

SHORT COMMUNICATIONS

The Status of *Agelaius forbesi* Sclater

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During a visit to northeastern Brazil in 1880, W. A. Forbes encountered an all-black icterid that he described as locally distributed, but "common where it occurred, flying about in large flocks, like Starlings, in the neighbourhood of sugar-plantations. They were rather wary and not easily approached. The Brazilians called it 'Arumará'" (Forbes 1881: 340). Forbes mentioned having seen these birds at two localities in Pernambuco, Macuca and Vista Alegre, but stated that he collected only a single female, which he considered "apparently referable to a small form of" *Aphobus* (now *Gnorimopsar*) *chopi* (Vieillot). Sclater (1886: 345) noted that this specimen, which he considered to be immature ("Jr." of Sclater), was *not* referable to *chopi*. On the basis of bill shape he decided that it "must either be placed in *Agelaeus* [now spelled *Agelaius*] or in a genus by itself." He thereupon named it *Agelaeus forbesi*, sp. nov. Neither Forbes nor Sclater mentioned the actual provenience of the holotype, and Sclater erroneously gave the year of collection as 1881, an error perpetuated by Warren and Harrison (1971: 186). The specimen in the British Museum (Natural History), where Short has examined it, is labeled "Macuca," a locality visited by Forbes only in September 1880 (Forbes 1881: 322–323).

Pinto (1944: 577, footnote) erred in believing that Forbes *collected* this new species at two localities: "Os exemplares típicos, colecionados em Macuca e Vista Alegre . . ." Meyer de Schauensee (1966: 435) listed the Vista Alegre locality as a "sight" record of *forbesi*, but there remains a strong possibility that most of the birds seen by Forbes at both Macuca and Vista Alegre may have been, as he stated himself, *Gnorimopsar chopi*, an abundant and gregarious species. On the other hand, published descriptions of the ranges of *G. c. chopi* and *G. c. sulcirostris* appear to leave a small hiatus in northeasternmost Brazil, including Pernambuco. As there have been major habitat changes in the coastal forest belt of Pernambuco, both before and since Forbes' time, we may never know just which blackbirds he did see in such numbers at Macuca and Vista Alegre.

Hellmayr (1937: 181) corrected Sclater's identification of the holotype of *forbesi* as immature by describing it as an "adult bird just finishing its annual molt." Although the collector had marked the specimen label female and repeated this in his published account of its capture, Hellmayr questioned this, apparently influenced by his belief that *forbesi* was indeed referable to *Agelaius* in spite of some morphological differences—Hellmayr apparently thought that if it were an *Agelaius* female, it should not be black. Hellmayr also reiterated that the species was known from the holotype only.

So the situation stood until the early 1960's. In 1963 Parkes began work on his revision of the South American *Agelaius cyanopus* (Parkes 1966). While at the American Museum of Natural History, he found in that museum's "First Series" (a sample series of one or a pair of almost every New World species and subspecies) a *second* specimen of *Agelaius forbesi*, bearing no data other than "Pernambuco," originally identified and catalogued as "*Aphobus chopi*." Although this specimen came to the American Museum with the Lawrence collection, there is no mention of it in any of the published works of George Lawrence. It was later reidentified and initialed by the late W. DeWitt Miller as "*Pseudagelaeus forbesi*," and somebody else later pencilled out the "*Pseud*-" part. We cannot help but admire Miller's perceptiveness in identifying this specimen, but apparently he, like Lawrence, never published the record. In conversations with Eugene Eisenmann and Charles O'Brien, Parkes called attention to the rather mysterious possession by the American Museum of Natural History of a second specimen of a form supposedly known only from the holotype in the British Museum. Nothing seems to be known about the origin of Lawrence's specimen.

