

MAWSON THINKS ANTARCTIC SETTLEMENT IS POSSIBLE

LIFE THERE TOLERABLE

SHIP NEARLY READY FOR EXPEDITION

NOW IN DOCK

LONDON, Thursday.—Sir Douglas Mawson is discussing matters connected with his expedition

to the Antarctic, and arranging to take over the *Discovery*, which is now in West India Dock, nearing completion. Provided there is no unforeseen delay, the ship should be ready to start in late autumn. It will shortly be taken over by Capt. Davis, and will sail to Australia next summer.



Sir Douglas Mawson, who will return to Australia by mail steamer, says he is already inundated with requests from all parts of the world from men wishing to join the expedition.

NO CONTINENTAL SETTLEMENT

"My own opinion," he says, "is that the visions of a great Polar continent affording facilities for human life on a big scale will never come true, but there is no reason why small communities should not find life there tolerable, and, in some respects, even advantageous.

"Although women could not reasonably participate in Polar exploration, there is no reason why they could not endure settlement life in the Antarctic regions."

The Register

NEWS - PICTORIAL

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THE LURE OF THE ANTARCTIC

SO the old *Discovery* is to head south again, with Sir Douglas Mawson as leader of a new Antarctic expedition. The Prime Minister's announcement that the Federal Government has decided to dispatch a scientific party to carry on investigations in the "Australian sector" of the Antarctic will be hailed with general satisfaction. This country cannot afford to lag behind other nations in its support of scientific research and exploratory enterprise. Already it has produced men of outstanding ability in various departments of science, and it is one of the proper functions of a national Government to give financial backing to undertakings of the kind now contemplated by Sir Douglas Mawson, whose name is inseparably linked with the exploration of the Antarctic continent.

WHILE nobody will begrudge a Government vote for the purposes outlined by Mr. Bruce on Thursday, his hint that private financial assistance should be forthcoming for the expedition ought not to be ignored. The capitalists and institutions of America have set an example to the rest of the world in their endowment of research and their support of scientific expeditions abroad. Australia is far from possessing the financial resources of America, but, in proportion to their means, its wealthy citizens should be willing to associate themselves with movements for the advancement of knowledge.

THE cause of pure science will unquestionably benefit by the new voyage of the *Discovery*. While the more dramatic phases of Antarctic exploration may be said to have ended with the discovery of the south magnetic pole by Mawson, and of the south pole by Amundsen and Scott, a vast amount of detailed scientific work remains to be done. Our knowledge of the great continent to which Sir John Murray gave the name of Antarctica is still severely limited. If it is not a virgin field of research, many of its secrets are still so well hidden as to hold an irresistible lure for the geographer, the meteorologist, the geologist, and others. And even on utilitarian grounds, especially in the study of meteorological conditions which are known to influence the weather of Australia, the expedition should abundantly justify the expenditure of the relatively small amount of public money involved.

AVIATION and wireless, the modern annihilators of distance, have revolutionized the conditions of Antarctic exploration even since the comparatively recent days of Shackleton, Scott, and Amundsen. Mawson's party in 1912 erected a wireless mast at the Commonwealth Bay base. Messages were sent out, and received at Macquarie Island, but nothing was heard in Antarctica. To-day the Wilkins and Byrd expeditions are not only able, by means of their aeroplanes, to survey vast tracts of territory over which the earlier explorers painfully and perilously toiled, but their discoveries can be communicated almost instantly to the outside world. Mawson and his comrades, too, will be able to utilize the aeroplane in their investigations, and to keep constantly in touch with civilization. The progress of the expedition will be followed with the closest interest and sympathy by Australians, who will take pride in the fact that a predominantly Australian enterprise is adding materially to the world's knowledge of the frozen and mysterious south.

THE ANTARCTIC, PROPOSED EXPEDITION.

MAJORITY OF CREW AUSTRALIANS.

LONDON, February 21.

The *Discovery* has been placed at the disposal of Sir Douglas Mawson by the British Government for an Antarctic Expedition, which he will lead. This three-masted auxiliary barque was used by Captain Scott for his first Antarctic Expedition.

