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ANTARCTIC NEWS BULLETIN

A QUARTERLY BULLETIN

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"ANTARCTICA IS AUSTRALIA'S BACK DOOR. AN ENEMY
COULD QUITE EASILY BUILD A HIDDEN BASE IN THE ICE AND
FIRE ROCKET BOMBS AT MELBOURNE - ONLY 1800 MILES AWAY."

That was not said by an alarmist, but by PHILLIP G. LAW, Director of the Antarctic Division, Australian Department of External Affairs, as reported in the Melbourne Sun, May 1, 1954.

AUSTRALIAN NATIONAL ANTARCTIC RESEARCH EXPEDITION TO MACROBERTSON LAND.

(The Antarctic Division supplies the following details of the closing stages of the "Kista Dan's" voyage in Antarctic waters.)

The "Kista Dan" proceeded eastwards from Mawson on 23 February, and two days later the Scullin Monolith was sighted but a landing was impracticable owing to heavy swell. On the 27th, the ship proceeded south in Prydz Bay looking for a lead in the ice which would permit access to the Princess Elizabeth Land Coast near the Vestfold mountains. Four days later, on 3 March, a party of four men led by Law landed on the mainland of Princess Elizabeth Land at approximately 68° 38' South 77° 30' East. Heavy snow storms postponed survey and aerial work until the following day. On the 4th, an accurate astrofix and magnetic observations were made on an offlying island by the geophysicist, Brooks, and Elliott; Dr. Gwynn collected geological and zoological specimens; and Flight Lieutenant Leckie made an aerial survey of 90 minutes.

On the 5th, a hurricane of 90 knots developed from the north-east and the ship was driven across Prydz Bay until a sheltered strip of brash ice was entered and the wind slowly moderated. On the 7th, the ship proceeded east, meeting open water a few hours later.

Heard Island was reached on March 14. As the motor-boat was unserviceable through a broken water-pump and the large motor-cutter was deep in the hold and could not be unloaded in the heavy swell, no heavy material could be loaded. Thirteen men were taken on board and the ship sailed for Kerguelen, arriving there on the 17th, and at Melbourne on March 31.

The hurricane which struck the vessel after she left the Antarctic continent was described to the Press at Melbourne as "the most terrifying experience of all". The remaining Auster was swept overboard and the ship developed a frightening list. "My own face", said Mr Law, "was pressed flat against the port-hole in my cabin, practically against the water". The "Kista Dan" drifted sideways and was for 30 hours completely out of control. (Press reports.)

NEWS FROM MAWSON

Cables received late in April report that the station was then in full operation. The first heavy diesel engine had been installed and electric light had replaced kerosene lamps. However, living conditions immediately after the departure of the ship were difficult in the uninsulated stores hut where the men were first housed. Temperatures in the hut were either freezing or, if the stove was burning, "tropically" hot. During blizzards the floor was covered with water from drift snow. During one blizzard the dog lines were buried in driving snow and a team of three men digging at the buried dogs could scarcely keep pace with the formation of wind-packed snow. Russell, the engineer, spent an entire week digging a channel for the electric cable through solid rock. All the drills for boring holes in the rock to tie down the ropes of the huts have been broken. Forty tons of rock were carried to level the site for the N.B.S. Hut, the main living hut. Owing to the danger of bad weather the exterior sheeting of each hut had to be finished in one day and all hands worked in bitter cold late into the night by the light of "weasel" head-lights and torches.

Forty-five seals have been killed and dressed for the dogs' food but the present absence of seals is causing grave concern for keeping the dogs alive through the winter. The seal meat is frozen so hard that when it is cut with an axe chips fly off it like wood.

With a long period of fine weather in late March and early April camp construction was at last completed and the men took up quarters in the warm and comfortable N.B.S. living hut.

First Journeys

Dovers, Officer-in-Charge, and Schwartz, the French observer with the party, completed the first exploratory trip to the nearby Mount Henderson in one of the tracked snow vehicles known as "weasels", mostly over steep slopes of hard blue ice so slippery that a man on foot had difficulty in standing. They marked a route with flags through the heavily crevassed coastal area, crossing several crevasses over ten feet wide. They were held up by a zone of dangerous crevasses which forced them to halt and they groped their way back, flag by flag, through thick snow drift to the Station.

With the onset of winter the days are shortening and the sea is now frozen over. Temperatures of -14° F. have been recorded and heavy clothing has been issued to all the men. The station is busy settling down to routine work. The "weasels" are being overhauled and locally made modifications are being fitted and tested for the winter journeys. Lectures on radio communication, navigation, first aid and "weasels" are being held so that in the event of any casualties, the programme can go on. Dovers plans shortly to proceed with Schwartz and Storer, radio operator, into the interior south-east of Mount Henderson, leaving Stinear, Geologist, and Summers, Medical Officer, at Mount Henderson to carry out geological investigations.

Exploring the Plateau

Five men with two "weasels" were on the plateau from 26th April to 29th April marking a route for the "weasel", clear of coastal crevasses. Heading east of Mount Henderson at twilight, a man on foot ahead stopped the "weasel" ten yards from the first of a zone of crevasses. They only formed a small depression and fine cracks, but gave evidence of many crevasses ahead. Camp was made here next day. A blizzard and temperatures of minus sixteen with wind up to fifty knots, made movement impossible. But a foot reconnaissance was made next day and geologic and botanic examinations were carried out on the mountain, roped together. Next day exploration proceeded at top speed with the open "weasel", to west and south-west of the mountain. We found a useable route after a winding track through the crevasses, but progress was stopped by rising drift: the marker flags could no longer be seen at two hundred yards. It was not the weather for driving a three ton vehicle over crevassed country. The objective of a marked route being achieved, the party returned to camp. The descent of the steep slopes on blue ice was tricky, but we negotiated it with one "weasel" leading, dragging the caravan and a sledge, with a cramponed "weasel" on the rope at the end of the train acting as anchor.

There is a drift ten feet deep about the camp. The sun is only four degrees above the horizon at noon, sunrise is at 0930 hrs. and sunset at 1500 hrs. Our food is now stacked in an ice cave. Superficial frostbite is becoming common. The first pups have been born to Denny and Alison. Five were frozen at birth, but there were five survivors, two being resuscitated on the kitchen stove.

