

Bustard extends—the border-line to the westward being the British Islands ; to the southward the plains of Northern Africa, Arabia, and Persia ; to the eastward, across Mongolia, where it was met with by Mr. Atkinson, as far as China and the river Amoor ; and to the northward, Sweden and Russia. The other known species of Bustard are also confined to the Old World, particularly to Africa and Asia, with the exception of the single species found in Australia.

The following notes respecting the Bustard were communicated to the late Mr. Yarrell by C. A. Nicholson, Esq., of Balrath Kells, in the county of Meath, and were published by him in the twenty-first volume of the 'Transactions of the Linnean Society':—

"You will perhaps be interested by a few remarks on the habits of the Great Bustard as observed by me in the neighbourhood of Seville, where it exists in large numbers. The males begin to arrive in the cultivated part of the country at the beginning of February ; they come in flocks, varying from seven to fifty-three, the smallest and largest numbers I have seen together at that season of the year. The old birds always keep together ; and those of a year old, which are much smaller and have no beard, never mix with them. The females, which do not arrive until the beginning of April, come singly or at most in pairs ; as soon as they arrive, the flocks of males begin to disperse, and you seldom meet more than three or four males together, and very frequently only one. At this time, on a fine day, they turn their tails over their backs, droop their wings, and expand their pouches. While in this attitude, from the whiteness of the under tail-coverts, they may be seen at a great distance. As I have never seen a female near a cock, the sexes appear to live quite separate. During the month of May the males entirely disappear from the cultivated lands, and, I believe, go down to the extensive grass-marshes which stretch along the Guadalquivir, leaving the females behind them. The young Bustards are hatched in the large corn-plains about Seville, and are able to take care of themselves by July. At the end of that month, when, the corn being all cut, no cover remains, the hens and the young birds follow the cocks to the *marisma*, as they call the great marshes in Spain. The heaviest bird I shot weighed 28 lbs. ; this was before the hens came, which may perhaps account for its being two pounds heavier than any I shot afterwards. It measured, from tip to tip of the wings, 7 feet 1 inch ; while another, which weighed 26 lbs., measured 7 feet 3 inches. The birds of a year old weigh from 8 to 10 lbs., and are much the best to eat. All the birds I shot had their stomachs perfectly crammed with stalks and ears of barley, the leaves of a large-leaved green weed, and a kind of black beetle. When flushed, the birds generally fly a distance of two miles or more, and occasionally at an altitude of at least a hundred yards."

Captain Blakiston, of the Royal Artillery, informs me that, while in the Crimea, during the late war,

"The Great Bustard was first observed on the 19th of December, 1855, and continued flying over in great numbers for three days. The country at the time was covered with snow. Many were killed with bullets while flying, and after they had alighted on the hills. They did not fly in flocks, but somewhat widely dispersed, and generally at a considerable altitude ; they appeared to come from the north, and to proceed south-east—perhaps to the coast of Asia Minor, where they would find a comparatively warm temperature. A break of the weather soon after occurred, and then only a few were occasionally seen. I noticed a small number proceeding north in April ; but as their appearance was not remarked upon, there could not have been numbers together. It is most likely that the bird breeds in the steppes of the Crimea, as some were seen near the Alma in May 1856 ; but to account for the enormous numbers which migrated in the winter, we must suppose that the greater part are driven by stress of weather from the mainland of Southern Russia, and that, if some remain on the south coast during the cold season, most of them must cross the Black Sea to Asia Minor."

I do not usually enter into anatomical details, but a passing word is necessary respecting the supposed existence of a pouch or sac in the throat of the Bustard. On this subject many pages of considerable interest have been written by the late Mr. Yarrell in the 'Transactions of the Linnean Society,' by Professor Owen, and more recently by Mr. Alfred Newton in 'The Ibis' for 1862. That there is no true sac or pouch in the throat of the Great Bustard, capable of holding water, there can be, I think, no doubt. The enormous distention of the neck, in the old males, which occurs during the pairing-season, is doubtless due to sexual excitement, and, in my opinion, is precisely analogous to what occurs at the same period in the American Prairie-hen (*Cupidonia cupido*), the Great Cock of the Plains (*Centrocercus urophasianus*), and many other birds. At this period the entire neck of the Bustard becomes highly vascular, and the vast network of air-cells with which it is provided inflated to an enormous extent. The attitudes and contortions assumed by the bird are very strange during these paroxysms of pleasure, or when he becomes maddened with rage, should another male dispute with him for the affections of the female. The accompanying illustration by Mr. Wolf gives a good idea of the bird in this state of excitement, which might have been daily seen, a short while ago, in the Gardens of the Zoological Society.

The difference in the sexes is very marked, the female being about half the size of her mate, and wanting, except in some very old birds, the lengthened hair-like appendages which adorn the cheeks.

The Bustard is omnivorous, its food consisting of the tops of vegetables, trefoil, grasses, worms, insects, snails, frogs and other reptiles, mice, and, it is said, young birds. The eggs, which are deposited in a depression on the bare ground, are two in number, of a sandy olive, stained and blotched with purple and reddish brown.

The Plate represents a female and two young birds nearly the size of life, with reduced figures of the male in the distance.