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MUSEUM

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Manuscripts in the

Royal Scottish Museum

Edinburgh, part 2

**William S Bruce papers
and diary of**

A Forbes Mackay

JOY PITMAN

NATURAL HISTORY 8

MARCH 1982

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- 7 Manuscripts in the Royal Scottish Museum, Edinburgh, part 1.
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- 8 Manuscripts in the Royal Scottish Museum, Edinburgh, part 2.
William S. Bruce papers and diary of A. Forbes Mackay.
Joy Pitman. (March 1982)
- 9 Manuscripts in the Royal Scottish Museum, Edinburgh, part 3.
J.A. Harvie-Brown papers.
Joy Pitman. (February 1983)
- 10 Recent Cephalopoda in the collections of the Royal Scottish Museum,
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David Heppell and Shelagh M. Smith. (March 1983)

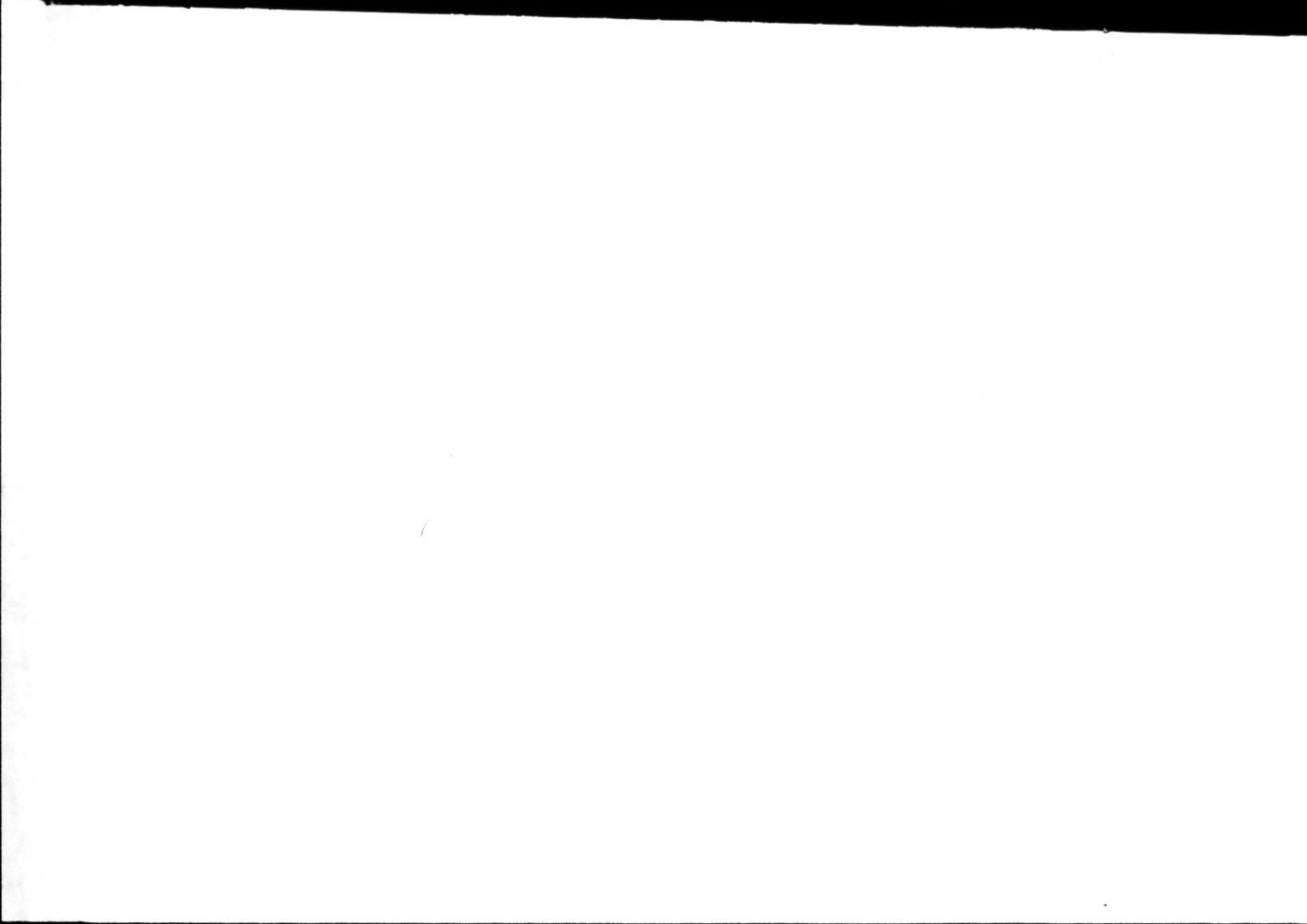
3. E B Basden's collection of Diptera from bird and animal nests and mammal runs, burrows and droppings G E Rotheray
4. Catalogue of the type specimens of recent vertebrates in the National Museums of Scotland J S Herman, R Y McGowan, G N Swinney
5. Maiolica in the National Museums of Scotland Celia Curnow

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NATIONAL MUSEUMS OF SCOTLAND

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The first issues of the Information Series are:

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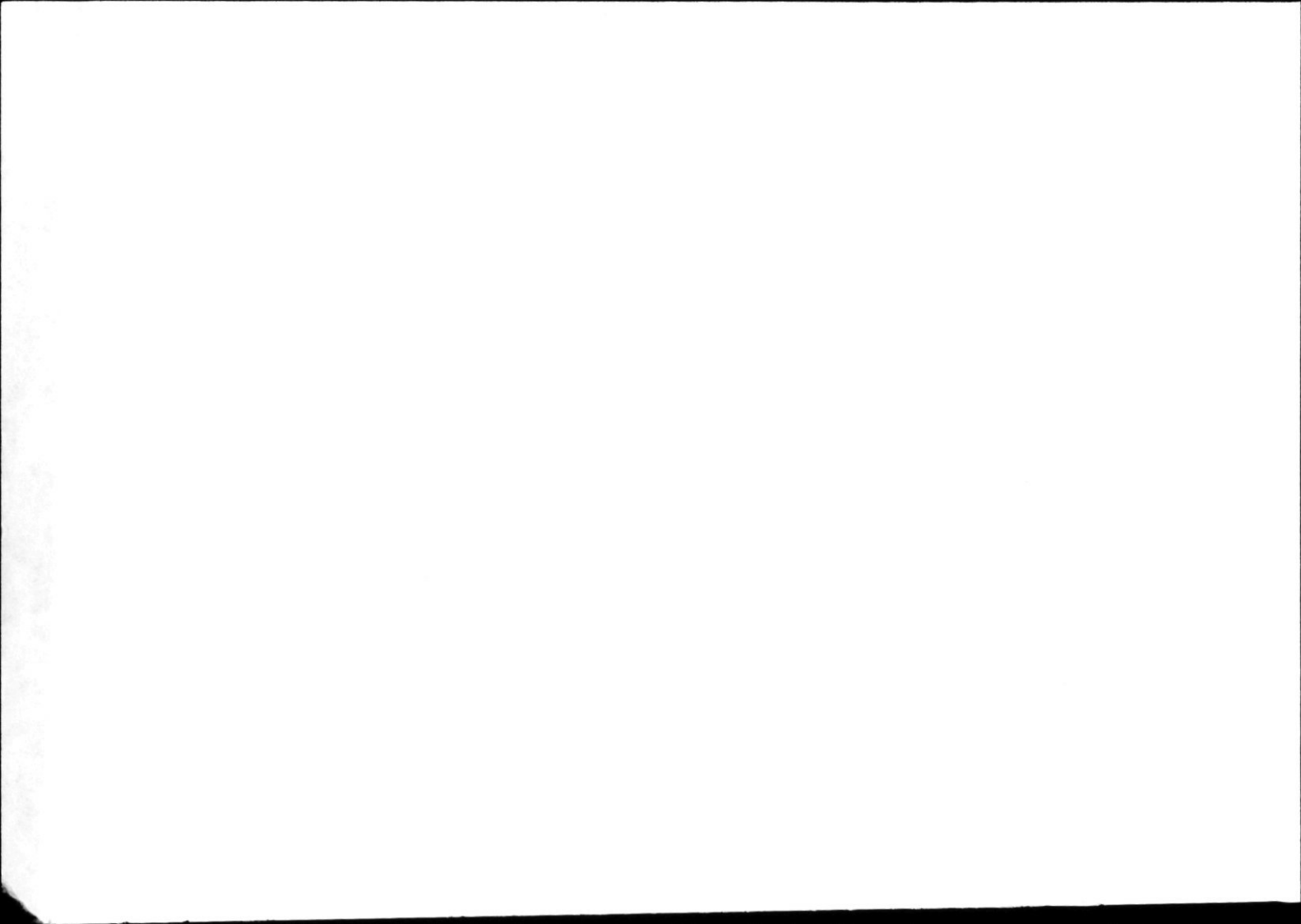
44pp

June 1988 £5.00

2. **The Scottish Ethnological Archive** Alexander Fenton, Dorothy Kidd, Eira Langler, Colin Hendry

18pp 11 black and white illustrations

July 1988 £2.50



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A Forbes Mackay

JOY PITMAN

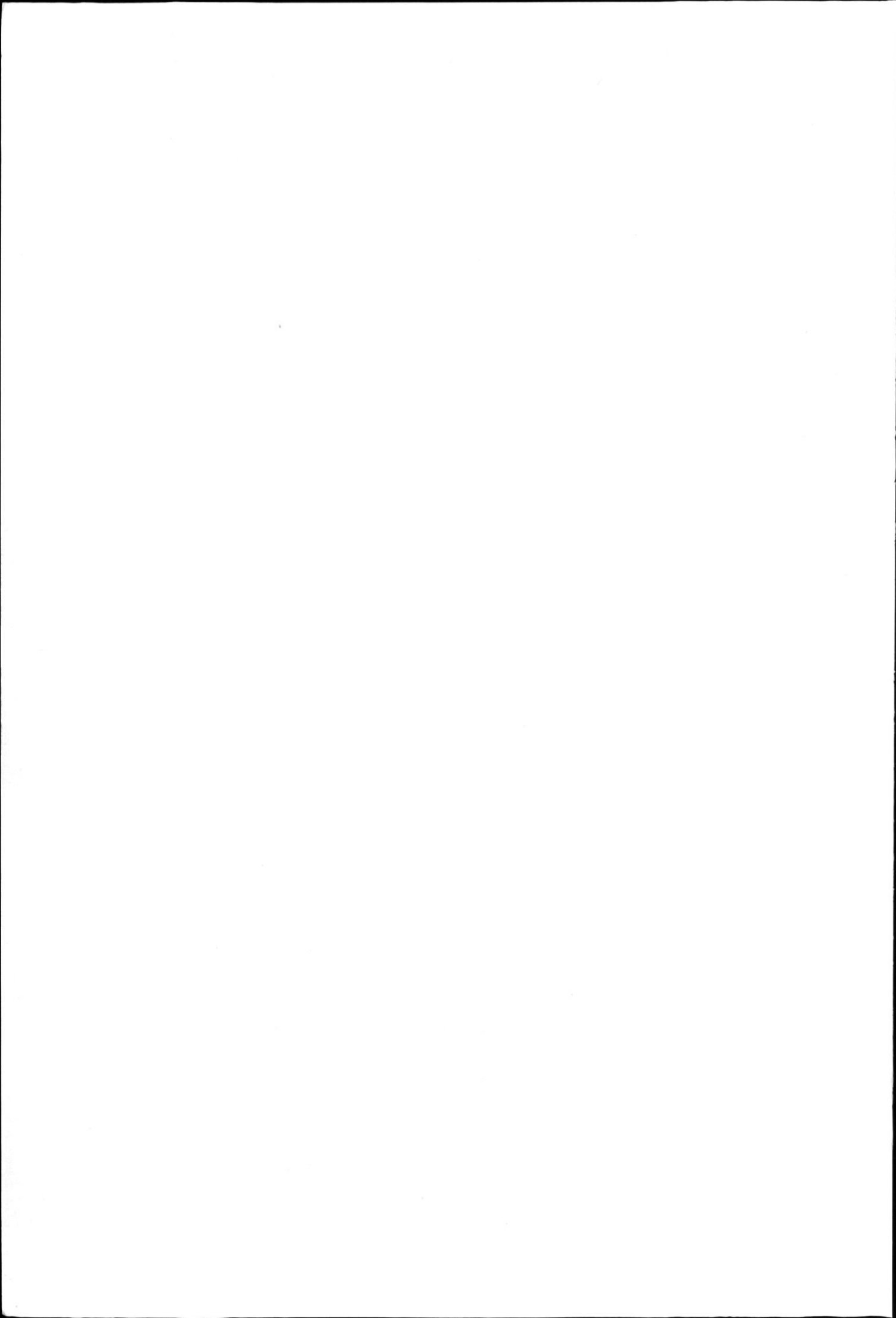
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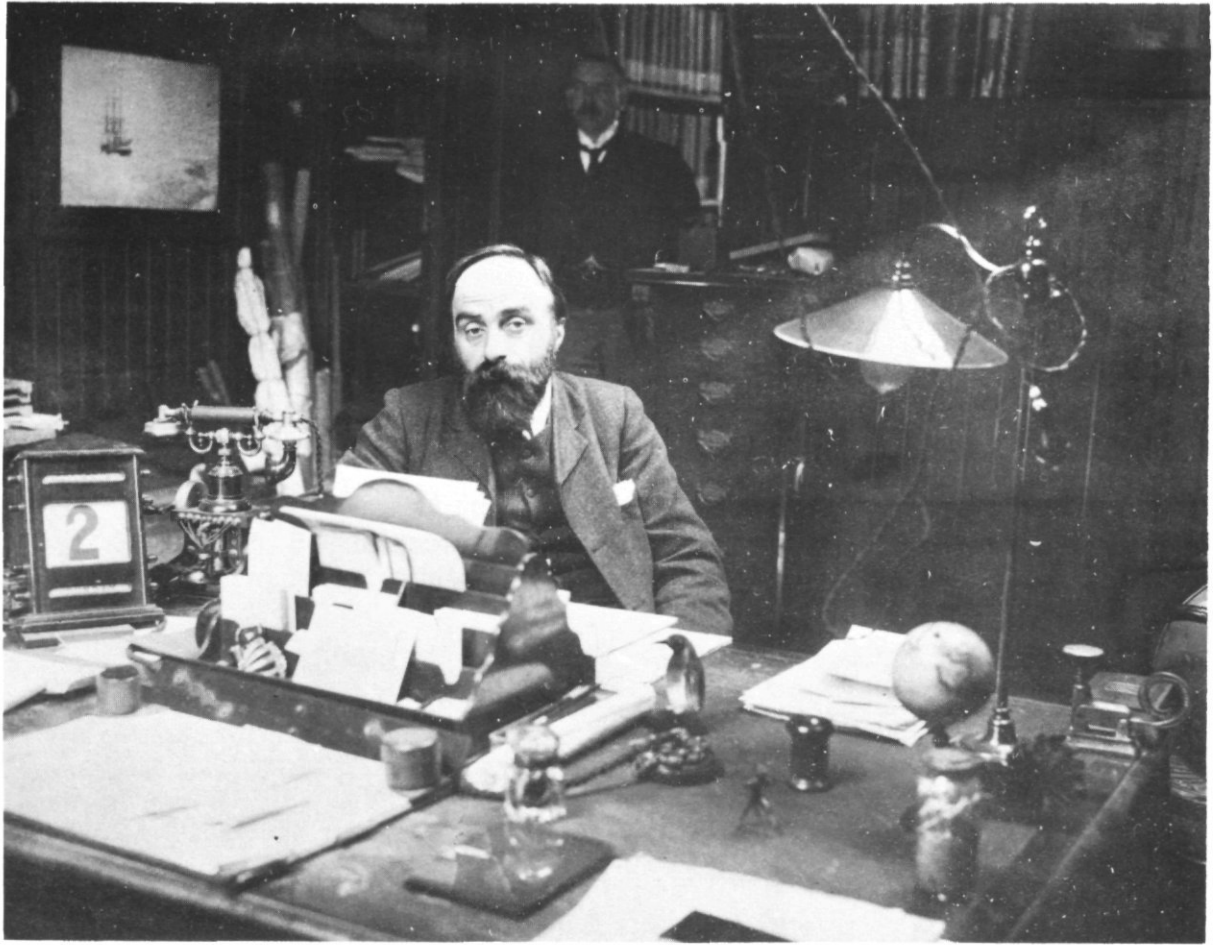
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Scott Polar Research Institute, Cambridge, print No. P58/58: illustration 1.