Field Trip from Mawson

Dovers, Stinear, Harvey and Storer left Mawson on 17 May on a trip across sea-ice to the east as far as the Scullin Monolith, distant about 110 miles. They expect to be away for one month. They took two "weasels", two living caravans, two cargo sledges, one dog sledge and four tons of stores. The object of the journey is to determine accurate astrofixes of the Murray and Scullin Monoliths and other features, and to extend the geological survey.

FALKLAND ISLANDS DEPENDENCIES SURVEY

- Base A. Port Lockroy. The ionospheric recorder was completely overhauled in January and is working satisfactorily. The R.R.S. John Biscoe visited the base once in early February and twice during March on her way to and from the Argentine Islands. A jetty was built in 1953 to facilitate landing stores, and this has now been dismantled and stored ashore for the winter.
- Base B. Deception Island. H.M.S. Nereide visited the base twice during January, and H.M.S. St. Austell Bay was in the area at the end of February and again in March. The Biscoe arrived on March 3rd. Six new penguin rookeries were discovered during the course of the new topographical survey (see Bulletin No. 13) and approximate counts were made.
- Base D. Hope Bay. The party which landed on Joinville Island in December surveyed most of the island before the Biscoe called there in February to take them back to base. An extension to the base hut, including a general office, survey office and laboratory, was constructed in February. New kennels were also built to house a number of husky pups and dogs transferred from Bases F and G. View Point Meteorological Station was re-occupied on 9th March and observations started immediately. A relief party left the base on the 17th but unfortunately encountered thin ice in Duse Bay and the two sledges broke through simultaneously. One dog team and sledge was lost, but the other reached View Point safely and the men were none the worse for their unpleasant experience. The Biscoe paid her final visit of the season on March 25th, and brought a supply of seal meat from Base F. as local supplies have been inadequate.
- Base F. Argentine Islands. A new base hut and associated buildings have been erected at Marina Point in the North of Galindez Island. The Biscoe made several visits during February and March and stood by during the building operations.
- Base G. Admiralty Bay. A new 44 ft. wireless mast has been erected, and a second wind-vane has been put into operation on the original hut site to compare wind direction on the two sites.
- Base H. Signy Island. A number of Cape Pigeons, Snowy Petrels, Dove Prions, Sheathbills, Wilson's Petrels and Adelie Penguins have been ringed. Seal counts have also been continued, and there were well over 2,500 Elephant seals in Borge Bay at the end of January. The Biscoe last called at the base at the end of March.
- South Georgia. H.M.S. St. Austell Bay paid a routine visit to South Georgia at the end of March and visited Grytviken, Husvik and Leith Harbour.
- South Georgia Survey. In late February the party completed a 38 day journey to the south-east of the island. The country proved extremely difficult and in some cases impassable. In addition to topographical survey, the geologist was able to make a detailed study of the igneous complex in the vicinity of Drygalski Fjord. Early in April, Carse reported a successful trigonometrical tie-up in the Royal Bay-Gold Harbour area. The season's work was therefore completed and the party arrived back in the United Kingdom in mid-May.
- King Penguin Survey. It was reported at the beginning of March that satisfactory progress has been made with the observations on King Penguins; 200 birds have been ringed and the growth of chicks observed. Other work has been started on Gentoo penguins, and on Elephant and Leopard seals. A species of invertebrate land fauna has been recorded which is new to South Georgia. The local topographical survey has been completed and the survey of Ample Bay started. A weather log is being maintained in connection with the ornithological work.

All Bases. The Chief Meteorological Officer visited all bases this season in order to check meteorological equipment and stores and to discuss local problems with the Senior Assistants.

Routine three-hourly meteorological and wireless schedules have been maintained throughout the season.

ARGENTINE ACTIVITIES

A naval transport plane brought in the members of the military personnel who during two years had remained at Bahia Margarita in the Antarctic, and which was relieved by two helicopters which landed on an ice field of 20 kilometres.

(see earlier report, Bulletin No. 13.)

The Ministry of Marine in referring to the work of the naval task force, stressed the work done in oceanography by the 'CHIRIGUANO', near the Shetland Islands. The tanker PUNTA LOYOLA serviced various units and the ships YAMANA, BAHIA BUEN SUCESO, and SANAVIRON penetrated the Palmer Archipelago, as far as 68 degrees south.

After a prolonged and hard campaign, which lasted five months, the ships which formed the Antarctic Naval Force, under the command of Captain Alicia E. Ogara, arrived in Buenos Aires on April 1. They were the transports BAHIA AGUIRRE and BAHIA BUEN SUCESO, and the hydrographic ships SANAVIRON and CHIRIGUANO. The Minister of Marine, Rear Admiral Anibal Olivieri, said that it was fitting that the welcome should take place near the statue of the corvette URUGUAY, thus uniting in memory all men of the Ministry of War, who have received the legacy of the sacrifices of their fore-runners. (The URUGUAY rescued Nordenskjold's party when the Swedish expedition ship 'ANTARCTIC' was sunk in Erebus and Terror Gulf in 1902.)

An exposition of Antarctic photographs and paintings was opened in Buenos Aires on May 4.

ANOTHER U.S. EXPEDITION ?

The "Science News Letter" (Washington, D.C., U.S.A., May 8, 1954) says that at least one Antarctic expedition is being planned for 1957 or 1958. "A bill to finance one such expedition has recently been introduced to Congress". The expedition would join in the world wide observations of the International Geophysical Year.

One aim is stated to be the establishment of three pole-to-pole chains of weather stations, but this is only one of the fields of activity in which scientists all over the world will concentrate their efforts during the Year.

The U.S. correspondent of the Sydney Morning Herald understands that the U.S. is eager to secure the co-operation of the British, Australian, French, Argentinean and Chilean Governments. It is intended, he says, to establish at least three major camps:

- (1) An observatory for magnetic and meteorological observations at the Pole itself;
- (2) A station near the Bay of Whales;
- (3) A station in the foot-hills of the Rockefeller Mountains, east of the Ross Sea.

