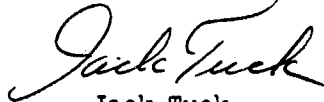
- Eared Seals (Otariidae), which includes sea lions (as in most circuses and zoos) and fur seals
- True Seals (Phocidae) - no external ears; hair, not fur; slow and clumsy on land (where the Eared Seals are quick, though awkward)
- Walruses (Odobenidae) - with which we are not concerned

Fur seals are Eared Seals, and elephant seals are True Seals; instead of saying "hair seals" I should have said "other species of True Seals." The two most common Antarctic seals are worthy of brief mention; they are the Weddell seal, numbering perhaps 200,000 to 500,000; and the Crabeater, with an estimated population of 2 to 5 million. In Arctic waters (or, more properly, on Arctic pack ice) two True Seals, the Harp and the Hooded, form the basis of a significant industry, primarily for blubber oil and pup skins. A similar industry might possibly be based on the Weddell and Crabeater, though the practical difficulties involved would be considerably greater than those connected with the Arctic industry. But the feasibility of Antarctic sealing operations during the summer months was demonstrated by the Dundee whalers and the Jason in the 1892-93 season, when some 21,000 adult skins were taken in the northwest corner of the Weddell Sea.

We're left, then, with a modest but expanding - and further expandable - elephant seal industry, a potential but very limited fur seal industry - with the accent on 'very', and a rather-unlikely Weddell/Crabeater business.

It seems quite safe to say that Antarctica's economic future does not lie in sealing.

Very sincerely,



Jack Tuck

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