THE RED SQUIRREL OF NORTH AMERICA AS A MYCOPHAGIST.

By Professor A. H. R. Buller, D.Sc., Ph.D., F:R.S.C.

In the Transactions of the British Mycological Society for 1916, an interesting paper was published by Hastings and Mottram upon the edibility of fungi for rodents. It was shown by citations from other authors, by field observations, and by a series of experiments that both squirrels and rabbits attack the fruit-bodies of many of the higher fungi and devour them as food*. The investigations of Hastings and Mottram were made in England but their conclusion that squirrels and rabbits are mycophagists doubtless applies not merely to British species but very generally to non-British species the world over. As a contribution to our knowledge of the relations of rodent and fungi I shall here record a series of observations upon the Red Squirrel and its fungus food, made by myself and by several other naturalists in Canada and the United States

The Red Squirrel or Chickaree has an extensive geographical range in North America, for it is found in the woods of Canada and the United States from the east coast to the Rocky Mountains. It does not hibernate profoundly during the winter for, on any sunny winter's day, it may be seen about the trees in woods. I myself have seen it in mid-winter at Winnipeg in a park and about houses. The Red Squirrel feeds on the seeds of fir-cones, nuts, etc., but it is also an habitual mycophagist. In the autumn, it often collects fleshy fungi in large numbers for its winter supply of food and it stores the fungi sometimes in holes and sometimes on the branches of trees. This latter mode of storage, although of peculiar interest, does not seem to be generally known to mycologists even in North America.

Whilst studying fungi in the woods at Gimli on the western shore of Lake Winnipeg, at Minaki on the Winnipeg River, and at Kenora on the Lake of the Woods, I have many times observed fruit-bodies of Hymenomycetes which had been partly devoured or otherwise injured by rodents. From the appearance of the damaged fungi which was similar to that described by Hastings and Mottram, I came to the conclusion that the destructive agent was sometimes a squirrel and sometimes a rabbit.

^{*} S. Hastings and J. C. Mottram, The Edibility of Fungi for Rodents, Trans. Brit. Mycolog. Soc., Vol. v, 1916, pp. 364-378.