

On the basis of these variable characters, I feel that these composite genera cannot stand. They become meaningless as they are. The alternative, which seems more legitimate to my mind, would be to merge the majority of the species in *Muscicapra*, the oldest name, leaving a few well-marked or aberrant species in monotypic or small genera. By submerging a "mélange" of species in a few genera, I do not feel that the relationships (which ought to be the measure of the genus) are any better served. As Vaurie says (p. 496), he differs completely from Stresemann's arrangement based on wing formula (1912, *Novit. Zool.* 19: 323-330) which in Vaurie's opinion is not of equal value in the different groups of species. The characters listed by Vaurie may also be presumed to be of unequal value. Indeed, some aberrant forms such as *Siphia timorensis* are admitted by Vaurie to be not certainly flycatchers at all. The almost total lack of adequate field observations on most of these tropical species makes the use of behavioral characters in a taxonomic revision still seem relatively unimportant, or indeed at times specious.

A somewhat similar nomenclatorial situation is presented by Dr. Vaurie's treatment of some of the African species. *Bradornis* is characterized by the author as consisting of moderately large to large species with thick and relatively short tarsus, rounded wing, attenuated bill, and concealing drab coloration; "drops to the ground to feed"; usually silent. In this genus is included *Empidornis semipartitus* although that species is silvery gray above and bright orange brown below (hardly drab), has a not particularly attenuated bill, is medium to large in size without an impressively thick tarsus, has a tail which is differently shaped from the other species, and has a "pleasing musical song." However, in spite of these differences it is kept in *Bradornis* by Vaurie as a potential subgenus.

One of the few observations of *Empidornis* in the field is that of Lynes (1925, *Ibis*: 123) who notes that this species is a bird of open glades in woodland, rather than open bush country, that it has a sweet "turdine" song and might better be called a "Robin-flycatcher" (i.e. *Eriothacus*) than a flycatcher. He describes the nest and eggs as being very different from those of *Bradornis*. Without further contradictory information, the above seem to me sufficient reasons for recognizing the distinctness of the genus *Empidornis* for this aberrant species.

The species *Bradornis herero* is so little-known that it seems almost useless to comment on it, but I should like to suggest here that whether by convergence or relationship, it shows a distinct resemblance to the chat-like thrushes represented by *Erythropygia* and *Cercomela*.

The foregoing are intended as a series of precautionary comments on an excellent paper. Indeed the last word has by no means been said on the status and rank of members of this difficult group. I would certainly hope that Dr. Vaurie himself would at some time have an opportunity to pursue these studies in the field in Africa and Asia and gain personal observations on the habits and behavior of many of these provocative and little-known species.—S. DILLON RIPLEY, *Peabody Museum, Yale University, New Haven, Connecticut.*

Notes on Cowbird Parasitism on Four Species.—Little information appears to be available on the parasitism by the Cowbird (*Molothrus ater*) of the Yellow-breasted Chat (*Icterus virens*), Brown Thrasher (*Toxostoma rufum*), Redwing (*Agelaius phoeniceus*), and the Cedar Waxwing (*Bombycilla cedrorum*). The following report briefly outlines the published records and my own observations for Cowbird parasitism in these host species.

The Yellow-breasted Chat.—Friedmann (*The Cowbirds*, 1929: 193) wrote: "The Robin, Catbird and Yellow-breasted Chat are examples of absolutely intolerant

species." On pages 194-195 he stated: "Many birds desert their nests if the Cowbird lays first. The Yellow-breasted Chat, however, deserts even if it has eggs of its own." On page 249, he qualified the two previous statements when he wrote: "The eggs of the Chat are very similar to those of the Cowbird, but nevertheless the nest is almost invariably deserted if a parasite egg is laid in it." On page 250, he cited one example of Chats' tolerance of Cowbird eggs, listed two pairs which raised Cowbirds, and concluded by stating that: "Apparently there is considerable variation in the sensitiveness of Chats around their nests, but the bulk of evidence goes to show that normally a Cowbird's egg has little chance of ever being hatched by a Yellow-breasted Chat." A. C. Bent (*Life Histories of North American Wood Warblers*, U. S. Natl. Mus. Bull. 203: 594, 1953) did not add any specific instances to Friedmann's list but expressed the opinion that many cases of this tolerance have occurred.