University of Glasgow, collection of stereoscopic slides: illustration 7.

Mrs. Isabella Dunnett: illustration 23.



1. Bruce at his desk, Scottish Oceanographical Laboratory.



2. David, Mawson and Mackay.

PREFACE

This list of the manuscripts of W.S. Bruce in the Royal Scottish Museum is the second prepared by Joy Pitman as part of a project to reorganise, index and store under archival conditions the manuscripts held by the Museum.

The list differs from the first produced (William Jardine papers) in that most of the material is concerned with the organisation and results of expeditions, and therefore it has been filed by expedition, not by correspondent.

As these expeditions were primarily to the Arctic and Antarctic regions, it was decided to include a transcript of the diary of A. Forbes Mackay on his journey to the South Magnetic Pole in 1908-09. It is probable that the diary is part of the Bruce collection as Mackay knew Bruce well, but unfortunately there is no list of the contents of the Bruce papers when they were deposited in the Museum.

We are grateful to Mrs. Isabella Dunnett, the niece of Mackay, who has given much useful information on his life, and to the institutions which supplied photographs to illustrate this list. Our thanks are also due to the typist Mrs. R. Sinclair, who has now added editing duties to her typing skills.

Diana C.F. Smith
Librarian



3. Cartoon of Bruce originally published
in a Buenos Aires newspaper.

W.S. BRUCE PAPERS: INTRODUCTION

The W.S. Bruce papers were deposited in the Royal Scottish Museum (RSM) when the Scottish Oceanographical Laboratory was dispersed in 1921. They consist of a great variety of types of manuscript material, relating principally to the different expeditions in which Bruce took part. The papers have been arranged in sections according to the expedition to which they refer, and each section of this listing is prefaced by a short introduction. There are log books and notes of scientific observations; drawings and paintings; sketch maps and surveying figures. With the exception of the section on Spitsbergen, there is hardly any correspondence, and in the whole collection there is virtually nothing of a purely personal nature.

The Natural History Department of the RSM holds a very large number of Bruce's zoological specimens, including many of the type specimens. The Geology Department holds the deep sea deposits from the "Scotia", and geological specimens from many of Bruce's expeditions, including some type material. The Technology Department holds some of Bruce's instruments and equipment. Specimens were also presented to Scottish museums at Aberdeen, Glasgow, Paisley, Perth and Dundee.¹ According to R.N. Rudmose Brown's biography "the valuable library of polar books was presented to the University of Edinburgh ... the collections to the Royal Scottish Museum and the maps and charts to the Royal Scottish Geographical Society".² The University collection includes seven volumes of photographs, and log books from some of Bruce's expeditions. Other manuscript material relevant to Bruce may be found in the Scott Polar Research Institute, Cambridge, and the Royal Scottish Geographical Society.³

William Speirs Bruce, polar explorer, oceanographer and naturalist, was born in 1867 in London, of Scottish and Norse descent on his father's side.

Bruce attended Edinburgh University to read medicine, but did not qualify. His earlier interest in natural history was further stimulated by contact with Professor Patrick Geddes, and John Murray at the Challenger office. His first Antarctic experience was as a surgeon on the Dundee Antarctic Whaling Expedition in the "Balaena" in 1892-93. Bruce tried, unsuccessfully, to raise funds to explore South Georgia, so in 1895 accepted a position in

charge of the Ben Nevis high altitude meteorological observatory. In 1896 he joined the Jackson-Harmsworth Expedition as a biologist and worked in Franz Josef Land for a year. 1898 saw him on the "Blencathra" with the Coats Arctic Expedition, doing biological and oceanographical work. In 1898 and 1899 he was invited to join the Prince of Monaco in trips to Spitsbergen to make hydrological and biological surveys.

Bruce is probably best known as leader of the Scottish National Antarctic Expedition which spent two years (1902-04) with the "Scotia" doing a great deal of valuable and original scientific research, principally in Antarctic marine biology, oceanography and meteorology. On his return, Bruce set up the Scottish Oceanographical Laboratory at Surgeon's Hall, Edinburgh, to house his specimens and act as a centre for publishing the "Scotia" scientific results. It was to prove a long-term battle to find funding for the enterprise.

Between 1906 and 1919, Bruce took part in several surveying expeditions to Spitsbergen, financed mainly by the Prince of Monaco. He became involved in the creation of the Scottish Spitsbergen Syndicate, a prospecting and mining company, and in attempts to persuade the British Government to annexe the area.

Both Bruce and Shackleton hoped to make trans-Antarctic crossings, and the two men amicably discussed their plans. Shackleton succeeded in securing funds, however, whereas Bruce failed. Nevertheless, Bruce made considerable efforts to organise a relief party for the stranded members of the expedition in 1916. Between 1915 and 1916, Bruce managed a whaling station in the Seychelles, set up by his friend from the "Balaena", W.G. Burn Murdoch.

Meanwhile, Bruce continued to work maintaining the Scottish Oceanographical Laboratory, but he was finally forced to abandon the enterprise due to lack of funds and his own failing health.

Bruce died in Edinburgh in 1921, and in 1923 his ashes were scattered off South Georgia in the Scotia Sea, in accordance with his wishes.

A detailed biography of Bruce is available in "A naturalist at the Poles" by R.N. Rudmose Brown, which contains a bibliography of Bruce's principal publications.²

The Jackson-Harmsworth expedition, led by F.G. Jackson and financed by A.C. Harmsworth, originally intended to use Franz Josef Land as a base from which to sledge overland to the North Pole, until Jackson discovered the presence of open sea to the north. The party established its headquarters in Elmwood, Cape Flora in the summer of 1894. In 1896, Bruce was invited to sail there on the "Windward" as a naturalist.

It was on this expedition that Bruce first met Nansen, who was waiting at Elmwood for the "Windward" to take him home. D.W. Wilton, experienced in working with dogs and sledges, and later to travel on the "Scotia", first worked with Bruce in Franz Josef Land.

Bruce's scientific work was mainly zoological on this expedition, and this is reflected by the material in the collection.

No.		Sheets	Dates
2/ 5	<u>Biology</u> articles and reports: W.S. Bruce, "Summary of the fauna of Franz Josef Land" (draft?) typed copy	<u>19</u> <u>17</u>	n.d. n.d.
2/ 6	W.S. Bruce, "The mammals of Franz-Josef Land with notes by Mr. James Simpson" draft typed copy	<u>12</u> <u>11</u>	n.d. 1898
	notice of papers to be read by Bruce to B.A.A.S., 1901 (includes "Preliminary notice of the Fauna of Franz Josef Land")	<u>6</u>	1901
	notes (for an article?)	<u>2</u>	n.d.
2/ 7	list of specimens - general: "List of animals of recent North Polar expeditions"	<u>4</u>	1898, 1899, n.d.
2/ 8	"List of zoological specimens collected and presented by William S. Bruce at or near Elmwood, Cape Flora, Franz Josef Land 1896 & 1897" I, Tubes, jars etc. II, Dried specimens in boxes.	<u>22</u>	n.d.
2/ 9	III, Microscopical mounted specimens draft typed copy	<u>5</u> <u>6</u>	n.d. n.d.

No.		Sheets	Dates
	<u>Biology</u>		
2/10	lists of specimens - general: miscellaneous lists	<u>10</u>	n.d.
	notebook		n.d.
2/11	lists of specimens: "Description of plates zoological and some botanical drawn and coloured by William S. Bruce, Franz Josef Land 1896 & 1897" (includes some pencil drawings)	<u>87</u>	n.d.
2/12	plants (includes one painting)	<u>2</u>	n.d.
2/13	(insects)	<u>2</u>	n.d.
2/14	Crustacea	<u>23</u>	n.d.
	Crustacea duplicates (including "Blencathra" duplicates)	<u>6</u>	n.d.
2/15	Pycnogonida	<u>4</u>	n.d.
	echinoderms	<u>7</u>	n.d.
2/16	fishes (includes one photograph)	<u>7</u>	n.d.
2/17	birds (includes some notes and drawings)	<u>3</u>	1897, n.d.
2/18	"Natural history notes extracted from journal kept during voyage in "Windward" from Vardo to Cape Flora 30 June 1896 - 25 April 1897"	<u>39</u>	n.d.
2/19	notes - miscellaneous	<u>17</u>	n.d.
2/20	<u>Oceanography</u>		
	analysis of sea water, 1896-97	<u>1</u>	n.d.
	sea temperature and colour, Windward 1896	<u>9</u>	n.d.
2/21	<u>Survey</u>		
	sketch maps of Cape Flora and adjacent country by W.S. Bruce and R. Koettlitz	<u>2</u>	1897
	map of Cape Flora made from survey angles made by A.B. Armitage and Reginald Koettlitz - see outside folder torn fragments	<u>3</u>	n.d.

1898 BLENCATHRA

When H.R. Mill, a friend of Bruce's from his University days, was unable to accept the invitation from Andrew Coats to join his sporting trip to the Barents Sea to make scientific observations, he suggested Bruce as a replacement.

The "Blencathra" was well equipped for research and Bruce was able to make meteorological and hydrological observations and to take tow-net samples on the voyage to Nova Zemlya and in the Barents Sea. On this expedition Bruce had his first sight of Spitsbergen, but pack-ice prevented a landing.

Most of the material in this section is in the form of notes made by Bruce.

No.		Sheets	Dates
2/22	<u>General</u> articles and reports: W.S. Bruce "The Coats' Arctic Expedition 1898" (holograph - ?draft for paper read to B.A.A.S. "The fishes of the Coats' Arctic Expedition") including photocopy of notice	<u>4</u>	1901, n.d.
	notes on Arctic fishes (for this paper?) including letter from F.A. Smith of Stockholm	<u>14</u>	1901
2/23	equipment - accounts for advertisement for microscopical cement	<u>21</u> <u>1</u>	1898 n.d.
2/24	map of routes - see outside folder notes, miscellaneous	<u>2</u> <u>15</u>	1898, n.d. n.d.
2/25	<u>Biology</u> birds - notes on	<u>41</u>	1898
2/26	fishes - measurement of specimens - descriptions - notes - painting of Liparis gelatinus	<u>26</u> <u>17</u> <u>7</u> <u>1</u>	n.d. n.d. 1899 1898
2/27	mammals - British Museum (Natural History) printed sheet on preparation of small mammal skins	<u>1</u>	n.d.

No.		Sheets	Dates
2/28	<u>Oceanography</u> notes on soundings and tow-netting	<u>15</u>	1898, n.d.
	float papers (blank)	<u>3</u>	1898

		36, Strand,	
		LONDON, W. C.	
Wm. S. Bruce, Esq.,			
To WATKINS & DONCASTER,			
Manufacturers of Entomological Apparatus.			
1898.			
Apl. 13.	To 1 Sweeping Net.		7 6
	1 Improved 4 ft Cane Net		4 6
	Enclosure from Hinton & Co.,		3 0
	6 Storeboxes 14 x 10	4/- 1	4 0
	7 oz. Mixed Pins.	1/6	10 6
	1 oz. Polyporus for "staging"		2 6
	Card for mounting Coleopt.		2 6
	Gum Tragacauth		1 0
	2 Deal Collecting boxes	1/-	2 0
	1 ea. Cases with tubes 26 4/6, 10 3/6.		8 0
	1 Gross P. S. Boxes		2 6
	2 lbs. Napthaline	1/6	3 0
	1 Sheet of waterproof		3 6
	1 Brass wire Net with brass rings		3 6
	1 Sweeping Net bag		2 6
	1 bag for 4 ft Cane Net		1 6
	1 " with brass rings (Holland)		2 0
	6 Coleoptera Bottles	1/6	9 0
	1 pr. plated forceps.		2 6
	6 Setting needles Ivory Handles	d 3	1 6
	1 doz. best cork 7 x 3 1/2		1 4
	prepared cork lining		1 4
	pkg. case		1 6
		£5	1 2

5. Invoice for equipment.

1898 - 1899 PRINCESS ALICE

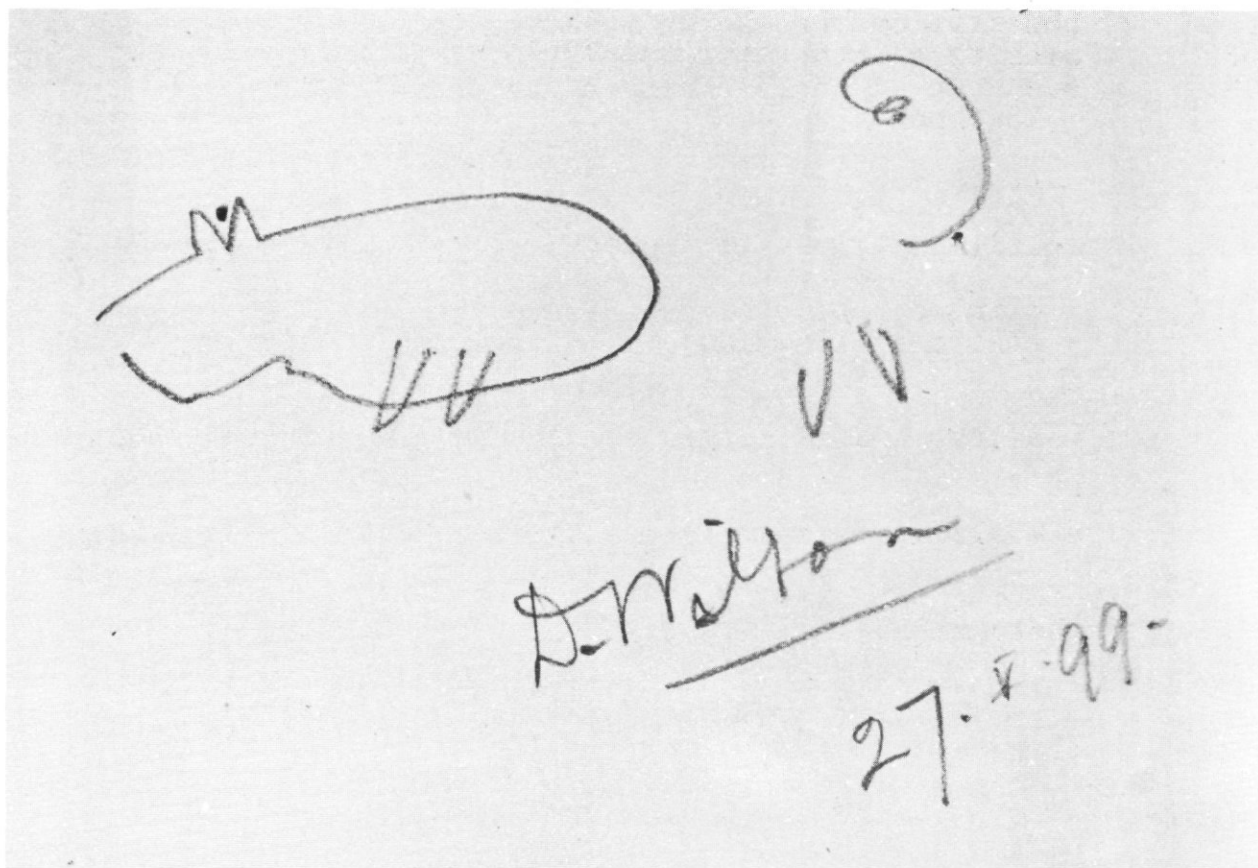
When the "Blencathra" returned to Tromso, they found the Prince of Monaco's "Princess Alice" there also. The Prince was going back to Spitsbergen to undertake oceanographical research and invited Bruce to join him. By the time they arrived the pack-ice had dispersed and the party was able to visit many of the island's bays. Most of the work done on this first, preparatory trip was oceanographical. The "Princess Alice" was extremely well equipped and Bruce learnt much, both on this trip and during the winter when he was the Prince's guest in Monaco and the Mediterranean.