A few years later, Eisenmann and Parkes were serving as consultants during the final stages of preparation of Meyer de Schauensee's South American checklist (1966). The question of the status of *forbesi* was raised again at that time. As the specimen in the American Museum showed certain characters that seemed to combine aspects of *Agelaius* with those of *Gnorimopsar*, Parkes raised the possibility that the

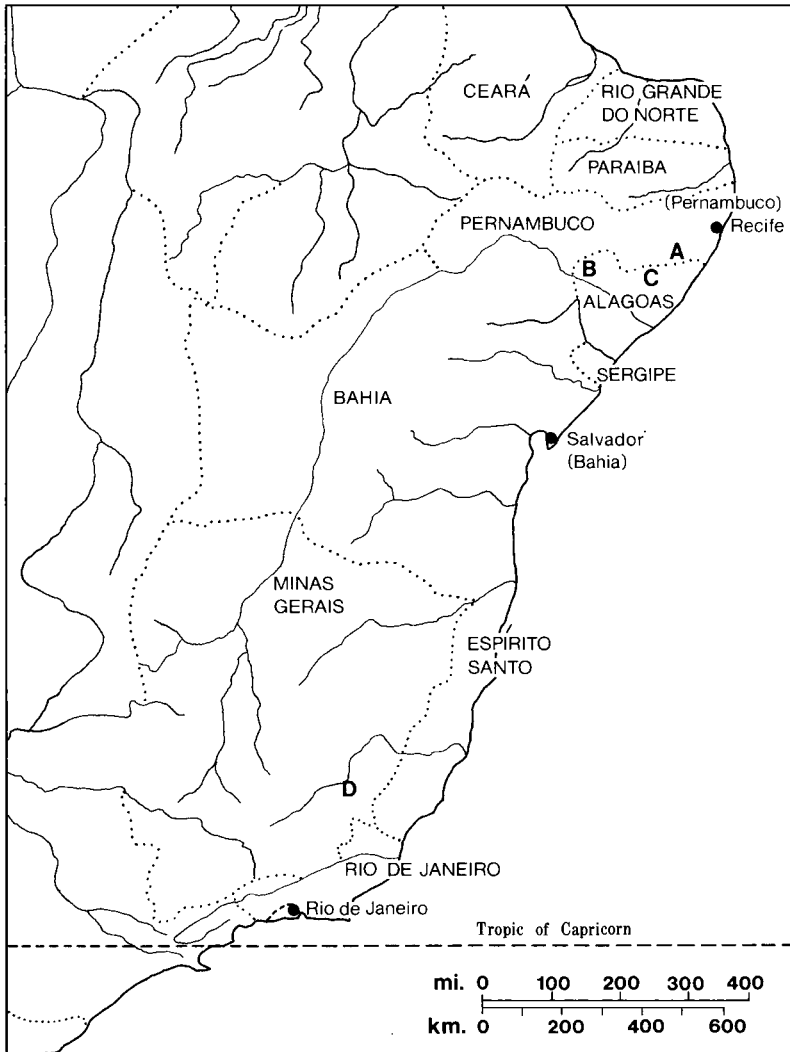


Fig. 1. Localities in Brazil where *Curaeus forbesi* has been collected. A. Macuca (type locality); B. Usina Sinimú; C. Eugenho Riachão; D. Raul Soares.

two known *forbesi* might represent hybrids between those genera; *Agelaius* had already been shown to be one parent of an intergeneric hybrid (Selander and Dickerman 1963). On geographic grounds, the *Agelaius* parent of such a putative hybrid would have to have been *A. ruficapillus*. As it would be impossible to predict the color and pattern of such a hybrid, and especially of a female, one had to go chiefly by the structural characters, which did seem somewhat intermediate between *Agelaius* and *Gnorimopsar*. The brownish black color would not be incompatible with such a parentage. Eisenmann agreed that this was at least a possible explanation for the two known specimens of *forbesi*, and so informed Meyer de Schauensee, who added this theory in a footnote in proof.

