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SUBJECT:

SEALING INDUSTRY IN URUGUAY.

CONNECTED FILES.

NUMBER	

F.I.D.S. S62/1958/SG

Scientific Bureau No. .....

Copy No. 3

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FALKLAND ISLANDS DEPENDENCIES SURVEY

THE SEALING INDUSTRY IN URUGUAY

BY

FERGUS A. O'GORMAN - 1958.

Distribution :

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Stanley,
24th December, 1958.

As initially my stay in Montevideo would not have covered the sealing season, no arrangements were made with the Administration to study the technology of sealing. When my visit was extended I had an opportunity to see the sealing industry at work. However, Professor Vaz Ferreira felt that as arrangements had not been made, he was not in a position to impart technological information which rightfully belonged to the Industry, and I was requested to confine myself to the biological aspects of the fur seal. Consequently the information on which this report is based has been gleaned incidentally to this study.

When the possibility of writing a report on the Industry arose, Vaz Ferreira was of the opinion that any such report would tend to increase his difficulties with the Administration. In view of the circumstances, I feel that this report should be confidential.

Yours sincerely,

CONFIDENTIAL.

FALKLAND ISLANDS DEPENDENCIES SURVEY

The Sealing Industry in Uruguay.

By

Fergus O'Gorman.

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INTRODUCTION

The observations recorded below were made incidental to a study of the biology and literature of the Pinnipedia carried out in the Department of Vertebrate Zoology, Faculty of Humanities and Science of the University of Montevideo, under Professor Raúl Vaz Ferreira. These observations have been gathered from miscellaneous discussions and conversations with Professor Vaz Ferreira during my visit which extended from February to August 1958. No attempt could be made to study the industry in detail due to the administrative situation.

BIOLOGY

Two species of seals breed extensively on the Uruguayan coast: the Southern Fur Seal (Arctocephalus australis) and the Falkland Sea-Lion (Otaria byronia). Occassionally Elephant seals haul out amongst the rookories and more rarely Crabeater and Weddell seals are seen.

The Southern Fur Seal.

In South America the Southern Fur Seal's range extends from Brasil through to the Magellan Straits and Falkland Islands and up the west coast as far as the Galapagos Islands.

In Uruguay it is found on Islas de Lobos, Islas de Torres, Islas de Castillo Grande and Islas de la Coronilla. It was also present on Islas de Flores off Montevideo in the 18th century but has since disappeared. Nowadays one occassionally sees sealions hauled out on these rocks but no recent breeding has been recorded.

The largest and most easily accessible herd exists on Islas de Lobos which lie about 10k. off Punta del Este, the eastern tip of the River Plate estuary.

The breeding population of Lobos Island may be more than 25,000 but no exact information is yet available for the other island groups, partly due to their inaccessibility and to the disinterest of the Administration in the biological basis for exploitation. In the region of 12,000 pups are born on Lobos every year.

The herd is non migratory and can be found on the island throughout the year, in contrast to the Falkland Islands where the same species is believed to migrate as far north as Uruguay in the winter.

The Falkland Sealion.

The sealion has a similar distribution along the South American coast to that of the fur seal, and in Uruguay breeds on the same group of islands.

Interspecific Competition.

There is little or no terrestrial competition between the two species of seal, primarily because in the fur seal the essential

parts of the breeding cycle - pupping and impregnation - is virtually over before that of the sealion begins. Consequently territorial conflicts are greatly decreased, and in the rare cases that do occur the advantage is always with the fur seal,for in seals possession is very much nine points of the law .Moreover a fur seal is more than capable of handling the bigger and heavier sealion even outside of the breeding season.Conflicts are also lessened by the tendency for both species to frequent different parts of the islands; the fur seal breeding on the rockier and most precipituous areas,the sealion preferring the beaches and flatter parts. They both however may compete for food on the feeding grounds,which may affect the size of the population.

Research.

For the past ten years Professor Vaz Ferreira has been studying the seals on the Uruguayan coast,especially those on Islas de Lobos,and at present the research emphasis is on population growth,behaviour,and reproduction.Tagging is helping to elucidate many of these problems.

EXPLOITATION

Uruguay is the only South American country at present exploiting the fur seal,though Argentina has a small sealion industry.Sealing in Uruguay has been carried on for over a hundred years though it was not until 1949 that the industry was put on a proper scientific basis and the ideas of modern conservation applied.

This new phase was in the main due to Professor Vaz Ferreira who spent 1947 and '48 studying sealing methods on the Pribilof Islands where the United States Government take 70,000 fur seals per year.Onhis return he set about reorganising the industry on modern lines.He developed an oil-extracting and meal producing plant to suit the size

ofthe catch,and introduced Pribilof methods of skinning, deblubbering, and barrelling. He also iniated the research into the biology of the seals which is still continuing.

Administration.

