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A SHORT HISTORY OF THE SHEARWATER HUNT ON THE GREAT SALVAGE AND RECENT DEVELOPMENTS ON THIS ISLAND

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With 5 figures

The Salvage Islands were, until 1971, privately owned. When the proprietor did not personally exploit the young of Cory's Shearwater, *Calonectris diomedea borealis*, which breeds in vast numbers on Selvagem Grande, the largest of the Salvage Islands group, the only means he had of obtaining an income from these islands was by leasing the slaughter rights to a third party.

This anual slaughter had taken place for very many years, for Berthelot in 1841 and again Bolle in 1857 both stated that the taking of 30,000 birds in one year was considered then to be a good «catch» (Banerman, 1963, Birds of the Atlantic Islands, Vol. 1, p. 15). This implies that this practice had already been going on for many years before 1841. The young birds were salted and taken back to Funchal and sold chiefly to the inhabitants of Santa Cruz, Machico and Caniço, but also to other districts where they were greatly appreciated in the autumn as a change from their normal diet.

This annual slaughter of the young chicks continued unabated without any apparent effect on the total number of the Cory's Shearwater colony. The surviving young which escaped the hunters were always sufficient in number to replace the adult birds which died a natural death.

This balance continued for very many years but with the advent of the motorised fishing vessel and the consequent comparative ease of reaching these islands, which lie 160 miles south of Madeira, the annual

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take of the young birds in September and October by the owners of the slaughtering rights, began to diminish. This was due to fishing boats visiting the islands during all the summer months and unlawfully taking, at first young birds, and then adult birds, before the annual expedition arrived on the islands.

After a constant decline in the number of chicks taken during these annual expeditions, the situation in 1967 had reached disastrous proportions for in this year only about 13,000 birds were taken. The last lessees of these rights were Simplício dos Passos Gouveia and Rufino Menezes, who were so worried for the future of the colony of Cory's Shearwaters that they allowed a third party to lease the islands for a period of 3 to 6 years. The object of this was to stop the slaughter during these years and to attempt to bring the colony back to its former numbers. The owner of the Islands also permitted the new lessee to build a house on Selvagem Grande, and it was also agreed between all the parties concerned that at the end of the 3 to 6 year period of no hunting, the slaughter rights were to be handed back to the former lessees.

The last expedition to Selvagem Grande for the slaughter of the young Shearwaters left Madeira on 15th September 1967. The local boat, "Milano", which took this last "hunting" expedition also took men and material for the building of the house which was to serve as a base for the new lessee and his ornithological friends to study the seabirds breeding on these islands and to attempt to prevent their being taken.

A ringing scheme was started in 1968 and continued in subsquent years. This annual ringing has served as a basis for the study of the biology of Cory's Shearwater up to the present day. About 2500 chicks are ringed every year. Transport is supplied by the Portuguese Navy.

In 1971 the World Wildlife Fund proposed purchasing the islands from the proprietor, Mr. Luiz da Rocha Machado, for the purpose of making them a Nature Reserve. An agreement was reached but the Portuguese Government opted to purchase the islands for themselves which they did on 17th July 1971 and by decree no. 458/71 of 29th October 1971 made them into a Nature Reserve. At the same time the government, in the same way as had been agreed between the owner and the World Wildlife Fund, made an exception of the house which had recently been constructed, together with the cave and the cistern, which they recognised as the private property of the third party and lessee at the time.

While the naval authorities, in collaboration with private efforts, supported by the new decree, attemped to control the taking of all seabirds on these islands, these measures were not sufficient for their protection. The fishermen continued to raid the islands and these raids culminated in 1976 with the massacre of many thousands of adult and young birds. During 3 days' search by 2 members of CEMPA (Centro de Estudos de Migrações e Protecção das Aves) only 64 live chicks were counted on the

whole island in late September. The fishermen had also completely ransacked the house and only the walls and roof were left standing. The government immediately sent a television team to Selvagem Grande to film the result of this massacre and the film when shown both drew attention to the existence of this Nature Reserve and shocked public opinion.

