

be measured to detect differences of 5% in shell thickness (Klaas et al., *Wilson Bull.* 86:156-164, 1974). Klaas et al. (op. cit.) calculated a thickness index of 0.515 for shrike eggs collected in Florida (N = 73 clutches) prior to 1943, which was nearly identical to indices calculated in this study.

The diet of shrikes is usually less than 30% vertebrates (Miller, *Univ. Calif. Publ. Zool.* 38:11-242, 1931). Pesticide accumulation may have been insufficient to cause eggshell thinning in shrikes. However, pesticides can cause reproductive failures even in the absence of shell thinning (Fox, *Wilson Bull.* 88:459-477, 1976). Although stable in the western United States, shrike populations are declining over much of the remainder of their range (Arbib, *Am. Birds* 31:1087-1097, 1977). Studies on the effects of low dietary pesticide levels on the viability of shrike eggs would be useful.

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First sight records of Lincoln's Sparrow for Costa Rica.—Lincoln's Sparrow (*Melospiza lincolnii*) has been recorded south to El Salvador and Honduras; there are also 2 records (including a specimen) for Panamá (A.O.U., Check-list of North American Birds, Baltimore, 1957; Ridgely, Guide to the Birds of Panama, Princeton, 1976). Therefore, Costa Rica and Nicaragua constitute a hiatus in the species' known winter range. While studying North American migrants at Monteverde on the Pacific slope of the Cordillera de Tilarán, northwestern Costa Rica (10° 18' N, 84° 49' W) during the winter of 1976-77, I observed a single Lincoln's Sparrow on 3 occasions. On 9 January, I "spished up" a bird from dense tall grass on a hillside. On 17 February, Thomas Kemp, Marcie Lawton and I saw another (?) bird fly up from dense grass into a low shrub on a steep hillside. Spishing also brought this bird into clear view several times. Finally, on 20 February I saw a Lincoln's Sparrow at close range in short dense grasses and malvaceous forbs along a roadside. All these locations are less than 1 km apart and between 1390 and 1440 m elevation near the center of the Monteverde community, so it is possible that all 3 observations represented a single individual.

Each time the bird was observed in full sunlight through 8× binoculars. In both markings and actions, the birds were typical of the many Lincoln's Sparrows I have seen in North America except the buffy breast band was not evident (Lincoln's Sparrows occasionally lack this feature). The only other sparrow-like finch at Monteverde is the resident Rufous-collared Sparrow (*Zonotrichia capensis*), of which I saw many each day. Immature *Z. capensis* bear a superficial resemblance to *Melospiza* sparrows. During January-February very few *Z. capensis* were in the immature plumage; I saw only 2 such birds during my stay. Both were easily recognizable by their uneven upper breast streaking (heaviest on the sides of the neck), noticeably white throat, no eyering or malar stripe, the beginnings of a rufous nape patch, noticeably notched tail, and more stocky shape than *Melospiza lincolnii*. Rufous-collared Sparrows rarely used the overgrown habitats where Lincoln's Sparrows were found; rather, they preferred the vicinity of fencerows or clumps of small trees in open, close-cropped pastures.

I suspect that a search of abandoned fields and pastures in the Costa Rican highlands will yield additional sight records of Lincoln's Sparrow and a first Costa Rican specimen. Unfortunately, it was not possible to capture or photograph these birds. I thank F. Gary Stiles and Eugene Eisenmann for commenting on this manuscript. I also gratefully acknowledge the support of National Science Foundation grant #DEB76-10787.—ELLIOT J. TRAMER, *Department of Biology, The University of Toledo, Toledo, Ohio 43606. Accepted 4 Sept. 1978.*

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An incident of Blue Jay predation on a House Sparrow.—Few instances of Blue Jay (*Cyanocitta cristata*) predation on other, mature birds have been documented. Johnson and Johnson (*Wilson Bull.* 88:509, 1976) reported Blue Jay predation on a mature Yellow-rumped Warbler (*Dendroica coronata*) in a residential section of Temple, Texas. Bent (*U.S. Natl. Mus. Bull.* 191, 1946) states that in addition to robbing nests of both eggs and young, the Blue Jay undoubtedly kills adult birds on occasion.

On 21 August 1977, I observed an attack by a Blue Jay on an adult, female House Sparrow (*Passer domesticus*) at Muhlenberg College in a residential area of Allentown, Pennsylvania. The sparrow was dust bathing in a parking lot while being watched by the jay perched less than 25 m away in a spruce tree. The jay dived and pounced on the sparrow and immediately began pecking it violently about the neck. A few seconds later the jay flew back to its perch leaving the stunned sparrow lying in the parking lot. Again the jay dived and pounced on the sparrow's back decapitating the bird with a few more pecks on the neck. The jay grabbed the sparrow's body in its claws and flew to the spruce where it began to feed. In a short while the sparrow's body was dropped to the ground and the jay flew out of sight. Inspection of the sparrow's body revealed that the jay had fed on the breast region after having plucked the feathers from the area.

Prior to the attack, both birds appeared normal and healthy. Observation of the sparrow revealed no conspicuous physical defects (such as difficulty in walking or flying) that might have attracted the Blue Jay's attention. Climatic and food stresses were probably not factors to be considered at this time of year. Perhaps dust bathing and its attendant postures and movements could have given an air of vulnerability to the sparrow.—TERRY L. MASTER, *Dept. of Biology, East Stroudsburg State College, East Stroudsburg, Pennsylvania 18301. Accepted 16 Nov. 1978.*

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Long-winged Harrier predation on Wattled Jacana eggs.—Long-winged Harriers (*Circus buffoni*) prey on small birds, mammals, and reptiles (French, *A Guide to the Birds of Trinidad and Tobago*, 1973:113). Although they take eggs of various species of birds (Haverschmidt, *The Birds of Surinam* 1968:67), no records are available on the efficiencies and rates of egg predation. This note documents harrier predation on 3 nests of color-marked Wattled Jacanas (*Jacana jacana*) in coastal Guyana. The region consists of extensive rice fields crossed by dikes and canals. Observations were made with a 20× spotting scope from a 3 m-high house porch.