

THE STATUS OF FRANTZIUS' NIGHTINGALE THRUSH

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CONSIDERABLE variation in opinion has been expressed in the past half century regarding the status of Frantzius' Nightingale Thrush (*Catharus frantzii*). Ridgway (1907: 28-29) considered it a distinct species ranging from Panama north to the mountains of Guerrero in southwestern Mexico. Within this range three subspecies were recognized, as follows: *C. f. frantzii* occurring in the highlands of Costa Rica and Panama; *C. f. alticola* found in the highlands of Chiapas and Guatemala; *C. f. omiltemensis* known from the vicinity of Omilteme in the mountains of Guerrero.

In his key Ridgway distinguishes *Catharus frantzii* from the Russet Nightingale Thrush (*C. occidentalis*) by the color of the inner webs of the remiges near their bases. In the former species this area is whitish, whereas in the latter it is distinctly buffy. He further distinguishes *C. frantzii* by the decidedly grayish color of the breast as well as the intense orange-yellow color of the inside of the mouth. This brilliant mouth color is also a character given for *Catharus melpomene*, the Orange-billed Nightingale Thrush (= *C. aurantirostris* of recent authors, cf. Hellmayr, 1934: 470). Both *C. frantzii* and *C. occidentalis* are described as having the pileum deep russet with the back a distinctly paler olive brown, while in *C. melpomene* the top of the head and back are uniform in color.

Ridgway (*loc. cit.*) records *Catharus occidentalis* in Mexico north as far as the state of Chihuahua and south to the states of Veracruz and Oaxaca. A somewhat similar range is given for *C. melpomene*. All three species are recorded from Omilteme, Guerrero. Two additional species are listed from Mexico: these are *Catharus dryas* and *C. mexicanus*, but both have black on the pileum.

Hellmayr (1934) failed to recognize the specific distinction made by Ridgway between *Catharus occidentalis* and *C. frantzii*. He, therefore, relegated *C. f. frantzii* and *C. f. alticola* to the status of subspecies of *C. occidentalis* and synonymized *C. f. omiltemensis* with *C. o. fulvescens*. He also indicated that *Catharus aurantirostris* has priority over *C. melpomene* as the correct specific name for the Orange-billed Nightingale Thrush.

Griscom (1937) sharing Ridgway's opinion, pointed out the specific differences evident between *Catharus occidentalis* and *C. frantzii* even in the vicinity of Omilteme, Guerrero, where the two species converge with respect to many characters. He stressed the facts that *C. occidentalis* not only has the inner webs of the bases of the remiges buffy, in contrast to grayish-white in *C. frantzii*, but also that it has black on the terminal half of the mandible, as contrasted with yellow in *C. frantzii*.

In the Mexican Check-list (Miller *et al.*, 1957: 192–194) the classification given for these thrushes is essentially that proposed by Hellmayr (1934), in which *C. frantzii* is not recognized as a separate species. Phillips, however (1962: 362–363) again indicated a clear distinction between these species, based not only on a study of museum specimens, but also on personal observations made in the field. He again emphasized the principal characters stressed by both Ridgway (1907) and Griscom (1937) to distinguish *C. occidentalis* from *C. frantzii* and added several others.

In the nesting seasons of 1959, 1960, and 1961 nests and eggs of both *Catharus aurantiirostris* and *C. occidentalis* were collected in the vicinity of Cuernavaca in the state of Morelos, Mexico, by one of us, who later included data upon them in a report on the nesting birds of that region (Rowley, 1962). The eggs of *C. aurantiirostris* were pale blue, heavily marked with reddish and brownish streaks and spots. Those of *C. occidentalis*, however, were robin's-egg blue and unmarked.