It is suggested that strategic factors have led the Navy Department to co-operate with the State Department in the planning, which will not be completed for many months.

CONCENTRATED EMOTION

Men on Macquarie Island can send a 75-word telegram free to their folk at home and there is a code to make it easy.

Apparently the most varied reactions to sub-Antarctic life are anticipated:--

YIKLA means "This is the life", but
YIKPO means "This place gives me a pain".

A MACQUARIE ISLAND REPORT

The weather during the past month has continued stormy with an endless succession of rain, snow and high winds. Winds reached 100 miles per hour on the morning of 11th April and gave a record wind run of 1141 miles for a twentyfour hours period. Wireless aerials were blown down but no damage was done to buildings or equipment. Jones and Giles fought a losing battle with winds on two successive days when radiosonde balloons dived into the sea soon after being launched. Just as Abbs dragged the broken end of the long aerial 300 feet up wireless hill, enthusiastic helpers misinterpreted his signals and pulled the wire out of his hands. Fortunately the wind drowned his comments. Two skiing enthusiasts took advantage of snow on the plateau to open the winter sports season.

Stibbs, Hawker and Robertson left for Hurd Point on the 5th May but there is no hope of obtaining auroral photographs while the present weather lasts. After three attempts Robertson has completed his observations at Caroline Cove. Hawker has been trying to find a frequency clear of interference to improve communications with Hurd Point.

All livestock are thriving. There is much speculation on the date of arrival of the first lamb: on closer inspection the most favoured candidate for motherhood turned out to be a ram. A pig was killed last week. The removal of the bristles was the hardest task. After much scrubbing and scraping the carcass was lathered and shaved with a cutthroat razor. The result looked like the second part of an advertisement for Club razor blades - but it was excellent eating. Whitton has completed a major overhaul of the second diesel. Firmstone reports good results from the recorder for May, with the exception that three days' records were spoilt by damage to aerials. Johns is still trying to contact Hobart. It looks as if carrier penguins are the only solution. Radio Australia reception has been very poor for the past three weeks.

(Dated 17 April.)

On the Move Again

John Baigent, the radio-man who was brought back from Macquarie Island by the New Zealand ship "Holmlea" in March for medical attention, is reported by the Melbourne "Age" to be preparing to ride a motor-cycle from Melbourne to London.

AND ONE FROM HEARD ISLAND

"April was the cruellest month", with 28 rainy days. With May came two days of frost, when dry drifting powder snow streamed across Nullarbor and through the camp in the whistling souwester, and there was hard ice in the water tanks on Nullarbor and on the faces and beards of those outdoors. Skis were adjusted and waxed, and while Lodwick and Sweetensen walked to West Cape to lay a food dump, Cleland and Budd did a few circuits - and many bumps - on Drygalski's ski slopes. Next day the weather returned to normal and now the snow is confined to the mountains. The penguins have left the Island and one can hardly blame them.

Our sheep are thriving, out by Rogers Head. Henderson, Cleland and Budd had an afternoon hunting recently, resulting in mutton for dinner next day. Automatic morse keys of revolutionary design have been constructed by Delahoy and Gore, thus raising efficiency of communications to unprecedented heights.

Ding nights occur periodically when we wallow enthusiastically in luxury's lap with brandy and cigars, savouries by Sweetensen and Irish songs from Gardner. The orchestra thrives and Handel's Largo shows its full beauty as duet for trumpet and cornet. Achievement of full orchestral sonority is hampered by difficulties encountered by Walsh in playing trumpet, clarinet and piano simultaneously, and by Delahoy doing the same with cornet, fife, accordion and piano. Marion Island won the first chess match in a lightning game lasting only four months. Our discovery of a book speciously entitled "Chess made easy" is now improving our standard. Yiglo.

("YIGLO" - Apart from what I have said, things are going quietly and there is not much news. Ed.)

(Dated 18 May.)

THE FRENCH ON KERGUELEN

L'Administrateur en Chef de la France d'Outre-Mer kindly sends us the following news regarding the French post on les Iles Kerguelen.

"The ship St. Marcouf, carrying our relief party, arrived at Port aux Français on 18th December. About 1200 tons of stores were landed in less than six days. The ship left les Iles Kerguelen on 24th December and reached la Nouvelle Amsterdam on the 27th. Owing to bad weather the disembarkation of the relief party and stores took three days.

The 1954 expedition led by l'Administrateur en Chef Armengaud immediately set to work.

The latest news from the Kerguelen Archipelago is that the new central electric plant, comprising two diesel electric generating sets with a power of 110 KVA, has been installed and has begun operating.

The various scientific activities of our expeditions, both meteorological and ionospheric, are being normally carried on. In addition, the seismic station established at Point Molloy eleven k.m. from the camp is functioning regularly.

Our Kerguelen party was particularly happy to welcome on two occasions Dr. Law, Director of the Australian Antarctic Division, and the members of the Australian Antarctic Expedition. The "Kista Dan" made her first call from the 20th to 25th January, during which period she took on board the motor fuel brought out by our own relief ship. M. Schwartz of the French Polar Expeditions and Dr. Micot, M.O. on our 1953 expedition, embarked on the "Kista Dan". Schwartz is now attached to the Australian expedition at Mawson.

The "Kista Dan" called at Port aux Français again on her way back from the Antarctic Continent, from the 17th to 19th March, to get fresh water and to effect certain repairs after a particularly arduous voyage in the Antarctic Ocean. Australians and Danes who have been able to visit our camp seem to have been very interested in our set-up."

CAMPBELL ISLAND

(By radio-telephone from Mr L. McManus, Officer-in-Charge of the New Zealand station on Campbell Island.)

No extensive trips have been undertaken recently, and most of the time, apart from routine duties, has been taken up with overhauls of engine and plant, and repairs to the quarters. The 26 x 14 ft. store-shed at Beeman Cove is now finished, and the next big job to be tackled is the building of a jetty at this spot. As the shore-line is merely rock and boulders, a concrete wall will have to be built up in order to provide a sufficient depth of water.

The party has taken to using the launch in order to procure supplies of mutton. On a recent trip along the shores of Perseverance Harbour three sheep were caught with the aid of the dog, and this provided fresh meat for three weeks.