Albert I of Monaco (1848-1922) may be considered the father of modern oceanography, and was the founder of the Musee Oceanographique de Monaco and the Institut Oceanographique, Paris. He promoted Bruce's interest in oceanography and funded some of his later expeditions to Spitsbergen.

Bruce and the Prince returned to Spitsbergen waters in 1899, and continued their oceanographic research and survey work in greater detail.

There is a variety of material in this small section of the collection, including log books, notes, and survey material.

No.		Sheets	Dates
3/29	<u>General</u> articles and reports:		
	W.S. Bruce, "Spitzbergen 1898 and 1899: Voyages with H.S.H. the Prince of Monaco." (from <u>Scot. geogr. Mag.</u> , 16, 1900, 534-550)	<u>2</u> copies	1900
	notice of communication by W.S. Bruce, Royal Society, London.	<u>1</u>	1901
	correspondence: (draft?) letter to Sir John Murray	<u>1</u>	1899
3/30	drawings and paintings by Wm. Smith jnr.- plant colours.	<u>1</u>	1899
	portrait of Captain Carr	<u>1</u>	1899
	"Livre de Cochons" Yacht Princess Alice 1898 & 1899, Yacht Scotia 1902-03 Signed drawings of pigs while blindfolded. (notebook)		1898-99 1902-03



6. D.W. Wilton's attempt to draw a pig while blindfolded,
from "Livre de Cochons"

No.		Sheets	Dates
3/30	photograph of unidentified young man enclosed in "Livre de Cochons"	<u>1</u>	n.d.
3/31	log kept by W.S. Bruce (mainly notes)	<u>40</u>	1898-99
	map of the route	<u>1</u>	1898
	notes on ship's stores; miscellaneous notes	<u>10</u>	n.d.
3/32	<u>Biology</u> article: R. Turnbull, "Contributions to the flora of Spitsbergen, especially of Red Bay, from the collections of W.S. Bruce, F.R.S.G.S., naturalist to the Prince of Monaco's expeditions of 1898 and 1899". (<u>Trans. Proc. bot. Soc. Edinb.</u> , 21, 1900, 353-357)		1900
	notes	<u>8</u>	1898
	receipts from Edinburgh Museum of Science and Art for specimen of fox from Spitsbergen	<u>1</u>	1899

No.		Sheets	Dates
3/33	<u>Oceanography</u> observations of the temperature and density of sea-water made by J.Y. Buchanan on board "Princess Alice" - log book		1898-99
3/34	typed tables	<u>17</u>	1898
3/35	soundings - magazine cutting	<u>1</u>	n.d.
	printed tables of soundings, stations 918 - 1043	<u>3</u>	1898
3/36	<u>Survey</u> bearings, maps, notes	<u>22</u>	1898-99, n.d.
	see also outside folder	<u>2</u>	1898, n.d.
	photograph	<u>1</u>	n.d.



7. The "Scotia".

Scottish National Antarctic Expedition

Ever since his return from the Dundee whaling expedition, Bruce had been eager to return to the Antarctic. The major problem was to secure sufficient funds to equip an expedition, and Bruce expended much time and effort trying to obtain promises of financial support. He had little success in England, no doubt partly because his intentions were solely of a scientific nature and did not include publicity-catching plans for polar journeys.

In 1900, however, Sir John Murray announced the plans at a meeting of the Royal Scottish Geographical Society, and the fund was opened. Among the major contributors were the Coats brothers of Paisley, and many firms donated equipment and stores. The British Government presented the expedition with a set of the "Challenger" reports.

The "Balaena" proved too expensive to purchase, but a Norwegian vessel, the "Hekla" was obtained, re-fitted for ice work at Troon, and re-named the "Scotia".

The expedition's 33 members set sail on November 2, 1902. The captain was Thomas Robertson, from the "Balaena". Among the crew were D.W. Wilton, zoologist; R.N. Rudmose Brown, botanist; J.H. Harvey Pirie, geologist; R.C. Mossman, meteorologist and W. Cuthbertson, artist. G. Kerr, a taxidermist, was also piper to the expedition.

At South Georgia a meteorological station was established, before the "Scotia" sailed for the Weddell Sea. This was later taken over by Argentina.

The expedition's winter base was in Scotia Bay, Laurie Island, in the South Orkneys. Here they built 'Omond House' as winter quarters, and a hut for magnetic observations. During the winter months surveying and zoological work was done. When the ship was free from the ice in the summer, oceanographical research could continue. At the end of the first year's work, bad weather, some damage to the "Scotia", and a dock-strike delayed the party in Buenos Aires. Bruce also had to wire home for more funds to keep the expedition going. Meanwhile, he arranged for the Argentinians to relieve and take over the meteorological station in Scotia Bay.

During the second season in the Weddell Sea, the "Scotia" sighted and named Coats' Land, a hitherto undiscovered part of the Antarctic continent.

After narrowly escaping being caught in the ice, the ship sailed north again and took soundings which indicated an extension of the mid-Atlantic ridge, which has since been named Scotia Rise. They also landed on the little-visited Gough Island, 250 miles south of Tristan da Cunha, where they did much original geological, botanical and zoological work. They stopped off at Cape Town and arrived back in the British Isles on July 15, 1904, six days ahead of the scheduled reception date, and had to delay in Ireland before their official return to the Clyde.⁵

The "Scotia" expedition performed a great deal of very valuable scientific work, but it was to be many years before results could be published. Even now, some specimens still remain to be fully described.

The material in this part of the collection reflects the varied work done by the "Scotia". There are numerous lists of biological specimens; many of Cuthbertson's biological paintings, and a section on the geological work and soundings. Also of interest is the correspondence with the Admiralty concerning those float papers thrown overboard from the ship which were recovered and returned. The papers include the original bearings and calculations for the Laurie Island survey.

No.		Sheets	Dates
	See also HARVIE-BROWN COLLECTION		
	<u>Subjects:</u> Arctic and Antarctic		
	<u>Correspondence:</u> Bruce, W.S.		
4/37	<u>General</u> articles and reports		
	Bruce, William S. "Arctic and Antarctic" (from <u>Proc. R. phil. Soc. Glasg.</u> 32, 1901, 1-12)		1900
	Bruce, William S. "The 'Scotia's' voyage to the Falkland Islands" (from <u>Scot. geogr. Mag.</u> , 19, 1903, 169-183)		1903

Dear Mr. Harvie
to me
Account 12 July 1901
P. 72

W. S. BRUCE,

J. A. Harvie Brown, Esq.,
F.R.S.E.,
Dunipace,
Larbert.

ZOOLOGICAL LABORATORY,
SURGEONS' HALL,
EDINBURGH.

8. 7. 1901

Dear Mr. Harvie Brown,

I have the offer of a fine pack of sledge dogs, viz those of the Russo-Swedish Expedition in Spitzbergen. They will be available in September, but a promise of buying them then must be made now. There are 40 dogs at twenty roubles or three guineas each. The pack would therefore cost one hundred & twenty guineas. Would you help by guaranteeing this sum by September on behalf of the Expedition, instead of the guarantee of a hundred pounds that you have so kindly made already? Of course there is a risk of loss; but I think am practically sure that, if the worst came to the worst, the whole sum would be repaid.

I have seen Mr. Andrew Coats. He thinks we should next satisfied with one year's programme. This being the case, only £3000 has yet to be raised.

I could call on Wednesday if you like & if you would arrange a convenient hour. I do hope you will be able to see your way to do this; it would be a great thing to be able to announce the possession of the dogs.

With kindest regards
Yours sincerely,
W. S. Bruce.

8. Letter from W.S. Bruce to J.A. Harvie-Brown, 8 July 1901, requesting a donation for the purchase of sledge dogs. (HARVIE-BROWN COLLECTION, Correspondence, Bruce).

No.		Sheets	Dates
4/37	Bruce, William S. "A new Scottish expedition to the South Polar Region" (from <u>Scot. geogr. Mag.</u> , 24, 1908, 200-202)		1908
	Murray, John "The scientific advantages of an Antarctic expedition" (from <u>Proc. R. Soc.</u> , 62, 1898, 424-451)		1898
4/38	"Reports by the leader and staff" (holograph)	<u>72</u>	1903
4/39	"Report on the general scientific work carried on at the Summer station of the S.N.A.E. from November 27th to December 31st 1903" by R.C. Mossman.	<u>7</u>	1903
4/40	"Livres de Cochons" - see 1898-99 PRINCESS ALICE		
	notebook "scientific log of S.Y. Scotia" 13 Nov. 1902 - 14 Jul. 1904.		1902-04
	notes of items in private hands	<u>1</u>	1980
4/41	painting (to illustrate "Scotia" expedition? flag marked SNAE) by W.G. Burn Murdoch.	<u>1</u>	n.d.
4/42	painting (to illustrate "Scotia" expedition?) by W.G. Burn Murdoch.	<u>1</u>	n.d.
4/43	paintings and drawings men working on board and on the ice	<u>3</u>	n.d.
	see also outside folder	<u>2</u>	n.d.
4/44	seascapes	<u>12</u>	n.d.
	see also outside folder	<u>1</u>	n.d.
	unidentified sketch, see outside folder	<u>1</u>	n.d.
4/45	photographs from the Hunterian Museum collection of stereoscopic slides (for use in "Scotia" travelling exhibition)	<u>6</u>	1978
4/46	photographs of the wreck of the Scotia	<u>3</u>	c.1914 1918?
4/47	<u>Biology</u> articles and reports Murray, James "Note on microscopic life in Gough Island, South Atlantic Ocean" (from <u>Proc. R. phys. Soc. Edinb.</u> , 17, 1907-08, 127-129)		1908

Scottish National Antarctic Expedition.

REPORT ON THE SCIENTIFIC RESULTS OF THE **VOYAGE OF S.Y. "SCOTIA"** DURING THE YEARS 1902, 1903, & 1904 UNDER THE LEADERSHIP OF **WILLIAM S. BRUCE, LL.D., F.R.S.E., Editor.** Now Ready. Volume IV.—ZOOLOGY.

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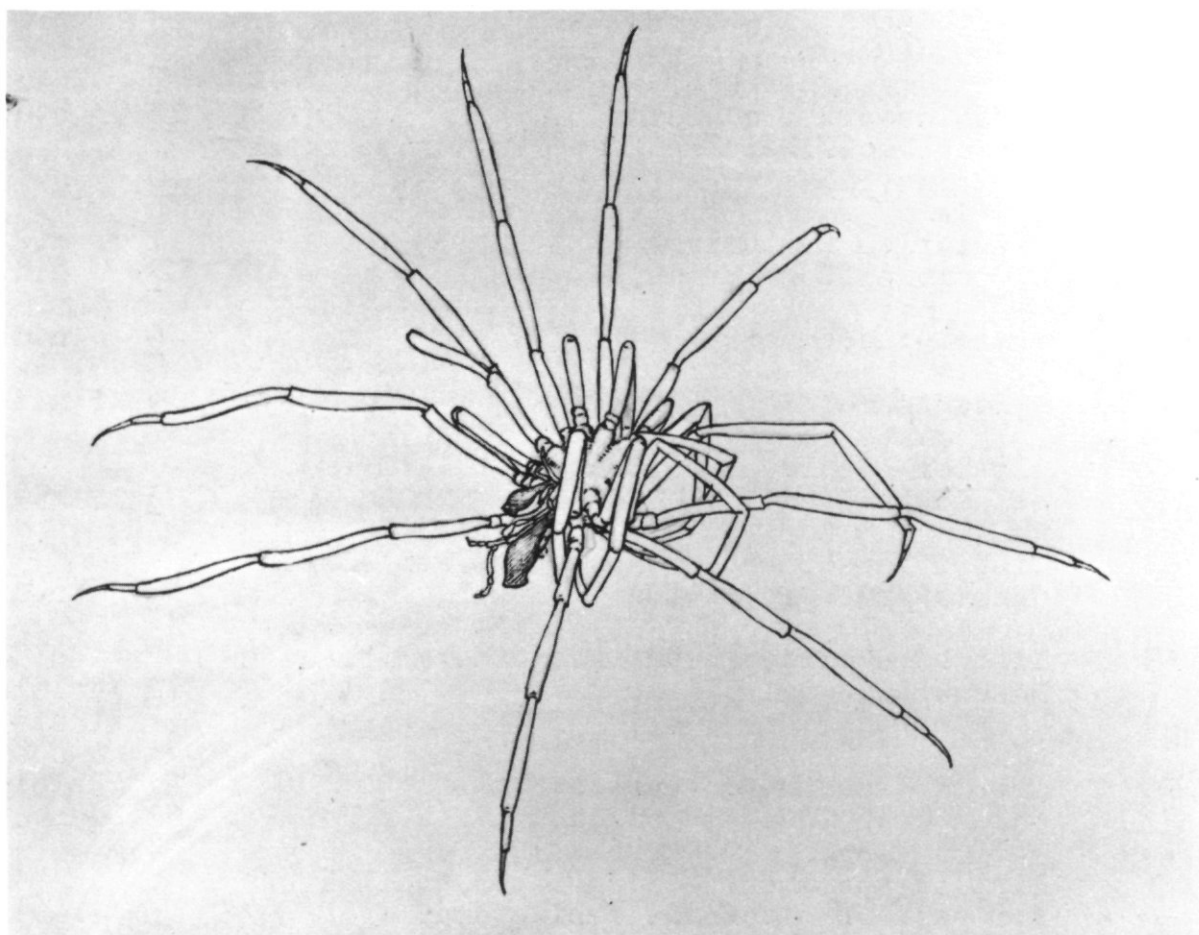
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9. Advertisement for "Scotia" scientific reports,
(HARVIE-BROWN COLLECTION, Subjects, Arctic and Antarctic)

No.		Sheets	Dates
4/48	Thornley, Laura R. Report on the Bryozoa of the Scottish National Antarctic Expedition: holograph and typed copy, figures notes	<u>78</u> <u>1</u>	1913 n.d.
4/49	correspondence between Bruce and the Royal Society of Edinburgh	<u>4</u>	1913
	note by and correspondence with Dr. A.C. Stephen of the R.S.M.	<u>2</u>	1959
4/50	Topsent, E. "Spongiaires recueillis par la Scotia dans l'Antarctique (1903-1904) Supplement" (holograph with figures and photographs)	<u>24</u>	n.d.
	Trouessart, E. -L. "Acari de l'Expedition Antarctique Nationale Ecossaie" (holograph)	<u>4</u>	n.d.
4/51	unidentified authors on: Brachiopoda Cestoda echinoderms	<u>2</u> <u>8</u> <u>7</u>	n.d. n.d. n.d.
4/52	notes on authors and publication	<u>11</u>	n.d.
5/53	birds - notebook and log kept by Alastair Ross		1903
5/54	notes	<u>8</u>	1903-04
5/55	"Bloods, bacteria &c" notebook		1902-04
5/56	notes (enclosed in notebook)	<u>13</u>	n.d.
5/57	fish measurements of fish (Notothinea) caught in bay A., S. Orkneys. list and notes	<u>34</u>	1903
5/58	lists of specimens invertebrates - new genera sponges	<u>1</u> <u>19</u>	n.d. n.d.
5/59	hydroids Medusae antipatharians alcyonarians	<u>13</u> <u>4</u> <u>3</u> <u>4</u>	n.d. n.d. n.d. n.d.
5/60	cestodes brachiopods	<u>5</u> <u>2</u>	n.d. n.d.
5/61	Mollusca nudibranchs Cephalopoda	<u>7</u> <u>4</u> <u>4</u>	n.d. n.d. n.d.

