

were evidently on the feed in the early morning. At last a hen bird flew up off the ground close to me, with a small lizard in her beak, and pitched on a dead branch to eat it, and I shot her. But what of course I wished, was a male in full plumage. This, however, was not to be obtained. It is remarkable what a very large proportion of young males and females of the great Bird of Paradise there seem to be, to the comparatively small number of males in full dress. Not one of these latter was shot. I believe I saw one at the top of a high tree, but am not certain. Probably the old males are warier, being often hunted, and keep out of the way. They require four or five years to develop full dress.\*

At the breeding season, when the natives kill most of them, they assemble, and are easily obtained.

The cry "wauk," is not so far removed from such cries as those of the Kook and others of the *Corvidæ*, to which the Paradise birds are allied. The voices of birds need, however, no more necessarily be a test of the pedigrees of the birds themselves, than need language be a test of true race connection amongst mankind.

Many birds imitate one another's cries, and the Hon. Daines Barrington,† long ago showed by experiment, that nestlings learn their song from their parents, and even their call note, and if taken away very early from the nest, learn the song of any other bird with which they are associated, and then do not acquire that proper to their own species, even if opportunity be afforded.

If nestling birds were brought up apart from other birds, they would no more sing, than would men similarly reared have any idea of talking to one another.

Under these circumstances the birds would utter only what Barrington terms their chirp, a cry for food, which, peculiar to each species, is uttered by all young birds, but which is entirely lost as the bird reaches maturity. Untaught men would be as speechless as apes, far less able to communicate with one another than deaf mutes who watch the communications of

\* It is improbable that *P. apoda* loses its breeding plumage as soon as the breeding season is over. *P. minor*, as has been observed in the case of specimens kept in confinement in the Regent's Park Gardens, certainly loses its plumage only at the moulting season, like other richly ornamented birds. *P. apoda* moults, according to Wallace, in January or February, and is in full plumage in May. At all events there must have remained birds with plumes in September.

† "Experiments and Observations on the Singing of Birds," by the Hon. Daines Barrington. *Phil. Trans.*, Vol. LXIII., 1773, p. 249. A. R. Wallace, "Contributions to the Theory of Natural Selection," p. 220. London, Macmillan, 1875.