Although the Chat is listed by Wood (*Birds of Michigan*, 1951: 418-419) as a rare summer resident north to Lansing in Michigan, a number of nests have been recorded in the past. One nest which I reported in that publication (p. 419) was abandoned with two eggs and one of the Cowbird. Since my discovery of that nest on Grosse Isle, Wayne County, Michigan, May 23, 1937, I have found nine active nests of the Chat, all within 10 miles of Cranbrook, Bloomfield Hills, Oakland County, Michigan. Douglas S. Middleton (*Bird Survey of the Detroit Region*, Detroit Audubon Society, 1950: 64) found one nest of the Chat in Warren Township, Macomb County, June 26, 1950. This nest contained three eggs of the Chat and four of the Cowbird. Ten, or 90.9 per cent of these eleven nests were parasitized by Cowbirds. The number of Cowbird eggs per nest was as follows: five nests, one each; two nests, two each; and remaining three nests held three, four, and five eggs of the parasite. In five of these nests, Cowbirds hatched as follows: July 3, 1947, one; June 15, 1952, two; June 29, 1952, one; June 17, 1953, one; and June 14, 1953, one. Four of five nests, raised young in the following order: one nest, June 25, 1952, two Cowbirds and no Chats; one nest, July 3, 1952, one Cowbird and two Chats; one nest, June 21, 1953, one Cowbird and four Chats; one nest, June 22, 1953, one Cowbird and three Chats. The fifth nest in which Cowbirds were hatched was destroyed by falling from its insecure anchorage when its lone Cowbird occupant was five days old. Three other nests were not abandoned when first parasitized. One of these nests found on June 4, 1944, contained three Chat eggs and three of the Cowbird. On June 6 and June 8, I found the female still incubating. The nest had been abandoned by June 11. Observations on two other nests cast some light on the duration and degree of tolerance in this pair of Chats. A nest, apparently completed, was discovered about 7:00 P.M. on June 15, 1947. In the late afternoon of June 16, I found one egg of the Chat and two of the Cowbird. Two days later, June 18, at 8:30 P.M., the nest contained five eggs of the Cowbird and two of the Chat. The female Chat was on the nest and the eggs were warm. On June 19, at 8:30 P.M. the nest was empty and hanging sidewise from the fork of the shrub in which it was built; one Chat egg was on the ground underneath. Several fresh cattle tracks were found underneath the nest, indicating that the nest had been upset by the herd brushing against it in passing. The second nest of this pair with three eggs of the host and one of a Cowbird was found nearby on June 29. When next I observed this nest, July 7, at 8:00 P.M., it contained only one 3-day-old Cowbird. The shells of the Chat eggs were on the ground underneath. The Cowbird was still in the nest, July 8, at 8:00 P.M. On July 10, at 8:00 P.M. the nest was empty, and apparently the Chats had left the locality.

Only three nests of ten parasitized, or 30 per cent, were abandoned before incubation started. One nest with three 7-day-old Chats, found July 13, 1947, apparently was not parasitized.

Brown Thrasher.—Friedmann (The Cowbirds, 1929: 253) stated that, "J. Allen saw a female Brown Thrasher feeding a nearly full grown Cowbird in Western Iowa in 1868." He stated further that, "as far as I know the late Dr. Allen's observation has remained unique to this day." However, A. C. Bent (U. S. Natl. Mus. Bull. 195: 371, 1948), wrote that, "Tilford Moore (MS) saw a Brown Thrasher feeding three young Cowbirds." No date, place, or other details were given.

On the Cranbrook Estate in Bloomfield Hills, I have found three pairs of Brown Thrashers which had Cowbird young in their nests. The dates were May 10, 1941, June 23, 1950, and June 3, 1952. I found the 1941 nest on April 26, when it contained three eggs of the Thrasher. I made observations on the two succeeding days (April 27 and 28). The Cowbird egg was laid April 28. On May 3, the nest held three Thrasher eggs and the Cowbird egg. When I next was able to visit the nest on May 10, I found two 3-day-old Thrashers and one 2-day-old Cowbird. One Thrasher egg or young had disappeared. At noon on May 12, I found that the Cowbird nestling had disappeared. At this time I placed a 3-day-old Cowbird nestling from the nest of a Song Sparrow (*Melospiza melodia*) in the Thrasher's nest. On May 15 at 8:00 P.M., I found the Cowbird and the two nestling Thrashers, all apparently of normal growth. All young were still in the nest the next day (May 16) at 3:00 P.M., when they were photographed. On May 19 at 2:00 P.M., I found the nest empty. The Thrasher young were nine days old and the Cowbird six days old when they were last seen in the nest.

