

BIRD LANGUAGE AN INDEX OF FAMILY RELATIONSHIP.

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Among those birds which we class low down in the scale of development it is easy to trace the similarity of language which characterizes them all, but as we rise from these to the higher groups, whose vocal powers rival even those of man's invention, the genetic relationship often seems to disappear. It takes no prophet to foretell that this new duck from the Philippines will quack or that new species of pigeon will coo, but give him a thrush or a finch whose voice has yet been unrecorded, and his predictions are useless. Perhaps there is no better way of recognizing a family resemblance in bird notes and songs and being impressed thereby than in the exploration of a distant region whose faunal relations have a more or less remote connection with the one in which you have lived. One of the most pleasing memories of my sojourn in the semi-tropic wilds of Texas and Arizona was to hear coming from the throats of strangely-colored birds the old home melodies of thrush, wren, oriole and tanager. At such a time our ears grow so sensitive to anything that savors of "auld lang syne" we begin to fully realize the possibilities that exist in bird language as an aid to the study of bird genealogy.

For the present it will suffice to merely suggest a course of research along this line. In the first place, the song or language of birds is a far more reliable index of family and genus than color, and in many cases more so than feather characters as often used in diagnosis. Again in the higher oscines, whose songs appear dissimilar to the less critical ear, there are certain foundation or basal notes used in common, as in the falsetto of the robin, wood thrush, hermit and veery. In these also there are resemblances, unmistakably thrushlike in their call and scolding notes. I am informed that the same is characteristic of the European song thrush and blackbird.

Among the wrens there is the best illustration of the constancy of song character, and their scolding notes are wonderfully alike, from that of the great Cactus Wren of the Mexican deserts to the startled cry of the tiny sprite that lives in the cold dark dells of the Alaskan

forest. Nor is it pure imagination to declare that many notes of the closely allied group of thrashers, especially some of those found in Southern California, bespeak their kinship to the wrens.

Among the flycatchers, when we consider their poor development as singers, there seems to be an unusual dissimilarity of language. Take for instance the notes of the Wood-pewee, King-bird and Crested Flycatcher, belonging to three different genera. When at rest the notes of the first two have little in common, but in their aerial or flight-song there is a remarkable similarity not only in the circling, twisting, hovering manner of flight, but in the method of delivering the song, viz., a succession of single-syllabled notes terminating in a crescendo somersault, during which a climax double or compound note is uttered, the same performance being repeated several times before descending to the chosen perching place. The Crested Flycatcher does not indulge in a flight-song, but its warning notes as it stands sentinel over its nest are of the same character as those of all other American flycatchers. Its harsh exclamatory cry or single call, by which it is best known, seems to have little in common with the corresponding utterances of the king-bird or pewee, but it frequently relaxes into a double-syllabled modification of this which resembles in notation that uttered by both king-bird and pewee under similar conditions. There is also a tremulous twitter of apparent satisfaction uttered by all three species when they return to the perch after a successful foray. In the case of the Great Crest, however, it is more like a harsh laugh. In all three of these tyrant flycatchers the notes uttered while they are pursuing an enemy are unmistakably alike in their tyrannine character.

Another marked instance of family resemblance in song is seen in the Tanagridae. The scarlet, summer, hepatic, Louisiana and Cooper's tanagers with which I have made acquaintance have songs and call notes so closely resembling each other that it requires an exceedingly expert ear to distinguish some of them.

Among families which seem to contain exceptions to the rule of family song resemblance mention may be made of the Vireos, one aberrant member of which seems to delight in strange surprises of vocal mockery and jest, viz the White-eye. It has a distinct whistle, which, however, has its counterpart in bars of the song of the red-eye, solitary and yellow throated species. It is desirable that some one with an ear for music and a correspondingly wide knowledge of birds in their homes both in this and in foreign lands may follow up this subject. It is not impossible that our knowledge of the genealogy of families of birds far removed by the natural barriers of climate and

geography and dissociated in our minds by the systems of artificial classification may be greatly enlightened thereby.