

TAXONOMY AND BEHAVIOR OF PALE-FACED ANTBLIRDS

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IN tropical forests south of the Amazon in Brasil, several little-known birds are isolated, as if on an island, by the great yellow Rio Madeira to the west and the broad blue Rio Tapajóz to the east. One of the least known of these birds has been the Pale-faced Antbird, *Phlegopsis borbae* (Formicariidae). Two specimens are known, a male from Borba on the east bank of the Madeira and a female from Vila Braga on the west bank of the Tapajóz (Figure 1).

In 1966, as part of a study of birds that follow army ants, I visited the forests between the Madeira and the Tapajóz. I did not find Pale-faced Antbirds at Maloquinha, near Vila Braga on the Tapajóz, nor near Borba on the Madeira. However, one can easily miss ant-following species on brief visits. After searching 5 days near Coatã on the Rio Canumã, I found and studied a pair of Pale-faced Antbirds as they followed a colony of army ants from 5 to 11 April at about 4°15' S and 59°18' W. On 12 April on the trail from Coatã to the Rio Madeira opposite Lago Puruzinha (Figure 1), I flushed another *borbae* and studied four or five, including a young bird, at a swarm of ants about 4°12' S and 59°20' W.

These observations, which indicate that *borbae* consistently follows army ants in the fashion of birds in related genera, are detailed below. I was unable to capture the birds for examination in the hand, as I had inadvertently left my mist net with the rest of my gear at Nova Olinda do Norte on 31 March before attempting the difficult hike to Coatã. However, I was able to watch the birds at short range through 8 × 30 binoculars, and I later examined both the known specimens. These studies suggest that *borbae* is misplaced in the genus *Phlegopsis*.

In size and proportions, Pale-faced Antbirds do resemble "bare-eyes," the antbirds of the genus *Phlegopsis* (Reddish-winged Bare-eye, *P. erythroptera*; Argus Bare-eye, *P. barringeri*; and Black-spotted Bare-eye, *P. nigromaculata*). All are stout, medium-sized antbirds with moderately short tails and large bills. Birds of the related genera *Gymnopithys* and *Rhegmatorhina* are smaller and have shorter tails and smaller bills. However, size and proportions differ little between the largest *Gymnopithys* and the smallest *Rhegmatorhina* and between the largest *Rhegmatorhina* and the smallest *Phlegopsis*, so that these characteristics are not very important in generic separation.

The most striking characteristic of the genus *Phlegopsis* is the red or red-orange bare ring around the eye. Although many antbirds in several different genera have blueish to greenish bare skin around the eye, no others have red bare faces. W. Hoffmanns, the collector of the male and

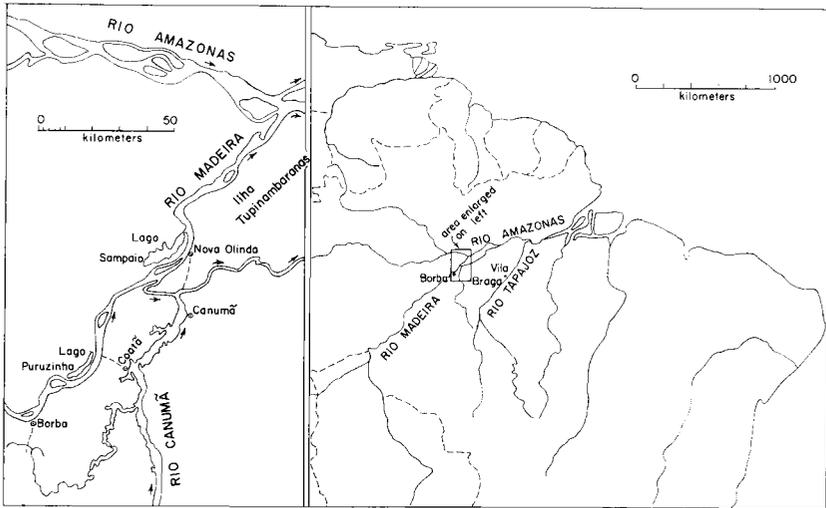


Figure 1. Region where Pale-faced Antbird has been recorded.

type specimen of *borbae*, noted on the label: "skin on eyes: 1'yellowgray." Hellmayr (1907), in describing the species, quotes Hoffmanns as saying "wide naked space round the eye light greyish-yellow."