No.		Sheets	Dates
5/62	Amphipoda Pycnogonida	<u>15</u> <u>4</u>	n.d. n.d.
5/63	echinoderms, echinodes (<u>sic</u>) Synallactidae, Elpiidae, Psychropotidae, Cucumariidae	<u>13</u> <u>10</u>	n.d. n.d.
5/64	Asteries (asterids) Ophiures (ophiurids)	<u>11</u> <u>7</u>	n.d. n.d.
5/65	Ascidiacea (<u>sic</u>)	<u>4</u>	n.d.
5/66	fishes	<u>9</u>	n.d.
5/67	list of specimens collected at 1410 fms. off Coats' Land.	<u>3</u>	1904
5/68	list of specimens, comparative table with "Discovery" expedition	<u>3</u>	n.d.
5/69	list of specimens sent from the British Museum (Natural History)	<u>12</u>	1902, 1912, n.d.
5/70	list of specimens sent to Musée Océanographique de Monaco.	<u>52</u>	1913, n.d.
5/71	list of specimens - duplicates available for sale or exchange, desiderata; specimens sent to or returned from other individuals. miscellaneous lists and notes	<u>34</u>	1912, n.d.
6/72	paintings by William Cuthbertson inventory of drawings and paintings (by species)	<u>3</u>	n.d.
	list of numbered paintings (by number)	<u>6</u>	1902-04 n.d.
6/73	nos. 2,3,6,7,10,11,14,17,21,23-31,34,35, 39	<u>21</u>	1903-04 n.d.
6/74	nos. 41, 43,54,56,62,67-69,71	<u>9</u>	1903-04 n.d.
6/75	nos. 85,87,92-95,111,113,121,123-128, 138	<u>16</u>	1903-04 n.d.
6/76	nos. 142,144,145,148-154	<u>10</u>	1902-03 n.d.
6/77	nos. 161-163,165-168,170,172-178	<u>15</u>	1902-04 n.d.



10. Drawing of Pycnogons by William Cuthbertson (No. 145)

No.	paintings by William Cuthbertson	Sheets	Dates
6/78	nos. 182-200	<u>19</u>	1902-04 n.d.
6/79	un-numbered	<u>8</u>	1903, n.d.
7/80	photographs of Weddell's seals by W.S. Bruce	<u>5</u>	n.d.
	envelope of Charles Kirk, taxidermist	<u>1</u>	n.d.
7/81	tow-netting records. Tow-net log of S.S. "Scotia", Madeira - Falkland Islands by R.N. Rudmose Brown. two notebooks (one original, one copy?)		1902-03
7/82	tow-netting - records of specimens caught, (a large number of sheets blank) Stations 1 - 50		n.d.

No.		Sheets	Dates
	tow-netting - records of specimens caught,		
7/83	Stations 51 - 100		n.d.
7/84	Stations 101 - 150		n.d.
7/85	Stations 151 - 200		n.d.
7/86	Stations 201 - 250		n.d.
7/87	Stations 251 - 300		n.d.
7/88	Stations 301 - 350		n.d.
7/89	Stations 351 - 400		n.d.
7/90	Stations 401 - 450		n.d.
8/91	Stations 451 - 500		n.d.
8/92	Stations 501 - 553		n.d.
8/93	<u>Geology</u> articles:		
	Bruce, William S. "Outline Map of Laurie Island, South Orkneys, 1903" (from <u>Scot. geogr. Mag.</u> , 21, 1905, 322-323)		1905
	Pirie, J.H. Harvey. "On the Graptolite-bearing Rocks of the South Orkneys". (<u>Proc. R. Soc. Edinb.</u> , 25, 1905, 463-470)		1905
	Pirie, J.H. Harvey (draft article?) on the geology of Gough Island. (holograph)	<u>8</u>	(1904?)
8/94	Deep Sea Deposits		
	correspondence (from log book) with:		
	Gran, H.H.	<u>4</u>	1912
	Horn, J. (1, plus 2 sheets notes)	<u>2</u>	1905
	chart of Antarctic region, annotated (from log book)	<u>1</u>	n.d.
8/95	list of Scotia soundings 1st voyage and 2nd voyage by J.H. Harvey Pirie. including envelope	<u>4</u>	n.d.
8/96	log by J.H. Harvey Pirie (notebook)		1902-04
8/97	Geological log kept by J.H. Harvey Pirie (notebook)		1902-03
8/98	List of Geological specimens (notebook)		1902-04

Any further communication on this subject should be addressed to:—

THE DIRECTOR,
Meteorological Office,
63, Victoria Street,
LONDON, S.W.

and the following number should be quoted:—

M.O. 890

Telegraphic address:—
WEATHER, LONDON.

METEOROLOGICAL OFFICE,

63, VICTORIA STREET, LONDON, S.W.

March 12th, 1907.

G.H.S.

Observations; South Orkneys.

Dear Mr. Mossman,

Thank you for your letter of the 9th instant. I am very pleased to know that you will soon be in possession of the South Orkney wind observations you were so good as to promise me.

Referring to your letter of the 22nd January last, I find that the float thrown overboard from the "Scotia" on the 14th December, 1903, travelled from point to point N.89°15'E., 9,424 miles in 1,095 days or less, at a mean rate of at least 8.6 miles per day.

With kind regards,

Yours very truly,

Campbell McPherson

Robert C. Mossman, Esq., F.R.S.E.,
Scottish Oceanographical Laboratory,
Surgeons' Hall,
EDINBURGH.

11. Letter from the Meteorological Office, 12 March 1907.

No.

No. 10

SCHOTTISCHE SÜD-POLAR EXPEDITION.
SCHIFF "SCOTIA."

14/12/1903.

Sie erwidern ersucht diesen Zettel mit Bemerkung betreffs Zeit und Stunde des Findens und mit genauer Angabe des Fundortes (wenn irgend möglich mit Längn- und Breiten-graden) der BRITISH ADMIRALTY LONDON, zukommen zu lassen.

W. S. BRUCE

Führer der Expedition.

No.

No. 1037

No. 1037

No. 1037

SCOTTISH NATIONAL ANTARCTIC EXPEDITION.
SHIP "SCOTIA."

14/12/1903.

Please send this paper to the BRITISH ADMIRALTY, LONDON, stating when and where it was found, Latitude and Longitude if possible.

WILLIAM S. BRUCE,

Conductor of the Expedition.

No. 1037

No. 1037

12. Parts of the float paper referred to in the
Meteorological Office letter opposite.

No.	Sheets	Dates
8/ 99 <u>Meteorology, Magnetism, tides</u> correspondence - letter from William Hume, Scientific Instruments and Chemicals	<u>1</u>	1902
Inspection certificates for thermometers and other instruments	<u>18</u>	1902
8/100 "Report on the meteorological, magnetic, tidal and wave observations of the Scottish National Antarctic Expedition" by R.C. Mossman	<u>5</u>	n.d.
8/101 "Summary of hourly meteorological observations made during the voyage of the 'Scotia' ..." by R.C. Mossman. (notebook and envelope)		1903-04
8/102 Tables of values of magnetic declination for A.D. 1830.0 from latitude 60°S to latitude 85°S. 1. From longitude 0° to longitude 70°E. 2. From longitude 0° to longitude 70°W. by Ralph Copeland, Edinburgh Royal Observatory	<u>8</u>	1902
9/103 <u>Oceanography</u> Deep sea deposits - see <u>Geology</u>		
Float log (notebook)		1902-04
9/104 floats - correspondence about, with Admiralty and Meteorological Office, London (enclosing returned float papers)	<u>12</u>	Jan.1905- Sep.1906
9/105	<u>13</u>	Oct.1906- Mar.1907
9/106 float papers (blank)	<u>10</u>	190-
list of soundings - see <u>Geology</u>		
tow net log - see <u>Biology</u>		
9/107 <u>Survey</u> sketches and surveys of Laurie Island, South Orkney Islands (including 2 photographs)	<u>45</u>	1903, n.d.
9/108	<u>21</u>	1903, n.d.

& THE SCOTTISH SPITSBERGEN SYNDICATE

By the twentieth century, Spitsbergen already had a long history of use as a whaling base by many different nations. It was also extensively hunted for furs and mined for its mineral resources. Britain first laid claim to the area in 1614, and Denmark also made claims at various times. Spitsbergen had been visited by a number of different scientists and explorers, including William Scoresby jnr., Edward Sabine, Edward Parry, and the naturalists Alfred Newton and H.W. Feilden.

Bruce's first visit to Spitsbergen was on the "Princess Alice" in 1898. He later led expeditions, financed mainly by the Prince of Monaco, to Prince Charles Foreland in 1906 and 1907. On the latter trip he made claim to the Foreland and some of Icefjord. Bruce and J. Victor Burn Murdoch then set up the Scottish Spitsbergen Syndicate to fund more detailed surveys and exploit the resources available, which included coal, oil, shale, gypsum and marble. In 1909 Bruce made the claims over to the Syndicate and set out on the Scottish Arctic Expedition to survey the Foreland more fully. 1912 saw him and R.N. Rudmose Brown back in Spitsbergen on behalf of the S.S.S. As a result of their survey, the Prince of Monaco published a detailed map in 1913. There were further expeditions in 1914 (with grants from the British Association for the Advancement of Science and the Royal Geographical Society) and 1919. By this date the Syndicate's claims extended to 1650 square miles.

Bruce frequently pressed the British Government to annexe the area, but with no success. An international conference in Kristiana to discuss a scheme of joint control was prevented from reaching any conclusions by the outbreak of the first World War. In 1920, however, sovereignty was granted to Norway, and mineral rights divided between the other countries who had claims.

The Scottish Spitsbergen Syndicate finally went into voluntary liquidation in 1950.

This part of the collection includes a large section of correspondence, much of which is in the form of copies, presumably made for the Syndicate's files. The letters deal with the finances of the S.S.S. and Bruce's expeditions, the analysis of mineral

samples and the question of Spitsbergen's sovereignty. Of interest are letters from Bruce and Captain Isachsen in 1907, when Bruce was believed lost on the Foreland. There are a number of newspaper cuttings about Spitsbergen, both English and German, and some survey material from Prince Charles Foreland.

No.		Sheets	Dates
10/109	<u>General</u> articles: Bruce, W.S. - "Spitsbergen, 1898 and 1899: voyages with H.S.H. the Prince of Monaco" (from <u>Scot. geogr. Mag.</u> , 16, 1900, 534-550)		1900
	"Prince Charles Foreland" (<u>Scot. geogr. Mag.</u> , 23, 1907, 142-156)		1907
	"The exploration of Prince Charles Foreland, 1906-1907" (<u>Geogr. J.</u> , 32, 1908, 139-150)		1908
	"Spitsbergen economically considered" report of British Association lecture in <u>Birmingham Daily Post and Journal</u> , 16 Sep. 1913		1913
	"Spitsbergen: past and present" (from <u>J. Manchr. geogr. Soc.</u> , 29, 1913, 115-121) (annotated)		1913
10/110	drafts and notes	<u>67</u>	1906-07 1914, n.d.
10/111	Chisholm, G.G., Bruce, W.S., and Forbes, W.L. "The exploration of Prince Charles Foreland, Spitsbergen - report of the Committee" (<u>B.A.A.S. Section E, Dublin 1908</u>)		1908
	Conway, Sir Martin "The political status of Spitsbergen" (<u>Geogr. J.</u> , 53, 1919, 83-96)		1919
	Denucé, M.J. "Les ressources économiques du Spitsberg" (from <u>Bull. Soc. r. geogr. Dr. Anvers</u> , 34, 1910, 23-40) (translation by R.N. Rudmose-Brown?)	<u>5</u>	n.d.
	Rudmose-Brown, R.N. "British work in Spitsbergen: some historical notes" (<u>Scot. geogr. Mag.</u> , 27, Apr. 1911, 180-187)		1911

No.	General	Sheets	Dates
	articles:		
10/111	"The commercial development of Spitsbergen" (<u>Scot. geogr. Mag.</u> , 28, Nov. 1912, 561-571)		1912
	unidentified author "Fox-farming: the story of a curious new industry" (<u>Strand Magazine</u> , 45, 512-516)		n.d.
10/112	correspondence - AAGAARD, Consul Andr., Tromso	<u>8</u>	1907, 1909, 1914
	ADDIE, Robert see Robert Addie & Sons Collieries		
10/113	Aitken and Methuen, Secretaries to the Scottish Spitsbergen Syndicate (includes copies of correspondence with - The Admiralty The Foreign Office, John H. Kenneth)	<u>51</u>	1916, 1918-19
10/114	ANDREW, William	<u>1</u>	1908
	ARRONSEN, Captain, of the "Dion" (notes left by Bruce at Spitsbergen)	<u>4</u>	1912
	ARTHUR, Andrew	<u>9</u>	1918-19
10/115	BOULTON, William Savage	<u>3</u>	1919
	BRIGGS, Hy.	<u>3</u>	1909
	Brown and Bush	<u>2</u>	1918
	BROWN, R.N. Rudmose - see Rudmose-Brown		
10/116	BURN-MURDOCH, J.V. (includes letter from Johanesen, Jalmar Sep. 1907 and joint correspondence with Burn-Murdoch and Koepfern, Jun-Jul. 1914)	<u>63</u>	1907-09, 1912-14, 1919
10/117	BURN-MURDOCH, J.V. correspondence with:		
	Hay, - ?	<u>1</u>	1909
	Koepfern, J.H.	<u>1</u>	1914
	Rudmose-Brown, R.N.	<u>2</u>	1914
	The Times	<u>2</u>	1914
10/118	BURRALL, Frederick P.	<u>8</u>	1909
	BUSH, J. Holton	<u>4</u>	1919
10/119	CADELL, Henry Moubray 1860 - ?, geologist	<u>6</u>	1908, 1919

No.		Sheets	Dates
10/119	(CAMPBELL?), John Hope	<u>1</u>	1916
	CARR, H. (?) captain of "Princess Alice"	<u>1</u>	(1906)
10/120	CHARLESWORTH, J.K.	<u>2</u>	1919
	CLARK, R.S.	<u>1</u>	1919
	CLARKE, Henry	<u>8</u>	1908
10/121	COATS, Andrew 1862-1930, army major	<u>1</u>	1918
	COATS, Sir Thomas Glen 1846-1922, colonel and M.P.	<u>1</u>	1918
	COBURN, Peter	<u>1</u>	1909
	CONWAY, Sir (William) Martin 1856-1937, artist and explorer	<u>2</u>	1906
	CRUIKSHANK, George	<u>1</u>	1919
10/122	DAVIDSON, J.H.	<u>3</u>	1907, 1909
	Davis's Feather Mills Ltd.	<u>1</u>	1909

12. September 1907

I am at West Coast Camp
 & have got your letter of 5th
 & 9th September.

Wm. S. Borke

(Letter & note in box
 at Flagstaff = 1)

ALL WELL.

