

the Delbridge Islands, or any landmark, to observe and make for in any form of thick weather. The thinness of the ice would suggest speedy breaking up and scattering in the wind as it drifted away, also rapid breaking up of the detached floes. This would lessen the chance of their being carried more than a very short distance before they lost all support: certainly 4 in. of ice could not stand the smallest swell should they have been driven out into the sound.

It is impossible during the winter to exist with no equipment whatever for more than the briefest period, and the only food carried by Captain Mackintosh and his companion was a little chocolate and some seal-meat. Especially would it be so in the case of these two, for their remaining companions at Hut Point assert it was only a week or two before this attempted journey that they were sufficiently recovered from scurvy to be able to walk without trouble, so their vitality cannot have been very high nor capable of standing long exposure.

Bad weather delayed the departure of the remaining members from Hut Point for Cape Evans until 15th July, when they reached Winter Quarters and learned that Captain Mackintosh and Hayward had not reached their destination.

The following report from Mr. E. Joyce deals with the steps taken to discover any traces of the remains of Captain Mackintosh and Mr. Hayward:—

“ ‘Aurora,’ McMurdo Sound, 17th January, 1917.

“ *Report of Searches made for the Bodies of Captain Mackintosh and Mr. Hayward, or for any Traces of the above Two Men.*

“ I beg to report that the following steps were taken to try and discover the bodies of Captain Mackintosh and Mr. Hayward.

“ After our party’s return to the hut at Cape Evans, 15th July, 1916, it was learned that Captain Mackintosh and Mr. Hayward had not arrived; and, being aware of the conditions under which they were last seen, all the members of the wintering party were absolutely convinced that these two men were totally lost and dead—that they could not have lived for more than a few hours at the outside in the blizzard that they had encountered, they being entirely unprovided with equipment of any sort.

“ There was the barest chance that after the return of the sun some trace of their bodies might be found, so during the spring—that is, August and September, 1916, and in the summer, December and January, 1916–17—the following searches were carried out:—

“ (1.) Wild and I thoroughly searched Inaccessible Island at the end of August, 1916.

“ (2.) Various parties in September searched along the shore to the vicinity of Turk’s Head.

“ (3.) In company with Messrs. Wild and Gaze I started from Hut Point, 31st December, 1916, at 8 a.m., and a course was steered inshore as close as possible to the cliffs in order to search for any possible means of ascent. At a distance of  $\frac{1}{2}$  mile from Hut Point we passed a snow slope which I had already ascended in June, 1916;  $3\frac{1}{2}$  miles farther on was another snow slope, which ended in Blue Ice Glacier slope, which we found impossible to climb, snow slope being formed by heavy winter snowfall. These were the only two places accessible. Distance on this day, 10 miles 1,710 yards covered. On 1st January search was continued round the south side of Glacier Tongue from the base towards the seaward end. There was much heavy pressure; it was impossible to reach the summit owing to the wide crack. Distance covered, 4 miles 100 yards. On 2nd January thick weather caused party to lay up. On 3rd glacier was further examined and several slopes formed by snow led to top of glacier, but crevasses between slope and the tongue prevented crossing. The party then proceeded round the Tongue to Tent Island, which was also searched, a complete tour of the island being made. It was decided to make for Cape Evans, as thick weather was approaching. We arrived at 8 p.m. Distance, 8 miles 490 yards.

“ I remain, &c.,

“ ERNEST E. JOYCE.

“ To Sir Ernest Shackleton, C.V.O., Commander I.T.A.E.”

“ To Captain Davis, Commander Ross Sea Relief Expedition, s.y. ‘Aurora.’—From E. H. SHACKLETON.”

After careful consideration of the reports furnished by survivors of the Expedition, taken with the evidence furnished by the meteorological log kept at Cape Evans for this date, the only possible conclusion is that these two men perished owing to the breaking-up of the ice over which they were travelling during the blizzard that commenced after they had left Hut Point, 8th May, 1916.

JOHN KING DAVIS,

Commanding Relief Expedition.

COPY OF REPORT OF SIR E. SHACKLETON.

DEAR SIR,—

Off Fast Ice, Cape Royds, 11th January, 1917.

After carefully examining all the statements submitted *re* the disaster to Captain Mackintosh and Hayward, I am forced to a definite conclusion—that is, that both men lost their lives on the afternoon of 8th May, 1916, through venturing on thin ice and being caught in a blizzard which drove the ice out of the sound. As neither man had any equipment, I consider it impossible for them to have survived more than a few hours, and now eight months have elapsed without news. I agree with you that a search should be made for their bodies in two directions—the area north of Glacier Tongue, and at the depot of Butter Point. As Joyce and party have searched the south side of the Tongue, nothing more can be done.

I am, yours faithfully,

Captain J. K. Davis, Commander, “Aurora,” Ross Sea.

E. H. SHACKLETON.