The Serviço Nacional de Parques e Reservas in Lisbon together with the Autonomous Regional Government of Madeira then decided to maintain wardens on Selvagem Grande during the months when the Cory's Shearwaters were present. A house was built for the wardens based on the ruins of the old warehouse which existed there, and recently another house for visiting scientists has been built by the Regional Government alongside the wardens' house. Solar panels have been successfully installed for lighting and charging batteries for radio communication. Surface communications, which are of the utmost importance, are efficiently and regularly maintained by the naval authorities and there are now wardens on Selvagem Grande all the year round. The Regional Government continues to give this Reserve its whole-hearted support as does the Serviço Nacional de Parques e Reservas in Lisbon.

International interest has been shown in this Nature Reserve and many visiting scientists, both from Portugal and other countries, have made studies of the seabirds of these islands resulting in the publication of many interesting and important papers on the subject.

The annual slaughter, as stated, came to an end in 1967 but little was known of the methods employed during this operation one hundred years ago. Recently our notice was brought to an article written in 1893 and published in German by Father Ernesto Schmitz who was director of the Funchal seminary and an eminent ornithologist at the time, entitled «The Shearwater Hunt on the Salvage Islands in 1892» (Ornithologisches Jahrbuch, July-August 1893).

Since this paper is of interest in relation to the Selvagens Nature Reserve, to ornithologists and to the public in general, it has been thought worthwhile to reprint it translated into Portuguese and English, which is what has now been done. As a postscript it may be of interest to add that the chief warden on Selvagem Grande, Fernando Almada, took part in several of the last shearwater "hunts" and that his descriptions of the slaughters in which he took part vary only in small details from the "hunt" as described by Father Ernesto Schmitz 93 years ago.

Simplício dos Passos Gouveia who was present on the islands and in charge of several of these "hunts" has recently read Schmitz's paper and confirms the similarity of the methods used in 1892 with those when he was in charge in the 1950s and 1960s. It should be noted that whereas in 1892 it was the proprietor of the islands who personally organised and lead the expedition, in recent times the "hunting" rights were leased for renewable periods of three years.

It should also be pointed out that whereas in Father Schmitz's time the incubation period of Cory's Shearwater was thought to be about 4 weeks, we now know that it is in fact about 54 days. (Zino, 1971. *Ibis*, 113: 212-214).

TRANSLATION INTO ENGLISH OF FATHER SCHMITZ'S ACCOUNT OF THE SHEARWATER HUNT IN 1892 (see p. 3)

For most of the details describing this last hunt I have to thank Mr. Constantin Cabral de Noronha who is the proprietor of the Salvage

Islands and also leader of the expedition.

The above mentioned gentleman embarked on the 12th September 1892 on the yacht "Hannibal" which had been contracted especially for this purpose. The number of shearwater hunters who, upon payment of a certain sum, Mr. Constantin took with him, totalled 19, most of them from the villages of São Gonçalo and Caniço near Funchal. These men are people who through experience gained in previous expeditions have attained a certain knack for this work. The preparations for the expedition i.e. finding, choosing and engaging the hunters, organising provisions for one and a half to two months, procuring barrels, baskets, packages etc. in which to store the produce of the hunt, was a lengthy business entailing much work.

Although the Salvages are only 150 sea miles distant from Madeira and almost on a straight line drawn from Madeira to Tenerife, this trip, due to exceptionally calm weather, took 4 to 5 days, while with a favourable wind in other years it took only 24 hours. As is known, the Salvages are uninhabited and form 2 groups; one, lying to the East, consisting of the largest (Selvagem Grande) which is nearly 3 kilometres long and 2 kilometres wide, and the other group, 7 sea miles to the West, consisting of 2 relatively larger islands and a number of smaller rocky islets. The hunt takes place only on Selvagem Grande on whose southern coast it is easy to land. The owner had had a shed built here for the purpose of sheltering the hunters and also for the processing of the shearwaters. This year, as in former years, the owner found that the island had been visited by poachers (fishermen from the Canaries) who had caused considerable damage through unauthorised hunting of the shearwaters. wild goats and rabbits and by collecting limpets from the coast. He had complained about this more than once to the Portuguese Government and asked for representations to be made to the Spanish Government or to the Governor of the Canaries, but up to the present without any result. He now hoped, through a Madeira delegate, to bring the matter up before the Cortes.