There have been no casualties in the fowl-run and the Campbell Island hatched chickens, all 23 of them, are alive and well. But the station cat has mysteriously disappeared.

Most of the sea-elephants have now left. An unusual occurrence has been the discovery of a dead sea-lion and a dead sea-bear. Neither were old, though noticeably thin. Both were skinned.

The produce of the much-prized vegetable garden has now pretty well been exhausted, and only three weeks' supply of fresh potatoes remain.

Heavy rain fell in the last week of May, in one case 2 in. in a day. The creek near the living-quarters has been unusually high. The long succession of wet days and the short daylight hours (about 8 a.m. to 5 p.m.) make conditions somewhat depressing, especially as even during the day it is necessary to work inside by artificial light. But there have been no serious mishaps to the personnel, all of whom are fit and well.

THE AUCKLAND ISLANDS

The Holmlea's Visit, March, 1954.

By P.C. Bull, Animal Ecology Section, D.S.I.R.

In March, 1954, the Holm and Company's vessel "Holmlea" was chartered by the Australian Department of External Affairs to relieve a man at their Macquarie Island weather station. This fact, together with a happy spirit of co-operation between Captain J.F. Holm, Dr. R.A. Falla and the Australian authorities, made it possible for "Holmlea" to leave a small party of biologists at Enderby Island on her way south and to collect them again on the return trip. The party consisted of R.K. Dell of the Dominion Museum and P.C. Bull and R.H. Taylor of the Animal Ecology Section, Department of Scientific and Industrial Research.

No scientific work had been done at the Auckland Islands since the Cape Expedition stations at Carnley Harbour and Port Ross were closed down in 1945. Mr Dell was anxious to fill some of the gaps in the Cape Expedition collections of invertebrate animals, and the Animal Ecology Section was particularly interested in the rabbit populations which exist on Enderby and Rose Islands.

Three on Enderby

"Holmlea" left Wellington on the evening of March 12th and experienced a calm but foggy voyage to the Auckland Islands which were sighted during the afternoon of March 15th, the ship anchoring in Port Ross just before nightfall. The landing party were taken to Enderby Island in the surfboat and then, picking their way by torchlight among the numerous sea-lions, the party carried their stores and equipment along the beach to the old boatshed which had been built for castaways. Meanwhile the surfboat had returned to the ship which then weighed anchor and continued her voyage to Macquarie Island.

The boatshed was found to be in a reasonable state of repair and the party made it their headquarters for the next four days, working in this vicinity and making occasional trips across the island to Derry Castle Reef on the north coast and also to the western extremity of the island. On the whole the weather was better than had been expected although some rain was experienced almost every day. "Holmlea" returned during the afternoon of March 19th and the surfboat conveyed the party to Rose Island for a couple of hours while the ship proceeded to the head of Port Ross to paint the gravestones in the cemetery there. The Rose Island party was then taken aboard and the ship proceeded to Dunedin which was reached about noon on March 21st. The trip to Macquarie Island had been uneventful except for some rather unpleasant sea and weather conditions while lying off the island. On the way back to Port Ross, "Holmlea" entered Carnley Harbour but no one went ashore there.

The Rabbit Population

Throughout the voyage a log was maintained recording the many species of oceanic birds that were seen and the latitudes at which they appeared. A considerable quantity of biological material, both terrestrial and marine, was collected at Enderby and Rose Islands, and observations, supplemented by photographs, were made on the native birds and mammals. The introduced mammals on Enderby Island consist of wild cattle, rabbits (also present on Rose Island) and mice. Rabbits were first liberated at the Auckland Islands in 1840 to provide food for castaways and there have been several subsequent liberations. The animals on Enderby Island are of a handsome silvery-blue colour resembling the domestic variety known as "Argente de Champagne" in which the young animals are black. On Rose Island the rabbits are mostly greys like the mainland form; but there are also quite a lot of black ones, most of which have some white hairs, which give them a silvery appearance reminiscent of the Enderby ones. The population dynamics of the Auckland Island rabbits are of particular interest because, unlike populations on the mainland, the natural balance is not complicated by the effects of human control. It was interesting to find that parasitic infestation was generally much higher in young animals from the Auckland Islands and that the survival of young animals there was lower than in populations which have been studied on the mainland during recent years.

More Work to be Done

The Port Ross area provides a unique opportunity for studying the effects of introduced mammals on the native flora and fauna, but work of this kind cannot be done during a brief visit. The vegetation of Enderby Island has been considerably altered by cattle and rabbits, while Rose Island, where cattle have not survived, is much less modified. Auckland Island itself has wild pigs and cats, and Ocean Island is said to support wild goats. Ewing Island, on the other hand has no introduced mammals and, according to reports, is characterized by an abundance of native birds. This is but one of the many interesting lines of research which could be undertaken.

ADELIE LAND EXPEDITION, 1949-53.

The Final Year

(By courtesy of Expéditions Polaires Françaises.)

After the fire which destroyed the Port Martin base on 23 January, 1952, three men joined those already at Pointe Géologie (Long. 140° 02' E, Lat. 66° 40' 30" S) 70 k.m. to the west. The party of seven under M. Marret (including Robert Dovers, now leader at Mawson) lived a few hundred yards from the Emperor penguin rookery which it was the main purpose of the party to study.

The original pre-fabricated hut measured only 16ft. by 13ft., and cases and sacking were used to make improvised buildings. Pointe Géologie was found to be relatively sheltered from the notorious Adélie Land blizzards: it was sometimes possible to see the blizzard raging a few miles or even a few hundred yards away, but missing the station itself. Nevertheless, in June there were 19 days of blizzard and in August 17 days of blizzard and 10 of snow. The temperature in summer ranged from 32° to 14°F., and in winter from -13° to -31°F. Inside the hut the heat was unevenly distributed. Near the ceiling the temperature might rise to 77°F. while on the ground it was below freezing point. It is recorded that one man who liked storing his belongings under his bed had to use a pick to prise them from the wall to which they had frozen in a solid mass.