Actually, there is no "wide naked space" around the eye in this specimen. As Hellmayr noted, there is a patch of stiffened black feathers above the eye and a "large conspicuous patch" of whitish feathers on the lores. These patches of feathers restrict the bare space to a narrow area behind and below the eye. Living Pale-faced Antbirds show only a small triangle of whitish-gray skin behind the eye. The whitish loreal patch and the feathers below the eye ordinarily cover the slight bare space below and in front of the eye (see Figure 2A). In Reddish-winged and Black-spotted Bare-eyes, which I have studied repeatedly in the field, the red bare areas completely surround the eyes in life.

The dull cinnamon-rufous to brown colors of male and female Pale-faced Antbirds are quite unlike those of adult males of the three red-faced species of *Phlegopsis*. These males have black heads and bodies and differ from each other mainly in the strikingly patterned upperparts (see Austin, 1961, for a color plate of *nigromaculata*, the type species of the genus). These red-faced males have white patches between shoulder and wrist. Females of *nigromaculata* are like males; the female of *barringeri* is unknown. Young *nigromaculata* and *erythroptera* are sooty blackish, with conspicuous dorsal spots or scallops.

Adult female *erythroptera* are dark chestnut above and bright chestnut-rufous below, with blackish tails and wings, the latter with three conspicu-

