

intermingling of angry caws from the Crows and the screams of the hawks was not an infrequent occurrence, actual determination of the object of the mobbing was not always attempted. In the spring of 1963, in Lyme, New Hampshire, these vocalizations came nearly every morning from a grove of hemlocks. When I finally worked my way under these trees on May 19, I found myself below twenty or more Crows, in association with a pair of Red-shouldered Hawks, mobbing a Great Horned Owl. The owl took three rather long flights. On each occasion it was followed by the retinue of hawks and Crows.

Mobbing has been defined by Hartley (Symp. Soc. Exp. Biol. No. 4, 1950:315) as "a demonstration made by a bird against a potential or supposed enemy belonging to another and more powerful species; it is initiated by the member of the weaker species, and is not a reaction to an attack upon the person, mate, nest, eggs or young." Observations given here suggest that Crows distinguish between two species of *Buteo* of similar size and do not regard *B. lineatus* as a potential enemy except when it is in the immediate vicinity of their nests. Data presented by the Craigheads (Hawks, Owls and Wildlife, Wildlife Mgt. Inst., 1956:399-400) indicate that *B. jamaicensis* preys on large-sized birds, including pheasants and Crows, whereas *B. lineatus* restricts itself to small and medium-sized birds. This difference between the two predators may explain why Crows distinguish between and react differently to them.

Crows and Red-shouldered Hawks are similar in their antagonism to large owls. It seemed in several of the incidents mentioned here that the Crows initiated the mobbing and that Red-shouldered Hawks were attracted in what Altman (Condor, 58, 1956:241-253) has called a "secondary reaction" through "contagion." I never saw any smaller species participate in these mobbings, although Blue Jays (*Cyanocitta cristata*) were observed mobbing Barred Owls on two occasions in Seneca Swamp.—LAWRENCE KILHAM, *Lyme, New Hampshire, October 6, 1963.*

Ruffed Grouse Nesting in Utah.—Although the Ruffed Grouse (*Bonasa umbellus incana*) is a native bird to northern Utah, there are no known records of nests. On June 18, 1963, a nest of a Ruffed Grouse containing four eggs was found in the Wellsville Mountains, 15 miles south of Logan. The nest was located in a small, cup-shaped depression of leaves beneath a deformed aspen sapling at 6000 feet elevation. The female jumped off the nest as I approached within four feet and moved out about 10 yards where she kept hissing and whining while acting as though she had a broken wing.

The next day when I returned at 7:00 a.m. the female hopped off the nest, exposing four downy chicks in the depression. One chick was still wet and had part of the shell attached to it. The female again acted as though she had a broken wing until I left the area.

Because of the small clutch size and late hatching date this nest may have been a second nest of the season.—ROBERT L. PHILLIPS, *Utah Cooperative Wildlife Research Unit, Utah State University, Logan, Utah, August 31, 1963.*

A Peruvian Race of *Spinus crassirostris*.—The Thick-billed Siskin, *Spinus crassirostris*, is a high Andean species that until recently was known only from Argentina and central Chile (Hellmayr, Field Mus. Nat. Hist., Zool. Ser., pt. 11, 1938:277-278) and southern Bolivia (Bond and de Schauensee, Proc. Acad. Nat. Sci. Phila., 94, 1942:385). The first recorded Peruvian specimens were three collected in December, 1960, at Checayani near Azangaro, Department of Puno, by Dorst (Bull. Mus. Natl. D'Hist. Nat., Paris, 34, 1962:433); this locality lies about 600 kilometers northwest of the known northern and easternmost distributional limits of the species in Bolivia (departments of Potosí and Cochabamba) and about 2000 kilometers north of the northernmost limit of its known range in Chile. In Perú in 1962-63, I secured nine specimens, one of which, an adult male, was taken on October 19, 1962, above Lampa, a locality very near Checayani. The others, consisting of five adult males (one was prepared in spirits) and three adult females, were taken on January 6 and March 29-30, 1963, at a point some 200 kilometers southwest of Checayani along the Tarata-to-Chilliculco section of the Tacna-Puno road at an altitude of approximately 12,000 feet, Department of Tacna.