The reader must not think that the shearwater hunt is carried out with powder and shot. No, it is a more prosaic affair. The hunters must climb all around the steep rocks and precipitous cliffs, often at the risk

of their lives, and search in all holes and fissures and pull out the young chicks with their bare hands. We know that the Cagarra, as the Madeirans call the *Puffinus kuhli*, produce only one chick, as do all other shearwaters. Even after the chick is fully grown it makes no effort to fly away. It is so fat and heavy that it permits anything to be done to it. The hunter kills the bird with a bite in the back of the neck and then lets the oily substance contained in its stomach run into a small bucket. When this is full the contents are emptied into a larger container. The old birds also allow themselves to be taken without putting up any resistance for they do not fear man; sometimes they must be pushed aside with one's foot to get them out of the way.

The shearwaters are piled up and later plucked and gutted; head and feet are cut off and thrown away and the meat is salted. The neck is separated and salted very carefully for it is considered an especially tasty morsel.

Gun, powder and shot are used only for shooting rabbits which are found in very large numbers. These are skinned on the spot and the meat is salted in the same manner as the shearwaters.

Another item which is profitable to the owners of the islands is the vast quantity of edible limpets (*Patella lowei* d'Orb.) which are to be found everywhere on the coast.

Separated from their shells these molluscs are also salted and stored in barrels.

According to the official list at the Funchal Customs House, the cargo of the "Hannibal" awaiting clearance on the 9th October 1892, consisted chiefly of the following: 85 barrels of shearwater meat and oil, 17 bales of feathers, 8 barrels and 24 tins of limpets, 29 boxes of other kinds of preserved shellfish and 3 barrels of rabbits.

The number of shearwaters taken came to about 19,400; this number whould have been greater, had not the yacht, which in the meantime had visited the Canaries, returned earlier than expected and thus brought about an early end to the expedition. As long as the hunters have no possibility whatever of returning to Madeira, they more easily overcome any feelings of homesickness and subject themselves willingly to this tiring and laborious work. However, the moment the ship which collects the expeditions comes in sight, nothing will induce the men to continue their work. In other years up to 22,000 shearwaters were taken. Although this year the number was smaller, their quality was all the better.

Only rarely does one find among the many thousands of shearwaters a completely white specimen with yellow beak. Mr. Constantino, who has been going to the Salvages for over 40 years, can recall only three or four such specimens. One such bird he once took back home with him, tamed it completely and kept it for a long time.

The salted shearwaters, which taste more of fish than of meat,

are purchased and eaten by those who live in the highly populated district of Machico.

The feathers are sold to England for making eiderdowns etc. Only a small amount is used in Madeira itself for making artificial flowers.

The preserved shellfish find a market chiefly in British Guiana

and in the West Indies.

According to Mr. Constantino Cabral de Noronha, apart from Puffinus kuhli Boie, the following birds breed on the Salvages: Anthus bertheloti Bolle. Falco tinnunculus canariensis Kg., Larus cachinnans Pall., Sterna hirundo L., Puffinus anglorum Temm., Thalassidroma leachi Temm. and Thalassidroma bulweri Gould. It is not easy to obtain a more thorough knowledge of the birds of the Salvages since this group of islands is visited practically only in September and October. The islands are volcanic and almost entirely basaltic except for a sparse layer of calcareous deposit found on the main island almost throughout its entire length. This deposit contains fossilized molluscs, species of Cardium, Trochus and Patella, Nerita connectens, Fontannes, Nerita aff. galloprovinciales, Matheria etc., and also numerous bivalves. The episcopal museum in Funchal has a small collection of these. Apart from the rabbits, which we have already mentioned, there are also wild goats on Selvagem Grande. There are no trees. In former years the «Barrilha» (Mesembrianthemum crystallinum L.) crop was a main product of the islands. These plants were used for making soda and in one year 1600 hundredweight were brought back. In the same way «Urzella» (Rocella tinctoria L. Orseille) used to have a considerable value.

