

primary cause of the evolution of bird-song" must agree with Mr. Hawkins that the bird's "joy of living" itself arises out of the sexual impulse, and those of us who consider the evolution of song more complex must still trace its origins back to sexuality. Even without accepting the Freudian theories in their entirety, we must recognize the power of the primary instincts, and there can be little doubt that it is the reproductive instinct that accounts for bird-song, however various were the processes through which it was evolved.

REVISION OF THE GENUS BUTHRAUPIS CABANIS.

BY THOMAS E. PENARD.

THE generic name *Buthraupis* was proposed, without designation of type, by Cabanis (Mus. Hein., i, 1850, p. 29) for *Tanagra montana* d'Orbigny and *Tanagra eximia* Boissonneau, with *Tanagra cucullata* Jardine listed as synonym of *B. eximia*. Subsequent writers have used either *T. montana* or *T. cucullata* as type of the genus. The first mention of a type, however, seems to have been by G. R. Gray (Cat. Gen. and Subgen. Birds, 1855, p. 73), who selected "*Tanagra montana* Lafr." [= *Tanagra montana* d'Orbigny, = *Aglaiia montana* d'Orbigny and Lafresnaye], the first species listed by Cabanis under the new genus.

As at present understood, *Buthraupis* is a composite group. Ridgway (U. S. N. M., Bull. 50, pt. ii, 1902, p. 32) has called attention to the widely differing structural characters in its members, stating, however, that on the basis of the shape of the bill alone the genus could not be subdivided without making four groups, the first to include *B. cucullata* and *B. montana*, the second *B. arcæi* and *B. cæruleigularis*, the third *B. chloronota*, and the fourth *B. eximia*. He also called attention to the very much shorter tails in the group containing *B. arcæi* and *B. cæruleigularis*, but preferred to leave the genus with the usually assigned limits.

Through the kindness of Mr. Outram Bangs, and at his suggestion, I have examined the members of this group in the Museum of Comparative Zoölogy, and Mr. W. deWitt Miller of the American Museum of Natural History, acting in Dr. Chapman's absence, has kindly lent me specimens of *B. arcæi*, *B. melanochlamys*, *B. rothschildi*, *B. edwardsi*, and *B. aureocincta*, so that altogether I have been able to see all the known forms usually included in the genus *Buthraupis*, with the exception of *B. cyanonota*, which is considered a subspecies of *B. cucullata*.

The series shows much variation, but it is easy to distinguish two sections, one containing the larger, long-tailed members, represented by *B. montana*, *B. cucullata*, *B. gigas*, *B. saturata*, *B. cyanonota* (?), *B. eximia*, and *B. chloronota*, and the other containing the smaller, short-tailed members, represented by *B. arcæi*, *B. cæruleigularis*, *B. melanochlamys*, *B. rothschildi*, *B. edwardsi*, and *B. aureocincta*. The first section may be further subdivided into two groups, on the basis of decided differences in shape of bill and form of wing, the first group containing the longer-billed members with more pointed wings, the second group containing the shorter-billed members with less pointed wings. The second section containing the smaller forms, although fairly uniform in structural proportions, shows some differences in details which may eventually prove to be of more than specific importance.

Below are given the generic characters of the three groups which I think should be recognized:

Buthraupis Cabanis.

Type.—*Tanagra montana* d'Orbigny [= *Aglaia montana* d'Orbigny and Lafresnaye] by subsequent designation — G. R. Gray, 1855.

Characters.— Bill short and heavy; length of maxilla from nostril less than one half the length of the tarsus, and a little more than one half the distance from angle of mouth to tip; depth equal to width at base or slightly greater, and equal to length of maxilla from nostril; culmen convex, sometimes more strongly curved towards the tip, the terminal portion produced into a distinctly uncinatè point, behind which there is a distinct tomial notch; gonys about equal to length of maxilla from nostril, not decidedly shorter, gently convex, ascending, contracted and ridged terminally; commissure slightly sinuated; nostril exposed, nearly circular. Wing long,

from four to four and one half times the length of the tarsus; rather pointed, second (from outside) to sixth primaries longer than the first, which is decidedly short but longer than the seventh; third (or fourth) primary longest; primaries exceeding secondaries by more than or about two thirds the length of the tarsus. Tail from two thirds to three fourths the length of the wing; slightly rounded, the rectrices broad with rounded tips. Tarsus longer than the middle toe with claw; lateral claws reaching to or slightly beyond base of middle claw.

The genus, as now restricted, includes the following species and subspecies:

Buthraupis montana (d'Orbigny and Lafresnaye).

Buthraupis cucullata cucullata (Jardine).

Buthraupis cucullata gigas (Bonaparte).

Buthraupis cucullata saturata Berlepsch and Stolzmann.

