

Roebuck.

## NOTES ON NATURAL HISTORY AND ON SHOOTING.

## CHAPTER XXVII.

Length of Life of Birds—The Eagle—Swan—Geese—Falcons—Fowls—Pigeons—Small Birds—Great age of Eagles and Foxes—Red-deer—Destruction of Old Stags—Roe—Sheep—Rifles; size of their bore—Double-barrelled Rifles—Size of Small Shot—Cartridges—Impossibility of laying down general rules—Necessity of discretion in all writers on Natural History.

It is not easy to determine the length of years bestowed on any of the wild animals. There are no specific and well-ascertained data on which to form a valid opinion. On all such subjects the most positive assertions are often so ill supported by faets, that the naturalist should be most careful and guarded as to the evidence on which he founds his opinion. It seems, however, reasonable to suppose that the age attained by all animals bears a certain proportion to the time which they take in coming to their maturity in size and strength.

Judging by this criterion, the eagle may be set down as one of the longest-lived of our British birds; as he certainly does not arrive at the full maturity of his plumage for some years. On the other hand, the swan puts on her white feathers at her first moulting, yet is said to live to a very great age; and there are well-authenticated instances that this is the fact. Geese, too, live to a most patriarchal age. The period of life of tame falcons does not exceed eight to ten years—at least so I am assured by some of my acquaintances who have kept these birds. A wild hawk, barring accidents from shot or trap, has, probably, a better chance of longevity than a domesticated bird, however carefully the latter may be tended, as it is almost impossible to hit upon the exact quantity, quality, and variety of food which best conduces to their health, or to give tame birds as large a share of exercise and bodily exertion as in their wild state they would be constrained to take in pursuit of their daily prey. Common fowls live to the age of ten or twelve years, but become useless and rheumatic after six or eight. Such, also, is the case with pigeons. I knew of a pair who lived for fifteen years, but they were barren for some years before their death.

The length of life of small birds is probably less;

but it is difficult to form an accurate opinion on this point, inasmuch as any deductions founded on canaries or goldfinches in a state of confinement must be fallacious, as all caged birds are subject to numerous diseases, from over-eating, from improper and too little varied food, and a thousand other causes, which do not affect those who live in a state of natural and healthful liberty.

It is a curious fact that one scarcely ever finds the dead body of a wild bird or animal whose death appears to have been caused by old age or any other natural cause. Nor can this result from the fact of their being consumed immediately by animals of prey, as we constantly meet with the bodies of birds who have been killed by wounds from shot, etc. Either (as donkeys and postboys are said to do) the wild animals on the approach of death creep into hidden corners of the earth, or nearly all of them, before they reach extreme old age, are cut off by their common enemy, mankind, or serve as food to birds and beasts of prey.

I have, however, killed both eagles and foxes who bore unmistakable marks of extreme old age; the plumage of the former being light coloured, thin, and worn; so worn, indeed, as to lead one to suppose that the bird could not have moulted for several seasons; and the faces of the latter being

gray and their jaws nearly toothless: yet they were still in good, and even fat condition. In animals, age and cunning supply the place of strength and activity; so that the eagle and fox are still able to live well, even when they have arrived at the most advanced age assigned to them.

Very old deer become light-coloured and grayish, especially about the head and neck, and have a bleached and worn-looking appearance over their whole body. Their horns, also, lose much of their rich appearance both as to colour and size, becoming not only smaller but also decreasing in the number of their points. The Highlanders assign a great age to the red-deer; indeed they seem to suppose that it has no limit, save a rifle ball; and they tell wonderful stories of famous stags, who have been seen and known for a long series of years in certain districts. Though these accounts are doubtless much exaggerated, it is tolerably certain that their life extends to from twenty to thirty years. I do not imagine that in these days stags have much chance of reaching that term. At the age of seven or eight years, the animal having arrived at full perfection as to size and beauty of antler, they are marked down for destruction by the numerous sportsmen who wage war against them in every part of the north of the island. Their

numbers in certain preserved districts have, no doubt, increased to a great extent; but very few of the fine, rugged, and far-stretching antlers, which adorn the halls of many of the old houses in the Highlands, are now to be met with on living deer. Where not brought down by the licensed sportsman, a fine-headed stag has now so high a premium offered on his life in the price given for horns, that he is sure to fall by the gun of some poacher or shepherd. I have known as large a sum as five guineas given for a stag's head: and when this is the case, nothing else can be expected but that every stag whose horns are peculiarly fine, will be killed. I have occasionally shot roebucks, and still oftener does, showing by their size, colour, length of hoofs, etc., that they had reached tolerable old age: but, like all persecuted animals, the chance of their attaining their full extent of days is so slight as scarcely to give us the means of ascertaining how long they would live if secure from danger.

Sheep after seven or eight years lose their teeth, more or less, and show symptoms of their best days being past. But these, like all other domesticated animals, do not afford a good criterion to judge by, as they are all under an artificial system as to food and manner of living, which

makes them, like man, subject to many diseases and causes of decay, which would not affect them if they were in a state of nature.

In populous countries such as Britain, it may fairly be supposed that extremely few wild animals or birds reach their full period of life. Although some kinds are carefully preserved here and there, they are only preserved, like sheep or fowls, to be the more conveniently killed when required; and where there is no restriction to shooting and destroying the feræ naturæ of the country, the extensive trade carried on throughout the kingdom in all the shops where guns and powder and shot are sold, proves what numbers must be destroyed. Added to this, guns and rifles are now so well made as to be much more destructive weapons than formerly. No reasonable person would wish to be able to kill a bird at a greater distance than his fowling-piece now enables him to do; and a modern rifle carries correctly quite as far as a man can see clearly enough to aim with nicety at a small object.