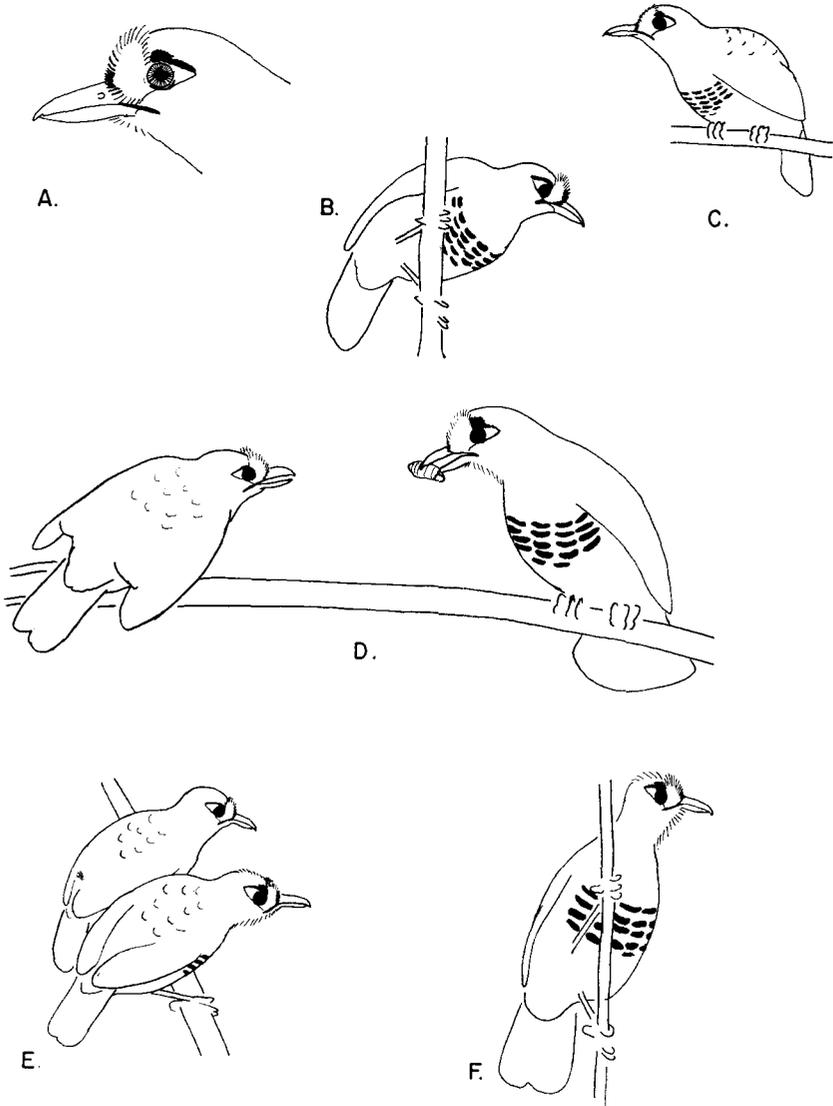


Figure 2. Pale-faced Antbirds, from field sketches and from specimens. A. Head, showing loral and superciliary patches. B. Typical foraging pose. C. Resting. D. Male (right) about to feed female (left). E. Male (below) and female (above) forage together. F. Bird I alarmed, just before fleeing.

ous white or rufous bars. Pale-faced Antbirds resemble female Reddish-winged Antbirds in general coloration, but lack the wing bars. Their wings are dark chestnut, with a few blackish tips on the uppermost greater coverts and, in the male, on the foremost wing coverts. Neither sex has a white patch between shoulder and wrist. The backs of Pale-faced Antbirds are greenish-chestnut; slight blackish tips to the feathers cause a faint pattern or mosaic of pale spots or polka-dots when seen from a distance. The long, loose feathers of the rump and belly are dull brownish, much as in female *erythroptera* and in many other antbirds. The blackish tail feathers of *borbae* are edged with brown near the base, especially in the female, so that their tails seem black toward the tip and brownish at the base. The head of *borbae*, except for the whitish lores and black superciliary, is dark rufous shading to cinnamon-rufous on the throat and breast. In the poor light of the forest interior Pale-faced Antbirds seem golden-cinnamon anteriorly, while female Reddish-winged Bare-eyes seem dusky to rufous, but specimens seem less different.

Between the cinnamon breast and dull brownish belly of *borbae* lies a pectoral band of dusky and whitish bars formed by the dusky tips and pale bases of several rows of breast feathers. None of the bare-eyes has any such markings on the underparts, for dorsal patterns are emphasized in all known plumages of these red-faced antbirds.

However *borbae* and adult female *erythroptera* are very similar in general coloration. Perhaps because of this similarity Hellmayr (1907) assumed the male specimen of *borbae* to be "immature" and put the species in the genus *Phlegopsis*. Peters (1951) calls the male specimen a female. The adult male was presumed to be unknown. Because the Pale-faced Antbird is listed as a *Phlegopsis*, I presumed the adult male would be a black bird with a bare red face.

The field studies and reexamination of the two known specimens indicate that male *borbae* are similar to females, and that in no plumage does the species have a black head and body or a red bare face. From its large size, the large black patch over the eye, the black freckling on the front wing coverts, and the blacker tail, the type specimen (Amer. Mus. Nat. Hist. no. 491993; Borba, 29 November 1906) is probably correctly sexed as a male. It is in the middle of wing molt, yet the new inner primaries look much like the old outer ones. This suggests a molt from one adult plumage into another. Related antbirds have no distinctive immature plumage; the molt from juvenal to adult is easily detected by the patchiness of body colors and differences in old and new primaries. As Hoffmanns did not mark "immature" on the label, and this bird's appearance and molt suggest it is in adult plumage, I doubt that Hellmayr was correct in assuming it immature. The female from Vila Braga (taken

by S. M. Klages, 19 December 1919; Carnegie Museum no. 75748, loaned courtesy of Kenneth C. Parkes) is also in molt, and differs from the type specimen mainly in being smaller and in having a reduced black patch over the eye and less black on the tail and anterior wing coverts. Therefore, adult *borbae* differ strikingly from the red-faced antbirds of the genus *Phlegopsis* in facial characteristics as well as in the russet coloration of the male. Rather than dilute the distinctiveness of the red-faced genus *Phlegopsis* by leaving a quite different bird in it, I prefer to place the Pale-faced Antbird in a new genus, to be called

***Skutchia*, gen. nov.**

Type species.—*Phlegopsis borbae*, Hellmayr, 1907.