The 1950 Brown Thrasher nest contained two eggs of the hosts and two of the Cowbird when I discovered it on June 14 at 8:00 P.M. On June 17 and June 19 at 7:00 P.M. I observed two eggs of each species, as before; an adult was incubating both times. When I observed the nest at 8:30 A.M. June 23, one Cowbird had just hatched, one Cowbird egg and two Thrasher eggs remained. At 8:00 A.M. June 25, the nest held one Thrasher still wet, one almost dry, and one Cowbird. The other Cowbird or egg had disappeared. I made observations on June 27 and 29 and on July 2 and 4. The three were photographed on July 4, at which time they appeared ready to leave the nest. On July 5 at 7:00 P.M., I found the nest empty. I believe they left the nest successfully.

I found the 1952 nest on June 3 at 7:00 P.M. when it contained four 4-day-old young of the Brown Thrasher and one 5-day-old Cowbird. All young were banded. I was not able to visit the nest again until 9:00 A.M. June 9 when I found the nest empty.

Cowbirds' eggs in the nests of Brown Thrashers have been reported more frequently than have Cowbird young. Friedmann (The Cowbirds, 1929: 253 and Wilson Bull., 46: 32, 1934) reported ten definite records of Cowbirds' eggs in Brown Thrashers' nests from the following states: Connecticut, Pennsylvania, Iowa, Nebraska, North Dakota, and Oklahoma. A. C. Bent (U. S. Natl. Mus. Bull. 195: 370) stated that he had several records of Cowbirds' eggs in Thrasher nests but did not give any further data. I have two records of Cowbirds' eggs in nests of Brown Thrashers found on the Cranbrook Estate on the following dates: May 5, 1942, and May 13, 1952. The Cowbird egg in the 1942 nest was laid on the day the second Thrasher egg was laid and remained nine days after the Thrashers began incubating four of their own eggs on May 7, or 11 days from the time it was laid. All eggs were in the nest at 11:00 A.M. May 16, but had disappeared before the last observation at

12 noon, May 18. The Cowbird egg in the 1952 nest was laid two days after the Thrashers' nest with five eggs was found. One Thrasher egg disappeared the previous day. The Cowbird egg and two more of the hosts' eggs disappeared the next day, but the Thrasher was still on the nest. On May 16, at 12 noon, I found the nest deserted and all eggs gone.

Eastern Redwing.—Friedmann (The Cowbirds, 1929: 212) stated that over 50 records of Cowbird eggs in Redwing nests had come to his attention, "ranging from Connecticut, Ohio, and Indiana west to Michigan and Illinois, and south to Oklahoma." He also mentions (p. 212) Cowbird eggs in Redwing nests as of reported common occurrence in Nebraska and reports several nests of the Redwing containing two or three Cowbirds' eggs in North Dakota.

I have found two nests of the Redwing in which Cowbird young have been hatched. The first nest, which contained four eggs of the host and one of the Cowbird, was discovered May 29, 1952. When next I visited the nest on June 11, it contained four 7-day-old Redwings. In the water beneath the nest I found a dead 5-day-old Cowbird which may have been crowded out by the larger Redwing young. The other nest was found on June 19, 1952. It contained three 5-day-old young of the Redwing and one 4-day-old Cowbird, which were banded. Unfortunately, I was not able to visit the nest afterward, hence do not know whether the young survived to leave the nest.

The frequency of known parasitism in 1,300 active nests of the Redwing, which I have recorded during the last 15 years, has been about one in every 185 nests. Nests of the Redwing in which I have found Cowbird eggs were as follows: 1950, July 2, one nest; 1952, May 29, one nest; June 10, one nest; June 19, one nest; 1953, May 17, three nests with one Cowbird egg each. Of seven Cowbird eggs found in seven nests, two are known to have hatched, one was infertile, and the others were destroyed when the nests were disrupted. No Cowbird young were known to have been reared. All parasitized nests of the Redwing I have found were either at the perimeters of colonies 100 feet or more from their nearest Redwing neighbors or were solitary and not a part of any colony. I believe that comparatively few Cowbird eggs are laid in Redwing nests which are in definite colonies because of the combined vigilance and pugnacity of the Redwing adults. I believe, moreover, that any Cowbird hatched with two or more Redwings has little chance of survival because of the size and aggressiveness of the hosts' young.

