

Interestingly, although Snow (op. cit.) lists 2 thrush (*Turdus*) species as imitated by the Violaceous Euphonia, I never heard the Thick-bills mimic a thrush even though the Clay-colored Robin (*T. grayi*) was an abundant breeding species at Summit Gardens (Morton, Science 171:920, 1971). This robin's normal nest "defense," however, is to leave, so the euphonias may be selective in their choice of species to imitate, mimicking those that mob.

It should be clear that this report leaves more questions than it answers and I hope that this note stimulates studies of the ontogeny of mimicry in this genus.

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Observations of vocal mimicry in the Thick-billed Euphonia.—Snow (Wilson Bull. 86:179–180, 1974) noted 17 species imitated by the Violaceous Euphonia, *Euphonia violacea*, in Trinidad. During 8 months on Isla de Santa Sofia II, an island in the Amazon River about 32 km northwest of Leticia, Amazonas, Colombia, I noted the Thick-billed Euphonia, *Euphonia laniirostris*, incorporating the call notes of many species into its song on numerous occasions. Table 1 presents a list of 25 species imitated on 9 separate singing bouts for which I have detailed notes. All observations were from either the island in wet second-growth forest or from the adjacent mainland in swampy or flooded (varzea) forest, usually in edge situations. All model species occurred in the same vicinity as the euphonia as noted by Snow, 1974 for *E. violacea* in Trinidad. Robinson (Emu 74:9–10, 1974) found that lyrebirds (*Menura*) do most of their imitating at a time of year when the models are not breeding and presumably the imitated sounds have reduced significance for the models; unfortunately, I have no data on either the breeding seasons of the models or the euphonia. All euphonias I observed imitating were solitary, adult males.

This species imitates a remarkable variety of sound types from harsh screams to soft call notes. The imitations themselves are excellent and would be indistinguishable to my ear from the models if heard by themselves. This was also noted for *E. violacea* by Snow. In contrast to *E. violacea*, however, *E. laniirostris* gave songs which were either "pure" *E. laniirostris* notes or pure imitations. The imitation sequences consisted of 15–20 notes in quick succession, involving about 10 different species; thus models' calls may be repeated within a sequence but seldom in succession. Individuals used both pure sequences and imitation sequences in the same singing bout, these often following each other after only a pause of a second or so.

Four other species of euphonia (*E. minuta*, *E. xanthogaster*, *E. chlorotica*, and *E. rufiventris*) were seen regularly in the same habitat as (and, except *E. rufiventris*, often in the same flocks with) *E. laniirostris*, but none was ever heard to mimic other species. As Snow (op. cit.) reports, there are no published accounts of vocal mimicry in other species of euphonias. This, in addition to plumage and morphologic similarities and basically allopatric ranges, strengthens the position that *E. laniirostris* and *E. violacea* are very closely related.

TABLE I
SPECIES IMITATED BY *EUPHONIA LANIROSTRIS* IN AMAZONAS

Species imitated	Call imitated
Accipitridae	
<i>Buteo magnirostris</i>	"peeéeeuuuur"
<i>Helicolestes hamatus</i>	"whéeeeah"
Cuculidae	
<i>Crotophaga ani</i>	"foi?"
Galbulidae	
<i>Galbalcyrhynchus leucotis</i>	"kyew"
Ramphastidae	
<i>Pteroglossus castanotis</i>	"wheep" yelp
Picidae	
<i>Melanerpes cruentatus</i>	"tttt-huhuhu"
Dendrocolaptidae	
<i>Nasica longirostris</i>	one note from the "whooh" sequence
<i>Sittasomus griseicapillus</i>	portion of rising note sequence
Furnariidae	
<i>Synallaxis albogularis</i>	"chéep-dududu" antiphonal song
Formicariidae	
<i>Myrmoborus lugubris</i>	"jeep" alarm call
Tyrannidae	
<i>Megarhynchus pitangus</i>	"jea-lelelé"
<i>Myiozetetes similis</i>	"chi-chi-chi-chéw"
<i>Pitangus sulphuratus</i>	"kyew" and "kiskadée"
<i>Pitangus lictor</i>	"vweeeeee, vwee-vwee-vwee"
<i>Attila cinnamomeus</i>	"ka-whéeeoooo"
<i>Myiarchus ferox</i>	"descending trill"
<i>Myiarchus tuberculifer</i>	mournful whistle
<i>Camptostoma obsoletum</i>	"wheeeéé-tututu"
<i>Tyranniscus gracilipes</i>	"what?"
<i>Tyrannulus elatus</i>	"pá-whéeeooo"
Vireonidae	
<i>Vireo olivaceus</i>	alarm scold
Thraupidae	
<i>Thraupis episcopus</i>	"vweet"
<i>Ramphocelus nigrogularis</i>	"chi" and "veet" calls
Icteridae	
<i>Icterus icterus croconotus</i>	"wha-wheeeeeeeeeee?"
Fringillidae	
<i>Saltator coerulescens</i>	"cheenk"

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