Diagnosis.—Medium-sized Formicariidae, closest to *Phlegopsis* and *Rhegmatorhina*. From *Phlegopsis* it differs in having areas of bare skin near the eye much reduced and pale in color rather than red. Moreover, the eye ring is interrupted by a patch of stiffened feathers above the eye and a larger patch of elongated feathers on the lores. Body coloration in adult males of *Skutchia* emphasizes browns rather than blacks, and there are no strong markings dorsally. The only known species has a pectoral band of dark and light bars instead of the unmarked underparts characteristic of *Phlegopsis*. *Skutchia* differs from *Rhegmatorhina* in having reduced and interrupted bare eye areas and in having the feathers of the crown normal rather than lengthened. From *Phaenostictus* it differs in its shorter tail, in having the bare area around the eye much reduced and interrupted by patches of feathers, and in having the crown and throat feathers normal rather than lengthened.

Range.—So far as known, between the Madeira and Tapajóz Rivers in equatorial Brasil.

Etymology.—Named in honor of Dr. Alexander F. Skutch and his many contributions to neotropical ornithology. In view of Dr. Skutch's interest in studies of living birds, the fact that specimens were misinterpreted until living birds were studied seems particularly apropos.

BEHAVIOR

In behavior, *Skutchia borbae* is very similar to antbirds of the related genera *Phlegopsis*, *Rhegmatorhina*, *Phaenostictus*, *Gymnopithys*, and *Pithys*. All are birds of the lower levels of the undergrowth of fairly mature tropical forests, where they follow army ants and snap up insects flushed by the ants. I shall use the same terminology for the behavior of *borbae* as I used (Willis, 1967) to describe the behavior of Bicolored Antbirds, *Gymnopithys bicolor*.

VOICE

I noted six types of sounds from Pale-faced Antbirds. Three others—chirping between mates, keening notes in alarm, and peeping notes from young—seemed to come from them rather than from nearby birds of other species, but I was not absolutely certain. Squeaking by young during feedings and whimpering by submissive birds, calls frequent in Bicolored Antbirds and some other species related to *borbae*, are to be expected.

Chirring, as in most related species, is the usual noise when an observer disturbs Pale-faced Antbirds. Related species use this low buzzing call when mammals or insect-eating hawks disturb foraging or some other activity. The call in *borbae* is nearly the same as in the Bicolored Antbird and in the White-breasted Antbird, *Rhegmatorhina hoffmannsi*, being a moderately deep *chrrrrrrrr*. Although *borbae* is nearly as large as *Phlegopsis erythroptera*, the latter has a much deeper *cheeoouur* sound. *Phlegopsis nigromaculata*, which attended ant swarms at Coatã with Pale-faced and White-breasted Antbirds, has a higher and quite nasal *chearrnrh* for its chirr.

Chipping is a loud *stit!* when a Pale-faced Antbird is alarmed or excited. As in most related species, except the Bicolored Antbird which gives double chips, the chips are seldom doubled or tripled. The sound is somewhat like the call of a Downy Woodpecker (*Dendrocopos pubescens*).

Grunting, as in most related antbirds, is a single faint *ack* or *agh*, uttered repeatedly when a competitor of another species comes close to the foraging bird.

Singing is rather different from the singing of related species. They utter two, rarely more, simple and thin whistles: *Heeeeeeeee, heeee!* At times the shorter second note may seem lower or higher in pitch than the first. Both the Black-spotted and Reddish-winged Bare-eyes have quite different songs, as their series of whistles drop in pitch and roughen into snarls: *Hee, herr, herngh, herngh, herngh*, slow and short for the former species and fast, loud, and long for the latter. The *heeeee, rike-ee* song of a Thrushlike Manakin (*Schijfornis turdinus*) once got an immediate answering song from a Pale-faced Antbird; the first note of the song is practically the same in both species. Once when two Pale-faced Antbirds met they sang a *chweeyouk chwohk chwook chwook chwook* descending "chattersong," rather like the chattersongs when a male Ocellated Antbird (*Phaenostictus mcleannani*) meets his mate.

Bugling when a Pale-faced Antbird attacks another is rather like that of the Reddish-winged Bare-eye, being a sudden and very loud descending series: *WEEP WEEP WOOP WOUP WOUP!* at about four or five notes

per second. At times during disputes there was a rather similar *kweey'p* four to eight times, descending in pitch.

