

back; females decidedly paler below and very much redder above. Compared with *Platypsaris aglaiae sumichrasti* of the lowlands of central Vera Cruz and southward, coloration of males very much paler throughout, and back gray instead of black; females paler throughout, and back more orange (less rufous) red and more or less washed with gray, with prominent collar of pale orange around hindneck. Size slightly larger, save for the bill, which is about equal in the two races.

*Range*.—Northeastern Mexico, from the coastal region of northern Vera Cruz (Rivera; Papantla) and Tamaulipas (Tampico; Soto de la Marina) west to the interior of Tamaulipas (Carrizal; Forlon; Alta Mira; Victoria; Hidalgo), and the States of Nuevo Leon (San Diego; Montemorelos; Monterey; Cerro de la Silla), San Luis Potosi (Valles), and Morelos (Puente de Ixtla).

*Remarks*.—There is not sufficient material to hazard comment at this time on the geographic variation in the rose-throated becards in central Mexico. What little has been examined, however, indicates a variable population which connects the east- and west-coast races in a most erratic manner.

It may be well to emphasize that *gravis* is not in any sense an intergrade between *aglaiae* and *sumichrasti*. It is the largest of the known races and also occupies the extreme northeastern section of the area occupied by the species. It obviously is a pallid variation of the large-billed group (*hypophaeus*, *yucatanensis*, *latirostris*, *sumichrasti*, *gravis*) with no close relationship with the small-billed, gray-backed (females) series consisting of *aglaiae*, *albiventris*, *insularis*, and *richmondi*.

In the matter of local and individual variation, *gravis* exhibits a normal range. Specimens from the coast of northern Vera Cruz are intermediate toward *sumichrasti* in variable degree. Some from Nuevo Leon are distinctly paler than the average, and the palest individual of all has even been called "*albiventris*" by Ridgway. I have examined this specimen and consider it to be an exceptionally pale *gravis*, with which race it agrees in large bill and general measurements.

#### EXTREME MEASUREMENTS OF MALES IN MILLIMETERS

	Wing	Tail	Culmen	Width at nostrils	Tarsus
22 <i>aglaiae</i> from Vera Cruz . . . . .	85-91	60-68	14.2-16.7	6.8- 8.3	18.5-20.2
57 <i>sumichrasti</i> from Vera Cruz, Tabasco, and Chiapas . . . . .	84-90	64-71	17.5-19.1	8.4-10.2	19.5-22.5
48 <i>gravis</i> from Vera Cruz, Tamaulipas, Nuevo Leon, and San Luis Potosi . . . . .	90-96	66-74	17.3-19.5	8.6-10.0	20.5-22.5

—A. J. VAN ROSSEM, *California Institute of Technology, Pasadena, California, September 14, 1938.*

**Color Changes in a Captive Cassin Purple Finch.**—In December, 1937, while collecting birds in the Providence Mountains of southeastern California, the writer obtained a live adult Cassin Purple Finch (*Carpodacus cassinii*) in typical red male plumage. The bird was returned to Berkeley, where it has been kept in a small cage. During the early months of its captivity, it was fed a diet of seeds only. Later, it was found that fruits of various kinds were taken readily, but that health was maintained without this addition.

In the summer of 1938, I was away from Berkeley and left the bird in the care of a friend, during which time it was fed only the seed mixture. Upon my return, the last week in July, many of the flight feathers of both wings and tail had been dropped. Again I left for a week, and the bird was not seen until the first week of August. At this time, it was discovered that the flight feathers of the wings that had been renewed were almost completely white, with but a margin of dark color on the tips. The feathers of the top of the head, throat, and breast had begun to drop, but had not grown in sufficiently to determine their color. The bird now was given a food mixture that is recommended for birds of the "soft-bill" type and that contains much animal matter. This was in addition to its seed ration. However, the flight feathers continued to come in white as before, and the contour feathers of the head and breast came in yellow. Some of the latter, notably those on the throat, had black edgings, a feature not seen in any wild-taken representative of the genus.

Pyracantha berries being available, they were now regularly presented, and the bird ate them readily. After several weeks, two more flight feathers grew in, this time with the ordinary dark gray color. Furthermore, the contour feathers that have grown since then have been red. The resultant plumage shows a curious mottling of red and yellow on the top of the head and on the breast.

In conclusion, the abnormal pigmentation seemingly was caused by an insufficiency in the diet, and was corrected by the feeding of red berries. It is well known that the related House Finch (*Carpodacus mexicanus*) changes color similarly, whatever the reason, but I can find no reference to such an anomaly in the species *cassinii*. In only one instance is there an indication of such variation in the specimens in the Museum of Vertebrate Zoology. An adult male collected in June, 1938, by J. T. Marshall, Jr., shows several yellow feathers on the throat. It may be assumed that yellow coloration is not common in nature, as it is in *C. mexicanus*, but that it may result from changed conditions attendant upon captivity.—DALE ARVEY, *Berkeley, California, September 14, 1938.*