The timing was unfortunate. In April 1967, just after the publication of Meyer de Schauensee's book, Parkes spent a day at the Los Angeles County Museum. To his amazement, he found a series of *forbesi*, mixed in with and identified as *Gnorimopsar chopi*. The specimens were from two areas of Brazil, one of them 1,400 km southwest of the type locality of *forbesi*. Parkes did not have time to measure the specimens, but wrote a note to the then curator, K. E. Stager, suggesting that these, the first known specimens of *forbesi* with adequate data, be called to the attention of E. R. Blake, then working on the

first draft of the family Icteridae for the "Peters" Check-list. Stager sent Blake several of the specimens, and meanwhile Parkes, using the New York specimen and knowing that the hybrid theory was no longer tenable, was attempting to reassess the relationships of *forbesi*. On 9 August 1967, Parkes wrote Blake that he had restudied *forbesi*, and included the following sentences: "As you well know, there are a number of icterid genera with very large and very small species (in fact, there is a dramatic difference between the largest and smallest subspecies of *Molothrus bonariensis*). Kick around the idea of *forbesi* being a small representative of *Curaeus*. I don't like the idea of that feather texture in *Agelaius*, but a small *Curaeus*? How about it?" Blake responded on 11 August 1967: "On study, *forbesi* simply can't be *Agelaius* × *Gnorimopsar*. On going over them again just now I'm virtually convinced the answer is, and can only be *Curaeus* as you suggest. Feather texture just right and also the bill, especially as to the flattened area on ridge of culmen. It's a natural but will look into it further."

Blake altered the manuscript for the "Peters" Check-list to include *forbesi* in *Curaeus*, and it so appeared in the published version (Blake 1968: 183). Although Blake included one of the localities from the previously unreported series in Los Angeles (Raul Soares, Minas Gerais), neither he nor anyone from the Los Angeles County Museum ever published an account of the rediscovery of the species, nor the rationale for transferring it from *Agelaius* to *Curaeus*.

Not long after Blake's list appeared, Short was investigating *Agelaius* and related genera in connection with his discovery of *A. xanthophthalmus* in Peru (Short 1969). Being unaware of the above history of the rediscovery of *forbesi*, he began an independent investigation of the relationships of this species. He was able to examine the holotype of *forbesi* at the British Museum (Natural History) at Tring, and assembled 10 of the original 11 specimens from the Los Angeles County Museum series (the 11th was exchanged to the U.S. National Museum of Natural History). This series had been collected in 1957 by H. F. Berla and E. Dante, and, as indicated above, had been considered to represent *Gnorimopsar chopi* until Parkes saw them in 1967.

Localities in the series assembled by Short include additions to those reported by Blake. Specimens of *forbesi* are now known from Macuca, southern Pernambuco (type locality); the Usina Sinimbu area in southern Alagoas, near Sergipe; Eugenio Riachão, in the Quebrangulo (= Victoria) region of north-central Alagoas; and the isolated Raul Soares region of southeastern Minas Gerais (320 km north-northeast of Rio de Janeiro, and 1,400 km southwest of Macuca). It is uncertain whether "Pernambuco" on the label of the Lawrence specimen refers to the state of that name, or to the vicinity of the city of Pernambuco, now called Recife. Thus, the presently known range of this blackbird includes coastal southern Pernambuco and Alagoas, and an area in southeastern Minas Gerais (Fig. 1). It is likely that a search of museum collections of *Gnorimopsar chopi* from this region would disclose additional specimens of Forbes' Blackbird.