I have had only limited comparative material at my disposal, as given beyond. Nevertheless it is evident that the Peruvian birds represent an undescribed and extremely distinctive race. Those taken by Dorst I have not seen but they surely belong to this subspecies, which is named in honor of Dr. Dean Amadon, Lamont Curator of Birds and Chairman of the Department of Ornithology of the American Museum of Natural History.

Spinus crassirostris amadoni new subspecies

Type.—Am. Mus. Nat. Hist. no. 789486, adult ♂; taken about 20 kilometers northeast of Tarata (via Tacna-Puno road), 12,000 feet elevation, Departamento de Tacna, southern Perú. Collected March 28, 1963, by William G. George.

Description.—Generally similar to *S. c. crassirostris* but with duller coloration, exhibiting much dilution of the yellow pigmentation of the breast, upper abdomen, flanks, sides of throat, wing bars, back, rump and undertail coverts, as well as almost total disappearance of yellow pigmentation in the tail; head less glossy black; bill somewhat smaller and less swollen, tending to have a more orthodox finch shape; apparently heavier-bodied, with slightly longer wing.

Measurements (in millimeters).—Wing (chord), 83; tail, 53.

Additional data.—Total length before skinning (tip of bill to end of tail) 145 mm.; soft part colors (as registered in the field): iris brown, feet and tarsi black, upper mandible black, lower mandible horn brown; testes: left, 6 × 6 mm., right, 5 × 4 mm. Total weight, 19 gm.

Range.—*Polylepis* brushland in high mountains of southern Perú (12,000 to 14,000 feet elevation), from the western Andean slope above Tarata, Department of Tacna, northeastward to Lampa and Checayani, Department of Puno. Probably occurs in suitable habitats of northern Chile and throughout southeastern Perú, ranging possibly into western Bolivia.

Remarks.—The lone male from Lampa more nearly resembles the males of the nominate race than do any of the specimens from Tacna; the brown and olive tones of its back feathers quite match those of nominate *crassirostris* from Bolivia while the feathers of its throat and head are glossy not dull black; and its yellow parts are relatively bright. Moreover it has a small patch of pale yellow at the base of the rectrices, concealed behind pale yellow undertail coverts that show dusky streaks. In *crassirostris* the yellow tail patch is bright and large, extending well beyond the undertail coverts, which are themselves brilliant yellow. In three of the four males from Tacna no yellow tail patch is present except as a vanishing trace, and the undertail coverts are whitish and dusky-streaked, showing little yellow. The bird from Lampa is thus an intermediate, although clearly assignable to *amadoni*.

Regrettably a lack of fresh material prohibits descriptive elaboration here of the racial differences of the adult female; they may well prove to be very striking. The material on hand does reveal, however, that the female of *amadoni* from Tacna lacks the yellow tail patch of nominate *crassirostris*, is of relatively greater size, is much grayer (less brown) on the back, and has, unlike *crassirostris*, dusky streaks on the undertail coverts.

TABLE 1
COMPARISON OF THE RACES *Spinus c. crassirostris* AND *S. c. amadoni*

	Specimens with large tail patch	Specimens with small tail patch	Specimens with no tail patch	Color of undertail coverts	Length of tail (mm.)	Length of wing (mm.)
<i>crassirostris</i> ♂	11			Brilliant yellow	48-52 (50.7)*	76-80 (78.27)*
<i>amadoni</i> ♂		2	3	Mainly white, with pale yellow suffusion and some dusky streaks	49-52 (50.6)	79-83 (80.8)
<i>crassirostris</i> ♀	7			Whitish in adults and subadults; pale yellowish in immatures	46-51 (48.3)	74-82 (77.1)
<i>amadoni</i> ♀			3	White, streaked with dusky in adults (no subadults or immatures available)	52-54 (52.7)	81-82 (81.3)

* Figures in parentheses are averages.

All the specimens collected at Tarata, males as well as females, are in worn plumage, as is the bird from Checayani; indeed the same is true of all the specimens I have examined except an immature male from Argentina collected in late February and an adult male from Bolivia collected in late November. Their plumage seems at least comparatively fresh.