Snapping of the bill when a Pale-faced Antbird supplants another bird is a sharp click, rarely doubled or tripled. No hissing or other sound overlaps with the snapping.

INDIVIDUAL BEHAVIOR

On the hike between Coatã and the Rio Madeira, 12 April, I watched a lone Pale-faced Antbird traveling through the undergrowth of the forest. It chirred and flicked its tail as it peered at me from a vertical sapling 2 meters above the ground, then moved on past me. Related species commonly behave similarly when traveling between swarms of army ants. Like related antbirds when they wander, this antbird made no attempt to feed. It flew from one vertical sapling to another, 1 to 2 meters above the ground, 5 to 15 meters at a time.

All other observations were at swarms of the army ant *Eciton burchelli*, which Pale-faced Antbirds followed persistently. They usually waited 10 to 40 centimeters up on vertical (Figure 2B) or horizontal perches wherever the ants were most active. The moderately short tails of perching birds were lowered to 10 to 30 degrees below the angle of the body, which was usually about 45 degrees from the horizontal. Their tails were closed or sometimes notched at the tip, unless the birds were excited.

The Pale-faced Antbird seems plump and neckless, like a puffbird of the genus *Malacoptila* as it sits or clings very close to the perch (Figure 2C). The resemblance to a puffbird is enhanced by the golden-brown color and the white patch near the large bill. However, the antbird looks about more actively than would a puffbird, which would never cling to vertical perches so persistently. Moreover, the antbird pitches, yaws, reverses, and pivots on a perch much more actively than do puffbirds. The Pale-faced Antbirds also change from one perch to another quite frequently, unlike the stolid puffbirds. However, this antbird is more sedate in its motions than the smaller antbirds nearby unless it flies at one of them or at prey. Then it jump-flies with such arrowlike speed it seems loosed from a bow.

Pale-faced Antbirds usually capture prey by sallying to the ground and back to a perch before the swarming ants have a chance to attack. They also peck prey off low vegetation or fallen trash, up to at least 0.6 meter above the ground in one case. At times one chases fleeing prey by hopping rapidly after it over the ground or through such low tangles as fallen trees and limbs.

Despite its relatively short legs, the Pale-faced Antbird hops easily and rapidly on the ground, which it visits more frequently than do most of

its relatives. On the ground it stands high on partly splayed legs, its tail somewhat raised. It seldom stands amid the onrushing ants, but prefers to hop just ahead of the swarm. When it does stand among the ants, it jumps or jitters from one foot to the other or leaps into the air periodically. In comparison with Bicolored Antbirds, these Pale-faced Antbirds seem sedate and semiterrestrial. In these and many other aspects of foraging they are rather like Rufous-winged Bare-eyes and the distantly related Sooty Antbirds (*Myrmeciza fortis*), both of which replace them ecologically in upper Amazonia.

Pale-faced Antbirds preen periodically as they perch over the ants. I saw one typical "full stretch" (of wing, tail, and leg on one side) and several "underwing stares," in which the bird holds out one wing horizontally as it peers at the under surface. On four occasions one scratched its head over the wing. Champing the bill is rather frequent as a bird waits and preens alternately. On several occasions Pale-faced Antbirds nibbled the tips of nearby leaves for raindrops.

Flights between perches are generally short, with a fluttering slow flight that emphasizes maneuverability rather than speed. When flushed by a snorting, running agouti (*Dasyprocta* sp.) or by me, the birds flew up to a perch 2 or 3 meters above the ground and looked the intruder over before dropping back into the dense sprouts near the ground. When a Pale-faced Antbird moved from one part of an ant swarm to another it often flew up to a perch 1 or 2 meters above the ground, surveyed the competing birds, and then moved down and in on them. At times one bird sang until its mate sang and joined it at the new site. The antbirds also sang when I scared them away from a swarm for brief periods.

