MAWSON BATTLING SOUTH

Rich Hauls Of Specimens Delight Naturalists

PLANE PROVES USEFUL

(By wireless from Sir Douglas Mawson on board the Discovery. All rights reserved.)

LATITUDE 67.15, longitude 74.20, Friday.—The distribution of the pack ice continues favourably. The dark hours of Wednesday evening were spent lying in the loose ice. Next day, rising from an extensive pool of water in the ice of a large berg, Campbell and I made an aerial reconnaissance, finding a heavy pack extending for at least 80 miles to the south and south-east. To the south-west at a distance of 30 miles and beyond, a vast region of moving slack pack came into view. To the east-south-east was observed an extensive region of grounded bergs, which trended to the south-east and appeared to indicate land.

Marine vertical station work was conducted during the dark period of the evening. The midnight hours, when navigation among the ice is difficult, are now regularly employed for such operations. Extraordinarily rich batches of diatoms have been taken during the last week.

From the plane smoke was observed rising at a point 30 miles to the west, at which location the Discovery arrived at six this morning, finding the large whaler New Sevilla operating. After making a short call on Captain Boernick, we continued south to our present position.

FLOOR RISES

Within four hours today, the depth decreased from 1,500 fathoms to 250 fathoms, at which it remains very even. Campbell and Oom made a short flight before dark, observing that for at least 30 miles to the south the pack is slack and moving.

Dredging resulted in a copious haul of marine life, ooze, and ice-transported stones. As in the case of all other dredgings westward from King George Land, the rocks represented are granites, gneisses and other forms typical of continental ranges.

DISCOVERY RETURNS TO LONDON

End of Two Years' Work

Sir Douglas Mawson has received advice by cablegram that the Discovery, which carried the expedition which he led to the Antarctic recently, reached London on August 1. She left Wellington on May 6, took in coal at Monte Video on June 11, and crossed the equator in the Atlantic on July 2. For a ship of her kind she made a quick trip.

It is two years since the Discovery left London, and now Captain Mackenzie is handing her back to the Falkland Islands Government, the owners, on whose behalf a committee at the Colonial office, London, administers the ship.

Sir Douglas Mawson stated yesterday that the Discovery had reached her destination a week or two earlier than expected. She had travelled far south, and on May 22 passed over the charted position of Dougherty Island, in the South Pacific. The island had appeared on many maps during the past 100 years, but it is probable that it does not exist.

Captain Mackenzie reported by wireless at the time that, passing directly over the assigned position of the island, soundings revealed a depth of 2,470 fathoms.

The island, which has for long evaded the search of expedition ships, whalers, and other vessels, has been described as one of the most desolate and isolated spots in the ocean, and the outpost of the Great White South.

Before rounding Cape Horn, the Discovery encountered continual westerly gales, the wind velocity rising to 50 miles an hour.

BIRD LIFE IN THE ANTARCTIC

NEWS FROM THE DISCOVERY

Canberra, February 23.

The extraordinary bird life of the Antarctic is described in a wireless message received from Sir Douglas Mawson, dated February 13.

"We now appear to be in a bad area for wireless transmission," says the report, "and are experiencing considerable delays in getting messages away.

This morning, the ice coast of Mac-Robertson, along which we are steaming in a westerly direction, became diversified by the appearance of rocky headlands and a protrusion of nunataks (peaks of rocks) through the slopes of inland ice. An early morning call was made at one of the rocky capes which rises steeply to a height of 1,000 feet. The motor launch was lowered, and investigations were made. This mountain proved to be composed of garnet gneiss, and was densely inhabitated by bird life.

Petrels, Penguins, and Gulls

Antarctic petrels, which yesterday were observed congregated in thousands at rest on passing icebergs, are nesting on this rocky shore. Adelie penguins lined the slopes to a great height. This visit was a bit brief, for our attention was specially rivetted on the more extensive mountainous outcrop on the coastline a few miles to the west. On a landing being made in the afternoon a number of characteristically level-topped summits, rising from the water to 1,200 feet, were found to be constituted of granite and garnet gneiss.

The inland ice rides down to the sea, carrying with it moranic matter which, as an endless stream, slowly but surely is delivered to the deep.

Weddell seals line the boulder-strewn waterfront, while all the lower ground and every accessible slope to a height of 500 feet is occupied by a noisy population of Adelie penguins. Emperor penguins, in the last stages of their summer moult, crouched near the shore. Everywhere on the steep faces sea birds were hovering around their nests. The fulmars have chosen the lower slopes, and Antarctic petrels are usually at higher elevations. Snow petrels and cape pigeons are in possession of the highest territory. Although the penguin chicks have grown almost as large as their parents, they are still being harried by a few skua gulls.

As there is no harbor along this rocky face, and a considerable ocean swell was beating on to the coast, the first officer (Mr. Stanton), who was handling the launch, had a difficult job in embarking all the collections. This, however, was safely accomplished without loss or damage.

Inhabitants of the Deep

In this neighborhood, latitude 67.47 south, longitude 66.56 east, the sea floor is most uneven, and in places very shallow; consequently, this evening, opportunity was taken for some shallow dredgings. Most interesting and varied hauls have been made. That in ten fathoms brought up only seaweed and 34 fish.