To Skip. Kn Eriksen
 "Julie Bache"
 of Tromsø

(or any one else)

14. Letter left by Bruce for skipper Eriksen.

No.		Sheets	Dates
10/123	ERIKSEN, Kr. skipper of the 'Johanes Bache'	<u>1</u>	1907
	E. Worrall and Co., Feather and Down Merchants	<u>1</u>	1909
10/124	FERRIER, James G., correspondence from: Rudmose-Brown, R.N. Young, E. Denholm	<u>1</u> <u>1</u>	1912 1909
	Foreign Office	<u>18</u>	1914, 1918
10/125	HANNAY, Harry (+ duplicates)	<u>13</u> <u>12</u>	1918-19
10/126	HAVERFIELD, Professor Francis J. 1860-1919, historian	<u>3</u>	n.d.
10/127	HENRICKSEN, Ole J. Heriot-Watt College	<u>1</u> <u>1</u>	1912 1909
	HICKLING, (Henry) George (Albert) 1883-1954, geologist	<u>4</u>	1919
	HOLLOWAY, George T. consulting metallurgist and chemist, assayer.	<u>14</u>	1909
10/128	ISACHSEN, Captain G. (includes letter to Mrs. Bruce)	<u>5</u>	1907
	JOHANSEN, Jalmar - see corr. with Burn-Murdoch		
	JONES, Jas.	<u>2</u>	1909
10/129	KELTIE, Scott 1840-1927, geographer	<u>2</u>	1912
	KENDALL, Percy Fry 1856-1936, geologist	<u>3</u>	1919
	KENNETH, John H.	<u>1</u>	1918
10/130	KOEPPER, John Henry (includes 1 photocopy)	<u>10</u>	1914
10/131	LAMONT, J.	<u>1</u>	1908
	LANE, Alfred C. geologist	<u>2</u>	1912
	(LOBLEY, J. Lagan?)	<u>1</u>	1912
10/132	McCORMICK, William 1859-1930, administrator	<u>2</u>	1918

No.		Sheets	Dates
10/132	McLintock and Sons Ltd.	<u>1</u>	1909
	MARTIN, Dr. G. King	<u>1</u>	1919
	Matthiessen and Co.	<u>2</u>	1919, n.d.
	Merry and Cunninghame Ltd.	<u>1</u>	1907
	MONACO, Prince Albert I (Grimaldi) 1848-1922, oceanographer	<u>2</u>	(1914?)
	MURDOCH, J.V. Burn - see Burn-Murdoch, J.V.		
10/133	NATHORST, Alfred Gabriel 1850 - geologist and botanist	<u>4</u>	1906
	Det Nordenfjeldske Dampskibsselskab	<u>1</u>	1913
	NORTHCLIFFE, Lord	<u>2</u>	1912
	Northern Exploration Co. Ltd.	<u>7</u>	1916, n.d.
	NORTON, J.	<u>1</u>	n.y.
11/134	PATERSON, Robert M.	<u>2</u>	1908
	PEEL, Charles V.A.	<u>4</u>	1914
	PHILIP, Jas. A. (for the S.S.S.)	<u>3</u>	1912-14
	PRICE, Charles E., M.P. (includes copies of letters from Winston Churchill at the Admiralty, and duplicates)	<u>10</u>	1912
11/135	Robert Addie and Sons Collieries Ltd.	<u>9</u>	1907
11/136	ROTTENBURG, Paul (enclosing report of a meeting of the S.S.S. 30 Jul. 1913)		1908-09, 1913, 1918
	Royal Scottish Geographical Society	<u>1</u>	n.d.
	copy of letter from V. Stefansson	<u>1</u>	1918
11/137	RUDMOSE-BROWN, Robert Neal 1879-1957, geographer (encloses prospectus for S.S.S. 9 Jan. 1917)		1912, 1914, 1917-19
11/138	Scientific and Industrial Research Department (postcard acknowledgement only)	<u>1</u>	1918
	SHACKLETON, (E.H.) (1874-1922, explorer) (telegram only)	<u>1</u>	1907

The N.E.Co have dumped their winter camp on the coast in Lowe Sound, not on the ice in Recherche Bay - which seems to be to be a queer arrangement.

Truly Spitzbergen is getting into the hands of quacks & badly wants the attention of some serious men with no eye for window dressing.

I gather you will soon be in London. We can then discuss what we know & get ahead.

yours
R. N. Rudmose-Brown

15. R.N. Rudmose-Brown writes to Bruce about Spitsbergen.

No.		Sheets	Dates
11/138	STEVENS, A.	<u>3</u>	1919
	STOTT, George	<u>1</u>	1910
	SVENSEN, Ingr. captain of S.S. Fonix	<u>1</u>	1908
11/139	TAYLOR, William	<u>2</u>	1908
	TURNER, Scott (Arctic Coal Company)	<u>1</u>	1912
	TYRRELL, G.W. geologist	<u>4</u>	1919
11/140	URMSTON, C.H.	<u>1</u>	1909
	USHER, T. Leslie	<u>5</u>	1908, 1918
11/141	WATTS, William Whitehead 1860-1947, geologist	<u>4</u>	1919
	WHITSON, Thomas B. (of Whitson and Methuen, solicitors)	<u>10</u>	1909, 1912
	Whitson and Methuen, letter from unidentified correspondent	<u>1</u>	1909
11/142	WILTON, D.W. (includes 3 duplicates)	<u>9</u>	1908, 1913
	unidentified (draft letter of appointment for expedition member?)	<u>2</u>	1907

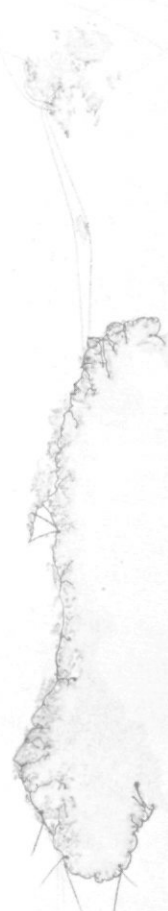
No.		Sheets	Dates
11/143	circular letters, prospectuses and reports		1908, 1912, 1914
11/144		<u>40</u>	1918-19
11/145	notes concerning	<u>1</u>	(1919)
11/146	newspaper and magazine cuttings	<u>12</u>	1906, 1909, 1911-13, n.d.
11/147		<u>10</u>	1907, 1909, 1911, 1914, n.d.
11/148		<u>11</u>	1909, 1912-14, 1918, n.d.
11/149	newspaper and magazine cuttings - German	<u>30</u>	1913-14, n.d.
11/150	newspaper and magazine cuttings - translations and transcriptions (includes copy of a letter from R.N. Rudmose-Brown)	<u>14</u>	1911-13, n.d.
11/151	painting of Sassen Bay by J. Foster Stackhouse	<u>1</u>	n.d.
	photographs and lantern slides, lists of	<u>9</u>	n.d.
11/152	<u>Equipment and stores</u> inventories, lists and notes	<u>70</u>	1907, 1912, 1914, n.d.
12/153	<u>Financial</u> notes, receipts, statements	<u>25</u>	1906, 1909, 1912, 1919, 1959, n.d.
12/154	<u>Meteorology</u> temperatures at Spitsbergen	<u>3</u>	Apr. 1912 - Jun. 1913
	temperature - notes on	<u>1</u>	(1906/7?)



NORDEN-FJELDSKE
DAMPSKIBS SELSKAB



- 1 Bamboos
- 2 Canvas bag
- 3 Long canvas bag
- 4 S. 6 Biscuits
- 7 Spirit & medicine
- 8-9 Cornmeal
- 10 Savatoga trunk
- 11 Shovels
- 12 Picks
- 16 Canteen



Canteen Crate

- Knives, spoons & forks
- 8 cans milk
- 2 jugs
- wick for lamps
- 2 rolls of cotton 3"
- Tent top
- 2 Paint brushes
- Nails

Box No 1.

- 3 tins Butter
- 6 1/4 lbs Bacon
- 8 1/2 cheese

Box No 2

- 10 tins corned beef
- 10 tins roast mutton

Box No 3.

- 1 packet Gulseine
- 2 lbs rice
- 7 tins sugar
- 6 " tea
- 1 " curry powder
- 1 " white pepper
- 1 " carbo salt
- 4 " Van Houtt. cocoa

Pris. camp.

- Chisometer
- Needles
- Pencils
- Cotton
- Chairs
- Drawing instrument

Box No 7.

- 3 Boxes for spirit
- Medicine chest
- Nails & tacks
- Canvas cover

On key labels

- 2 Shovels
- 1 Pick
- 2 Ice Axes
- 2 Picks
- Bamboos rods

Box No 10

- Socks
- Gloves
- Handker.
- Suit of clothes
- Belt
- 1/2 plate camera slides
- 3 Boxes imp. plates
- Drawing instrument
- Telescope
- Pattas
- Gum
- Binoculars
- pliers
- Drawing instrument

Canvas Bag(s)

- 1 Reindeer sack
- 1 large tent
- 1 Rubber ft. cloth
- 1 Canvas " "
- 1 axe
- 1 Hammer
- 1 Screwdriver
- 2 Juchels (khasia)
- 1 Jaegar steel sack
- 1 Shooting bag
- 2 Alpine ropes
- 1 Rubber sheet
- 1 Brown blanket

Box No .

- 1/2 ft. camera
- Sealant
- 6 doz. verascope pl.
- 100 ft. tape
- Small tape
- 10 Survey pins
- Parallel rules
- Anevoird
- 2 Marching camp.
- gun cleaner
- Theo. plumbals
- Sheath knife
- Chisometer
- Small S.° Andrus Cox
- log & log

16. List of equipment and stores made by Bruce for an expedition to Spitsbergen.

No.		Sheets	Dates
12/155	<u>Ships</u> crew, stores, types of vessel: notes on	<u>35</u>	1918-19, n.d.
12/156	<u>Surveys and claims</u> Northern Exploration Co.: map and notes	<u>5</u>	1918, n.d.
12/157	"Pelikane" expedition, 1914. (plus 2 notebooks)	<u>7</u>	1914
12/158	Prince Charles Foreland: notes and sketches	<u>20</u>	n.d.
12/159	maps and charts - see also outside folder	<u>1</u> <u>6</u>	n.d. n.d.
	notes including copy of letter to the Admiralty	<u>13</u>	1907-09, n.d.
12/160	notes on minerals	<u>16</u>	1908-10, (1912/13?), 1919, n.d.
12/161	photographs	<u>8</u>	n.d.

OTHER MATERIAL

The material in this final section is that which does not directly relate to any one of Bruce's expeditions. It includes a number of notes and articles on polar regions; and some material on whaling, mainly correspondence enquiring about the whaling industry of various countries. Of particular interest are some postcards of photographs of whale hunting in the Faroes in 1896.

No.		Sheets	Dates
12/162	<u>General polar subjects</u> articles and lectures by W.S. Bruce: "Five Polar voyages", lecture given to Manchester Geographical Society, Jan. 23, 1899. two partial drafts; notice of	<u>21</u>	(1899?)
12/163	"Life in the Polar regions" (read to Glasgow Natural History Society, Feb. 1900), draft and unused introduction?)	<u>23</u>	(1900?)
	"The Belgian Antarctic Expedition" (published in <u>Scot. geogr. Mag.</u> , 16, 1900, 296-299), draft	<u>10</u>	(1900?)
	"Heriot Watt College. Introductory Lecture. 13 November 1900" draft and notes	<u>22</u>	(1900?)
12/164	incomplete and unidentified drafts	<u>29</u>	n.d.
	note on lecture tour	<u>1</u>	(1899?)
12/165	article by James Murray (ms) "Arctic Rotifers collected by Dr. William S. Bruce"	<u>16</u>	n.d.
12/166	correspondence: CLARK, C.G.	<u>1</u>	1908
	<u>The Scotsman</u> (on a brilliant mock sun in Edinburgh)	<u>2</u>	1908
12/167	inventory and list of specimens from Scottish Oceanographical Laboratory	<u>10</u>	1910, 1912, 1919
12/168	notes: "Helgoland, Captain Rudiger"	<u>11</u>	n.d.
	"List of animals collected by second German North Polar Expedition, E. Greenland 1869-70, Kapitan Karl Koldeway"	<u>15</u>	1899

A Reminiscence of a Trip

to the

Farøe Islands.

A Whale Hunt — Capture of 112 Whales.

August 4th, 1896.

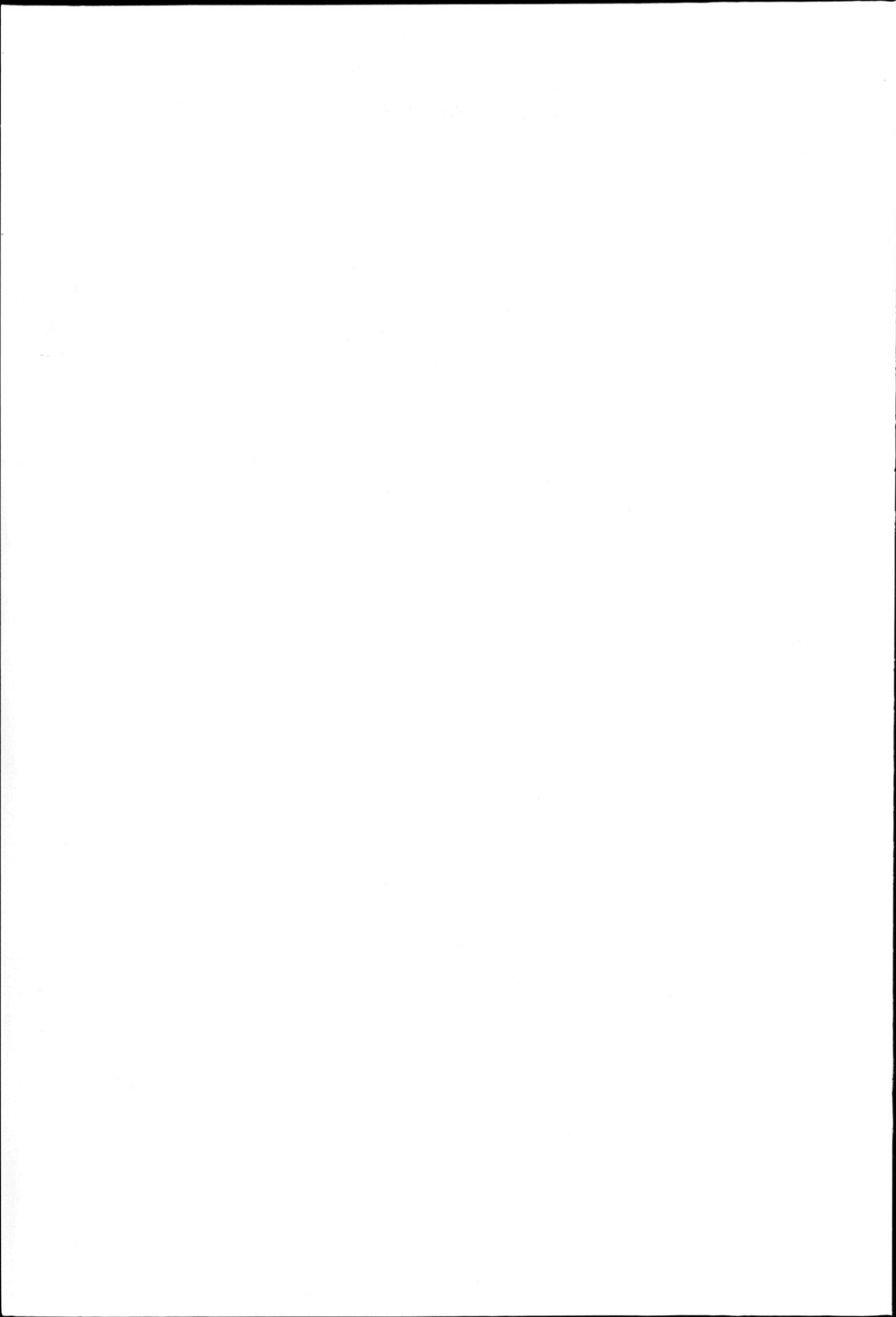


Dead Whales in Thorshaven Harbour.