INTERSPECIFIC AGGRESSION

When competing antbirds or woodcreepers (Dendrocolaptidae) moved nearer the Pale-faced Antbirds than 1 or 2 meters, they grunted at them or supplanted them (took their perches) with sudden, snapping attacks. The common and smaller White-breasted Antbirds drew the chief fire; I recorded 14 supplantings. Twice the fairly common but wary White-chinned Woodcreepers (*Dendrocincla merula*) were supplanted. The few Black-spotted Bare-eyes in the vicinity generally stayed well away from the slightly larger Pale-faced Antbirds; one Black-spotted fled when a Pale-faced Antbird approached. The other ant-followers about (Plain-brown Woodcreeper, *Dendrocincla fuliginosa*; Hoffmanns' Woodcreeper, *Dendrocolaptes hoffmannsi*; Concolor Woodcreeper, *Dendrocolaptes concolor*; Scale-backed Antbird, *Hylophylax poecilonota*) stayed away from the central and best zones over the ants, even though Hoffmanns' Woodcreeper should be large enough to supplant *borbae*. None of the various

nonpersistent ant-followers at Coatã tried to move in on the central zones over swarms, where Pale-faced Antbirds reigned supreme among the persistent ant-followers.

REACTIONS TO DANGER

When White-fronted Nunbirds (*Monasa morphoeus*) called in alarm from the treetops, a Pale-faced Antbird froze and raised its head as if to see above the low vegetation around it. Another freezing *borbae* crouched on the perch and lowered its head.

An arriving bird that saw me after it had alighted raised its head, backed around the vertical perch, and yawed the body into an upright position (Figure 2F). It stared, puffing out its throat and perhaps its crest feathers as had another bird on seeing me a few days before. Both these birds quickly fled behind cover and chirred. Usually I did not see the bird and heard only the chirrs, which were quite frequent when I moved near these antbirds. At times a chirring bird came out from cover and mobbed me from a vertical sapling 5 to 10 meters away and 1 to 3 meters above the ground. At such times the bird repeatedly jerked its spread tail from as much as 50 degrees below the line of the body to as much as 40 degrees above the body. The tail was held at the upper extreme of movement briefly, then dropped slowly. In the species' tail-flicking the upswing is the fast movement, as is characteristic of antbirds in *Gymnopithys* and related genera.

Chipping, which related species often use when birds panic and become hyperactive at a hawk, was used only when I disturbed the Pale-faced Antbirds as they chased each other about the swarm on 12 April. Related species also chip when very excited by an agonistic encounter, so I am uncertain what the chipping meant in this case.

INTRASPECIFIC AGGRESSION

Some intraspecific fighting occurred among the several birds at the swarm on 12 April. Unfortunately the undergrowth hid them as they chased each other about and uttered the loud "bugling" and other sounds that, in related antbirds, commonly signify that birds are feuding. Mixed with bugling were *weeeh!* squeals, perhaps halved songs. Once I heard long, piercing *cheeeeeeee'up* notes, doubled at times. Songs of distant and nearby birds usually ended an encounter, and one pair returned to the main swarm each time as other birds moved to small side branches of the ant swarm. When I scared this pair off, they moved to the side branches and feuding started again. The young bird present seemed to belong to this pair. As all the adult birds were in much the same plumage, it was not possible to tell if the pair were fighting with another pair or with one or two wandering birds.

REPRODUCTIVE BEHAVIOR

At times a bird flew to its mate and sat or clung a few centimeters away (Figure 2E). One member of the pair watched for a week occasionally approached its mate and fluttered the tips of its wings before returning to foraging. Once it stretched over and nibbled at its mate's beak.

During a morning shower on 9 April I saw the larger bird feed the smaller one. As the larger bird flew up with food in its bill, the smaller flew to it and perched with head low and retracted, the body level and slightly crouched, the wingtips quivering very rapidly (Figure 2D). The larger bird retreated to cover but returned with the food after a few seconds. The smaller then flew to a few centimeters from it, crouched, fluttered the tips of the wings again, was fed, and dropped out of sight in the treefall. The larger champed its bill and looked about from a rather upright pose. After it left, the smaller bird returned and darted after its own prey twice from that perch. Extended courtship feeding is the rule when males of Bicolored Antbirds and related species I have studied gain mates or prepare their mates for copulation. Perhaps Pale-faced Antbirds have similar sexual behavior.

The young bird with the pair on 12 April was nearly grown. It seemed small and dark, and stayed hidden most of the time. Its chirring notes were very weak and sibilant. It may have given the sibilant, rising *herhhhhh*, *hieee* whistled songs that the adults quickly answered.