Cedar Waxwing.—Friedmann (The Cowbirds, 1929: 234) called the Cedar Waxwing, "an uncommon victim." He states further (p. 234), that, "there are cases on record from various places,—New York, Connecticut and Montana. Aside from these few records there are no data available." A. C. Bent (U. S. Natl. Mus. Bull. 197: 95, 1950) merely cites the above reference from Friedmann.

On June 5, 1953, I found a pair of Cedar Waxwings in the final stages of building a nest on the Cranbrook Estate. The nest was in a tuft of twigs on a horizontal branch of a Tamarack (*Larix laricina*) 15 feet above the ground. On June 23, I saw a young Cowbird about six days old sitting on the side of the nest between two adult Waxwings. I did not climb up to examine the contents of the nest. On June 28, I found two 4- and 5-day-old Waxwings and a 3-day-old Cowbird in the nest with an unhatched Waxwing egg slightly more than half encased in the shell from which the Cowbird had hatched. I banded the Waxwings and collected the egg in which the young, apparently ready to hatch, had died. The first Cowbird was gone. Apparently, two Cowbird eggs were laid in this nest, the first about June 6 or 7 and the other about June 13 or 14, or about two or three days after the

last of the Waxwing eggs was laid. The early hatching of the first Cowbird may have resulted from the Waxwing's having started incubation with the first egg, as has been reported by Crouch who stated (Auk, 53: 4, 1936) that, "one egg is laid each day until the complement is completed, and incubation starts at the laying of the first egg. Regardless of this fact they all hatch at the same time." My observations of the Cedar Waxwing agree that it often sits on the nest, at least for long periods each day after the first egg is laid and sometimes does, apparently, actually incubate at this time. However, when this happens, the young are of two or three distinct sizes indicating different hatching times.—WALTER P. NICKELL, *Cranbrook Institute of Science, Bloomfield Hills, Michigan, February 22, 1954.*

A New Name for *Garrulax moniliger bakeri*.—Mr. Herbert G. Deignan of the United States National Museum has called my attention to the fact that since the genus *Trochalopteron* is now usually lumped with *Garrulax*, *Garrulax moniliger bakeri* de Schauensee (Proc. Acad. Nat. Sci. Phila., 87: 409, 1935) is preoccupied by *Trochalopteron phoeniceum bakeri* Hartert (Bull. Brit. Ornith. Club, 33: 10, 1909).

In view of this, I propose to rename *G. m. bakeri* de Schauensee and suggest that it be known in the future as *Garrulax moniliger stuarti*, this new name, like the old one, referring to E. C. Stuart Baker.—R. M. DE SCHAUENSEE, *The Academy of Natural Sciences of Philadelphia, Philadelphia, Pennsylvania.*

Colima Warbler (*Vermivora crissalis*) in Colima.—When Outram Bangs summarized the available information on *Vermivora crissalis* in 1925 (Auk, 42: 251–253) he knew of but one specimen from Colima, the type, though he had corresponded with Percy Lowe of the British Museum during the preparation of the paper. While I was writing my account (Univ. Mich. Mus. Zool. Misc. Publ. No. 33, 1936) of the discovery of the first nest of the species I learned from N. B. Kinnear that the British Museum had two of these warblers from the Sierra Nevada de Colima, and when I worked in the British Museum in May, 1954, Mr. J. D. Macdonald kindly showed me the specimens.

The first known specimen of *Vermivora crissalis* was a female collected by William Lloyd on April 6, 1889, at an altitude of about 8,000 feet on the Sierra Nevada de Colima, and Salvin and Godman published their description of the new species in the July, 1889, issue of the Ibis. The second specimen, a male, was taken by Lloyd's associate, W. B. Richardson, at 12,000 feet on the same mountain, December 6, 1889. Salvin and Godman had already published (in 1880) the warbler section of the "Biologia Centrali-Americana," and they apparently did not publish this second record of the Colima Warbler at all. In 1892 they gave both specimens to the British Museum.

The altitude recorded on the December specimen is greater than any hitherto reported for *Vermivora crissalis*; the December date agrees with our supposition that Colima is only wintering range for this species.—J. VAN TYNE, *University of Michigan Museum of Zoology, Ann Arbor.*