17. Postcards of whaling in the Faroës.

No.		Sheets	Dates
12/168	notes "Petrels" (includes drawing by W.G. Burn-Murdoch)	<u>10</u>	1892, n.d.
	"Wilkes voyage, 1839-40"	<u>8</u>	n.d.
12/169	notes, miscellaneous	<u>45</u>	n.d.
12/170	<u>Whaling</u> article: Southwell, Thomas. "Notes on the seal and whale fishery, 1899" (<u>Zoologist</u> , (4) 4, 1900, 65-73)		
12/171	correspondence Bartholomew and Co.	<u>2</u>	1900
	New South Wales, Agent General	<u>1</u>	1900
	Ottawa, Customs Department	<u>1</u>	1900
	Department of Marine and Fisheries	<u>2</u>	1900
	South Australia, Agent General	<u>1</u>	1900
	Tasmania, Agent General	<u>1</u>	1900
	United States Commission of Fish and Fisheries	<u>4</u>	1900
12/172	Victoria Office	<u>1</u>	1900
	Washington, D.C., Treasury Department	<u>2</u>	1900
	Westminster Chambers (Queensland Agent General)	<u>2</u>	1900
	WILTON, D.W. (Moscow)	<u>3</u>	(1900?)
12/173	map - world map by Bartholomew, with ms. corrections	<u>1</u>	n.d.
	photographs (of whale flensing, by C.B.)	<u>4</u>	1900
	postcards "A reminiscence of a trip to the Faroë Islands. A whale hunt - capture of 112 whales, August 4, 1896"	<u>3</u>	1896
	of South Victoria Land, by Henrik J. Bull, of the "Antarctic", Norwegian expedition to investigate whaling possibilities	<u>2</u>	(1894/ 95?)
12/174	B.A.A.S., Annual members' invitation circular, 1912	<u>1</u>	1912
	Deutsche Weltwirtschaftliche Gesellschaft circular letter	<u>1</u>	1914

No.		Sheets	Dates
12/174	notes on sexual selection	<u>10</u>	n.d.
	photograph of Bruce in academic dress, 1913 (copy)	<u>1</u>	n.d.
	photograph of cartoon of Bruce, first published in Buenos Aires.	<u>1</u>	n.d.



Alister Forbes Mackay was born on February 22, 1878, in Carskey, Southend, Argyllshire, son of Colonel Alexander Forbes Mackay and Margaret Isabella (Innes) Mackay. While his parents were in India, he was brought up in Campbeltown. The family later moved to Edinburgh, where he attended George Watson's College. Mackay did biological work under Professor Geddes and D'Arcy Thomson at Dundee. He served as a trooper in South Africa and later with Baden Powell's police. After returning to graduate from Edinburgh in 1901 as M.B., Ch.B., he went back to the front as a civil surgeon. Later he entered the Navy as a surgeon, but retired after four years to join Shackleton's Antarctic Expedition.

Mackay was the junior member of the three-man party which reached the South Magnetic Pole on January 16, 1909. Professor T.W. Edgeworth David, a geologist, was the leader, and second-in-command was Douglas Mawson.

The men made the journey on foot, hauling their tent and provisions by sledge over what was often very difficult terrain. By the end of the trip the three men were in a greatly weakened state, having spent 122 days in travelling 1,260 miles, much of it covered twice in relaying.

Professor David's account has been published in Shackleton's "Heart of the Antarctic"⁶, and his original diary is in the archives of the University of Sydney. Mawson's diary is held by the Mawson Institute for Antarctic Research, at the University of Adelaide⁷. Further manuscript material relating to the expedition is held by the Scott Polar Research Institute, Cambridge.

The party originally left the depot at Cape Royds on October 5, 1908. Mackay's journal, a transcription of which follows here, begins on November 31, on the group's first day on the Drygalski glacier. It is very much a personal account, although it includes some details of mileage, altitude and temperatures. He talks of the hunger, weariness and discomfort they suffered, and of anxiety about their slim chances of returning safely from the Pole in time to meet the "Nimrod". Mackay reveals on occasion how the difficult circumstances sorely tried their tempers. His account of the transferral of leadership from the Professor to Mawson differs significantly from that of David, in that Mackay states that he

initiated the move by insisting that the Professor was no longer fit to lead.

In 1911 Mackay was planning to make an Antarctic coastal survey, on an expedition with six men and twenty-four dogs, living off seal and penguin meat. He mentions that this expedition could be "put into execution in connection with, or as part of such an expedition as Dr. Bruce proposes"⁸. The "young and ardent explorer" was supported in his proposals by Clements R. Markham⁹. However, he cannot have been successful in raising funds, as Bruce later put him in touch with Stefansson, and in 1913 Mackay joined the ill-fated Canadian Arctic Expedition. The "Karluk", a whaling vessel not suited to ice-work, was lost in a gale while Stefansson was on shore. The ship drifted for nearly four months in the ice and was finally crushed and sank. The crew survived the winter in a hut on the ice¹⁰. A small party left the main group to make for land in January 1914, and Mackay led another in February. A later group, returning from an unsuccessful attempt to reach Herald Island, met with Mackay's party in a poor state of health. He refused all offers of assistance, however, and was never heard of again. The rest of the main party eventually reached Wrangel Island in March, from where Captain Bartlett set out for help. Those who survived were finally rescued by a Canadian relief vessel in September 1914. Mackay's death is therefore assumed to have occurred in 1914.



18. The Northern party on the plateau.

Nov. 31st

First day on Drygalski barrier. Curious formation, very similar to Culbin Sand Hills. Rounded ridges of ice about 100 feet high, running about N & S crossed by ridges of snow almost at right angles. Plateau wind has been blowing all day, but it has now dropped, and thermo. is at +28°. Very hot inside tent. Our working day now is of course from midnight to noon.

Dec. 1st

Hauled sledges on about one mile towards middle of barrier. Found country growing rougher, so halted, lunched, and then Mawson took dip. observations, while prof. and I went ahead reconnoitring. Country continued to grow worse. We decided it was impassable and resolved to return to southern shore of barrier, travel outwards till barrier appeared smoother, and then cross. No plateau wind today, very warm.

Dec. 2nd

Retraced our steps to edge of barrier, and then turned Eastwards, made a good march on excellent surface. I spent a sleepless night thinking the others were inclined to give up, but this morning they both declared themselves keen. Of course we are all stale, but otherwise fit.

Dec. 3rd

Marching along south side of barrier, snow fairly good, but deep and rather soft, making walking very tiring. Did $3\frac{1}{4}$ miles. Prof. and Mawson reconnoitred barrier after dinner and think it practicable. It certainly looks smoother than at the last place we tried.

(Dec.) 4th

Hauled sledges half a-mile on to barrier, made an early lunch, and then started, all three to reconnoitre to the Northward. Penetrated about 5 miles in to barrier, but could not be certain that we saw N. side. Made out a route just possible for sledges, but the crossing will prob. take us about a week.

Got back to camp at noon for lunch, all very tired. The Prof. now asked me if I would go back to the last place we had seen seals and get some meat. I offered to do so, and started. It must have been about six miles there and six back in soft snow, and took me twelve hours of continuous walking. So that was over 24 hours going. I got lots of seal-meat, and one Adelie penguin. Another one walked into camp and was killed by Mawson. The bag which I carried back must have weighed 40 to 50 lbs.

(Dec.) 5th

Spent in eating & sleeping.

(Dec.) 6th

Advanced 3 miles, in a devious course, though ground is not very bad. Made about $1\frac{1}{2}$ miles to the good. Rations a bit short.

(Dec.) 7th

Very like yesterday. Sky was much overcast, making it very difficult to see our way, but we made good travelling. In the afternoon a strong southerly wind began to blow, and clouds cleared away. We are on short rations both of biscuit and seal meat. Our biscuit now runs to one for breakfast, $1\frac{1}{2}$ lunch and $\frac{1}{2}$ dinner, but all these measurements are short.

(Dec.) 8th

Very heavy pulling through deep, soft snow. Fine view of Mt Nansen range, and pass or glacier to south of it, up which we are to travel to reach the plateau. Glacier appears rather rough, I am afraid.

Dec. 9th

During a reconnaissance today, I saw the whole of Terra Nova Bay clear of ice, and a long stretch of the barrier edge, with what may be called the Nansen barrier beyond. The barrier edge appears about 5 miles off. All flat going ahead, but if the surface is anything like what we have passed over today it will be the worst of pie-crust snow. The professor saw a Wilson petrel. I saw a flock of half-a-dozen snow petrels and three skuas. Mount Melbourne is smoking actively.

(Sketch map here)

Dec. 10th

We seem to have got out of the rough stuff, and are now heading for Mt. Melbourne. Although we have ascended several hillocks since the one from which I had my view yesterday, we have not had nearly so good a one again. I estimate the barrier edge to be about 10 miles off. Our depôt (to be) at about 20. Rations are very short, and I am hungry. I feel as if we had very little chance of the pole.

Two or three days journey now will show us.

Dec. 11th

Really a joyful day. Marched 3 miles 1000 y^{ds}. Camped within about a mile of the sea and 5 or 6 miles of the foot of Nansen glacier. Everything seemed to jump closer to us this morning. The Nansen glacier looks good going, icy, and not very rough. The low sloping shores marked on map appear to be a mystery or a myth. Lots of seals in sight.

(Sketch map here)

Dec. 12th

Shifted camp on about a mile, then after a long confab between Mawson and Prof. decided we might as well form our depôt here, on top of an ice knoll. I was sent off to kill seals and penguins to be cooked for the plateau trip. Worked along where "sea-ice" is marked on sketch chart, and killed six seals, three Emperors and one Adelie penguin. It was rather disgusting work. The sun was very warm, and though I fell through the ice of a tide crack up to the waist, I never felt very cold, and my clothes, all but my boots, dried on me.

Dec. 13th

Spent in making small repairs, and eating. But the Prof. as usual will not let us sleep enough.

Dec. 14th

Eating my best and writing letters. These are last adieus, so they ought to be tragic, but I cannot make mine so, as I feel we have such a good chance of reaching the pole. Fixed up our depôt finally.

Dec. 15th

Woke to find a blizzard blowing from the plateau. There are no signs here of the South-Easterly blizzards that we used to have at the hut. I was glad to keep to the bag, as our stay here has not been much of a rest. Two front poles, by getting covered with rough ice, very nearly wore their way through the tent. Today we started our full rations, with seven biscuits a day.

Dec. 16th

Still blowing in the morning, but moderated about 5 a.m. We struck camp and started with our single sledge at 7 a.m. and by 10 a.m. had done 3 miles 1500 yds, at which I, at any rate was pleased. Camped.

(Dec.) 17th

Run of 9 miles 100 yds over level barrier surface, sometimes very soft. Crossed several cracks, in one of which sea-water was showing. Barrier appears to be not more than 20 feet above sea level. At present we are camped in front of a broken barranca¹¹ some 20 or 30 feet deep and 100 yds wide.

(Dec.) 18th

Run, 9 miles 350 yds. Good surface, but several large undulations across our track, almost a mile from crest to crest, and I suppose about 100 ft high, so it was a pretty good performance. These waves in the barrier are caused, I suppose, by pressure from the glacier, and are roughly concentric round its mouth. We seem to be still about 5 miles from glacier foot, though I thought that our depôt was at that distance. We passed a considerable moraine outcrop in the middle of the barrier.

Dec. 19th

Day began with snow, fog and wind. No land visible. Started by compass due magnetic south. After passing over two undulations, came to a sheet of flat ice with tide-cracks, showing open water, which tasted salt, ice at edge of cracks apparently 1 ft thick. Whole thing most puzzling. Passed off this ice up very steep incline on to another large ice wave. Much crevassed. Mawson fell right into one out of sight and it was a job to get him up. Lunched soon after. Fog lifted a little, but settled again. Made a short reconnaissance and then dined and turned in. It is blowing and snowing, and looks bad for the pole.

Dec. 20th 5 p.m.

Up at 8 a.m. Foggy. Determined to abandon attempt on Nansen glacier. Though I voted against this. Started south Easterly skirting round Mt. Larsen. Ice is undulating and crevassed and there is six inches of soft snow on surface which conceals crevasses, and sometimes jams the sledge altogether. At 4 p.m. a blizzard at about temp. of +32°F sprang up from E.S.E. Stopped and camped. For the last few days we have been much troubled by the dampness of everything, due to temperatures above freezing point

(Dec.) 21st

Up at 2 a.m. Fog cleared away and we resolved to reconnoitre towards foot Larsen glacier. Roped up and walked in that direction, but found the ground broken by pools of water, ice-ridges, crevasses and snow drifts more than a foot deep. Returned and lunched, and then reconnoitred up a snow-slope apparently curving over a spur of Larsen and leading on to Larsen glacier. Reached a height of 1500 feet. Slope far too steep, and snow 18 inches deep and very soft. But must try it. On the way back, the noise of running waters in every direction was quite loud and we heard several considerable streams in the ice under our feet. Got a good view of Nansen glacier, which I am afraid is too rough to be practicable

Dec. 24th

Had a bad attack of snow-blindness, result of doing our reconnoitring without snow spectacles. It was really most painful. We are now camped 800 feet up, on our snow slope, having tackled it with half-loads. We found a good route in to the foot of slope, but directly we got there a blizzard from the plateau sprang up. We had just time to get tent up when it was on us hard, and blew for 24 hours harder than anything I have ever experienced in a tent. It ripped the tent in two places, and split the peak of it. So this morning Mawson and I patched it, which was very cold work. We found the whole tent very rotten, and I don't think it will stand another blow such as we had. The blizzard has done good though by clearing the soft snow off the slope, and leaving large patches of bare ice. But for this we could never have got up at all. We have got things up the glacier so far in half-loads.

Dec. 25th

No Christmas luxuries at all. It was blowing very hard in the morning and so after breakfast we got into the bag again till the wind went down at about noon. Then started up our glacier with fully loaded sledge. Did 3 miles and reached a height of 2000 ft. Our blizzard glacier opens on to the one coming down between Larsen and Belingshausen at this height. Our camp is on the middle of this glacier. Going good. Temp. about +25, wind about 15 miles an hour.

(Dec.) 26th

Did 8 miles and rose to 3280 feet. I am well pleased, as surface was spoiled in afternoon by a light fall of snow. The clouds have been rolling about, spoiling the view, but sometimes producing beautiful effects. They are coming in from the sea, with a very light N.E. wind. Temp. +26. We must be situated somewhere at the back of Mt Larsen and can see, down on our left, what I think must be the Drygalski glacier.

(Dec.) 27th

Run 10 miles. Altitude 4050 ft. Temp. from +7° at 8 a.m. to +23° at 2 p.m. Slight N.W. wind. Sunny generally, clouding over more in afternoon. I remark that these clouds, above and to the west of us, move very very slowly, taking hours to alter shape. One large one straight in front of us seemed as if it were leading us to the promised land.



19. A pause by the way.

The day's run is good, as we did not get started till 11 a.m. We spent some hours forming a depôt of ski-boots, ice-axes, alpine-rope and a few odds and ends, lightening the sledge about 24 lbs. We really left our glacier this morning, and have been fairly on the plateau all day. We are dipping Mt Larsen behind us, and are opening out some old friends, Mt. Bowen, Howard, etc. to the Southward.