The station was built on L'Île des Petrels, the largest of a group of islands lying off the face of the Terra Nova Glacier. The island is a mile and a quarter in circumference and rises to a height of 160 ft. above sea-level. To the Archipelago tens of thousands of birds come to nest during the few weeks of fine weather. Emperor penguins began arriving on March 12. There was then already a little ice on the site of the future rookery, but a dinghy had to be used to reach it. On the 18th a tiny hut was erected, a 6ft. cube, near the rookery, and here two men took up residence. As the cold intensified living there became very difficult. The hut had to be completely "caulked" and the oxygen content became so low that the petrol lamps went out. By April 10, there were five or six thousand Emperors at the rookery, which could now be reached over the ice from the camp.

Early in June sledge journeys were made to the N. and N.W. to locate the Emperors' fishing grounds. On June 22 four men set out for Port Martin with the only weasel. Travelling was so difficult that the party did not get back until the end of July: but they returned with three weasels and five tons of stores. The glaciological observers used to camp out on the sea-ice, only returning to base by weasel every three or four days to analyse their results. On the 31st August they reached base through a heavy blizzard which kept up for two days. On the third day the ice had disappeared: open water stretched to the horizon, and of the glaciologists' camp and equipment no trace was to be seen. Between October 18 and 31 a sledge-party established a depot 30 k.m. to the west, and on November 2 four men with two weasels and eleven dogs set out on the main western journey. They reached "Rock X" of Byrd's photographic record, a rocky spur near the extreme west of Adélie Land. The accurate fixing of this point by ground observations now makes possible the proper mapping of the area. The party also penetrated Byrd's "Glacier Z" as far as 132° E.; and returned in mid-December.

By this time the Adélie penguins had begun to return, but although summer had come the month ended with seven days of uninterrupted storm. The "Tottan" anchored off Pointe Géologie on January 2 and the expedition finally left, from Port Martin, on January 14, 1953.

The publication of results, now the major work of Expéditions Polaires Françaises, is well advanced. Plans are being made for French participation in the International Geophysical Year, 1957.

AFTER THE WHALING SEASON

The seventeen whaling expeditions of five nations have returned to their home ports laden with the products of the 1953-54 season. It is too early to assess the total production, but we append some tentative figures as notified in Norsk Hvalfangst-Tidende, the journal of the Norwegian whaling industry.

It must be remembered that restrictions on whaling have been more severe during the past season. Not only was the permissible catch reduced from 16,000 blue-whale units to 15,500, but the number of catchers per factory ship was also in most cases reduced by agreement, and the catching of blue whales began on January 16, not, as before, on January 2.

A report from Capetown cites whaling-masters as saying that it had been a season of exceptionally bad weather, "the worst in their memory". Whale catching was often interrupted, and disaster threatened when the 7,400 ton British tanker "Thule" nearly collided with the Dutch factory ship "Willem Barendsz" off the Enderby Land coast.

The production of whale oil in barrels, up to 30 January in the past few seasons has been as follows:

1950-51	-	16	expeditions	using	202	catchers	570,199
1951-52	-	16	"	"	220	"	715,333
1952-53	-	14	"	"	199	"	650,000 (approx.)
1953-54	-	16	"	"	191	"	609,926

(The Russian "Slava" expedition had not reported.)

The extent to which the relative catch varies from expedition to expedition is indicated by the fact that in the period under review the catch of the "Abraham Larsen" rose from 47,600 barrels in 1952-3 to 50,000 in 1953-4: but the catch of the "Southern Harvester," another British factory ship, fell from 70,930 to 42,685.

A later report from the Norwegian expeditions only, up to the end of February, gives the production as 672,185 barrels (1952-53 comparative figures with two of the vessels not operating 608,684 barrels). The four British expeditions till the end of February had produced 385,283 barrels compared with 431,732 in the 1952-53 season.

At Capetown a Norwegian gunner, Finn Eliefsen of the British "Balaena" expedition, was credited with the highest individual kill of the season: 371 whales.

Much of the season's oil has already been sold at an average price of £68.10.0 per ton, little more than half the rate prevailing in 1952.

THE VOYAGE OF THE "ENERN".

The whale-marking expedition of the "Enern" (see Bulletin No.13, p.100) occupied two periods in the Atlantic sector of the Antarctic during November and December last. The vessel left Capetown on 17th November, and reached the edge of the pack-ice in 55° 20' S, 14° 33' E, on 22nd November. On the 23rd a plate in the hull was started by ice; and this hastened the arrival in South Georgia. The "Enern" now steered westerly courses in a series of zig-zags, and on 14th December reached her furthest south, 62° 35' S, and her furthest west 48° 41' W., north of the Weddell Sea. The vessel reached South Georgia on 18th December. During the run between Capetown and South Georgia, 110 whales were effectively marked (20 blue, 88 fin, 1 hump-back and 1 sperm). Marking was continued after leaving South Georgia, a further 7 blue whales and 33 fin whales bringing the total whales marked to 150. This was about 40 per cent of the whales sighted.

All whale marks were smeared with penicillin ointment as a measure of asepsis. Marks bearing six coloured threads two metres long were experimented with, to avoid the loss of marks. In seven out of eight marks which scored hits the streamers hung out conspicuously on the body surface. In chasing the whales both the LUSE-JAG method (in which whales are stalked like a big-game animal) and the PROYSER-JAG method (in which the whale is made to run and show itself by chasing it at full speed) were used. It had been thought that in marking by PROYSER-JAG whales might be injured by the marks, since the whales expose more of the body surface when chased in this way; but the expedition came to the conclusion that no problem of serious injury arises.

In letters to Norsk Hvalfangst-Tidende Prof. Ruud suggests that projects for utilising krill commercially may not be feasible. Patches of discoloured water which were at first thought to be krill turned out to be swarms of copepods. Catching the krill from deeper layers would be a much more difficult task than the anticipated skimming of them from the surface. "In finding and catching the krill," says Prof. Ruud, "we cannot compete with the whales."

THE "DISCOVERY" SAVED.

Captain Scott's Discovery, which was recently taken away from its berth on the Thames by Waterloo Bridge for Admiralty survey, is to return early next year, after a refit costing several thousands of pounds. She will fly the White Ensign and be a naval drill ship and be used for training pre-national Servicemen.