Sir Douglas Mawson's expedition, which the Australian Commonwealth Government are equipping, and which a number of British scientists have been invited to join will leave Hobart at the beginning of the next Australian summer. Sir Douglas arrived in London from Australia ten days ago, in the hope of acquiring the *Discovery*.

In an interview to-day Sir Douglas Mawson stated that although Britain had offered him the *Discovery*, he had a list of ships which might be more suitable. He would not be in a position to decide for another two days. He had not chosen his crew, but there would probably be a majority of Australians, although it was likely that some Englishmen would be included.

SCIENTIFIC RESEARCH.

Some Unsolved Problems.

For the last two or three years Sir Douglas Mawson has had in his mind an expedition to the Antarctic, and his several visits of late to England have had the realisation of the expedition as their object. At last it has been achieved; and Sir Douglas will, from November, 1929, until March, 1930, continue with the work he began on his last expedition to the South, 1911-14. The work done will be mainly in the interests of scientific research. But there are a number of problems in that desolate region of eternal snow awaiting solution.

The charting of the coastline of the South Polar lands, for example, has now been accomplished through less than 150 degrees of longitude. But much of this is, as yet, only roughly located on the map. The completion of this work, merely in a broad and general fashion, must be of prime importance in the further unravelling of the problems of the Antarctic.

Possibility of Oceanic Islands.

There is a possibility of the existence and discovery of oceanic islands in the more southerly zone of the sub-Antarctic regions, and in the pack-ice belt. There are still vast stretches of ocean there thus far untraversed by any ship's keel. Various phenomena observed on the previous Antarctic expedition lead to the belief of the existence of islands; in particular, may be mentioned the visit of a sea elephant observed at Cape Denison in Adelle Land, and reports in the records of one of the older expeditions of sea elephants on the pack-ice near the Balleny Islands.

Of all methods of clearing up doubts as to the presence of any islands, the systematic delineation of the sea-floor by soundings will be the most conclusive. Where, in the ordinary way, a vessel may pass close to an oceanic island without noting its proximity, there would be furnished a hint of its existence in the contour of the sea-floor obtained by systematic close soundings.

The Ice Cap.

Although, from what has already been observed, it is practically certain that a great and elevated continent of ice, resting upon a rock foundation, surely exists round the South Pole, there is no knowledge as to how much of this is ice and how much rock. The determination of the ice cap is not merely of great interest to the geographer and glaciologist, but also to the meteorologist. The latter finds in it a prime factor in the determination of the flow of surface winds, which, in turn, are responsible for currents in the neighboring seas and the movements of the ice pack.

There is, then, the problem of the thickness of this ice cap and the delineation of the underlying rock floor. And, in brief, there are a number of other problems, such as that of terrestrial magnetism, of unexplored volcanism, and the matter of the aurora australis.

All these enquiries are of direct benefit only to pure science; but it must be remembered that pure science is the foundation of all invention and economic advance.

APPEAL TO PUBLIC BODIES.

Canberra, February 22.

The Prime Minister (Mr. Bruce) makes an appeal to public bodies and all interested in the proposed expedition to the Antarctic to accord it the same generous support as that given to Sir Douglas Mawson's expedition in 1911. The National Council of Research is interesting itself in the personnel of the expedition, but Sir Douglas himself will decide on the choice of equipment.

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FIRST VISIT TO ANTARCTICA

PROFESSOR JOHNSTON DELIGHTED TO GO

Interviewed at his home at Glen Osmond last evening, Professor Harvey Johnston said he appreciated the action of the committee of management in inviting him to be the senior zoologist of the party. He had telegraphed his acceptance of the invitation on Tuesday. With a leader like Sir Douglas Mawson, who was keenly interested in science, there was every prospect of the biological work of the expedition being a great success. Sir Douglas would afford every opportunity to ensure that the investigations were as efficient and complete as possible.