Dec. 28th

Run 10 miles. Altitude 4650 ft. And we had to dip into a hollow about 100 ft deep, caused by head of Nansen glacier. Besides this we stopped for 1 hr. after for Mawson to take dip observations. So I am pleased on the whole. We are not losing strength. M. is afraid that his observations make the pole farther than he had placed it, that is 170 miles from here. He cannot be certain, however, without more observations. The day began very warm, +23 and completely overcast, but now, 8.20 p.m. it feels much colder. We are, I suppose, about 20 miles south of Nansen, and have a splendid view of it, and the tail end of what is probably the Mt. Baxter range. We can still see Larsen to its base - that is, where it rises from the plateau, but we lost it when we were in the bottom of the hollow. Mawson now says that the nearest the pole can be is 170 miles and the farthest, 230. If the former, we can do it, if the latter, we may possibly.

Dec. 29th

Run 11 miles!!! Grand! Alt. 5280 ft. Day began cold, +7 at 8 a.m. with a breeze. D - d uncomfortable. Breeze freshened and lasted all morning. Mawson took a meridian altitude, which tended to confirm opinion that we have only 160 miles to do. Mt. Nansen in full view from behind, and we go on opening up peaks to the North of it. Mts Larsen, Belingshausen, Neumayer and Bowen seen at intervals, we lose them, when we dip into a hollow, which may be otherwise quite imperceptible. Feeling the exhaustion and hunger awfully, but the less said about it the better.

(Dec.) 30th

Run 11 miles, 5900 feet. Temp. 8 a.m. -1. Rose to +7, never higher, and breeze until mid-afternoon. In the middle of this ripped a hole six inches long in tent. Had to patch it in the breeze. It was intense torture. We have opened two more peaks to N.E. Don't know their names. We also saw a short, hog-backed, crevassed ice ridge, about 5 miles to N. of our course.

(Dec.) 31st

Run 10 miles, 6500 ft Temp. 10 a.m. -1. Max. +9. Almost calm all day. But we all agreed that none of us ever felt a day's pulling harder. I was nearly dead. M. took a dip observation, which makes the pole farther off than ever. I hope we are not growing weaker. We had some steep hills to go up, and there are steeper ahead. In fact there is a crevassed ice-ridge on our left front, running across our course, but pretty smooth straight ahead. The tent needed more repairing. Luckily the weather was calm. A skua came and sat down beside us as we were pitching camp!

Jan. 1st

We all wished each other happy New Year, and we ought to be happier than we were at Christmas, for we have a much better prospect of reaching the pole.

Run 10 miles. Altitude 6980 Temp. +6 to +17, no wind. The snow slopes did not prove so steep as we expected, but the surface generally has been very soft, making the pulling very hard. A sort of rumour started that the meter was under-registering, to the extent of only showing 3 miles for 4 covered, but I don't believe in it. Mawson is giving us a special thick hoosh, by way of a New Year's day dinner. I have just finished it, and could easily eat three more of the same. Of course our hunger is simply agonising. Well, we can't have more than a month of it now. The Admiralty mountains are hid in mist. 62 miles from Larsen depôt.

Jan. 2nd

10 miles, 7250 ft Temp. pretty steady about +8. Little wind A dreadfully heavy day, with bad pie-crust surface and several undulations. It is all we can do, under such conditions to keep up our 10 miles. We are all absolutely exhausted, and I am afraid growing weaker. The undulations make me anxious, as of course they will tell against us coming back. I see, on looking back that I have not yet explained that our plan is to go on at 10 miles a day till the 15th, then turn, hoping to come back at 15 miles a day. At present I think we ought just to be able to do this. Prince Albert Mts, especially one peak which we think must be Mt Queensland are showing up well, the plateau sloping towards it. But we have lost Mt Larsen and can only see the top cap of Mt Nansen. 72 miles from Larsen depôt.

Jan. 3rd

10 miles, 7810 ft. Temp. +8 to +1 did not get into camp till 9 p.m. after the heaviest day's pulling we have had; larger undulations and softer snow. Mawson took another meridian altitude, which makes it certain that we are only doing 10 miles a day, the meter being correct, and he having made a mistake in working out his last sight. We can now see 100 miles or so of snow-covered plateau stretching away N.W. of Mt Queensland, but without any high or conspicuous peaks. In fact, it surprises me a good deal that the mountains that appear so rugged and irregular from the sea, should form such a smooth, continuous wall to the plateau as they do on this side. We can only be sure of one pass or gap through this wall, which is seen distinctly to the south of Mt New Zealand. Our hunger is too dreadful to speak of, but it is not for more than a month now. Twelve days, and we will be scudding back all we know. 82 miles from Larsen.

Jan. 4th

10 miles, 7850 ft. Temp. -5 to +6. Day began with a stiff breeze which blew strong all morning, but died down soon after lunch. Surface improved slightly after lunch, and it is almost dead level. We all complained much of exhaustion at lunch, but as it was Mawson's last day of cooking he managed to give us a little extra biscuit, so

we pulled hard in the afternoon. Tent tore again, and I patched it, but no wind, so not very cold. Sky is now almost completely overcast, the first time we have had an overcast sky. No landmarks visible. 92 miles from Larsen.

Jan. 5th

10 miles, 7950 ft +17!! overcast and calm. Quite level and fairly good surface. Not feeling so tired. I am cooking now, so no time to write much. This is half way from Larsen depôt. 102 miles.

Jan. 6th

10 miles, 8000 ft -4 to +7. Slight blow from S.W. Calm and warm in evening. Not so tired, but sick of the whole show. Surface fair. 112 miles. Suffering much from split lips.

Jan. 7th

10 miles, 8700 ft. -13 to -3 and a stiff breeze most of the day with very bad surface. I never felt so exhausted and hungry. Mawson took sights, which tally with cyclometer record. 80 miles to go, and 122 miles done from Larsen. Mt Queensland was in sight at lunch, but we have lost it this evening. The cold is becoming trying. 122 miles.

Jan. 8th

10 miles 8900 -15 to -10. A most dreadful day, a strong blizzard almost abeam, and very bad surface. I never felt in lower spirits. We tore the tent badly in putting it up for lunch and had to patch it while it was up, after dinner. All clothes which were out drying got covered with snow drift, and my hands went completely several times. Pray God we may never have such another. We marched right through it. 132 miles.

Jan. 9th

10 miles 9000 ft. -3 to -7 calm, and surface better, more cheerful all round. 142 miles.

Jan. 10th

11 miles 9000 ft. Temp. -7 slight southerly wind, taking us abaft the port beam. Mawson took sights, which confirm our position as shown by compass and cyclometer. The 11 mile run was not all done today, but was the sum of several daily increments. All cheerful. 153 miles.

Jan. 11th

11 miles, 9000 ft. Temp. -12 to -5. The wind blowing fresh on port quarter, and a fair surface. Also, I believe, a slight slope in our favour. I don't like all this, as it makes me anxious about getting back.
164 miles.

Jan. 12th

11 miles, 9000 ft. Temp. -15 to -3 but such a bright sun and so calm as to feel quite warm. Day began cold, however, and with a fairly dense fog which soon lifted. There was no wind, but the sastrugil² though confused, are on the whole, in the direction of the last two days wind. This is very interesting. In weather like this, sledging is "sledging de Luxe" but for the awful hunger, which weakens us all, and has a bad effect on our tempers. Today, during halts, we passed the time by planning menus for two dinners, a Scotch and a Yorkshire, to be given in Sydney. Here is mine:-

Hors d'Oeuvre

Scotch Woodcock

Potage

Sheep's Head Broth

Poisson

Tasmanian Trout, fried with Oatmeal

Pièces de Resistance

Boiled Singed Sheep's Head, garnished with Carrots, turnips, onions and kale.

Grouse

Notable Omission

Entremets

Haggis, with sloak¹³ if possible, or spinach and mushrooms, to be played round the table by a piper.

Sweets

Grosit Tairt. Bramble Jam Rolly-Polly.
(Hot bramble jam to be handed round with this.)

Oatcakes and Scotch cheese. Short-bread and Black Bun

Wines

Scotch Whisky (Bell's Perth) or Lagavulin) Scotch Ale

Australian Claret

It is wonderful what a lot we think and talk about our bellies. I could almost eat my Finnskoe. We should be at the pole now in three days. The compass still acts, though very sluggishly.
175 miles.

Jan. 12th
11 miles, 9000 ft. Temp. -15 to -3 but such a bright sun and so calm as to feel quite warm. Day began cold, however, and with a fairly dense fog, which soon lifted. There was no wind but the sastrugi, though confused, are on the whole, in the direction of the last two days wind. This is very interesting. In weather like this sledging is "sledging de lunk" but for the awful hunger, which weakens us all, and has a bad effect on our tempers. Today, during halts, we passed the time by planning menus for two dinners, a Scotch and a Yorkshire, to be given in Sydney. Here is mine:—

Soyl d'Oeuve
Scotch Woodcock

Potage
Sheep's Head Broth

Tasmanian Trout, fried with oatmeal

Pièces de Résistance
Boiled seasoned Sheep's Head, garnished with carrots, turnips, onions and nuts.
Grouse.

20. A page from Mackay's journal.

Jan. 13th

13 miles. 9000 ft. Temp. -6 to +2. Overcast almost all day. Calm, or with puffs from South.

Last night Mawson made the astounding announcement that the pole is prob. 40 miles farther off than we had ever thought. He is lead to think this from re-reading the Discovery "reports" and from his own observations. We were left to think over this during the night, and in the morning, after a very heated discussion, we determined to take it on. I, of course, agreed to go if the others were decided, but I said plainly, as I think now, that we have not more than a 50 per cent chance of getting back to the coast in time for the "Nimrod" to take us home. My reasons for thinking so are:— That the Professor is very nearly crocked now, and we are both weak. That we have no reason to suppose that the first half of the journey back will be a bit easier than what we have done, since any wind we have had during this part of the journey has been abeam or astern of us, and the sastrugi point to this being the prevalent wind; and last that we are making no allowance for weather so bad that we cannot travel. So that is how I feel.

At present, Mawson promises to turn the sledge homewards on the morning of the 18th and hopes to make an average run of 13 miles a day, thus getting us to the sea on the 7th. I feel little the worse of our 13 miles today. But the Professor looks quite crocked up.

Mawson made the pole 50" distant by dipping circle today at noon. That is about 45 statute miles. But it was a rough reading. 188 miles.

Jan. 14th

12 miles, Aneroid unreliable. Temp. -6 to zero. Perfect weather, blue sky with Noah's Ark clouds. Wind very light, but hauling more aft on port side, as also are sastrugi. I have an impression that we have been going down hill, and cannot help feeling anxious. Surface has been much rougher, evidently ploughed up by violent winds. I feel the pinch in my belly very bad.
200 miles.

Jan. 15th

14 miles. Altitude? Temp. -20 to -6. Southerly wind of 12 miles per hour, sky perfectly clear. Mawson took dip at lunch, got $89^{\circ}45''$ which he says means we are about 30 miles from pole, which I cannot understand. Anyhow tomorrow is to be our turning day. We are to take the sledge on 8 miles and walk 5, but I shall describe later. We have this evening 22 days rations left, on our twice diminished scale, namely:- six biscuits a day, and about two thirds of a mug full of solid pem. among the three of us twice a day, with tea, cocoa, milk and sugar. It sounds not so bad, but is really little more than half rations.

If weather holds out, and we can keep up 13 miles a day, we will get back all right. If not, then God help us.
214 miles.

Jan. 16th

Up at 4.30. Took sledge on with full load 2 miles, then off-loaded everything but tent, sleeping-bag, two days' food and a few clothes. Sledged on other 6 miles, camped, lunched at 10.30. We are going to walk on from here another 5 miles with a compass, to where Mawson thinks the pole must be. Last night he took a dip-reading, giving him $0^{\circ}12''$ off the perpendicular.

3.45 p.m. Just returned from magnetic pole, five miles to N.W. of our camp here. We hoisted a Union Jack there, and the Professor in a loud voice, annexed the place. Mawson photographed the three of us by means of a string attached to camera. Then it was only at my suggestion that the Prof. called for three cheers for the King. At the pole, the compass still pointed, very sluggishly, towards the N.W.

The weather perfect, bright sun, but with slight wind from South, which plays Old Harry with my lips. The lower one is now almost completely bare of skin, and so split that my mouth has a three cornered appearance.

But we are all in the best of spirits.

9 p.m. Camped at off-load, that is, a days run of 24 miles.

None of us are crocked. The afternoon has been absolutely glorious, a flat calm, with hot sun. We are talking of doing 15 miles a day on the road home.

Jan. 17th

(Glypsometer reading in morning 96.7)

Run 16 miles, Alt. Temp. -2 to +2

Camped on site of our camp of 14th, that is 200 miles from Larsen. Weather very warm, a complete calm, or very faint wind from W.N.W. God is very good to us.

21. The Northern
party at the
South Magnetic
Pole.



I am greatly pleased with the day's work, the more so, as the surface is not particularly good, and we all think we have been running up hill, though the aneroid is suffering from a contusion, and Mawson won't run the hypsometer. Our outward bound tracks are clearly visible. We talk of reaching the coast on the 3rd.

Jan. 18th

Run 16 miles. Temp. -17 to -3 Alt. ? Very light southerly wind. some high clouds lifting from S. I believe we could have done another mile or two, but Mawson complained of pain in his leg, and the Professor was utterly crocked. I stupidly lost my warm pyjama jacket off the sledge, so I hope we will be down in warmer weather soon. Our old tracks (five days old now) are still plain, and of course we follow them. This saves M. a great deal of trouble in navigating.

The Prof. (cook for this week, ending today) has been able to give us three or four tremendous fine hooshes, which have an undoubted effect on our pulling.
184 miles from Larsen.

Jan. 19th

Run 16 miles. Temp. -12 to -5. Alt. Southerly wind of 12 to 15 miles an hour blowing most of the day, with drift at times. Very soft surface part of the way, and some up-hill. I don't think I have ever felt so utterly done. At the end, I couldn't stand for half-a-minute or so. But we will seldom have more trying days. Mawson put some sugar in the hoosh this morning by way of experiment, and I am sorry to say, I lost my temper with him so far as to say he was selfish. He objected to this, so I apologised. We all felt the cold very acutely this morning, and through the day, far more so than the -17 or -19 which we have had on fine, still mornings.
168 miles from Larsen.

Jan. 20th

Run 16 miles. Alt. Temp. -20 to -6. Wind pretty steady on starboard beam and tending to haul aft, very slight drift. Surface rather soft, and we have quite left behind the large sastrugi of 17th and 18th. I am not quite so tired as last night, and I am pleased at doing 16 miles, in spite of having had such a tiring day and only seven hours sleep after it. We are all feeling the cold badly, so Mawson proposed at lunch today, that as we were keeping up the pace so well, we should increase rations. This was agreed to, and the result is a most splendid hoosh tonight. We are now on ground covered on the outward journey on the 10th, and can still see our old tracks faintly. One awkward discovery is that we have no tea ration for this week, so we pick up the old used muslin bags of tea at the old camps as we pass, and use them again.
152 miles.

Jan. 21st

Run 16 miles. Alt. by hypsometer 196.7 deg. at lunch. Temp. -20 to -3. Wind as yesterday, but rather lighter and we are feeling a bit warmer, partly by reason of the increased rations, no doubt. Also I don't feel so horribly exhausted and inclined to vomit up my food, as I have done for the last two or three days. We are now getting seven biscuits a day. Surface was rather bad for the last 3 miles, a good deal of "pie-crust" snow. We hope to have the wind a little abaft the beam tomorrow. Our tracks of the 8th (the blizzard day) are still visible, which strikes me as most remarkable, the more so as camping grounds are pretty well snowed up, and we have not been able to get any more tea-bags, they being buried by drift snow
136 miles.