Part of her accommodation will be used as offices for R.N.V.R. Youth organisations will be able to use her at weekends and also in the mornings.

FIFTY TWO YEARS AGO.

"A VERY EXTRAORDINARY THING HAS HAPPENED"

So wrote Captain R.F. Scott on March 13, 1902. Nine days before, not long after the "Discovery" had been secured to the ice-foot in McMurdo Sound, a party of twelve had set out on a pioneer sledge journey to Cape Crozier. A week later, on the evening of the 11th, four men, "thoroughly exhausted" and "labouring under strong excitement", staggered in with the news that Royds had gone on with Koettlitz and Skelton, sending Barne and the remaining men back to the ship. Totally inexperienced and ill-equipped, the party of nine had been caught in a blizzard and on a steep slope first young Hare, the assistant steward, then Evans, had disappeared. Barne and Quartley had gone after Evans, and had not rejoined the party. Suddenly, just as they realized they were at the edge of a precipice with the sea below, Vince had lost his footing and shot past them over the edge. With great difficulty Wild and his three companions had rejoined the ship: they were afraid the other five were lost.

A search party found three of them - but Vince and Hare had disappeared. Scott and a shocked ship's company realized that their chances of ever seeing Vince or Hare again were small indeed.

All Hope Gone

It was two days later, with all hope gone, that Scott wrote in his log. "A very extraordinary thing has happened. At 10 a.m. a figure was seen descending the hill-side ...walking weakly, and immediately after the men who were working in the hut were seen streaming out towards it. In a minute or two we recognised the figure as that of young Hare, and in less than five he was on board..... Though exhausted, weak, and hungry, he was in full possession of his faculties and quite free from frost-bites." (The three rescued earlier were all badly frost-bitten, with ears, cheeks and noses "swollen to a prodigious size".) "He went placidly off to sleep whilst objecting to the inadequacy of a milk diet".

The last thing Hare had remembered was making towards a patch of rock, where he hoped to find shelter from the blizzard. When he awoke, 36 hours later, he was covered in snow, so stiff that at first he had to crawl on hands and knees, but otherwise unharmed. "I cannot but believe," wrote Scott, "that his preservation is unique, almost miraculous. The boy ... has been 48 hours without food and 60 without warm food: he must possess great stamina to have come through without hurt".

Vince's body was never found.

And today, over fifty years after his return as from the dead, Charles Hare is living quietly in suburban Sandringham, near Melbourne. In a cheery letter to the "Antarctic News Bulletin" he reveals that he was New Zealand born.

A Christchurch Boy

"Though I have resided in Australia for over 40 years," he writes, "I am still very much a New Zealander at heart.

"Christchurch is my home town (my father was on the staff of the Bank of N.Z.) where I went to the East Christchurch School, and afterwards started in office work. This kind of life not appealing I ventured forth to see something of the world. I had many and varied experiences, mostly hard ones, in N.S.W. and Queensland and also worked for 18 months in a store in Suva.

"Soon after returning to Christchurch, the Discovery came into Lyttelton, and absorbed my whole attention, until I was lucky enough to make friends with C.R. Ford, Chief Stewart, who approached Capt. Scott, and got his sanction to my joining the ship as Wardroom Steward, which I did on my 21st birthday. In my work I was attendant to Capt. Scott, L.C. Bernacchi, and Lieut. Royds, and was also a deck hand when the order came to "Clear lower deck" when all hands were wanted in changing sail. After 15 months in the Antarctic, when there were indications that the ship might not get out of the ice, the Capt. decided to reduce the number of hands, and sent the non Naval men back in the relief ship "Morning". When the "Discovery" eventually returned to Lyttelton, I was back at my old post for the trip to England.

"After returning from England I took up piano work for a career. Music has always been my hobby, and as I had not the chance to become a performer, I took up the study of the instrument instead. I married a Christchurch girl in 1910, and came to Australia, and worked in the big piano manufacturing firms here, Beales in Sydney, and Wertheims in Melbourne, where I remained for 26 years, and became foreman of their technical and repair dept. When they closed down 16 years ago, I started in business with a partner, and at the present time am still going strong, at the age of 73 years. I am now a widower with 3 daughters and 7 grand children."

The New Zealand Antarctic Society has been most happy to make Mr Hare an honorary member, and on behalf of our members we send greetings to an Antarctic veteran who by all the laws of the game, has no right to be alive! May he live long.

ALBATROSS: SECRET AGENT ?

In Bulletin No. 12 reference was made to a Royal Albatross ringed by Mr J.H. Sorensen at Campbell Island on October 4, 1943, and recovered on the beach at El Tabo, Province of Santiago, Chile, in 1944. By courtesy of Mr Sorensen and "Notornis" we are able to give some further particulars about this interesting discovery.

The albatross, *Diomedea epomophora*, was one of several hundred fledgling Royal Albatrosses ringed about this date. The rings were home-made ones of aluminium from old pots, copper from an old boiler, and even the alloy from discarded dry battery cases. Each ring was stamped "Return Southland Museum N.Z." and carried the serial letter A, followed by the number allotted, in this case 99. In September 1953, almost ten years later, the Director of the Southland Museum received a letter from Dr. R.A. Philippi, Santiago, Chile, advising that an identification ring No. A.99 had recently been handed to him. Mr P.C. Bull, convener of the Ringing Committee of the N.Z. Ornithological Society, wrote for more details and Dr. Philippi replied -

"With regard to the ringed specimen of the Royal Albatross found on the beach at El Tabo at the end of March or the beginning of April 1944, I can give you the following data:

The specimen (A-99) is mounted and preserved in a Catholic school of this city. As can be appreciated by the enclosed photographs, it is undoubtedly a very young bird.

The discovery has only recently come to light due to the fact that the person who found the dying bird at El Tabo took the ring to the British Embassy, where an official informed him that it would be inadvisable to make any comment or announcement at all as the ring might indicate a message from a German submarine Thus the find was forgotten until by a pure accident I became acquainted this year with the person who picked the bird up, thereby giving us the opportunity of confirming the surprising fact that this Albatross migrates to Chile."

