

from the awful snow-drifts which so frequently occur in their native districts. On this head, Sir John Crewe requested Turner, his head keeper, to supply him with all the information in his power; and the following is the note with which Sir John has favoured me:—"In reply to your letter respecting the Red Grouse, perching on trees, I have noticed them to perch more frequently on the larch than any other kind of fir tree, they also frequently perch on the hawthorn. On one occasion during last November I was going round some corn-fields at Ferneyford; and in an old thorn that grows in the fence I saw a number of Grouse; I cannot exactly say how many, but I believe there could not have been less than five brace: they continued in the tree until I got within a few yards of them. The autumn is the time when they are more frequently seen to take to the trees."

Much has been written respecting the disease to which of late years the Grouse have been subject; but it would be out of place to recapitulate a tithe of what has been recorded on this head in the present work: those to whom this kind of information is of interest will find it in the 'Sporting Review,' 'The Field,' 'Land and Water,' and other periodicals of the like kind. The fearful visitation of cholera, the murrain among cattle, the ravages among the potato crop, and the Grouse-disease, all arise from causes at present unknown. The mystery may yet be solved; but, in the absence of such knowledge, the disorder among the Grouse may perhaps be attributable to overcrowding. The wholesale destruction of our predatory birds, particularly the Eagle and the Peregrine, which take advantage of the feeblest of the pack, instead of attacking the boldest and most vigorous, must have had its influence; and the well-being of the community will necessarily suffer from such a wholesome check being taken away. On this head, Mr. St. John writes, "Whatever is the cause of this mortality, it is a matter of some consequence to the proprietors of those districts where the Grouse-shootings let for as high or a higher rent than the sheep-pasturage; for it can scarcely be expected that Englishmen will continue paying at the rate they do for the right of shooting over tracts of ground where the grouse are becoming almost extinct, as is the case in several places. Instead of sparing the birds where they are attacked by this epidemic, I should be much more inclined to shoot down every Grouse in the infected part of the hills; and I would continue to do this as long as any appearance of the disease remained; I would then give them a year or two of rest, according to the numbers and appearance of the birds. This seems to me the most likely way to check the destruction caused by what the keepers call the 'Grouse-disease.' In some parts of the Highlands there were scarcely any young birds seen in August; and the old Grouse were picked up in dozens dead on the heather."—*Tour in Sutherland*, vol. i. p. 275.

"The great changes," says Mr. Robert Gray, in his 'Birds of the West of Scotland,' page 232, "that have taken place within the last thirty years in the management of moorland tracts, and the excessive rents now derived from such properties, have induced both landowners and lessees to clear the ground of all kinds of animals that would naturally prey upon those birds which are not strong enough to protect themselves; hence sickly broods of Grouse perpetuate other broods, that year by year degenerate until disease ensues, and in some instances almost depopulates an entire district. There can be no doubt that this unwarrantable destruction of Hawks and Buzzards affects adversely the condition of the birds with which our Scottish mountains are stocked—the number of wounded birds alone, which survive the unprecedented annual slaughter through which the Red Grouse is now obliged to pass, being an argument sufficient to show that such merciful agents are wanted to prevent the spread of enfeebled life. In almost every case where undue protection is given to certain animals by the rigorous destruction of others, man's interference is followed sooner or later by evils of a graver nature than those which the protective measures were intended to cure; and, until some more rational plan is tried for the restoration of the Red Grouse to its original vigour, no one can say what may be the final issue of the somewhat anomalous position in which, as a species, the latter bird is now unfortunately placed."

Considerable difference exists in the coloration of the Grouse in different parts of the British Islands: those of Ireland are very much lighter and more uniform in hue than those of Scotland; and the Welsh birds are somewhat similarly marked,—neither having the rich black breasts of those which frequent the Cheviots and the Grampians. Little difference occurs in the weight of birds of the same age and sex in one and in another of these localities. I have weighed many from each of them, and find the average in September to be about twenty-five ounces; many will weigh less, and a few as much as thirty-two ounces; but a two-pound Grouse must be considered a very large one, and it is not above one in a thousand that attains such a weight. The heaviest birds weighed for me by Mr. John Fowler, when he had the shooting at Glen Fernat, were, respectively twenty-five, twenty-seven, and thirty one ounces; but he tells me he has seen three (two at Glen Fernat, and one at Brae More) that turned the scale of two pounds.

The eggs are from ten to fourteen in number, of a reddish ground-colour, nearly covered with blotches and spots of rich umber-brown.

The Plate represents the adult, and part of a brood of young, as they appear about the 20th of August.