Jan. 22nd

Run 15 miles. Alt. by Hypsometer 196.75 at lunch. Temp. -20 to -3. A dreadfully hard day. We had to stop at fifteen miles as it was growing so late. I am in pretty fair agony for want of sleep, as we only get 8 hours in the bag, and half of that time is spent in shivering. The strain of the whole thing, the exhaustion and actual muscular pain, the cold, the want of food and sleep, the monotony, and the anxiety as to what is to happen at the end, make me think that this must be the most awful existence possible. My thumb nails are both coming off from frost-bite.

We lost the old tracks after lunch today, and almost at the same time I picked up Mt Queensland, which is most opportune, as it gives us a point to steer by.

The surface has been utterly shocking.

121 miles out.

Jan. 23rd

Run 16 miles, Alt. 196.78 (Hypsometer at lunch) Temp. -19.5 to -6, but the sun felt brighter and warmer. The wind was on starboard quarter, but fell almost to a calm after lunch. Surface fair.

No great drop in altitude. The aneroid readings at this stage of the outward journey appear to exaggerate the height. I blistered my heel badly owing to freezing of finnikoe.

105 miles out.

Jan. 24th

Run 16 miles. Alt. by hyps. at lunch 197.68 deg. Temp. -15 to -7. Day began with strong S.W. wind, very cold. Surface being fair, we did almost 3 miles first stage, but things got gradually worse. In afternoon surface was as bad as we have ever had it.

We discussed putting up the sail, but did not do so, as wind was only just abaft the beam. About mid-afternoon we picked up our outward-bound tracks, from the W. side. They are much weather-worn, standing up in relief in some places, and quite drifted over in others. Mt Queensland is now on our port bow, Mt Baxter showing to E. of it, but no sign yet of old Nansen.

89 miles out.

Jan. 25th

Run 16 miles. Alt. by hypsometer at lunch 197.7. Temp. -15 to -6. A most trying day, ending well. Began with strong S.W. wind and drift, gradually rising to regular blizzard of about 20 miles an hour, with thick drift, blowing right abeam. The surface was very bad, and we were all in low spirits in the morning. The wind providentially went down while we pitched camp for lunch, so we did not tear the tent. The wind dropped a little, and the surface got better about mid afternoon, and large undulations, a mile or so from crest to crest, began to appear. Mt Nansen hove up, but the view of the mountains is not good owing to thick stratus clouds between us and them. We must have dropped a few hundred feet since lunch I think. Mawson has just given us a cup and a half of splendid thick hoosh, as it is his last cooking night. I take on tomorrow. We feel as if we had come to the down grades at last.

73 miles out.

Jan. 26th

Run 14 miles. Alt. Temp. -10 to zero.

Day began with a blizzard but surface fair and downhill.

After lunch surface got much better, though sastrugi very large.

It calmed and came on such a thick fog as to be like twilight.

The mountains were all obscured, there was no sun and no shadow.

The wind was uncertain, and puffy. Mawson and professor, without crampons, began to stumble, so we stopped and pitched camp

59 miles

Jan. 27th

Run 16 miles Alt. 200⁰ by Hypsometer at lunch. Temp. zero to ⁺⁵₋₅(sic)
Day began with distant mist, which gradually cleared, giving us
a perfect day. We all felt great lassitude, which we attributed
to the comparative warmth. Sighted Larsen just after lunch. It
is not much fun sighting your objective 50 miles off, you approach
it so very slowly. We had a glorious view of Nansen, Baxter and
Queensland, with the clouds wreathing away from them. We had one
bit of sharp down-hill, but on the whole, the going was
disappointingly heavy.
43 miles.

Feb. 1st

7 p.m. Nansen Barrier

We have been going so hard, I have been cooking, and suffering so
much from snow-blindness for the last few days, that I have had no
time to write anything.

Since last entry, we did two days of 20 miles each, with the sail
up, and a blizzard behind us. The going was splendid with a steady
down-hill, and glassy surface, and we could have done more, but
Mawson's knee was strained, my heels badly blistered, and the Pro.
hardly able to move.

This brought us to our depôt at the head of Larsen glacier, where
we camped and got into shi-boots. slept of course. Next day,
Mawson determined to come straight down Larsen glacier, saying it
was quicker than the one we had come up. I opposed this, but was
over-ruled. The result was as I feared. We found ourselves at
the foot of the glacier among a maze of serae (sic) ice which has
taken us two days of the very hardest work to get through.

Our position now is far from staisfactory. We reckon we are 14
miles out from our Drygalski depôt with two day's rations on very
short allowance. It is so thick and absolutely still that we have
had to camp. The worst of all is that there is a foot or so of
new soft snow on the ground, which makes sledging almost impossible
I mean, we can't be sure of doing more than five or six miles a day.

Feb. 3rd

Noon

Relieved from cooking, thank God. The last week has been so
eventful that it would take as much writing about as any ordinary
year. Between the time we decided to come straight down the Larsen
glacier and now, we have had so many disappointments and difficulties
that I don't think anything can daunt us now. The main point is
that we have reached the sea, within sight of our Drygalski depôt,
but have just been thrown back, by the horn of the little gulf I
marked on the map to the North of the depôt. This is due to our
having approached the depôt on a wrong bearing. We must now sledge
back round the tip of this horn. But we have Penguins and seals
galore within sight, and have had our first feed of Emperor.
The other important event is that I have deposed the Professor.
I simply told him that he was no longer fit to lead the party, that
the situation was now critical, and that he must officially appoint
Mawson leader, or I would declare him, the Professor, physically
and mentally unfit. He acted on my proposal at once. We are now,
course, expecting the ship. The Professor says that Shackleton

promised to send her to look for us on the 1st, but one can't believe a word he says.

Weights on reaching ship after dinner

Mackay 176 lbs

Mawson 170

Prof. 150



22. The "Nimrod" picking up the Northern party.

Feb. 6th

8 a.m.

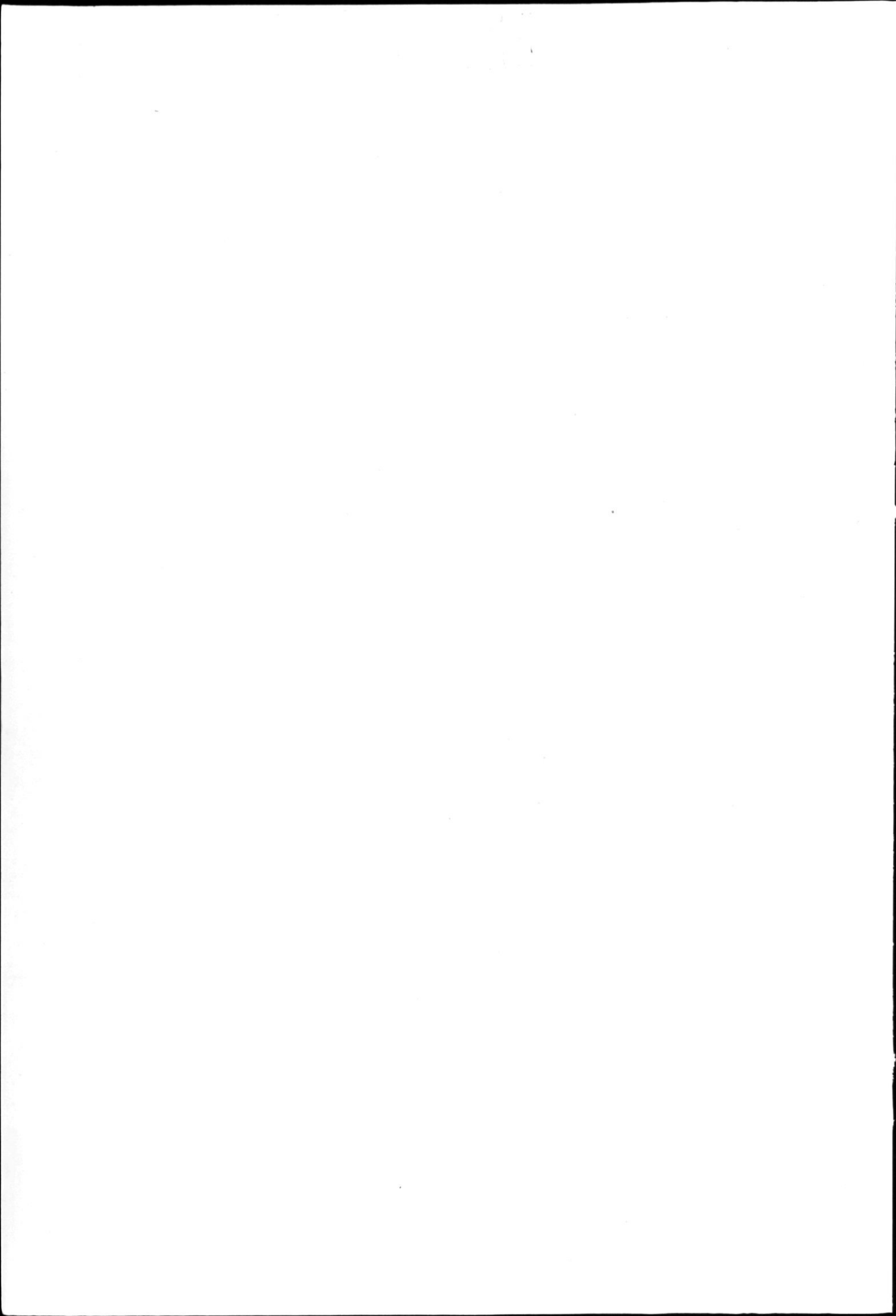
While we were inside the tent, having our first good feed of fried seal-meat, cooked over the blubber lamp, we heard a gun go off. Mawson jumped up yelling - "It's a gun from the ship. This was about 4 p.m. Sure enough it was the ship, come right into the creek, and lying within half a mile of us. We all ran to the water's edge, and Mawson went bang down a crevasse more than 20 feet deep. This might have been very serious, but luckily there was soft snow at the bottom, and he was not much hurt. I can't possibly tell all that happened next, for I must confess my eyes were a little dim.

In less than no time, we were eating anything we could lay our hands on, drinking bubbly wine, and revelling in the sight of friendly faces and the sound of friendly voices. Almost all the news was good, though there was no news of the southern party. We were relieved from a very real peril of death. I had made up my mind that if the ship did not turn up on the 5th or shortly after, we might pretty well give her up. We would then have started down the coast, with all our rations exhausted, that is to say, nothing to live on but seal-meat, and with our tent, and clothes utterly worn out. The professor could not have lived many weeks and his weakness would have delayed us to such an extent as to finish us. The whole thing is enough to make a man turn religious.

I am away sledging again now, bringing in a depôt that I have not mentioned, which we left about 10 miles back on the barrier.



Mackay on board the "Nimrod" a few days
after the return from the South Magnetic Pole.



SOURCES AND NOTES

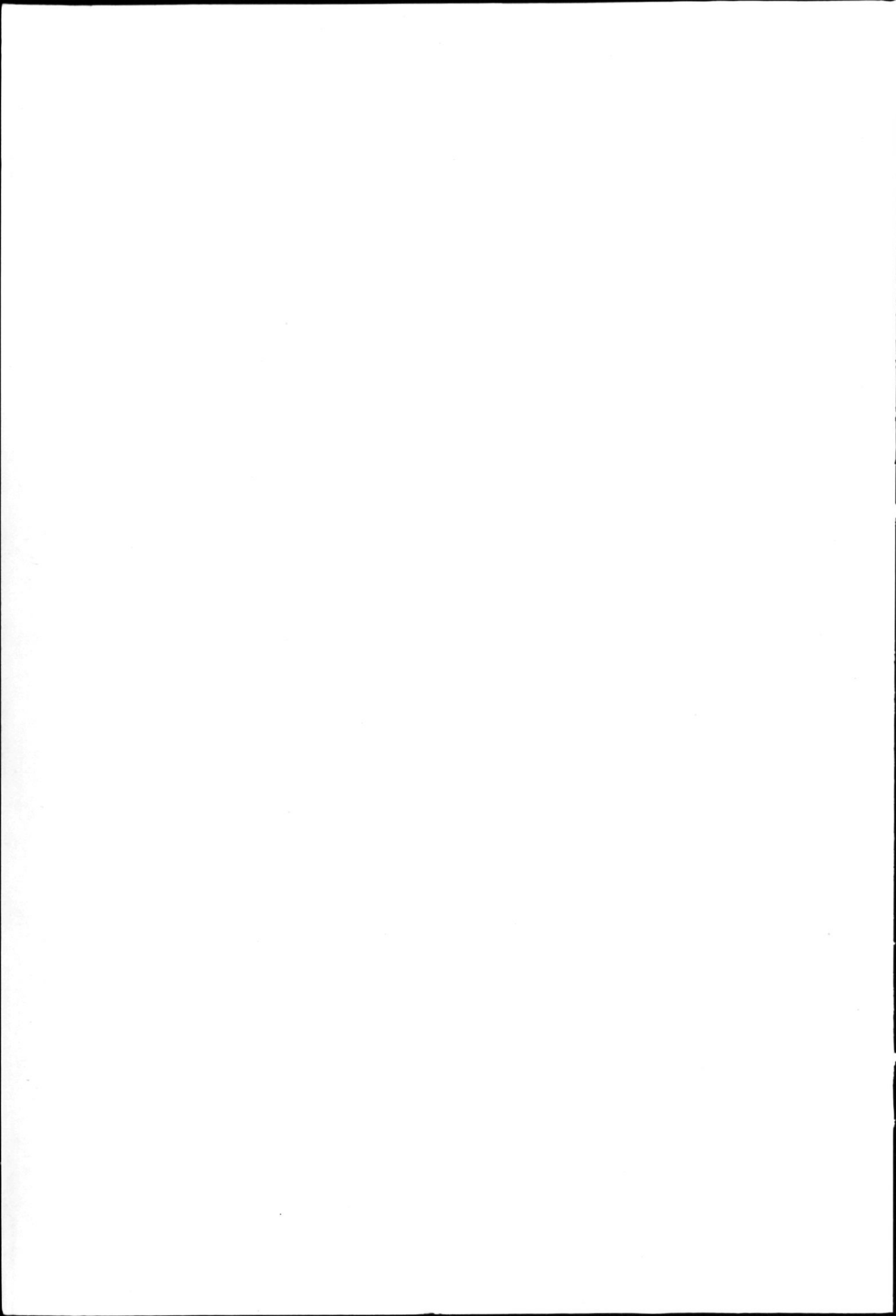
1. HARVIE-BROWN COLLECTION, RSM. Correspondence: Bruce, W.S.
17 November 1905.
2. A naturalist at the Poles, by R.N. Rudmose Brown. London:
Seeley, Service & Co. Ltd., 1923.
3. Scott Polar Research Institute, Cambridge: manuscripts
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4. From Edinburgh to the Antarctic, by W.G. Burn Murdoch.
London: Longmans, Green & Co., 1894.
5. The voyage of the Scotia, by R.N. Rudmose Brown, R.C. Mossman
and J.H. Harvey Pirie. Edinburgh and London: William
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6. The heart of the Antarctic, by E.H. Shackleton. London:
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7. South to the Pole, the early history of the Ross Sea Sector,
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8. Geographical Journal, 37, Jan. 1911, 103-107.
9. Ibid. 37, 1911, 107-108.
10. Ibid. 43, 1914, 85-86; 233-234; 410-411.
11. barranca: a deep ravine.
12. sastrugi: parallel snow ridges or furrows formed by the action
of the wind.
13. sloak: edible seaweed.

Scientific and popular zoological names are cited as in the original documents.

Reprints

Where journal titles are preceded by "from" reprints have re-numbered pagination. Others have original pagination.

The names "Burn-Murdoch" and "Rudmose-Brown" appear inconsistently with and without hyphens.



Continued from front cover.

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5. An annotated catalogue of Tardigrada in the collections of the Royal Scottish Museum, Edinburgh.
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