Dr. Philippi returned the ring, which shows no wear after its five months on the bird's leg. It is one of the aluminium ones.

In discussing the significance of the discovery in "Notornis", Mr Sorensen quotes Dr. R.C. Murphy as saying, "Now, it is hardly to be credited that birds captured in such numbers in the South Atlantic come all the way from New Zealand breeding grounds." Mr Sorensen continues, "Dr. Murphy's account does show that the hypothesis that the species nests in Tierra del Fuego cannot be discarded but remains to be proved by the identification of the species and sub-species which almost certainly breeds there. At the same time, the finding of the bird A.99 does conclusively prove that birds breeding on Campbell Island in the New Zealand region do reach the South American coast."

NEW MAPS OF ANTARCTICA

Several important new maps incorporating the latest knowledge about the Antarctic regions are at various stages of compilation.

1. Dr. H.P. Kosack of Germany has revised the 1:4,000,000 map in four sheets which he completed in 1950 but which has not yet been published. Dr. Kosack informs us that arrangements have now been made to publish the map in four issues of "Petermann's Mitteilungen" this year. This map covers the area as far north as 63°S. except in the Graham Land area where it goes to 60° only. The sub-Antarctic islands are inset on the same scale.
2. Dr. Kosack is also working on a 1:1,000,000 map of Antarctica, in conformity with the International World Map. Of this map three sheets have so far been prepared, including the McMurdo Sound area (of which Dr. Kosack has kindly sent a copy to the Society) and the adjoining Terra Nova Bay area to the north, which has not yet been printed. Work on the Graham Land area has also been completed.
3. The Australian Government's National Mapping Section has almost completed a new map similar in appearance to the well-known 1939 Australian map, but incorporating the latest discoveries. It is not intended to publish a handbook to accompany the map.
4. The Military Geographic Institute of Argentina has recently produced an "Atlas of Argentina" in which the Antarctic regions claimed by Argentina are fully covered.

AN "ENDURANCE" DIARY

IV.

Further extracts from the MSS Diary of Harry McNeish, carpenter on Shackleton's "Endurance" Expedition. The party of 28 men has already been 60 days camped on the ice. It had been decided to attempt a march to Paulet Island.

Friday Dec 24th

We started last night at 8 p.m. & done a mile & had to stop as we have come to open cracks as there is a movement on among the floes we put up the tents and turned in at 1 a.m. 8 p.m. we have done nothing today as there has been a lot of cracks open but they have closed now and we are starting at 2 a.m. we got 2 seals today

Sat Dec 25th

Xmas Day Lat 67 -43 Temp Plus 20 We started this morning at 3 a.m. and finished at 1 p.m. after doing 3 miles 9 miles with the relay it has been snowing most of the time

Sunday Dec 26th

We started at midnight last night and relayed the boats and stores $1\frac{3}{4}$ miles and stopped at 4 a.m. with open cracks & not open enough for the boats & to open for sledging but a sign of open water near at hand as we had two cape pigeons and a stormy Petrel which looks well they are out scouting now to find a way over 8.30 a.m. the party has returned & reports a road W N W with half a mile rough going then some floes 2 miles broad we start again at midnight as the surface is so soft now

Monday Dec 27th

We started at 9 o'clock last night & done 2 miles & camped at 5 a.m. along side a small berg about 50 ft high 1000 ft long we passed between 2 yesterday I we christened the Ailsa Craig 270 ft high & the other was 100 ft high & about half a mile long tabular we have had very rough going today

Tuesday Dec 28th

We started at 8.30 p.m. & done $2\frac{1}{2}$ miles the going was very bad & we had to bridge a good many cracks we camped down at 6 a.m. 7 p.m. made a retreat for $\frac{1}{2}$ a mile to a solid floe as the one we were on was new ice & the wind has changed to E & blowing hard we camped down at 11.30 p.m. we had a visit from a Wilson Petrel yesterday

Wednesday 29th

We turned out at 6.45 had hush and turned to at general work around the camp the Boss went out scouting to find a road west but came back early as he found the floe we were on to be open & cracks all round so we got in harness & started to shift the boats & sledges on to a better floe we had to come back $\frac{3}{4}$ a mile there is a fine breeze of S.E. wind at present & there is a better appearance of open water tonight than we have had yet we have done 8 miles in a week sledging which is good for the amount of bridges & pressure ridges we have had to contend with.

Thursday 30th

Lat 67 South Long 52-46 West Temp Plus 29. We had to shift camp again this morning at 6.30 a.m. as the floe cracked between the tents so we went back 200 yards on to a more solid piece we got 5 seals and 1 Adelle penguin I have been refasting & caulking the Dudley Docker as she has all opened up going over the hummics of ice we had a breeze of southerly wind but it is flat calm now but a good water sky to the Westward so we hope to be clear before the winter sets in

Friday Dec 31st

Hognany & a bitter one to being adrift on the ice instead of enjoying the pleasures of life like wise people but as the saying is there must be some fools in this world we had 2 seals today I have finished the Dudley Docker we are going to put her in a pool tomorrow to see how much weight she carries as we have only the two boats now having left the Stancomb Wills at the Ocean Camp it has been snowing all day but the wind still holds southerly the temp being plus 30 shows there is a lot of open water south of us

Saturday Jan 1st

New Years day which we celebrate in Scotland with cakes & wine while we are celebrating it here afloat on the Antarctic ice floes not knowing what way we would drift next or be frozen in for another winter I am thinking on the tuck so many at Home are having today while we had for Breakfast a seal steak and a cup of tea dinner I pancake made from flour & water fried in seal blubber supper stewed seal meat & cocoa then we turn into our sleeping bags on the snow and dream of the loved ones at Home & Happy Days to come it has been snowing heavy all day yet we got 6 seals 1 sea leopard and 1 emperor penguin

Sunday January 2nd

Lat 66-57 South Long 52-48 West 186 miles from the known land which we could do in 4 days had we open water there has been a distinct movement in the ice all round our camp but it is very slow we had 4 seals today I was caulking the keel seam & setting up the rest of the James Caird & I expect to finish it tomorrow of course Sunday has never been reconised amongst us since we left B.A.