Though he has never visited the Antarctic regions, Professor Johnston is already well acquainted with the work with which he will be concerned. Many of the specimens of marine life which were secured by Sir Douglas Mawson during his last expedition were sent to the Adelaide University, and Professor Johnston is now completing reports on these, and also on other material secured by a New Zealand expedition to sub-Antarctic islands south of that country. He has had a wide experience in zoological work, having visited Mexico, the West Indies, South America, the United States, Southern Asia, the East Indies, and Africa, in the course of his studies. This will be his first experience of a really cold country.

Discussing his special task on the expedition, Professor Johnston said he would be concerned with the biological work generally, but in particular he would take notice of the smaller forms of marine life. He expected that he would receive assistance from other members of the party, including Mr. Fletcher. There would be one specialist on plankton, and others on the bird and parasitic life. After visiting and collecting specimens near sub-Antarctic islands, they would proceed into uncharted areas, which had never been scientifically investigated before, or even explored. It was in these parts that they hoped to find much that would be of interest. It was hoped that a particularly good collection of animal life would be made. It would be interesting if a whaling vessel were encountered, and an opportunity given to find out the food of the whale in those parts. Much dredging would be done, and special apparatus had been placed on the *Discovery* for this work. There would be machinery for dragging huge nets along the ocean bed. Plankton, and its special relation to the movements of the whales which fed upon it, would be observed.

"A Feather in the Cap"

"It is a feather in the cap of the Adelaide University that two of its scientists should be included in such a notable expedition," declared Professor Johnston. Since his appointment in an honorary capacity to the Adelaide Museum, Professor Johnston has had very little spare time. It is likely that he will be just as busy for some years, as after the expedition has completed its work in the Antarctic there will still remain a huge amount of study to be done. The specimens will be suitably preserved on the journey, and on the return of the party they will be forwarded to specialists in Australia and abroad for study.

Professor Johnston's Career

Professor Thomas Harvey Johnston was born in Sydney in December, 1881, and was educated at the Sydney University. At present the professor fills the chair of zoology at the University of Adelaide. Prior to coming to Adelaide he was on the staff of the Queensland University. In 1912 he was sent to the Queensland Government as scientific controller of the investigations to be conducted in New South Wales and Queensland by the Commonwealth Prickly Pear Board. He travelled extensively abroad on the work of the commission, and collected much valuable data on the destruction of the pest. From 1920 to 1923 Professor Johnston was scientific controller of the Commonwealth prickly pear investigations which were conducted in New South Wales and Queensland. He has been awarded the Syme research medal and prize by the University of Melbourne, and since coming to Adelaide has occupied the position of honorary curator of helminthology in the South Australian Museum. When Professor F. Wood Jones left Adelaide the Royal Society of South Australia elected Professor Johnston as his successor to represent the society on the Public Library Board. He is the author of numerous publications on parasitology and entomology in Australian, Indian, and European journals.

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SIR DOUGLAS MAWSON.

Sir Douglas Mawson is only 46 years old, and he has been a prominent figure for years in scientific circles. Born at Bradford, England, Sir Douglas has made his home in Australia, so long that he regards himself as a thorough Australian. It was at the Sydney University that he graduated as Bachelor of Mining Engineering, in 1901, and three years later, after making a geological exploration of the New Hebrides, he took his Bachelor of Science Degree. The following year he was appointed lecturer in geology at the Adelaide University. He was a member of the Shackleton Antarctic Expedition, and in 1911 he led the Australasian Antarctic expedition, which ended in 1914. Hair-breadth escapes from death became commonplace to him, and on one occasion while his companions were desperately lacing the gear ready in order to haul him out of a crevasse, he coolly tossed ice crystals up to them for examination. With his two companions dead he struggled on through a savage waste of land for 30 days to reach the camp and succor. It was a case of sheer dogged determination and the intention to carry on at all costs. After serving with the military forces during the war, he returned to his University duties. His work in the Polar regions has won him recognition and decorations from numerous scientific societies in various parts of the world. Sir Douglas is now on a visit to England.