Late this evening we resumed our journey west along the coast, and already have in sight other interesting features.

SIR DOUGLAS MAWSON

May be Back at End of Month

Lady Mawson has received a wireless message from her husband, Sir Douglas Mawson (leader of the Antarctic expedition aboard the Discovery), stating that he may possibly be back in Australia at the end of the month.

Sir Douglas has been compelled to curtail explorations owing to the shortage of coal supplies.

MAWSON'S SECOND ANTARCTIC VOYAGE

Will Explore New Lands

START IN NOVEMBER

MELBOURNE, Sunday.—The Discovery, which bore the Mawson expedition on its voyage to the Antarctic last year, will soon be prepared for the second trip southward. She is now in winter quarters at Williamstown (Vic.).

The committee in charge of the arrangements expects the vessel to sail about November 1. After calling at Hobart she will steam due south for the ice.

Sir Douglas Mawson

Prof. Harvey Johnston

The sector of Antarctic coastline which she will investigate extends from the Balleny Islands to Queen Mary Land, most of which, with the exception of Adelie Land, which lies between, is unexplored.

This section of the Antarctic coastline includes the so-called Oates Land, about 350 miles in extent, and the so-called Wilkes Land, about 900 miles in extent.

UNCLAIMED LAND

It is the aim of Sir Douglas Mawson to explore these unknown coastlines, as they lie immediately to the south of Australia, and within the Australian quadrant.

TAKE IN 2 BLOCKS.

With the exception of the small Adelie Land sector in this quadrant, which is claimed by France, none of this Antarctic territory has been claimed by any foreign power except that the United States has made a vague claim to Wilkes Land, on which, however, a landing has never been made.

The ship's movements will depend on the amount of coal which she can carry. Arrangements have been made for 300 tons of briquettes to be shipped out in a whaler, and, if the opportunity occurs, the Discovery, while in the ice, will go alongside the whaler and take the coal from her. A dead whale will be placed between the two ships to act as a fender.

Briquettes have been selected, as they have a high calorific value, are easily handled, and stow well in a confined space.

SAME SCIENTIFIC STAFF

The scientific staff on the first voyage have all volunteered for the second voyage, and consequently there will be no vacancies. The South Australians are Sir Douglas, Professor Harvey Johnston (senior zoologist), and Commander Moyes. One officer, three stokers, and eight seamen, however, will be required to complete the crew, and applications will be invited soon.

The committee has confirmed the appointment of the former chief officer, Mr. Mackenzie, as captain in succession to Capt. J. K. Davis.

The Discovery, it is expected, will be in constant touch with British and Norwegian whalers during the summer. An unprecedented number of factory ships and whale chasers will be operating in the Antarctic, new and valuable whaling grounds having been discovered. At least one was found by the Mawson party.

The Discovery, provided her coal lasts, will remain on the coast until the end of February, and will thus have three complete months in the ice. Afterward she will set a course for Albany, and from there she will come on to Melbourne preparatory to being handed back to the British Government, which lent her to the committee for two years.

DISCOVERIES IN ANTARCTICA

"Still Much To Be Done"

Mr. Stanley Kemp, director of investigation for the Discovery committee, read a paper before the Royal Geographical Society in London on the work which the committee is carrying out in the Antarctic. He spoke particularly of the surveys and soundings made by Discovery II.

A good deal of new information had been acquired, he said, but much more remained to be done. In geology, especially if landings could be effected, most interesting results might be obtained; an expert in physiography might discover valuable clues to the past history of the South Sandwich Islands group; the flora, birds, and seals required investigation, and, notwithstanding trawlings and dredgings, the marine fauna with its great wealth of animal life was still largely unknown.

At the time of their visit to the islands the shallow water, echo-sounding machine was working admirably, and inshore soundings, which from a navigational view were of greatest importance, were taken in large numbers. But the deep-water machine was not efficient over the whole of its range, and they were thus unable to sound out the bank on which the islands stood with any degree of thoroughness. Fortunately they were able to get expert assistance when they underwent a refit in South Africa, and in the season 1930-31 were able to gather some interesting data bearing on the topography of the sea-bottom in that part of the Southern Ocean.

Theory Supported

It was Nordenskjold who first showed that the volcanic rocks of Graham Land were identical with those of the Andes, and Suess put forward the theory that there was a protrusion of these Andean types far into the Atlantic, and that a former land connection existed through Cape Horn, the Burdwood Bank, South Georgia, the South Sandwich Islands, the South Orkneys, and the South Shetlands. This was known as the theory of the South Antillean Arc, and, although it had been contested on geological grounds, opinion nowadays was mostly in its favor.

Soundings throughout the area were very scanty, but a few of them seemed to show that ridges connecting the islands might be found. This material had been seized on by supporters of Suess's theory for the construction of contoured charts; but these, since they were based on inadequate data, were in reality little more than an expression of the personal views of the author.

During the past season, with the Discovery's deep water, echo-sounding apparatus working well, they had taken every opportunity to obtain soundings between the island groups. Sounding continuously, day and night, whenever they were at sea, they had in one season taken more soundings than previously existed in the whole area, and had been able to show that some of the links in the chain that Suess postulated were well defined.