Short made detailed comparisons between the series of *forbesi* and *Gnorimopsar chopi*, *Agelaius* spp., and *Curaeus curaeus*. In lateral profile the culmen of *forbesi* is straight, the bill is relatively shallow and sharply pointed, and the culmen is flattened in its center to the degree that lateral ridges border it. The bill is very different from that of *chopi* in being longer and less deep, and in completely lacking the diagonal ridge that crosses the base of the lower bill in *chopi*. In contrast, the bill does not differ markedly from that of *Agelaius cyanopus* and other *Agelaius*, allowing for the greater size of *forbesi*. Compared with the bill of *Curaeus curaeus*, that of *forbesi* is also similar but proportionately shorter. The wings of *forbesi* are short for its size, barely longer than the tail. Both *G. chopi* and *C. curaeus* have longer wings (longest primaries exceed the secondaries by 25–35 mm, versus 5–8 mm in *forbesi*) that are conspicuously longer than the tail. The wings of eastern Brazilian *A. cyanopus* and *A. ruficapillus* are but slightly longer than the tail, but *Agelaius* varies greatly in this respect, the migrant North American species having considerably longer wings proportionately. The long wings of *Curaeus curaeus*, a species of southern temperate regions, suggest the possibility of migration, and indeed, Hellmayr (1932: 103) says of the species in Chile: "After the breeding season the birds congregate in flocks, and are to a certain extent migratory." The tail of *forbesi* is somewhat graduated and relatively long, the outer rectrices being 12–18 mm shorter than the central pair. None of the other species has so graduated a tail; *C. curaeus* has a long and slightly rounded tail, barely showing graduation.

Like most Icteridae, *forbesi* is strongly sexually dimorphic in size (Table 1). Males average 9.7% longer in wing measurements, 9.1% in tail, 15% in culmen, and 1.8% in tarsus. These differences permit confidence in identifying the two unsexed specimens (AMNH 42121, LACo 60141) as females.

The color of *forbesi* is entirely blackish, but showing a brown tone, without the strong blue gloss of *G. chopi* and of species of *Agelaius*. Its color rather closely resembles that of *C. curaeus*. Characteristic of *forbesi* are lanceolate feathers with glossy shafts on the crown, nape, sides of head, malar region, and sides of the neck. The throat generally lacks these modified feathers, although several specimens, in-

TABLE 1. Measurements (mm) of *Curaeus* ("Agelaius") *forbesi*.

Museum & number	Sex	Date	Locality	Wing	Tail	Culmen ^a	Tarsus ^a	Longest minus shortest rec-trix ^b
BMNH 1885.7.12.144 (holotype)	♀	Sept 1880	Macuca, Pernambuco	99	97	23.2	29.7	(molt)
AMNH 42121	?	—	Pernambuco	98	94	23.5	29.6	14.0
LACo 27135	♀	5 Feb 1957	Usina Sinimbu, Alagoas	99	94	22.8	29.5	17.5
LACo 27137	♀	16 Feb 1957	Usina Sinimbu, Alagoas	96	93	23.2	30.5	18.0
LACo 27140	♀	26 Feb 1957	Usina Sinimbu, Alagoas	97	93	21.6	30.2	14.0
LACo 60141	?	—	Raul Soares, Minas Gerais	95	93	23.5	29.8	11.5
LACo 60140	♂	—	Raul Soares, Minas Gerais	108	102	28.2	30.7	15.0
LACo 28308	♂	6 Sept 1957	Raul Soares, Minas Gerais (15 km N)	107	102	25.4	29.2	15.0
FMNH 283631	♂	9 Sept 1957	Raul Soares, Minas Gerais	105	108	26.2	29.6	18.0
LACo 27138	♂	7 Apr 1957	Quebrangulo, Alagoas	110	105	25.2	31.4	16.5
LACo 27139	♂	8 Feb 1957	Usina Sinimbu, Alagoas	106	99	25.9	32.0	17.5
LACo 27134	♂	22 Feb 1957	Usina Sinimbu, Alagoas	108	101	25.9	30.2	12.0

^a Measured with dial calipers to nearest 0.1 mm.

^b Measured with dial calipers to nearest 0.5 mm.

cluding the holotype, have a few such throat feathers, and their presence seems not to be associated with sex. No species of *Agelaius* has such modified feathers in the head region. In *Gnorimopsar* the feathers of these regions are not as lanceolate, but those of the crown and nape are glossier. The condition in *Curaeus curaeus* most closely resembles that of *forbesi*, but in *curaeus* the glossy shafts and lanceolate feathers are more restricted, appearing mainly on the crown, forehead, and ear coverts.

