

quitted the neighbourhood altogether. In January 1864, and again in the winter of 1869-70, several were shot in this county; but for the last twenty years at least there has been no such season for Whoopers as that of 1870-1, when the hard weather of that memorable winter commenced with a heavy fall of snow on the 20th of December, increasing day by day until it was over a foot deep on the level. The frost was so intense that the thermometer, even by day, registered only a few degrees above zero; and this lasted with but little abatement up to the 12th or 13th of January. A rapid thaw on the 14th cleared the ground of most of the first fall of snow; and, though frosts continued at night, the weather moderated considerably up to the 28th, when the snow again fell heavily, and the broads and smaller streams were thickly ice-bound up to the first week in February. My first notice of Wild Swans in that season was an intimation from Mr. Anthony Hammond, that in the last week of December he had seen a 'herd' of forty passing along the coast at Horsey, near Yarmouth; and during the first week in January a flock of twenty-six were observed on one occasion feeding close in shore off Holme Point, near Hunstanton; and another lot of seven frequented the entrance to Heacham creek. On the 12th several appeared off the Sherringham beach, passing along the coast; and on the same day, far inland, a considerable number were both heard and seen passing over the town of Wymondham. As to the numbers actually procured in Norfolk during February and the preceding month I have no means of judging accurately, since by far the larger portion were sent up to London for sale, only some half-dozen appearing at intervals in the Norwich Market. Mr. J. H. Gurney, jun., was informed by a dealer in Leadenhall Market that he had received as many as a hundred Whoopers during the frost, chiefly from King's Lynn; and one poulterer at Lynn stated he had had thirty.

"As a rule, however, these Wild Swans by no means confine themselves to the sea-coast, or even to the broads and streams in close vicinity, but, following the winding course of our rivers, are almost sure to make their appearance, during a prolonged frost, in certain favourite localities, even though far inland. Some forty years ago, as the late Mr. Howlett, of Bowthorpe, informed me, that portion of the Yare which lies between Cringleford and Colney was so much frequented by Wild Swans in hard winters as to be locally termed the 'Swan River,' and he once counted sixteen; but though in those days the adjoining marshes were more frequently flooded, and thus afforded the most tempting feeding-grounds, yet to this day, the low meadows about Earham, Bowthorpe, and Colney, on the above river, and Costessey on the Wensum, all within three or four miles of Norwich, are a constant resort of the Whooper. In the winter of 1870-71, a flock of seven took up their quarters in that particular part of the Yare; and though constantly disturbed, and two of their number shot, the survivors were remarked from time to time, at different points of the stream, up to the end of February. A remarkably fine Whooper in the Norwich Museum, which was killed at Bowthorpe in February 1830, and is said to have weighed twenty-six pounds, also measured four inches and a half along the ridge of the upper mandible, but had no black at the base.

"The distribution of colour on the bill in this species forms the most marked external distinction between it and the Mute or Tame Swan (*Cygnus olor*)—in the former the base of the bill being yellow and the extremity black, in the latter the base black and the extremity flesh-coloured or reddish orange, according to age. The internal differences exhibited by the Whooper in the convolutions of the trachea are also very marked, as shown by Yarrell in his anatomical illustrations; but that these had not escaped the observation of Sir Thomas Brown is shown by his remark (when writing of the 'Elks' or Wild Swans) that in them, 'and not in common swans, is remarkable that strange recurvation of the wind-pipe through the sternum; and the same is also noticeable in the Crane.' The rufous tinge on the head and cheeks, in the Wild Swan as in our semidomesticated species, is noticeable more or less in most specimens; and in a very fine bird, in the possession of Mr. F. Frere, of Yarmouth, shot on Breydon in February 1865, this ferruginous or orange-red upon the tips of the feathers extends likewise to the neck, and is more vivid than in any example I have seen."

"The siren song of the Swan," says Swainson, "before its death, which has been the theme of so much beautiful poetry, is now well known to be fabulous; for the voice is only remarkable for its harshness. Mr. Selby observes that it consists of two notes, and has not unaptly been compared to the discordant union of the modulation of the Cuckoo with the scream of the Gull, or the sound of the clarionet in the hands of a beginner. Some, however, still assert that, when on the wing in large flocks or resting on the water, their united cries, becoming softened by distance, are not unpleasant to the ear. 'This,' remarks Mr. Selby, 'I can readily believe; for under such circumstances I have ever found that the incongruous mixture of sound from Gulls, Guillemots, and other tribes of sea-fowl (when collected about the breeding-places), mixed with the whistling of the breeze and the murmurs of the intervening water, reaches the ear not very dissimilar to that of a band of martial music.'

"The Wild Swan evinces as great an aptitude for domestication as the tame species. When caught alive it soon becomes very tame; and when provided with a spacious piece of water, naturally furnished with its proper food, it will thrive equally well. It feeds upon the roots, stems, and leaves of aquatic plants, for procuring which its long neck, as in other birds of its own family, is absolutely necessary. When swimming, it carries its neck much more upright than does the common Swan, with little of that graceful arch for which the latter is distinguished. It walks also heavily and awkwardly, with the head lowered and the neck reclining over the back."

The Wild Swan and its young undergo the same changes as the tame Swan; the structure of the nest, its situation, and the number and colour of the eggs are also similar.

The principal figure in the Plate is about half the natural size.