In shooting with the rifle at large animals, such as deer, a good-sized ball is, for several reasons, a very great desideratum. In the first place, the larger the ball the greater is its force. A ball of 11 bore smashes through a substance which would stop the ball of a pea-rifle, unless the

latter is aimed at and strikes some vital part. The animal struck carries it away, and either pines wounded for a long time, or dies in some concealed place, where it is lost to the shooter. Also, the wound made by a small ball will frequently close up again immediately, enabling the deer to escape; or the ball, instead of breaking a bone, is stopped by it; and it should be remembered, that when you shoot at an animal, the most merciful way of doing so is with a weapon which kills instead of merely wounding it. Good singlebarrelled rifles can easily be procured; but to get a trustworthy double rifle the sportsman must go to one of the first-rate gunmakers, and pay a firstrate price. By altering the sights of a singlebarrelled rifle, any person, knowing the commonest elements of shooting, can make it carry correctly a hundred yards or more; but a double rifle, if the axes of the two barrels are not exactly parallel, can only be adjusted by taking it to pieces again and again, until the barrels shall lie so evenly together, that at a hundred yards the two balls strike within an inch of each other. As it is almost impossible for the most skilful gunsmith to join the two barrels together so correctly at first as to attain this result, he has to try them repeatedly, taking his work to pieces again and again, until he is quite satisfied with his performance. All this must, of course, add to the expense; but it is money well expended if, after all, a double-barrelled rifle does shoot perfectly true. Another important point which should be borne in mind with regard to rifles is, that those of very small bore do not carry so true for long shots as larger ones.

It is difficult to lay down any specific rule as to the most effective size of small shot for shooting game and wild-fowl. Some sportsmen strenuously assert that one particular number is the only right kind, or indeed the only kind that ought to be used; others tell you quite a different story. For my own part I consider that for all flying game the shooter should rather be inclined to small sizes than large. No. 7, for instance, kills partridges and even grouse more effectively than a larger size. For wild-duck shooting, too, where you shoot at single birds, No. 5, or even No. 6, appear to me to kill oftener than the larger sizes more generally used. I am, indeed, convinced that small shot works its way better than large through the down and feathers; the latter, notwithstanding its superior force, getting rolled up in the down, while the former cuts through it, and kills the bird. For flocks of ducks larger shot may be used; but even then too large sizes do less execution than smaller

Swans and geese require No. 1 or No. 2, as smaller shot seldom breaks a wing of these birds; but cartridges are the most effective, and then you may use No. 3 at single geese with tolerable certainty. Eley's cartridges, with large shot, such as B.B. or S.S.G., in them, sometimes kill at prodigious distances, but are very apt to "ball" completely, and deceive the shooter. Indeed, all the green cartridges have this defect; owing to which the bird is either missed entirely or blown to pieces. Several good shots of my acquaintance can never succeed well with wire-cartridges: they certainly require a different style of shooting from loose shot, as they not only shoot slower, but also are very much inclined to throw the shot low; and in order to use cartridges with success these two facts should be constantly borne in mind.

I find that the "yellow cartridge," which is made without any wire, answers extremely well for grouse-shooting, or when common game is wild, as they keep the shot close together, but without balling to any great extent. They are very excellent too for rabbits, who generally require all the shot which the sportsman can give them. Late in the season, hares certainly ought not to be shot at with a size under No. 4: smaller shot will not break their bones sufficiently to stop them at once,

excepting when the animal is crossing you. Different guns, however, carry effectively different sized shot; and therefore the same rules do not apply to all. Some guns also shoot cartridges in a very different manner from others; and I should wish it to be clearly understood that I do not lay down these suggestions as infallible rules, but merely as the results of my own experience, hoping that some of my readers may profit by them. In all matters of this sort I consider that much more information is gained by the reader if an author is content simply to mark down ascertained facts. If too much decision is assumed, and mere hearsay assertions are put down as "facts"— if he lays down as general rules what may be applicable only to particular cases—perhaps solely to his own, an author will on this subject, as on most others, do more harm than good. "Quot homines, tot sententiæ;" and although half of what I write may probably not meet the ideas of many of my readers, I offer it all, leaving it to every one to extract what is applicable to his own pursuits, and hoping that there may be few who will not find some hint or other, or some chance bit of information which may aid them in their amusements.

Amongst the mass of books written on subjects of natural history, it is curious to see the number-

less errors committed, and the false inferences drawn, by superficial observers, or by persons who set down as facts not merely what they actually see, but what they fancy must, or ought to be; and who describe as ascertained facts things of which they know nothing more than that they seem to be possible, and may be probable. This is a system of writing which cannot be sufficiently reprobated as tending to establish most erroneous and mistaken ideas. Every student of nature and of the habits and manners of living creatures, even of those which are apparently the most insignificant and uninteresting, must know that the truest facts concerning them are often much more marvellous than anything he would dare to invent; and that a writer on such subjects, who wishes to embellish his book with startling and surprising anecdotes, will best attain his object by sticking closely to the plain reality.

It is an old and oft-repeated saying, that "Truth is stranger than fiction;" and it is especially so in treating of Nature and her productions, whether we direct our attention to animals of the largest size and highest order of intelligence and instinct, or to the equally astonishing habits and means of living displayed by the smallest insects and reptiles.