Assignment of *forbesi* to *Curaeus* seems the most satisfactory treatment on the basis of our present knowledge of these South American blackbirds. Similarities to *C. curaeus*, including modified head feathers, coloration, and bill shape, are noteworthy, whereas differences from *Gnorimopsar* and from marsh-inhabiting *Agelaius* are striking. The shorter wings and smaller size of *forbesi* compared with *C. curaeus* might be expected in a tropical representative of this genus, otherwise containing only the larger, longer-winged *curaeus* of temperate regions. The graduated tail of *forbesi* is not sufficiently different from the rounded or slightly graduated tail of *curaeus* to pose a problem in allying it with that species.

Ornithologists in the field in eastern Brazil should seek Forbes' Blackbird, to add to our very meager knowledge of the species. It should prove distinguishable from the Chopi Blackbird, with which it may associate, by its thin, straight bill and a combination of shorter wings and longer tail. At closer range, *Curaeus forbesi* should show "hackles" about the neck and appear sootier (brownish black), lacking the bluish gloss of *Gnorimopsar chopi*.

We are grateful to the authorities of the British Museum (Natural History), Los Angeles County Museum, and Field Museum of Natural History for permission to study specimens in situ and to borrow them. At various stages of this study, Eugene Eisenmann, Emmet R. Blake, Robert W. Storer, and John Farrand, Jr., have provided useful comments. The map was prepared by Nancy Perkins of Carnegie Museum of Natural History.

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Observations on Some Fruit-eating Birds in Mexico

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Fruit trees in the tropics provide the ecologist with an opportunity to examine a situation in which animal species share a common resource. Unfortunately, not much use has been made of this opportunity and literature on the subject is scarce. Accounts of avian utilization of fruit include those of Land (1963), Willis (1966), Diamond and Terborgh (1967), Leck and Hilty (1968), Terborgh and Diamond (1970), Leck (1971), and Howe (1977). The present study adds to the rather limited data base on the exploitation of particular fruit tree species by avian frugivores.

Observations were made from late May till early August 1975 near the Mayan ruins of Chicanná and Becán, near the town of Xpujil in the state of Campeche, Mexico. The vegetation here is a "semi-evergreen seasonal forest" (Beard 1955). From an unobstructed viewing station I observed birds coming to or leaving the fruit tree under study. The number of individual visits of a bird species was used as an assessment of fruit usage. Although this does not account for varying amounts of fruit consumed during a visit, previous investigators have found this to be a feasible and efficient method (Diamond and Terborgh 1967; Leck 1969, 1971, 1972).

Data were obtained on birds feeding on the fruit of five species of trees: *Neea psychotrioides* Donn. Sm. (Nyctaginaceae), *Ficus padifolia* H. B. K. (Moraceae), *Ehretia tinifolia* L. (Boraginaceae), *Metopium brownei* (Jacq.) Urban (Anacardiaceae) and *Talisia olivaeformis* (Kunth.) Radlk. (Sapindaceae). Characteristics of these fruits are given in Table 1. For each tree species, each hour of the day between approximately 0530 and 1800 was equally observed. For example, data often were collected from 0530 to 1800 on one day and from 1200 to 1800 on the next, making one 12-h "observation day." The variation in hours of observation per tree species was due to my relative success in locating suitable trees and to

TABLE 1. Fruit characteristics, number of trees observed, and hours of observation per tree species. Size refers to diameter except for *Metopium*, in which it refers to length and width.

	Fruit size (mm)			Color of fruit when ripe	Number of trees observed	Hours of observation
	N	\bar{x}	SE			
<i>Neea</i>	71	5.4	0.05	green	2	37.5
<i>Ficus</i>	86	7.7	0.06	green	2	50.0
<i>Ehretia</i>	122	8.0	0.08	red	3	112.5
<i>Metopium</i>	57	10.5 × 5.3	0.09 × 0.07	red	2	50.0
<i>Talisia</i>	107	16.1	0.19	green	4	70.0