The Salvages were discovered by the Portuguese shortly after they discovered Madeira although by virtue of their geographical position, fauna and flora they should sooner be included among the Canary Islands.

DETAILS OF THE HABITS OF THE SHEARWATERS AND THE METHODS USED FOR HUNTING THEM

On the Salvages the shearwaters breed in the months of May, June and July. By the end of May most of the birds have laid their single egg. The incubation period is more or less 4 weeks. Long before they lay their egg the birds are very busy in their holes cleaning (limpar) them out. For their nest they preferably choose a covered spot, fissure or hole in the rocks or a rabbit burrow rather than a spot out in the open; the latter nesting sites are selected only when none of the others are available. Some birds collect large numbers of small stones which they pile up at the entrance of their nest chamber in order to protect it.

Year after year the shearwater couple chooses the same nest site; should another young couple try to occupy this site, a fight ensues which sometimes ends in the death of the weaker contestant. The couple rub their bills together in the same way as pigeons do. Towards sunset

the shearwaters resting on shore form compact masses even on the footpaths and sometimes cannot even be bothered to move out of the way and must be pushed aside *.

Although not so numerous as on the Salvages, Desertas and Porto Santo, *Puffinus kuhli* breeds also on Madeira itself; in the episcopal museum in Funchal there are eggs from the North, South, West and East of the island (S. Anna, Ponta do Sol, Ponta do Pargo and Caniçal).

In certain parts of the island the nests are so close to one another that one would think that the birds would mistake them especially when they have young; but the chicks always remain in their own nest. The parent birds always manage to find their own young although they are surrounded by many others, all of which look exactly the same. Upon their return from the ocean the shearwaters do not land immediately, nor do they fly directly to their nesting site, but instead they circle around. Once they land they head towards their nest at the double, neck tucked well in and head lowered and start feeding their young.

On their nests the birds are always ready to defend themselves and must be caught with great care; a jab of their strong beak can inflict a nasty wound even on a weather-beaten hand.

On Selvagem Grande there is a large cave in which 8 workers can sleep. Since its entrance was very wide it was walled in and only a small door was left. Right at the end of the cave there is a hole in the rock where there has been a nest since time immemorial. Every evening after the men have laid down to rest, the parents come to feed their chick; they pause for a moment at the entrance, raise their wings and run in between the people, or rather, over them, to reach their nest; they also leave in the same way.

One of the workers there this year has been coming to the Salvages for the past 40 years and when he first came this nest was already reckoned to be very old. It is the custom that the chick from this nest is always spared.

As to the method of hunting, the following should be noted: The actual hunters (caçadores) are only 7 in number, but each has an assistant who accompanies him, a sort of beater or «saccador». These 7 people are alloted a certain area where they form a line; they are armed with a «bicheiro», that is a 2 to 3 metre long stick with a sort of iron hook on the end which is used to pull out the shearwaters from those holes and fissures where they cannot be reached by hand. The «caçadores», walking

^{*} Especially in the evenings they produce a chattering sound, not unlike human voices and in certain areas, for example in Ponta do Sol, the people of Madeira attribute words to these sounds as if husband and wife were talking to one another. One says: «Olhe peixe, olhe peixe!» To which the other replies: «Diga me onde é!» That is: «Look there's fish, look there's fish!» «Tell me where!».

or climbing here and there among the "saccadores", grasp the shearwaters firmly by the neck so as to avoid their painful pecks, and then with a bite in the back of their neck kill them outright, in the same manner as fishermen in this country kill smaller sized fish. Each hunter carries with him a tin over which he holds the dead "cagarra" and immediately a stream of oil flows from its beak, "Brechöl", known locally as "Vomitadura". This flow of oil increases by applying pressure on its body and then, in order to avoid any further untimely flow of oil, the gullet is stuffed with feathers which act as a bung.