Monday Jan 3rd

Lat 66-55 South Long 52-42 West We got 3 more seals which leaves us a months food for man & dogs in hand I finished the caulking of the James Caird I am trying seal blood & flour mixed for putty which we hope will turn out all right as we want something to keep the caulking in when the boats begin to work

Tuesday Jan 4th

There has been a strong breeze a Northerly wind all day with heavy sleet squalls nothing doing in camp we shifted our tent as the snow under us had melted & our sleeping bags getting wet made things a bit uncomfortable we had a visit from a Skua Gull he came this morning & stayed with us most of the day feeding of the numerous heaps of seal bones around the camp

Wednesday Jan 5th

Lat 67-2 South Long 52-32 West Temp Plus 34 We have drifted back 7 miles south & 2 miles east in the last 2 days but the wind has shifted to E.N.E. but light we got 1 seal today the ice is melting rapidly under foot but unless we get leads soon I am afraid it means another winter in worse circumstances than we had last winter and it was bad enough

Thursday Jan 6th

We have had a large movement in the ice around us today the piece we are on is about 5 acers across there was water all around it some places 50 ft wide but it led to nothing we had a visit from a silver or fulmar petrel also 2 Wilson petrels 1 Emperor penguin which we got & a Adelle penguin the wind is W.by S. we have all been making up our 10 lbs of personal gear socks tobacco & etc which we allowed to take with us in the boats

Friday Jan 7th

Temp Plus 28 Wind SE light we got 1 seal & Lees was out skinning & reported having saw a leopard & we had a whale blowing in the lead along side us but there has been no birds of any kind

Saturday Jan 8th

It has been a beautiful day the best we have had since we left the ship the Temperature Plus 37 the highest we have had in 13 months but we cant get about the snow is so soft we sink over the knees in getting of the pad we have been loosing a large piece of our floe during the night the piece we are on now is about 100 yards square still a good size yet if it was all solid but the water is showing in many places but we hope to be away in the boats before it gets much smaller

(To be continued)

AN ENGINEER IN ADELIE LAND

In an address to the Société des Ingenieurs Civils de France, reported in the society's "Mémoires", M. Vallette, who was a member of the French Adélie Land Expedition 1949-51, gave some indication of the engineering difficulties involved in setting up a base in the Home of the Blizzard.

The blizzard, he said, has incredible effects. "In one passage there was a projecting nail. One of our comrades thought he was doing the right thing by pulling this nail out; and through the tiny hole thus made, a millimetre in diameter, a cubic metre of snow came in during the night, completely blocking up the passage."

The expedition's first task was to level a space on which to erect the main living quarters. "For this we used explosive, pentrite, with an electric detonator. This operation went off very well: in two days we had made a level area big enough for the purpose. The hut was on piles and our calculations showed that this hut would be carried away by the force of the suction of a 200 k.m. per hour wind, even with the very considerable weights which would be in it - the two radio sets, which were extremely heavy, the stove, etc. So it had to be firmly anchored. To do this we passed steel cables over the struts of the frame, and the cables were then threaded through iron spikes buried in holes made by the Worsop drill. This "marteau Worsop", which is a petrol-driven perforating drill, was of remarkable use for a number of tasks. Without it many of the installations could not have been set up.

"We made a hole 30 to 40 c.m. deep and drove into it a bar of iron. We achieved in that way an anchorage able to withstand a pull of 3,4,5 tons. This was obviously more than we required for the building, but it was necessary for various lifts we had to make.

"The 22 m. wooden aerial mast caused much anxiety, as in a 150 k.m. per hour wind the sway was incredible, from a metre to a metre and a half at the top. There were three sets of struts: the mast took a curved form between the sets of struts and looked as if it were made of india-rubber.

"One of our problems was that of the windows, which had to be insulated and remain transparent. We had envisaged windows with two sashes, the outside sash of one triplex pane, the inside one of two panes. This plan proved quite **unsatisfactory**. Water vapour condensed and froze between the two sashes, against the outside one, and made it constantly opaque. We found the solution to be to use a single sash of two panes, or better three panes - - this ensuring a perfect water tightness between the frames. Why? Because the outside pane of the hut thus always remains cold and the inside pane always warm. Under these conditions the water runs down the interior pane and the snow does not stick on the cold outer pane; and you thus have panes which remain perfectly transparent throughout the whole year without any difficulty."

ANTARCTIC BOOKSHELF

New Zealand publications, and articles which have appeared in New Zealand periodicals, since 1 January, 1953.

Cape Expedition Reports

(Published by Dept. of Scientific and Industrial Research.)

- No. 12. Fyfe Marion L.; Land Planarians from the Auckland and Campbell Islands.
- No. 13. Fleming C.A., Reed J.J. and Harris W.F.; Geology of Snares Islands.
- No. 14. Dumbleton L.J.; Ticks (ixodoidea) of the New Zealand sub-region.
(Published in Records of the Dominion Museum, Vol. 2, Part 2.)
- No. 16. Johnston T.H. & Edmonds S.J.; Acanthocephala from Auckland and Campbell Islands.
- No. 17. Johnston T.H. & Mawson Patricia M.; Parasitic Nematodes and Trematodes from Campbell and Auckland Islands.
- No. 18. Fell H.B.; Echinoderms from the sub-Antarctic islands of New Zealand. (Asteroidea, Ophiuroidea, Echinoidea.)

Harrison R.A.; The Diptera of the Antipodes and the Bounty Islands (in Trans. Royal Soc. N.Z. 81: 269-282, 1953).

Quartermain L.B.; New Zealand and the Antarctic. (In N.Z. Science Review II: 6-7, 1953.)

Simpson F.A.; New Zealand Antarctica. (In N.Z. Geographer 10: 1: pp. 1-24, 1954.)

Simpson F.A.; By Warship to Sub-Antarctica. (In Newsview 10: 100, May, 1954.)

ERRATA

Antarctic News Bulletin No. 13: March, 1954, p. 92, ll 59-60: for "February 29 at a point in the Vestfold Mountains area" read "March 1 on an island $2\frac{1}{2}$ miles from the coast in the Vestfold Mountains area."

p. 103, l 32: for "Nimrod" read "Endurance".