DISCUSSION

The Pale-faced Antbird resembles antbirds of the genera *Phlegopsis*, *Rhegmatorhina*, *Gymnopithys*, *Phaenostictus*, and *Pithys* in its ant-following and other behavior. It has morphological characters, such as the black patch above the eye (as in *Phaenostictus*) and the white loreal plumes (as in *Pithys*), that remind one of these related genera. In coloration it resembles young or female birds in certain species of *Gymnopithys*, *Rhegmatorhina*, and *Phlegopsis*.

However, it cannot be placed in any of these genera at the present level of generic splitting in the family, and it certainly is not close to other genera in the Formicariidae in behavior or morphology. One could perhaps place all the genera listed above as subgenera of *Pithys*. I prefer not to do this for several reasons. First, if one raises the level at which he separates genera, the related genus *Hylophylax* would be difficult to separate. *Hylophylax*, in turn, grades into the huge genus *Myrmotherula*, and the latter into the large genera *Dysithamnus* and *Thamnophilus*. A series of generic lumpings could end with the Pale-faced Antbird in the genus *Thamnophilus*. While it might be convenient to have everything

in *Thamnophilus*, the terminal forms would be extremely diverse and the sequence of lumpings would produce a number of synonyms for most species.

Moreover, simple lumping of several genera under *Pithys* at the present time without revising the family Formicariidae as a whole would place a genus with rather diverse members in the middle of a family in which genera are split up rather finely. The misinterpretations that can arise when one genus is broad while related genera are narrowly divided are illustrated by Hellmayr's assertions that the type specimen of *borbae* is an immature and that it has a wide bare eye-ring. I suspect Hellmayr tried to fit *borbae* into *Phlegopsis* and still maintain the latter as narrow as are related genera by leaving open the possibility that the adult male could be a red-faced, black-bodied bird like typical *Phlegopsis*. (In fairness to Hellmayr, he was probably unaware that juvenal *Phlegopsis* are blackish and that no distinctive immature plumage occurs.)

To avoid this kind of misinterpretation, I prefer to keep *Skutchia* and related genera separate unless the family Formicariidae is revised so that all genera are broadly interpreted. If this is done, *Skutchia* should be a subgenus or other taxon at the same level as *Rhegmatorhina* or *Gymnopithys*, not at a lower level in the taxonomic hierarchy.

Skutchia and *Phaenostictus*, monotypic genera isolated at opposite ends of the upper Amazonian radiation of ant-following antbirds (*Phaenostictus* is isolated across the Andes from Ecuador to Honduras), may be derivatives of ancestral forms that have been eliminated from the upper Amazon by competition from the numerous ant-following antbirds of that region. *Skutchia* seems more generalized than *Phaenostictus*. Field studies of the similarly generalized White-faced Antbird, *Pithys castanea*, known from one specimen from northeastern Perú, might throw some light on these questions.

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SUMMARY

Skutchia gen. nov. is proposed for the Pale-faced Antbird (*Skutchia borbae*) of Amazonian Brasil because it differs morphologically from members of the genus *Phlegopsis* to which it had been assigned. The three species of *Phlegopsis* are the only antbirds (Formicariidae) with bare red faces, and adult males are black-bodied birds that differ from

each other in dorsal patterns. *Skutchia borbae*, with a reduced yellowish-gray bare space behind the eye and an interrupted eye-ring, has brown colors and a pectoral band in both sexes.

At Coatã, near the Rio Madeira, the Pale-faced Antbird behaves much like related antbirds of several genera. It follows swarms of army ants in the lower undergrowth of fairly mature tropical forest most of the time, dominating the slightly smaller Black-spotted Bare-eyes (*Phlegopsis nigromaculata*) and White-breasted Antbirds (*Rhegmatorhina hoffmannsi*). It clings or stands on low perches or on the ground, then darts down to catch arthropods flushed by the ants. It hops readily on the ground, and is rather sedate and terrestrial. Once a male fed his mate, which quivered the tips of the wings. Pairs seemed to stay together. Voice is much like that of related antbirds, except that the song is a simple two- or three-noted whistle.

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