During the hunt two other men equipped with long sticks walk among the hunters, tie the shearwaters together in pairs by their beaks, and in this way hang them over the sticks. These are received by two other men standing at the edge of the cliff and are then taken to the plucking site (pelladeiro) which has been chosen to be more or less in the centre of the hunting area and, whenever possible, in a spot which is protected from the wind. Later all the men gather here in groups of 3 or 4; one man from each group then holds a large sack in front of him which is held open with a hoop and attached to his neck so that the feathers can easily be thrown in. When this work has been completed the plucked shearwaters are divided into equal parts, strung on a rope and each man then carries a load to the shed. One man carries the sacks with the feathers and another a barrel with drinking water which follows the men wherever they go. Once they arrive at the shed, normally around one o'clock in the afternoon, they have lunch, but soon after they start work again. The shearwaters are dipped into a cauldron of boiling water and each one is scrubbed individually to free it completely of all feathers. Once this is done, one of the men takes his place at the «picadeiro» and starts cutting off the necks and feet, doing this work to a certain rhythm; only few men have the knack to perform this work efficiently. In the meantime the others are not idle; some open up the birds and gut them; others scrape the fat from the skin and entrails. Once this work is well advanced, six men start doing the following: two men, using a wooden needle and thread, string the birds into bundles so that they can clean them thoroughly by dipping them into the seawater; two others salt them, one takes them to the storage shed and another counts and stacks them.

The necks are scalded, salted, and stacked in piles and once the hunt is over they are packed in barrels.

The shearwater hunt lasts 20 consecutive days and starts around the 25th September. Work commences at dawn and continues until darkness falls without any respite except for one hour's break for the mid-day meal. In fact, this is strenuous work for which only men with strength and stamina are suited.

The shearwater fat is put out in the sun for 3 to 4 days and then melted down. Nearly all of it turns into oil; what remains makes excellent bait and is kept for fishermen.

The socalled "Brechöl", or sick oil, remains fluid; the oil obtained from the fat thickens quickly and in cool weather turns solid. The necks, "Brechöl", livers and a share of the bait constitutes part of the hunt and are all left to the hunters by the owners of the islands.

Funchal, March 1893.

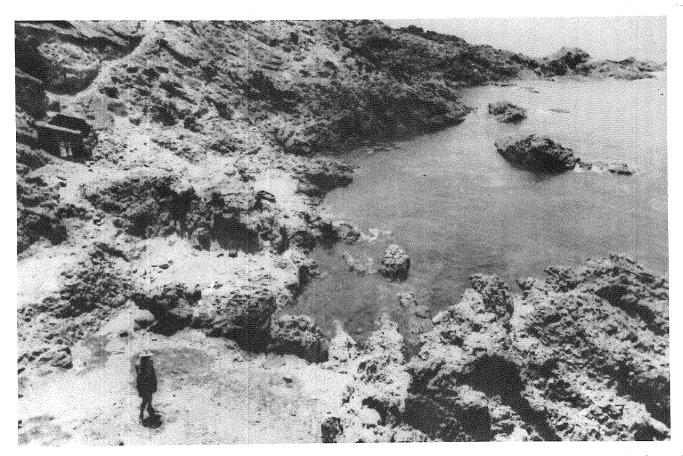


Fig. 1 — Baia das Cagarras. In the foreground is the site where the first house was built on Selvagem Grande. In the left background, the old shed used by the hunters and which later was transformed into the wardens' house and adjacent scientists's house.

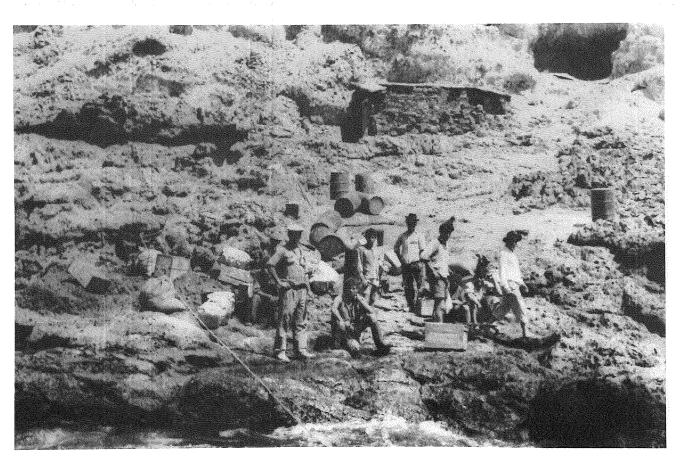


Fig. 2 — Workmen disembarking to build the first house on Selvagem Grande. The old shed is in the background.

