



nnens, lith.

M & N. Hanhart, Imp.

HYBRID BETWEEN FULIGULA COLLARIS AND F. AMERICANA.





anens. 1872.

M & N. Hanhart, Imp.

HYBRIDS BETWEEN ANAS BOSCHAS AND DAFILA ACUTA.  
(Second generation.)



*vescente fasciatis ; cauda dorso concolore, distinctius transversim lineolata ; reatricibus duabus intermediis unicoloribus ; reliquis fasciis duabus latis nigris, ante apicem notatis, omnibus subtus pallidioribus ; rostro et pedibus nigris ; iride obscure grisea.*

Long. tot. circa, 28'' ; rost. a nar. 13''' ; al. 12'' ; caud. 10'' ; tars. 5'' 2''' ; dig. med. 2'' ; dig. int. 1'' 3''' ; dig. ext. 1'' 5''' ; pollic. 7'''.

5. ON SOME HYBRID DUCKS. BY ALFRED NEWTON, M.A.,  
F.Z.S.

(Aves, Pl. CLXVII., CLXVIII.)

The phænomena of Hybridism are in themselves so interesting, and at present so little understood, that I venture to call attention to some examples illustrating the subject, which I now have the honour of exhibiting to the Society, and to make some observations thereon.

The proverbial fidelity of Pigeons, when once mated, has been found a matter of much convenience to at least one gentleman who has studied the great question of the "Origin of Species," by enabling him to experimentalize, comparatively without difficulty, on the different races, breeds, or varieties which can be produced from one common stock \*. I would remark, on the other hand, that the tendency, under certain circumstances, to polygamy which obtains among many of the Ducks, combined with their natural salacity, is such as to render that family, perhaps, the one of all others in which experiments on hybridism can be the most easily tried.

The frequent occurrence of hybrids among the *Anatidæ* has already attracted the notice of ornithologists, and among them of one of the most distinguished European naturalists, M. de Selys-Longchamps, who in 1845 enumerated no less than *twenty-five* different crosses produced between various members of this family, and who eleven years later was enabled to raise the number to *forty-four* †. Others have also been recorded.

Although by far the greater proportion of these crosses take place in a state of partial domestication, there can be, I think, no doubt that some occur among birds in a wild state. As an instance I may mention one, the offspring of which has been described, it is true, as a distinct and good species under the various names of *Anas mergoides*, *Mergus anataris*, or *Clangula angustirostris*, which I cannot but join such high authorities as Naumann, Hartlaub, Baldamus, Von Homeyer, Blasius, and De Selys in considering to be the produce of *Anas clangula* and *Mergus albellus*, though Kjærbölling, Cabanis, Reichenbach and Hennecke are of a contrary opinion.

\* C. Darwin, 'On the Origin of Species,' London, 1859, p. 42.

† Edm. de Selys-Longchamps, "Récapitulation des Hybrides observés dans la Famille des Anatidées," Bulletins de l'Acad. Roy. de Bruxelles, tom. xii. no. 10 (1845) ; and "Additions à la Récapitulation," &c., Bull. de l'Acad. Roy. de Belgique, tom. xxiii. no. 7 (1856).



Now, both *F. ferinoides* and *F. homeyeri* I believe to have been produced from the cross which M. Jaubert has suggested; and my belief is strengthened by the perfect analogy shown by the present hybrid from the New World. The subject has been much discussed upon the Continent; and those who support the view of the validity of the supposed species have relied principally on the assertion that birds in a state of nature do not hybridize,—an assertion which I venture to believe is not according to facts.

