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FIRST NEST RECORD OF THE WHITE-WINGED CROSSBILL IN HISPANIOLA

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Although the resident West Indian race of the holarctic White-winged Crossbill (*Loxia leucoptera megaplaga*) was discovered in 1916 (Wetmore and Swales, U.S. Natl. Mus. Bull. 155:440, 1931), very little is known about the bird. It is restricted to discontinuous areas of mountain pine forest (*Pinus occidentalis*) at high elevations in the Dominican Re-

public and southern Haiti, and is possibly nomadic, moving in small flocks between localized patches of food (Wetmore and Swales 1931). The breeding season has remained unknown and no nest has been described, although Bond (Birds of the West Indies, p. 228, Collins, London, 1971) has speculated that it breeds in "midwinter" and "doubtless nests high in the pines."

On 2 April 1971, while we were camping in southwestern Dominican Republic above El Aguacate in the Sierra de Baoruco (the eastern extension of the Massif de la Selle, the only known crossbill location in Haiti), one of us (A. D.) was attracted to a chattering pair of crossbills carrying small twigs in their bills to a nest they were constructing. The habitat was open *Pinus occidentalis* forest, at 1475 m elevation. The forest canopy was approximately 20 m high, with a 0-3-m understory of bracken fern (*Pteridium aquilinum*), herbs, and pine-duff (fig. 1). The pines merged into denser moist limestone forest at slightly higher elevation, and only smaller trees remained, as the area had been recently logged.

The nest, probably in its first or second day of construction, was situated approximately 15 m high in a 20-m pine, and was about 3 m from the trunk in an area where branches and clusters of pine needles partly obscured it. It was placed squarely on a main horizontal branch about 5-6 cm in diameter, and additionally supported by a projecting cross-branch. On 2 April it was merely a flimsy open platform of loosely woven pine twigs, foliose lichens, and the fruticose Old Man's Beard lichen (*Usnea* sp.). During the first day's observations (2 April), the pair gathered primarily large twigs, spending much of their time weaving these into a solid framework, into which lichens and smaller twigs were interwoven. In the three days we remained in the area, the pair transformed their nest from an amorphous mass of twigs, through which we could see (using binoculars), to a reasonably compact, opaque, cup-shaped structure. More lichens, fluffy grass tufts, and pine needles were added last, serving both to bind and line the nest. It was difficult to judge the nest's diameter because of its distance and position, but it was approximately equal to the length of nearby pine needles, roughly 15-19 cm.

While searching for nesting materials, members of the pair remained in close proximity, although the female undertook the greater share of the work, while the male often fed actively. In a half-hour period, the female visited the nest five times, the male once. They gathered material primarily from adjacent pine trees at heights from 7 to 10 m, occasionally descending to the ground to inspect seeding grasses. In a highly selective manner, the female inspected dead twigs and pine needles resting in the crotches of branches, as well as living twigs and epiphytic lichens. With slightly opened bill placed around the basal portion of a twig, she twisted her head jerkily to sever fresh material, usually 8-12 cm long and approximately 5 mm in diameter. Many nest components, even after selection, were discarded; once we observed the male work several twigs and lichens



FIGURE 1. Nesting habitat and nest site (arrow) of the White-winged Crossbill (*Loxia leucoptera megaplaga*) in Hispaniola.

into the nest, all of which were subsequently tossed out by the female.

Northern White-winged Crossbills (*Loxia l. leucoptera*) construct deep, saucer-shaped nests from locally available lichens, coniferous twigs, bark, moss, lichens (including *Usnea*), hair, and mammal fur, either low to the ground or high in pine trees, up to 23 m (Bent, U.S. Natl. Mus. Bull. 237:527, 1968). The Hispaniolan nest appeared to differ little, if at all, from descriptions of the size and shape of nests of the North American race.