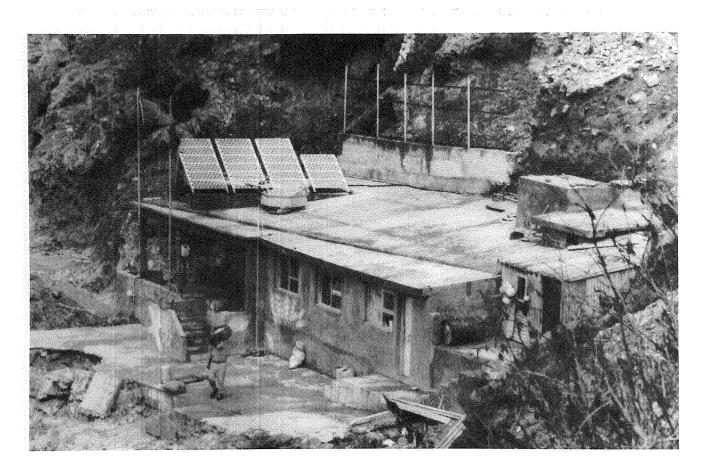


Fig. 3 — Present wardens' house and scientists' house built by the Regional Government of Madeira, on the site of the old shed.

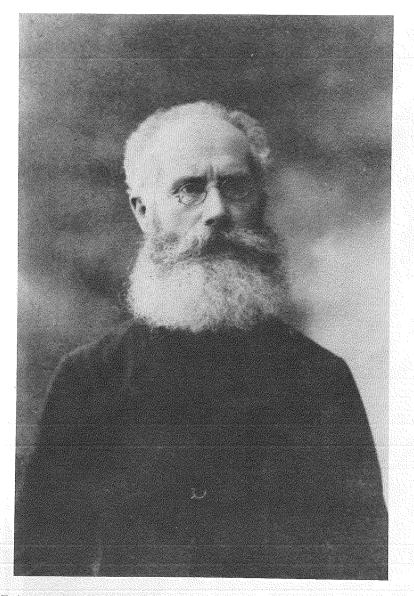


Fig. 4 — Father Ernesto Schmitz. Was born in 1845 in Rheydt, Germany, and came to Madeira in 1874. He was vice-rector of the Funchal seminary and an eminent naturalist. He was the first person living in Madeira to make a detailed study of the birds of the islands. He encouraged others to take a similar interest, especially the students at the seminary where he taught. He wrote a large number of papers on the birds of the Madeira arquipelago, mostly in the «Ornithologisches Jahrbuch», from which publication this translation has been made.

He died in 1922 in Haifa.

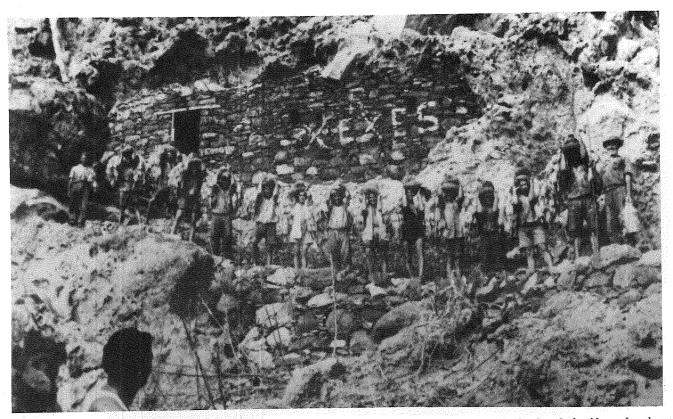


Fig. 5 — Hunters returning laden with the chicks whose feathers have already been removed. On the head and shoulders of each man there is a sack containing feathers which acts as a cushion to the rope on to both ends of which are attached about 40 chicks. Most feathers have already been carried below as described by Father Schmitz. The man on the right is holding a can containing the oil from the birds' stomachs. The men are standing below the walled-in cave in which about 8 men can sleep and in which there is a nest whose chick is always spared. The photograph was taken in the 1950s.