Ecology and behavior.—On the high Andean slopes, and along ridges that here and there rise out of the puno grass plains of southern Perú, occur tracts of bushy *Polylepis*, small trees with dull reddish scaly bark. The tracts may extend a few miles or a mere few hundred yards and generally the trees are widely spaced. Most of the birds which occupy them, such as *Asthenes dorbignyi*, *Phrygilus plebejus*, *P. fruticeti* and *Spinus magellanicus* also frequent other habitats, but *Spinus crassirostris* seems to be confined to *Polylepis* and especially to the unprospering patches that contain few trees over 12 feet in height. When the trees are taller and more luxurious, forming a true woodland (as at Nunoa, Department of Puno), *Spinus atratus* seems to replace *crassirostris*.

The birds went about in pairs at the Tarata location in late March. One of the collected females possessed large ovarian follicles and appeared to possess a trace of a brood patch. With one exception, the collected males had testes averaging about 5 mm. or more in diameter. Since only adult birds in worn plumage were present, it would seem that the breeding season was at least approaching, if not already at hand, although no sign of territoriality or of nest building, and not a single breeding display, was noted. The birds spent their time feeding on the buds of *Polylepis*, sometimes hanging upside down in the leaves while nibbling at the food. They remained silent until routed out. Flying away, they sounded a coarse and threatening *chler-ee*.

Specimens examined.—BOLIVIA: Vacas, 1 ad. ♂ (Carnegie Mus.); Oploca, 4 ad. ♂, 4 im. ♂, 3 subad. ♀, 2 im. ♀ (Phil. Acad. Sci.). ARGENTINA: Puente del Inca, 2 ad. ♂, 1 im. sex ? (Amer. Mus. Nat. Hist.). CHILE: Cordillera de Aconcagua, 1 ad. ♂, 2 ad. ♀ (L. A. County Mus.). PERÚ: Lampa, 1 ad. ♂; Tarata, 4 ad. ♂, 3 ad. ♀ (Amer. Mus. Nat. Hist.). It should be noted here that the specimens from Vacas, collected by Steinback on November 27, 1921, predates all published Bolivian records of the species.

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Distribution and Status of the Wied Crested Flycatcher in the Lower Colorado River Valley.—The Wied Crested Flycatcher (*Myiarchus tyrannulus magister*), sometimes referred to as the Arizona or Lesser Crested Flycatcher, was first reported from the lower Colorado River Valley by Dickey (Condor, 24, 1922:134). He recorded two male specimens which had been taken by Mrs. May Canfield in a willow-cottonwood association near Bard, Imperial County, California, on May 17, 1921. These birds were assumed to have been migrants. Two other early specimens of *M. t. magister* have been found recently in the Laurence M. Huey collection, where they had been mislabeled as the Ash-throated Flycatcher (*Myiarchus cinerascens*). Both specimens were collected by Mrs. Canfield. A male taken two miles north of Bard on May 7, 1924, is marked "breeding," but the criterion for this determination is not indicated. The other bird, also a male, was taken one mile north of Potholes (approximately four miles northeast of Bard), Imperial County, California, on May 12, 1924.

Monson (Condor, 51, 1949:262-265) reported this species in the Colorado River Valley of Arizona. Birds were seen approximately two miles south of Parker, Yuma County, on July 28, 1946, and May 19, 1947; a specimen was obtained there on August 11, 1946. Another specimen was secured in the delta of the Bill Williams River (near the Mohave-Yuma county line) on July 23, 1948. Four birds were seen, and one collected, in willow woodland on the Havasu Lake Refuge near Topock, Mohave County, on May 23, 1951 (Aud. Field Notes, 5, 1951:270).

Pulich (Condor, 54, 1952:169-170) saw and collected the Wied Crested Flycatcher in extreme southern Clark County, Nevada, opposite Fort Mohave, Arizona, on July 19, 1951. The male taken at this time was an adult "with gonads fully developed." A second male was taken nearby on August 18, 1951, and the species was again seen on September 17, 1951.