by each species also varied considerably with road type and distance from the road (Fig. 1). (Two large, migrating flocks of red-wings found in the 400–500 m distance range were not included in Fig. 1.) The increased abundance of red-wings near interstate highways was associated with the wide right-of-way which included 10–15 m of bluegrass (*Poa pratensis*), often with shrubs or small trees.

In central Illinois, as in much of the midwest, most privately owned land is intensely cultivated. Nesting success of red-wings is partially determined by the availability of sturdy nest support sites early in the year (Orians, Ecol. Monogr. 31:285–312, 1961; Goddard and Board, Wilson Bull. 79:283–289, 1967), and although row crops probably are excellent feeding grounds for blackbirds, they certainly do not provide suitable nest supports until late in the year. The existence of right-of-way zones with extensive grass habitat and scattered shrubs should enhance nesting success and increase population density of red-wings. Water did not seem to be a factor, as our roadside transects did not include areas of water, even adjacent to interstates. Observed variation in density is consistent with this expectation. Uncultivated land adjacent to county roads is often no more than 2–3 m wide and is less likely to provide suitable nest supports, and populations of red-wings along county roads were much lower than along interstate highways.

The Horned Lark nests on bare ground, and cultivation of land formerly heavily vegetated has allowed this species to increase in numbers (Graber and Graber, Bull. Ill. Nat. Hist. Surv. 28(3):477–478, 504, 1963). Horned Larks seem to be most common in large expanses of open ground well away from other habitat types. This may account for low densities of Horned Larks in plots adjacent to highways. Alternatively, highway noise may affect them, perhaps by interfering with vocal communications. Our data do not allow testing of these hypotheses.

Data presented here demonstrate that highways affect abundance of bird species and that the effect varies with species, highway type, season, and distance from the highway. Future construction programs for highways should consider effects on wildlife, both in the immediate highway right-of-way and in areas at least up to 500 m from the right-of-way.

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Observations on Plush-capped Finches in the Andes with a description of the juvenal and immature plumages.—The Plush-capped Finch (*Catamblyrhynchus diadema*) remains today poorly known and of uncertain taxonomic status despite a relatively wide geographical range in the Andean highlands from Venezuela to Bolivia. The only published statements known to us regarding the behavior of this species are in Van Tyne and Berger (Fundamentals of Ornithology, John Wiley and Sons, 1976) from Jelski (*in* Taczanowski, Ornithologie du Pérou, Rennes, France, 3:25, 1886): "They are met with in isolated pairs or mingled with flocks of other birds," and Goodfellow (Ibis, 8th series, 1:473, 1901): "We found them [3 ♂ ♂] singly in the higher trees," and a brief account by Schafer and Phelps (Boletín de la Soc. Venez. de

Cienc. Nat. 84:158, 1954). Mention of Plush-capped Finches in more recent works largely recounts statements made by the above authors. In view of the lack of information about this species and its current position in a monotypic family, the following observations by Hilty in Venezuela and Colombia (1972–1977), Silliman in Colombia (1971–1972), and Parker in Perú (1974–1977) are of interest. The observations reported here were incidental to other work and our total observation time varied from less than 1 min to more than 15 min each time we observed Plush-capped Finches. Each of us has encountered Plush-capped Finches many times during our work in the Andes.

We found Plush-capped Finches in Colombia from 2600 m in humid subtropical forest with bamboo (*Chusquea* spp.) in the Western Andes on Cerro Munchique, Dept. of Cauca, to 3300 m at treeline in the Central Andes in Parque Nacional de Puracé, Dept. of Cauca. In the Santa Marta Mountains T. B. Johnson (pers. comm.) found them at 2200 m and 2775 m on the Cuchillo de San Lorenzo. In Perú the species is common in the bamboo (*Chusquea* sp.) understory of humid temperate forest from 2400 m to treeline at 2900–3050 m on the west slope of the Western Cordillera in the Dept. of Pirua above Canchaque, in the Carpish Mountains in the Dept. of Huánuco, and in the Dept. of Cuzco above the Urubamba drainage. In Venezuela Plush-capped Finches may occur somewhat lower in the coastal range where they have been observed at 1700–1800 m in Parque Nacional El Avila, outside Caracas (C. Parrish, pers. comm.) and at 1900–2000 m 30 km west of Caracas.

