FERTILITY OF HYBRIDS FROM THE COMMON AND CHINESE GOOSE

In the "Origin of Species" I have given the case, on the excellent authority of Mr. Eyton, of hybrids from the common and Chinese goose (Anser cygnoides) being quite fertile inter se; and this is the most remarkable fact as yet recorded with respect to the fertility of hybrids for many persons feel skeptical about the hare and the rabbit. I was therefore glad to have the opportunity of repeating the trial, through the kindness of the Rev. Dr. Goodacre, who gave me a brother and sister hybrid from the same hutch. A union between these birds was therefore a shade closer than that made by Mr. Eyton, who coupled a brother and sister from different hatches. As there were tame geese at a neighbouring farm-house, and as my birds were apt to wander, they were confined in a large cage; but we found out after a time that a daily visit to a pond (during which time they were watched) was indispensable for the fertilisation of the eggs. The result was that three birds were hatched from the first set of eggs; two others were fully formed, but did not succeed in breaking through the shell, and the remaining first-laid eggs were unfertilised. From a second lot of eggs two birds were hatched. I should have thought that this small number of only five birds reared alive indicated some degree of infertility in the parents; but not Mr. Eyton reared eight hybrids from one nest of eggs. My small success may perhaps be attributed in part to the confinement of the parents and their very close relationship. The five hybrids, grandchildren of the pure parents, were extremely fine birds, and resembled in every detail their hybrid parents. It appeared to me that the fertility of these hybrids with either pure species, as this had been done by Dr. Goodacre; and every possible gradation between them may be commonly seen, according to Mr. Blyth and Cape, Hatton in India, and occasionally in England.

The fact of these two species of goose breeding so freely together is remarkable from their distinctness, which has led some ornithologists to place them in separate genera or sub-genera. The Chinese goose differs conspicuously from the common goose in the knob at the base of the eye, the shape of the body, the very long neck with a stripe of dark feathers running down it; in the number of the sacral vertebrae; in the proportions of the sternum; in the voice or "resonant trumpeting," and, according to Mr. Drixom, in the gait. In all this it has been denied by others. In the wild state the two species inhabit different regions. I am aware that Dr. Goodacre is inclined to believe that Anser cygnoides is only a variety of the common goose raised under domestication. He shows that in all the above indicated characters, paralleling or almost parallel variations have arisen with other animals under domestication. But it would, I believe, be quite impossible to find so many concurrent and constant points of difference as the above, between any two domesticated varieties of the same species. If these two species are classed as varieties, so might the horse and ass, or the hare and rabbit.

The fertility of the hybrids in the present case probably depends on a limited degree (1) on the reproductive power of all the Anasæ being very little affected by changed conditions, and (2) on both species having been long domesticated. For the view propounded by Pallas, that domestication tends to eliminate the almost universal sterility of species when intercrossed, becomes the more probable when we consider the fact that the bird from which most of our domesticated animals have originated, is a wild duck (Anas platyrhynchos), which is not at all sterile.