The industry is administered by the Servicio Oceanographico y de Pesca (S.O.Y.P.), a semi government body attached to ~~to~~ the Ministerio de Industrias y Trabajo. It also controls the major part of the fishing industry. The committee which looks after sealing consists of seven members, one a biologist. Professor Vaz Ferreira has been the biological member for the past seven or eight years. Because the concept of conservation is virtually unknown and unappreciated by the Uruguayan public, there has been continuous difficulty putting into affect any measures to limit the catch and restrict killing of females and animals other than the most valuable class.In 1957 while Prof. Vaz Ferreira was in Europe, the committee introduced piece work among the sealing crew, which is an incentive to indiscriminate killing, and it seems probable that females and other undesirable groups were included in the catch.Further difficulties arise from the fact that the sealing revenue helps offset the losses of the fishing industry and consequently there is a constant demand to increase the quota of seals taken.

This year Vaz Ferreira agreed to an increase in the quota, but only did so because he knew it could not be fulfilled. However this tends to develop a dangerous precident for if the season was extended the full quota might be procured causing serious damage to the herd. Also it is always very difficult to convince an administration to reduce the quota should the numbers taken prove to be too great a drain on the population.

Quota.

Due to the polygamous nature of the fur seal and because both sexes are born in roughly equal numbers,it

is possible to crop the herd regularly by taking the superfluous males but leaving a sufficient number to ensure the fertilizati-on of the female population.

The quota of fur seals to be taken in 1958 was 7000. The greater part of this quota would be made up of 18-21 month old males whose pelt is the least scarred and has the most value. However up to 30 month old animals may be included in the catch.

There is no restriction on sealions and both males and females are killed for oil, meal , and leather at the same time as the fur seals are taken.

As mentioned above Van Ferreira agreed to a quota of 7,000 this year knowing that the number would not be achieved. Even still he felt that the 4-5,000 that would be taken would be too many if it were not for the fact that the winter herd is nearly certainly being increased by fur seals from some other colony or colonies - probably from those of the Falklands This assumption is based on the fact that the Lobos Island herd would not still be increasing if the complete catch was being taken from the resident population alone. However that there is some movement between the animals on the different groups of Uruguayan islands , even during the breeding season, was demonstrated this year when we discovered a female fur seal hauled out on Lobos Island that had come from Islas de la Coronilla, 200 kilometres away. To establish definitely whether the Falkland Island fur seals migrate to Uruguay in winter, it would be necessary to tag a statistically significant sample (say 500) in the Falklands and see if they turn up in the Uruguayan catch. That the distance would be well within the capability of the fur seal can be seen from the Alaska fur seals which travel from the Pribilofs as far as Japan and California during the winter, distances of approximately 2,500 miles. The elucidation of this problem would be of vital interest if fur sealing was to be contemplated in the Falkland Islands.

Season.

The season extends from mid June to early September but probably 50% of the catch is obtained in the last two weeks of July and the first two in August. The Lobos Island herd supplies in the region of 80% of the total catch. When I visited the island on August 10th, 3353 seals had been killed and it seemed unlikely that many more than 4,500 would be taken before the end of the season. The work on Islas de Lobos was just finished - I believe one more drive was to be done - then the sealers were to leave to work the other island groups.

Sealing Crew.

Between twenty and thirty sealers are employed every year and live most of the season on Lobos Island. Preference is given to men with previous experience in order to maintain a high standard of skill among the crew, though this has not always proved possible as some of the men employed have been political appointments.

As most of the season is spent on Lobos Island, one storey cement dormitories have been built to accommodate the sealing crew. It is not possible to live on the other island groups due to the lack of water and they are sealed from the mainland. As none of them are more than two kilometres offshore the sealers can row across to them each day -weather permitting of course.

Lobos Island.

Lobos Island is quite small (approx. ½klm.) and rises from sandy beaches at the north end in a gentle slope to a rocky precipituous headland about 70 feet high at the southerl end. It is here and on the south west side that the fur seal is to be found. Otaria occurs mainly on the beaches. The central part of the island is reasonably flat and covered with grass (Cynodon) but this is re placed in the northerly half by a dense growth of fern (Polystichum) .At the north

west end is the jetty and sealer's huts and also the lighthouse - reputedly the highest in South America. Near the ~~it~~ lighthouse is situated ~~the~~ a large (approx. 50 metres diam.) circular wooden -railed corral, into which the seals are driven and kept until killed.

Due to the winter gales the seals tend to haul up onto the centre of the island, and especially after a strong ~~a~~ southerly wind. It is after such a wind that drives are most frequently carried out. Then the greatest concentration of seals ~~are~~ is available on the central grassy area from where they are most easily driven. So it can be seen that the sealing activity tends to be sporadic depending on the weather, and several weeks may go by without any seals being taken.

Driving.