Buthraupis cucullata cyanonota Berlepsch and Stolzmann.

Cnemathraupis gen. nov.

Type.—*Tanagra eximia* Boissonneau.

Characters.—Bill similar to that of *Buthraupis*, but shorter; width at base less than depth and about equal to length of maxilla from nostril; length of maxilla from nostril about equal to or less than one half the distance from angle of mouth to tip; gonys strongly ascending and ridged terminally; nostril less exposed than in *Buthraupis*. Wing not so long as in *Buthraupis*, very little more than three and one half times the length of the tarsus; not so pointed, second (from outside) to seventh primaries longest, the first longer than the eighth (or ninth). Tail comparatively longer than in *Buthraupis*, from three fourths to four fifths the length of the wing.

The following forms are included in this genus:

Cnemathraupis eximia eximia (Boissonneau).

Cnemathraupis eximia chloronota (Sclater).

Remarks.—Ridgway (*l. c.*) has suggested that the ridged condition of the gonys might be of generic importance. This character, however, is found to be rather variable, being more pronounced in some specimens of *C. e. chloronota* than in others. A specimen of *C. e. chloronota* in the Museum of Comparative Zoölogy (M. C. Z.

124900) certainly has this ridge fully as much developed as in a specimen of *C. e. eximia* (Bangs coll. 1448), although in general the ridge is more distinct in *C. e. eximia*. Some specimens of *B. c. cucullata* also exhibit this character strongly. The two forms, *C. e. eximia* and *C. e. chloronota*, very probably intergrade, and are considered geographical races by Chapman (Bull. Am. Mus. Nat. Hist., xxxvi, 1917, p. 603).

Bangsia gen. nov.

Type.—*Buthraupis arcæi cæruleigularis* Cherrie.

Characters.—In general resembling *Buthraupis*, but differing considerably in shape of bill and form of wing. Bill rather long and comparatively slender; depth at base about equal to width and to gonys (in this respect resembling *Buthraupis*), but decidedly less than length of maxilla from nostril. Wing long, about four times the length of the tarsus; more pointed than in *Buthraupis*, third primary (from outside) longest, the first very little shorter than the third and longer than the fifth (or sixth?); primaries exceeding secondaries by about the length of the tarsus. Tail comparatively much shorter than in *Buthraupis*, about one half or a little more than one half the length of the wing; slightly rounded or nearly square (slightly forked in *B. a. cæruleigularis*), not so decidedly rounded as in *Buthraupis*.

The following species and subspecies should be referred to this genus:

Bangsia arcæi arcæi (Sclater and Salvin).

Bangsia arcæi cæruleigularis (Cherrie).

Bangsia melanochlamys (Hellmayr).

Bangsia rothschildi (Berlepsch).

Bangsia edwardsi (Elliot).

Bangsia aureocincta (Hellmayr).

Remarks.—It gives me great pleasure to dedicate this well-marked genus to Mr. Outram Bangs.

I have seen only one specimen each of *B. melanochlamys*, *B. rothschildi*, and *B. edwardsi*, and two of *B. aureocincta*. In all these the bill seems to be a little heavier than in *B. a. arcæi* and *B. a. cæruleigularis*, especially the latter, and the fifth primary is longer

than the first. The distance from the secondaries to the tip of the longest primary also appears to be comparatively much shorter than the length of the tarsus, but the condition of some of the specimens was such that reliable conclusions could not be drawn, and more material would have to be examined to determine the exact interrelationship of these forms.

In selecting as type *B. a. cæruleigularis* rather than the earlier form, *B. a. arcæi*, I have been influenced by the condition of the material at hand. The only specimen of an otherwise fine specimen of *B. arcæi* before me has a slightly imperfect tail, which, however, appears to be rounded instead of forked.

DESCRIPTIONS OF THREE NEW SOUTH AMERICAN BIRDS.

BY CHARLES B. CORY.

***Automolus leucophthalmus bangsi* subsp. nov.**

Type from São Amaro, a few miles from the city of Bahia, eastern Bahia, Brazil. Adult female, No. 50573, Field Museum of Natural History. Collected by R. H. Becker, October 9, 1913.

Description.—Similar to the type of *Automolus leucophthalmus leucophthalmus* (Wied) (type examined) from the interior of southern Bahia, but differs in having the upper parts more brownish rufous, rump and tail decidedly darker (more rusty chestnut and less rufous), and sides of body and flanks more tinged with olivaceous.

Measurements.—Wing, 89; tail, 85; bill, 20 mm.

Remarks.—Six specimens examined from the coast region of Bahia.

***Xiphocolaptes bahiæ* sp. nov.**

Type from Macaco Secco, near Andarahy, central Bahia, Brazil. Adult male, No. 50698, Field Museum of Natural History. Collected by R. H. Becker, October 20, 1913.