The color of the eggs of *C. occidentalis* from Morelos did not assume any particular significance to us until Skutch (1960: 106) described the eggs of this species from Costa Rica and Guatemala as being "pale blue, pale grayish blue or greenish blue, mottled all over with brown, rufous-brown or cinnamon . . ." There were two possible explanations for these differences in color. Either *Catharus occidentalis* exhibited a most remarkable geographic variation in color, or else two species were involved. Since it was highly improbable that, within a single species of thrush, the color of the eggs would vary geographically from an unspotted deep robin's-egg blue in south-central Mexico to pale blue or blue-gray mottled all over with brown, rufous-brown, or cinnamon in Guatemala, we concluded that the eggs described by Skutch (1960) belonged to a species other than *C. occidentalis*. Since the species he referred to superficially resembled *C. occidentalis*, it appeared likely that the species really was *C. frantzii*. We carefully examined, therefore, specimens of the genus *Catharus* in the collection of the California Academy of Sciences from Guerrero, Mexico, where both Ridgway (1907) and Griscom (1937) had recorded *Catharus occidentalis* and *C. frantzii*. Of these, 40 specimens were easily divisible into two groups; 36 fitted the description of *C. occidentalis* in having the tip of the lower mandible black and the inner margin of the base of the remiges buffy. Furthermore, the breast was tinged with buffy and faintly spotted. The other 4 specimens lacked black on the tip of the lower mandible and had the inner web of the base of the remiges grayish white. The breast in these specimens was decidedly gray and essentially unspotted. They agreed perfectly with the description of *C. frantzii*. In addition 6 specimens of *C. aurantiirostris* from the same general locality were examined.



Figure 1. Nest and eggs of the Russet Nightingale Thrush (*Catharus occidentalis*), Rio Molino, Oaxaca, 29 April 1962.

To prove conclusively, however, that *C. occidentalis* and *C. frantzii* were specifically distinct, as had been contended by Ridgway (1907), Griscom (1937), and Phillips (1962)—and denied by Hellmayr (1934) and in the Mexican Check-list (Miller *et al.*, 1957)—it seemed necessary to collect in an area where the two presumptive species might nest sympatrically.

Accordingly, Rowley went to northern Oaxaca in July, 1961. On 5 July, 10 miles northeast of Cerro San Felipe at 9,000 feet elevation (about 2,800 m), a nest containing two slightly incubated eggs was found eight feet (2.4 m) up in a small tree. The eggs, however, were robin's-egg blue and unmarked, like those from Morelos. Four adults and two immature birds were collected in this region. The adults resembled specimens of *C. occidentalis* from Morelos as well as those from Guerrero in possessing black tips on the lower mandibles and having the inner webs of the remiges buffy at the bases. No further nests were found.

In April, 1962, Rowley again went to Oaxaca. This time, however, the area selected was the vicinity of Rio Molino in the Sierra Madre del Sur of southern Oaxaca at an elevation of about 7,300 feet (about 2,300 m). The rainfall here is high and the conifers and dense undergrowth are typical cloud forest. From 28 April to 5 May a systematic search was made for

nightingale thrushes and their nests, and the results are recorded here in detail.

On 28 April an adult female, resembling in every respect *C. occidentalis*, was taken. The mandible was flesh-colored basally and dull gray distally. The mouth was dull yellow with an ochre tinge on the tongue and palate. A line of lavender gray extended along the anteromedial side of the tarsus. On 29 April five nests were found. Two contained young about four days old, the rest each contained two unspotted eggs that were robin's-egg blue (Figure 1).

One nest, additionally, contained a single egg of the Bronzed Cowbird (*Tangavius aeneus*). Four of these nests were located on cut-banks behind the protective covering either of the needles of fallen pine branches or living weeds. Three were situated about eight feet (2.4 m) above ground level in the banks, while one was only up about 18 inches (46 cm). The fifth nest was in a clump of bunch grass on the ground.

On 4 May a nest of a nightingale thrush containing two fresh eggs that were pale blue, finely mottled all over with brownish cinnamon, was found five feet (1.5 m) up in a bush which was overgrown with bamboo grass. The female was taken and, as expected, exhibited all of the characters ascribed to *Catharus frantzii* including the bright orange color inside of the mouth, an entirely yellow lower mandible, and remiges that were grayish white on the inner web at the base. A male of similar description, believed to be the mate of this female, was secured when a second visit was made to the site on 27 May.

On 5 May an Orange-billed Nightingale Thrush (*Catharus aurantiirostris*) was found nesting within 300 m of situations in which *C. occidentalis* was found nesting on 29 April and *C. frantzii* on 4 May. A nest containing two eggs and the attending female were collected. The nest was made of moss and lined with fine rootlets and pine needles. The eggs were colored like those of this species collected in Morelos (Rowley, 1962), being pale bluish, heavily marked with reddish and brownish streaks and spots, particularly on the large end.