When a sufficient number of seals have congregated on the central part of the island, a drive is initiated. The sealers armed with long wooden poles, creep between the seals and sea, and forming a semi circle around them, by shouting, banging their poles on the ground, and prodding, drive the seals towards the corral. During the drive the pups, being slower, may become segregated and are allowed to drop out. Care must be taken that none of the seals die of heat exhaustion. To obviate this drives are performed early in the morning before the sun has become too warm, or on days which are cold and overcast, and are carried out at a leisurely pace. As the distance to the corral is never more than half a kilometre, the seals do not suffer much discomfort during the drive. Conveniently the area around the corral is clothed in two foot high Polystichum through which wide lanes have been worn to the corral gates. This helps considerably in funnelling the animals into the pen. Here they remain until a sufficient number are available to make it economical to start skinning and cooking the carcasses. Some seals may be

two to three weeks in the corral without food or water before they are killed. This period of starvation appears to have little effect on their condition.

Killing.

Only the males in their second year arekilled,these giving the best quality pelt. The best prices are obtained from the largest and heaviest non scarred skins. On Lobos Island those have been found to be the one to two year old animals. Older males and adult females would give a larger and as heavy (or even heavier) a pelt,but would be scarred and consequently of less value. The most desirable pelt size must be worked out separately for each species, and within each species for different geographical populations, as the climate may have a considerable effect not only on the whole animal's biology but also on the main commercial point of interest - the quality of the pelt.

When killing is to take place,the sealers enter the corral and lasso the desired seals,which are thendragged between two short poles set in the ground just sufficiently apart to allow the right size of seal to squeeze through. The seals are pulled backwards between these poles and are stopped by their fore flippers catching against them.While thus immobilised they are roughly measured with a large wooden parallel-jawed calipers and if of the required size are clubbed and their hearts pierced.

Skinning.

To flay the carcase a method developed onthe Pribil-of Islands has been introduced which displaced the older method of skinning with a knife. The skin is cut up the abdomen, across the head behind the eyes,and around the flippers. Then a man with a special anchoring tool pins the carcase through the neck,while three other sealers grip the loose skin around the neck with stripping tongs and peel the skin backwards off the body, leaving most of the blubber

behind .This method is much faster and prevents the pelts getting cut which often ~~occured~~ occurred when skinning was done with a knife.

Washing,Deblubbering,and Salting.

The skins are then washed in seawater and left to soak overnight to harden the remaining blubber and make it easier to remove. Next day the pelt is placed blubber side up on a semicircular shaped beam (diam.approx.18 inches)and the blubber removed with a two handled curved "beaming"knife. Skilful deblubbering is essential ,for if it is not done properly holes may appear in the pelt during the processing. When free of blubber the skins are put through a wringer to remove the moisture and placed in a trough of crude salt containing a small proportion (10%) of boracic acid (a fungicide) for two weeks.

Barrelling.

After salting the skins are rolled by turning the edges into the middle and so preventing the flesh side touching thr fur. During barrelling which follows, the pelts are heavily salted to preserve them during transportation to the processing company.

The barrelled pelts are shipped either to the Fouke Co.,St.Louis,U.S.A.or to Martin and Sons,London,the only two companies that handle seal skins,for processing and selling. However a German firm may soon enter this field.

Processing.

The skins go through more than a hundred distinct processes which take as long as ninety days andare graded as to size and quality. There is no scientific basis for this grading - long experienced technologists feel the skin and pronounce on its worth. It might be possible to develop some scientific criteria for quality,say by calculating the number of hairs per cubic millimetre from batches of pelts of known commercial quality. In this way an approximation of the value of the catch might be obtained prior to processing

instead of having to wait a year or more before knowing this, as at present.

Value of Pelts.

At present Uruguayan skins stand between the U.S. and South American African pelts in value. The prices obtained from Fouke and Co. for raw skins has varied from £-.14.- 70 dollars to 50 cents, averaging in the region of 10 dollars and from £1 - 4 from Martin and Sons, the majority ranging between 30/- and 50/-.

Mr. W. Bonner has informed me that Martin and Sons consider the South Georgian pelt of better quality than the Uruguayan . This of course is to be expected, the colder climate requiring the seals to have a heavier coat. Presumably this would also apply to a lesser extent in the Falkland Islands. If the Falkland Island seals are migrating as suggested above, the better quality skins in the Uruguayan catch may be those of Falkland Island animals.

Carcase Utilisation.

Soon after killing the carcasses are fed into a reducing plant which extracts the oil and turns the bone and flesh into a fine meal, which is used in agriculture. The sealion carcasses are similarly treated and their skins sent to a local tannery.

Vitamin A.

Attempts have made to extract vitamin A from the livers of both species, but the yield was not sufficient to make it economically worth while continuing.

Control of Sealing.

During the parts of the sealing season when Prof. Vaz Ferreira is not present on Lobos Island, a student from the Faculty of Science lives with the sealers and keeps a tally of the number of seals killed etc.

Outside the sealing season the seals are protected by one of the sealers who is employed as a full time warden and has lived on Lobos Island for over forty years. He sees that the seals are not disturbed during the summer by visitors

from the holiday resort on the mainland.

Poaching.

The presence of the warden on Islas de Lobos prevents any poaching occurring there. The other islands groups may however be poached, though there are no definite cases known.

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