

46. TRUMPETER SWAN, *Olor buccinator*.

The Ward brothers have observed Swans of two different sizes. One shot in 1904 weighed thirty-two pounds and was so large that Frank Ward, a large man, could not close his hand about the neck behind the head. Mr. Ward, Sr., says that swans nested on the lake in 1893-94 and that he watched the old one with cygnets one day for hours. This can only refer to the Trumpeter Swan and is strong circumstantial evidence of its occurrence. Our informants also tell us that the big swans are not as wary as the small ones, do not keep as consistently in the centre of the open lake, and are more easily taken. The voice is also quite different from

that of the smaller species, being either a single "Whoop-Whoop" or a louder, clearer, and less shrill "Coo-coo—" that can be plainly heard for miles. Frank Ward tells of a wounded one uttering a long drawn note of such extreme mournfulness that it moved him deeply, thus substantiating, in a measure, the fabled song of the dying swan. These trumpeters do not come with the large flocks of Whistlers, but usually as individuals accompanied by one or two dark cygnets. Two have been seen as late as the early spring of 1917.

(To be continued.)

The asterisk (\*) denotes that specimens were taken.

## THE ORCHIDS OF HATLEY, STANSTEAD COUNTY, QUEBEC.

By H. MOUSLEY.

In that interesting book, "How to Know the Ferns", Mrs. Theodora Parsons recounts how a friendly rivalry used to exist amongst fern students as to who could claim the greatest number of species for a given area. Possibly if such a rivalry exists amongst students of the orchid family, I might take a prominent place, for I can lay claim to having found seventeen species and one variety of orchids (or just one-quarter of all those known to occur in Eastern North America) within a radius of one mile of my residence, and I am beginning to wonder whether Hatley is not an "El Dorado" for these lovely flowers, the same as Dorset and Pittsford (both in the State of Vermont) are for ferns. On a two hours' walk in the former place thirty-three species and four varieties of ferns have been found, but then it must be remembered that the party finding them had made the study of ferns a speciality, whereas I do not lay any claims to being considered a specialist in orchids or even a botanist. Still from childhood I have always had an innate love of the beautiful, and it has been whilst pursuing my favourite study of ornithology, that I have made a side line, so to speak, of botany, having collected and named some two hundred or more local species of wild flowers, at odd moments when from some cause or another birds were scarce. Possibly I owe my success with the orchids almost entirely to the warblers, for in making a special study of this family of birds, I generally seem to have been most fortunate in securing my rarest finds, the following up of a Cape May Warbler (*Dendroica tigrina*) for instance giving me my first sight of that exquisite little orchid, *Calypso bulbosa*.

Hatley is a pretty little village lying at an elevation of 1,000 feet above the sea level, the country

all round being of an undulating character with plenty of small streams, many of which eventually find their way into Lake Massawippi, a fine sheet of water about nine miles long, lying on the western side of the village. Between this lake and the village there stretches a long belt of low-lying woods composed largely of spruce, fir and cedar, with hemlock, maple, birch, beech, ash and other deciduous trees intermixed. It is in these woods principally to the north-west of the village that most of my records have been made, although there is a famous bog to the north-east, where several species are to be found growing in profusion including *Arethusa bulbosa*.

During most of my eight years' residence here (1911-1918) I have resided about one and a half miles to the south of the village, but in May, 1917, I made a temporary change and occupied a house about a mile or rather more to the north of the village until October, 1918. Previous to making this change I had only observed six species of orchids to the south of the village, so that my change of residence is responsible for an additional twelve, the ground being of a more swampy nature and better suited to the requirements of orchids, although I do not wish it to be understood that a systematic worker could not find any of these twelve additional ones to the south or east of the village, for indeed I myself have already done so during the present year (1918); nevertheless I think the localities indicated will be found to be the most productive, as the following annotated list (taken in the order given in Gray's Manual of Botany, Seventh Edition) clearly shows:

SMALLER YELLOW LADY'S SLIPPER, *Cypripedium parviflorum* Salisbury. My first acquaintance with this fragrant flower was on June 22, 1917, when I