The specimens which I next have the honour to exhibit to you are, in my opinion, of no common interest. The statement has been again and again reiterated, with some slight variation of language, but always to the same effect, that hybrids between two distinct species are *inter se* infertile. I presume that no naturalist, whatever may be the views he takes of species, will have any hesitation in declaring that the Wild Duck (*Anas boschas*), with all its domesticated varieties, and the Pintail (*Dafla acuta*), are perfectly distinct species. It is well known that they will readily, in a state of confinement, breed together. In the winter of 1855–6 I received from a friend a pair of birds (male and female) which were bred by him from a Pintail Drake and a farm-yard Duck. These I turned down on my pond. It is fair to say that on this pond were also examples of both species. I watched them very closely; the male hybrid—as hybrids constantly do—at once reigned supreme over its denizens. As spring approached he became a most devoted and at the same time jealous husband: not a drake of any description would he allow to come near his mate; and in the battles in which he engaged in defence of his prerogative, he invariably came off victorious. I was never fortunate enough to obtain ocular proof of the consummation of his nuptials, but I most firmly believe that the male of no other species on the water ever had access to his wife. My brother, who was as constant in his observations as myself, entirely coincided in this opinion. In the month of April the female hybrid made her nest, and sat upon her eggs, in due time hatching four ducklings, which proved to be two females and two males. The skins of the latter I now exhibit (Pl. CLXVIII.), and I have no scruple whatever in regarding them as actually the produce *inter se* of a pair of hybrids between totally distinct species. In the breeding seasons of 1857 and 1858 I was away from home. Last year I was anxious to ascertain if these hybrids of the second generation would produce again *inter se*; and I watched them narrowly. The result of my observations was, that they were probably infertile; and after their death my suspicions were strengthened by the dissection I made. I may add, that in the present season the old hybrid female, the mother of the subjects of these remarks, has brought out two broods of young ones, which I cannot but regard as also the offspring of their putative father, but, through other occupations, I have not been able to afford the necessary time to watch them. I forbear, therefore, to adduce them in support of my argument. It, however, appears to me that the common assertion to which I have alluded requires considerable modification, and that all that can be said is, that though the hybrid



offspring of two animals clearly distinct may of themselves be perfectly fertile, it is not proved that this fertility extends to a second generation.

There is one other point which I must be allowed to mention before quitting the subject. It will be seen that the two birds exhibited differ remarkably in plumage, although of the same parentage, sex, and age; for they were born and killed within a day or two of each other. The larger specimen almost exactly resembles his father, but perhaps his colours are not so warm or brilliant. The smaller bird is of an appearance altogether distinct, and the almost uniform mottled grey of his breast and belly would make it perhaps difficult to guess his parentage. I can account for the divergence only in this way, that the Domestic Duck from which these birds are descended was of that almost whole-coloured variety which is not unfrequently seen in farm-yards, and that, while one of her grand-children shows nearly the typical plumage of the hybrid between the Wild Duck and the Pintail, the other takes after some progenitor of the variety I have mentioned. Whether this will serve to illustrate the peculiarity I have above mentioned, and also a curious fact alluded to by our Secretary in a late communication on some Hybrid Ducks bred in the Society's Gardens, wherein it is stated that the produce of a cross between *Tadorna vulpanser* and *Casarca cana* present a character "scarcely deducible from either,\*" I do not say. It is not, however, difficult to see what use may be made of this singular circumstance by those who advocate the views of Mr. Darwin; but into any consideration of the question I forbear to enter, contenting myself merely by noticing the fact.

#### 6. REMARKS ON THE *ANAS (ANSER) ERYTHROPUS* OF LINNÆUS. BY ALFRED NEWTON, M.A., F.Z.S.

The determination of the species established by Linnæus has always been held by naturalists a matter of so great importance, that I have no scruple in occupying a portion of your time this evening with a few remarks respecting the bird which, in the 12th edition of his 'Systema Naturæ' is designated by the name of "*Anas erythropus*;" especially also as one of his editors (the late learned Professor Retzius), though noticing the "mira circa hanc avem confusio," has, in my opinion, failed to give a satisfactory solution of the difficulty. It will be, I think, universally admitted that the names employed by Linnæus, when, as in the present instance, they are drawn from any physical character, are remarkably apposite. This consideration of itself should have served as a warning to ornithologists against their imagining, as many have done, that he could possibly mean to apply the name "*erythropus*" to a species like the Bernicle Goose, with which he was sufficiently familiar, and to which it was in no degree suitable.

\* Proc. Zool. Soc. 1859, p. 442, Aves, Pl. CLVIII.