

growth; from occasional reversions to old and long-lost characters; from the crossing of breeds, when more than one had been formed; but, above all, from unconscious selection carried on during many generations, there is no insuperable difficulty, to the best of my judgment, in believing that all the breeds have descended from some one parent-source. Can any single species be named from which we may reasonably suppose that all are descended? The *Gallus bankiva* apparently fulfils every requirement. I have already given as fair an account as I could of the arguments in favour of the multiple origin of the several breeds; and now I will give those in favour of their common descent from *G. bankiva*.

But it will be convenient first briefly to describe all the known species of *Gallus*. The *G. sonneratii* does not range into the northern parts of India; according to Colonel Sykes,<sup>12</sup> it presents at different heights of the Ghauts, two strongly marked varieties, perhaps deserving to be called species. It was at one time thought to be the primitive stock of all our domestic breeds, and this shows that it closely approaches the common fowl in general structure; but its hackles partially consist of highly peculiar, horny laminae, transversely banded with three colours; and I have met no authentic account of any such character having been observed in any domestic breed.<sup>13</sup> This species also differs greatly from the common fowl, in the comb being finely serrated, and in the loins being destitute of true hackles. Its voice is utterly different. It crosses readily in India with domestic hens; and Mr. Blyth<sup>14</sup> raised nearly 100 hybrid chickens; but they were tender and mostly died whilst young. Those which were reared were absolutely sterile when crossed *inter se* or with either parent. At the Zoological Gardens, however, some hybrids of the same parentage were not quite so sterile: Mr. Dixon, as he informed me, made, with Mr. Yarrell's aid, particular inquiries on this subject, and was assured that out of 50 eggs only five or six chickens were reared. Some, however, of these half-bred birds were crossed with one of their parents, namely, a Bantam, and produced a few extremely feeble chickens. Mr. Dixon also procured some of these same birds and crossed them in several ways, but all were

<sup>12</sup> 'Proc. Zoolog. Soc.' 1832, p. 151.

<sup>13</sup> These feathers have been described by Dr. W. Marshall, 'Der Zoolog. Garten,' April 1874, p. 124. I examined the feathers of some hybrids raised in the Zoological Gardens between the male *G. sonneratii* and a

red game-hen, and they exhibited the true character of those of *G. sonneratii*, except that the horny laminae were much smaller.

<sup>14</sup> See also an excellent letter on the Poultry of India, by Mr. Blyth, in 'Gardiner's Chronicle,' 1851, p. 619.