Aside from Bond's speculations, the only previous information available on the breeding season of *Loxia leucoptera megaplaga* was descriptions of specimens collected by R. H. Beck and J. Bond. All 11 adults collected by Beck from 23 February to 19 March 1917 that we have examined (AMNH, BM) had labels indicating that the specimens had large or swelling gonads (six males, five females). Bond (pers. comm.) collected two adult males and one adult female in Haiti on 7 and 8 June 1930, and all had minute gonads. Of 15 immatures collected by Beck from 23 February to 19 March 1917, one had a tail only partly grown, and was presumably only a few days out of the nest (5 March); one female had a bill only half the adult size (10 March); and

11 had primaries shorter than adult length (Wetmore and Swales 1931). On the basis of these skins, it is reasonable to conclude that many birds do breed in mid-winter, with young fledging in late February or early March. However, the adults collected in February and March all showed enlarged gonads, suggesting that breeding continues into early spring, which is confirmed by the present observations. The incubation and fledging period in *L. leucoptera* is unknown (Bent 1968; Newton, Finches, p. 81, Collins, London, 1972), but if it is 29–41 days, as it is in *L. curvirostra* and *L. pytyopsittacus* (Newton 1972, p. 76–80), then the breeding season may extend from at least January to May, with Bond's three specimens in June suggesting that breeding later in the year is less likely.

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ROSE-THROATED BECARD IN JEFF DAVIS COUNTY, TEXAS

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On 11 June 1973 about 15 miles S of Ft. Davis, in Jeff Davis County, Texas, my attention was attracted to an unusual bird call. Upon investigation, a male Rose-throated Becard (*Platypsaris aglaiae*) was found in a Grave's Oak (*Quercus gravesii*). An attempt at collecting this bird failed.

This record is the first from West Texas. The A.O.U. check-list of North American Birds (Fifth ed., 1957) does not list the Rose-throated Becard as occurring in this area. The only documented records of this bird are from southern Arizona and the lower Rio Grande valley of Texas. Wauer (Birds of the Big Bend National Park and vicinity, Univ. Texas Press, 1973:207) mentioned a possible sighting of three males and two females in a flock at the

Santa Elena Canyon picnic site on 24 September 1965 by Richard B. Starr.

On 18 July 1973 in the same area as above, I collected a male Rose-throated Becard. The skull was completely ossified and the remiges showed much wear. Measurements of the specimen (DMNH #6231) were: length 172mm, wing 92.5, tail 67.2, exposed culmen 15.0, width at nostrils 8.5, tarsus 21.2. The weight was 33 g with very little fat. The testes measured 9.5×4.5 . I believe that this was the same bird that I had located in June. Both sightings of the becards were in Grave's Oaks (about 35 ft tall), along a precipitous igneous canyon at an altitude of 5400 ft.

The stomach of the bird contained one large caterpillar and several small caterpillars, one aquatic beetle larva, grasshopper parts, beetle parts, one spider, and one nematode.

Whether this occurrence represents an instance of wandering or possibly an extension of breeding range must be determined by future study.

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SELECTIVE EFFECTS OF PREDATION IN A TERN COLONY

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Predation is one of the selective pressures which can act to maintain synchronization of nesting in colonial birds (Lack 1968). In circumstances where the food requirements of a predator remain more or less constant, the predator will take a larger fraction of the available prey when few individuals are present (i.e., at the beginning and end of the season) and a smaller fraction in the middle of the season when the larger numbers of individuals are nesting. This has

been demonstrated, for example, by Ashmole (1963) for predation by feral cats (*Felis domestica*) on adult and young Sooty Terns (*Sterna fuscata*), by Patterson (1965) for predation by Carrion Crows (*Corvus corone*) on eggs and chicks of Black-headed Gulls (*Larus ridibundus*), and by Parsons (1971) for cannibalism by Herring Gulls (*Larus argentatus*) on chicks from their own colony. On the other hand, it might be expected that a predator which specializes on chicks would inflict the most damage at the beginning of the season, when the earliest-hatched chicks are small so that correspondingly more are needed to satisfy its appetite. This paper demonstrates this effect—higher predation rates early in the season—for predation on chicks in a colony of Common Terns (*Sterna hirundo*).