At all the above locations Plush-capped Finches appear to be resident in humid or brushy edge habitats where the bamboo (*Chusquea* spp.) grows. Their fondness for bamboo was noted by Schafer and Phelps (op. cit.). They appear to be bamboo specialists but are not wholly restricted to bamboo when foraging. We have also observed them foraging in tall grass, shrubby edges along roadsides, and once on bare ground at the edge of a road in Colombia (Hilty). Generally bamboo provides the preferred foraging site and the species is rarely far from it.

Plush-capped Finches forage on bamboo stalks by clinging upright, vertically, or upside down, adopting these chickadee (*Parus*)-like postures with versatility. They press their short swollen bill directly into the axiles of dense leaf whorls at each node, sometimes tugging vigorously, or running the bill along the bamboo stems with a series of tiny biting motions. With a short hop or sidling motion they progress quickly along a bamboo stalk out to the arching tips. Bamboo foliage, ferns, and other temperate vegetation are also searched by fluttering and flitting in restless fashion during which they apparently take small insect prey from leaf surfaces.

Silliman found that the stomach of a bird collected in Parque Nacional de Puracé, Colombia (G. Hubbard, No. 82, INDERENA, Popayán) contained small bits of bamboo leaf. A bird from the Dept. of Huánaco (D. Tallman, LSU 74752) also contained "vegetable matter" in the stomach and a bird taken at the San Lorenzo Experimental Station, Santa Marta (S. M. Russell and T. B. Johnson, UA 11161) had insect remains in the stomach.

Two points regarding the foraging technique are worth mentioning. First, the habit of probing into a tight clump of stems, leaves, or tight rosette of leaves is sometimes employed by other highland species, e.g., Streaked Tuftedcheek (*Pseudocolaptes boissonneautii*), which specializes in foraging at bromeliads, and Blue-backed Conebills (*Conirostrum sitticolor*), which may combine probing and gleaning movements in dense temperate shrubbery. These species and others are often flock associates of Plush-capped Finches but none appear to be bamboo specialists. The small tightly compressed leaves of many temperate zone shrubs in the tropics seem to encourage the use of

probing motions when foraging, a technique less often employed by lowland birds that encounter larger leaves and less dense foliage.

Second, we speculate that the short, dense and plush-like (hence common name) feathers of the forecrown are less susceptile to feather wear than lax crown plumage. This may be adaptive for a species specializing in pressing its head into tight, partially woody and sometimes prickly leaf whorls of bamboo. Additionally, the plushy feathers might be effective in resisting soaking moisture from the dense leaf whorls that are almost constantly dripping wet from rain and fog at these elevations.

In contrast to Goodfellow (op. cit.), we found Plush-capped Finches foraging principally between 1 and 4 m above ground and less frequently from ground to 6 m. Usually in pairs, they are rarely seen away from mixed feeding flocks (1 time in 22 observations in Venezuela and Colombia by Hilty; very rarely in Perú). This may reflect both the tenacity with which so many temperate Andean species faithfully remain with mixed parties and their inconspicuousness when alone.

Foraging Plush-capped Finches utter soft high-pitched chipping notes not unlike those of the numerous finches and tanagers which they follow as flock associates. In Perú songs consisted of a monotone of not very musical chipping and twittering notes uttered in a series and lasting 15 sec to nearly 1 min. In quality and arrangement such songs are reminiscent of those of several *Hemispingus* tanagers. Common flocking associates of Plush-capped Finches in the Andes include: Agile Tit-tyrant (*Uromyias agilis*) in Colombia; Unstreaked Tit-tyrant (*U. agraphia*) in Perú; a wren (*Cinnycerthia*), Golden-fronted Redstart (*Myioborus ornatus*) in Colombia, Yellow-crowned Redstart (*M. flavivertex*) in Colombia's Santa Marta Mountains; Spectacled Redstart (*M. melanocephalus*) in Perú; Citrine Warbler (*Basileuterus luteoviridis*), Blue-backed Conebill (*Conirostrum sitticolor*), Golden-crowned Tanager (*Iridosornis rufivertex*) in Colombia; Yellow-scarfed Tanager (*I. reinhardti*) in Perú; Lacrimose Mountain-Tanager (*Anisognathus lacrymosus*), Black-capped Hemispingus (*Hemispingus atropileus*), Oleaginous Hemispingus (*H. frontalis*), and Gray-capped Hemispingus (*H. reyi*) in Venezuela; and several brush-finches (*Atlapetes* spp.).