Having secured the nests, together with specimens, of three obviously distinct species of *Catharus* in one locality in southern Oaxaca, Rowley then made a short visit to San Cristobal de Las Casas in Chiapas. On 20 May in the high mountains four miles (6.4 km) northwest of this locality, he found another nest of *Catharus frantzii* (Figure 2). The two eggs, which were in an advanced state of incubation, were similar to those secured on 4 May in southern Oaxaca and were, further, like those described and illustrated by Skutch (1960, Figure 15) and Baeppler (1962), and thought by those authors to represent *C. occidentalis*. They measured 25 × 19 mm and 26 × 19 mm. The nest found by Rowley was in a wet fern clump



Figure 2. Nest and eggs of Franzius' Nightingale Thrush (*Catharus frantzii*), near San Cristobal de Las Casas, Chiapas, 20 May 1962.

about 18 inches above the ground. It was made of moss and lined with rootlets. The female was taken and in the course of the day three males were secured in this area. They all conformed with *C. frantzii* in the vivid orange color of the mouth, the yellow lower mandible and in the pale grayish white color of the base of the inner web of the remiges. As regards behavior, this species gave the general impression of being much less active and more shy than *C. occidentalis* of Oaxaca and Morelos. Its song was also different.

CONCLUSIONS

There appears to be no question that *Catharus occidentalis* and *Catharus frantzii* are distinct species. The former has been recorded north as far as Chihuahua and northern Sinaloa in the Sierra Madre Occidental of Mexico and south to the Sierra Madre del Sur close to the Isthmus of Tehuantepec. We have examined specimens of *C. occidentalis* from the states of Durango, Michoacan, Puebla, Morelos, Guerrero, and Oaxaca.

Catharus frantzii occurs in the mountains of western Mexico from Chiapas north to Jalisco; the latter record was reported by Phillips (1962) and was based upon six specimens in the collection of Ed N. Harrison

which we have examined. The species presumably extends south to Panama. We have definitely identified specimens of this species from Jalisco, Guerrero, Oaxaca, and Chiapas. In parts of Guerrero and southern Oaxaca, at least, *C. frantzii* occurs sympatrically with *C. occidentalis*.

We agree with Phillips (1962: 364) in the recognition of two races of *Catharus frantzii* in Mexico. These are *C. f. omiltemensis* Ridgway, occurring from Jalisco south to Oaxaca, and *C. f. alticola* Salvin and Godman, occurring in the mountains of Chiapas and also probably Guatemala. Specimens of *alticola* from Chiapas, as compared with those of *omiltemensis* from Jalisco, Guerrero, and Oaxaca, are definitely grayer ventrally with considerably less olive buff on the breast. Furthermore, they are not as deep russet brown on the top of the head and the back is more olivaceous as are the rectrices.

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SUMMARY

For many years the validity of Frantzius' Nightingale Thrush (*Catharus frantzii* Ridgway) as a full species distinct from the Russet Nightingale Thrush (*Catharus occidentalis* Sclater) has been questioned by some ornithologists. Specimens and sets of eggs believed to be those of *Catharus occidentalis* were collected in the State of Morelos, Mexico, in the summers of 1959 and 1960. The eggs were a deep robin's-egg blue, unspotted. Further collecting in 1961 in Oaxaca resulted in finding nesting nightingale thrushes of the same type secured in Morelos in 1959 and 1960. In 1962, however, in southern Oaxaca, *Catharus occidentalis* with robin's-egg blue eggs was found nesting within 300 meters of a bird whose description perfectly fits *C. frantzii* and which had pale blue eggs finely mottled with brownish cinnamon.

In the field, *Catharus frantzii* is readily separable from *C. occidentalis* by the totally yellow lower mandible as opposed to one with a dark tip, by the brilliant orange color, rather than yellow, of the inside of the mouth, by the grayish white rather than buffy tone of the bases of the inner webs of the remiges, and by the grayish and relatively unspotted, rather than buffy spotted breast.

A study of museum specimens indicated that the range of *Catharus occidentalis* extends from the northern end of the Sierra Madre Occidental south almost to the Isthmus of Tehuantepec, while *C. frantzi* ranges northward from Panama to the mountains of western Mexico in the state of Jalisco. Both species occur sympatrically at least in Guerrero and southern Oaxaca.

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