The nesting biology of Plush-capped Finches has not been described but a juvenile was noted accompanying and being fed by 2 adults about 30 km west of Caracas, Venezuela, on 21 December 1976. Schafer and Phelps (op. cit.) mention May as the breeding season in Rancho Grande 40 km westward. For 15 Plush-capped Finches (*C. d. citrinifrons*) $\bar{x} = 14.3 \pm 1.7$ g.

Because the juvenal and immature plumages of Plush-capped Finches have not been described we present the following description from a series of specimens in the LSU Museum of Zoology (colors follow Ridgway, Color Standards and Color Nomenclature, Washington D.C., 1912). Immature: upperparts brownish-olive, including crown, nape, mantle, back, and rump, wings dusky narrowly edged brownish-olive, tail dusky and broadly edged brownish-olive, underside of tail brownish-olive, paler than adults, underparts light brownish-olive heavily washed with ochraceous-tawny. Some immature specimens approaching adult plumage show varying amounts of yellow on basal portion of feathers of forehead and forecrown and flecks of chestnut or orange-rufous on underparts. Iris brown to dark brown, legs gray-brown to blue-gray, bill brown to pinkish-gray (soft part colors from specimen labels). Juvenal: like immature but forehead gray and underparts plain brownish-olive with no ochraceous-tawny wash.

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kindly allowed us to examine specimens in their care. John P. O'Neill and Lester L. Short reviewed the manuscript and suggested several useful improvements. Support and travel during these observations came from a Univ. of Arizona-Peace Corps Graduate Research Program and Bird Bonanzas Inc., (Hilty), the LSU Museum of Zoology (Parker), and the Peace Corps (Silliman).—STEVEN L. HILTY, *Dept. of Ecology and Evolutionary Biology, Univ. of Arizona, Tucson, AZ 85721;* THEODORE A. PARKER III, *Museum of Zoology, Louisiana State Univ., Baton Rouge, LA 70893; and* JAMES SILLIMAN, *Dept. of Ecology and Evolutionary Biology, Univ. of Arizona, Tucson, AZ 85721.* *Accepted 8 Dec. 1977.*

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An observation of stick presentation by the Swallow-tailed Kite.—On 26 January 1977, while conducting field research in Saül, French Guiana, we observed a Swallow-tailed Kite (*Elanoides forficatus*) circling over the forest holding a long, narrow stick in its bill. The flight was maintained for several minutes, whereupon the individual, bird *A*, landed about 2 m from another kite, bird *B*, at the top of a 30 m dead tree. Keeping its head lowered, body flattened, and wings extended, *A* approached *B* along a horizontal branch. This was followed by both up and down and side to side movements of *A* during presentation of the stick to *B*. After about 30 sec posturing, *A* dropped the stick and flew off. The other bird remained impassive throughout the performance; preening after *A* had left. We observed *Elanoides* carrying sticks in their bills and noted chases and agonistic encounters numerous times in the ensuing weeks. Instances of males feeding females have been documented for the Swallow-tailed Kite during both nest-building and incubation (Snyder, Living Bird 13:73–97, 1974). In such instances, the male usually approached the perched female.

A nesting date in mid-March has been given for Swallow-tailed Kites in Surinam (Haverschmidt, The Birds of Surinam, Oliver and Boyd, Edinburgh, 1968). As kites in Saül were still in flocks of up to 10 individuals in late January, we interpreted our observations as ritualized nest-building, serving in the formation rather than intensification of the pair bond.

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Record of Puerto Rican Screech Owl, Turkey Vulture and Osprey from St. Croix, U.S. Virgin Islands.—The continued existence of the Puerto Rican Screech Owl (*Otus nudipes*) on St. Croix has been in question for some time although there have been reports of its calls (Leck, Condor 77:107, 1975). While attempting to capture deer at night on 21 January 1971 I observed a Puerto Rican Screech Owl on the ground in open pasture. It allowed approach within 10 m and was illuminated by a 100,000