

Habitat loss on a major scale, combined with persecution, have caused this forest raptor to decline severely throughout its range in Haiti and the Dominican Republic, and its stronghold now appears to be a poorly protected national park (Los Haitises) in the north-east of Hispaniola.

DISTRIBUTION The Hispaniolan Hawk is endemic to Hispaniola (Dominican Republic and Haiti) and the surrounding small islands, Beata and Alto Velo (Dominican Republic), Gonave, Grande Cayemite, Petite Cayemite and Ile-à-Vache (Haiti) (Wiley and Wiley 1981, Wiley 1986). Wiley (1985a) referred to the species having been widespread on the island but now with its range much reduced. Previously published localities for the species with many new sites have been mapped by Wiley and Wiley (1981; see Remarks 1).

Dominican Republic From Wiley and Wiley (1981), it is apparent that the great majority of mainland (Hispaniolan) records (24 of 27 mapped), current and historical, stem from the eastern two-thirds of the country, with the greatest concentration in the north-east within a 75 km radius of the río Yuna estuary, largely focused on Los Haitises mountain range; they appear to omit two localities, namely Casavito, which is “Casabito” (19°02’N 70°31’W, in DMATC 1972) (Stockton de Dod 1978), and Santo Domingo, “east of Santo Domingo city”, where individuals were seen on 4 and 8 July 1927 (Danforth 1929); they also misspell Neiba as “Nieba”. Its stronghold now appears to be an area in north-east Dominican Republic called Los Haitises.

Haiti On the mainland there appears to be but one record away from the Massif du Nord.

POPULATION At the end of the last century, one observer saw the species frequently in the Dominican Republic (Cherrie 1896; see Remarks 2). In the first half of the present century, however, observers and reviewers thought it to be rare in some degree on the mainland (Peters 1917, Wetmore and Swales 1931, Wetmore 1932a, Friedmann 1950). However, studies in the mid-1970s by Wiley and Wiley (1981) support the judgement of Bond (1956b) and Stockton de Dod (1978) that the Hispaniolan Hawk is common at least in one area, inasmuch as its overall population in Los Haitises, from the territory size data under Ecology below, is likely to be fairly healthy (seen “often” as against being “encountered infrequently” in other habitats searched on the island: Wiley and Wiley 1981). However, it has obviously also suffered local decline and extinction, being (e.g.) only occasionally seen in the largest tracts of degraded forest above Miches on the north coast and, also on the north coast, now entirely gone from the Samana peninsula (which includes the type-locality), where forest clearance has been very extensive (Wiley and Wiley 1981). In both Haiti and the Dominican Republic forests are still being destroyed (see Threats) and the species must therefore still be in steady decline.

Earlier this century it was common on both Cayemites (Haiti) and in 1962 it was common on Ile-à-Vache (Wiley and Wiley 1981) where perhaps together with a few of the less disturbed satellite Haitian islands it may still exist in good numbers (Wiley 1985a), but there is no more recent information on its numerical status on any of Hispaniola's offshore islands other than that it was not found during a field study in July 1977 and a single bird was recorded twice in the north-west of Alto Velo Island on a one-day visit in October 1978 (Wiley and Ottenwalder 1990); none was seen on Gonave Island during fieldwork in February 1985 (M. A. McDonald *in litt.* 1991), and after aerial surveys of the islands of Haiti J. A. Ottenwalder (*in litt.* 1992) found that with the exception of Grande Cayemite and Tortue (although the species has not been reported from the latter) most of the other islands are heavily disturbed (e.g. Ile-à-Vache) and/or densely populated (e.g. Gonave).

ECOLOGY The Hispaniolan Hawk has been recorded from a wide variety of habitats, as catalogued by Wiley and Wiley (1981): (1) subtropical dry forest; (2) subtropical moist forest, comprising (a) pine forest, (b) lowland scrub (as, e.g., on the Cayemites, according to Wetmore and Swales 1931), (c) lowland/littoral woodland, (d) lower montane hardwood forest, (e) lower montane pasture and agricultural land, (f) lower montane cut-over pine/hardwood, and (g) lowland riparian woods/marsh; and (3) subtropical wet forests, comprising (a) lower montane limestone karst forest (as at Los Haitises) and (b) rainforest. Although the species apparently has a wide tolerance of habitat types, it is commoner in virgin forest than in degraded areas (Wiley 1986), but forest edge and open habitats are also used for hunting purposes (for hunting

methods see Wiley and Wiley 1981). The elevational distribution of the species is accordingly broad, from sea level to about 2,000 m (Wiley and Wiley 1981, Wiley 1985a), although from the evidence in Distribution it appears to be much commoner at lower than at higher elevations. The forest vegetation in the Los Haitises range is typified by cupey *Clusia rosea*, granadillo *Buchenavia capitata*, mahogany *Swietenia mahogani*, silk-cotton tree *Ceiba pentandra*, masa *Tetragastris balsamifera*, muskwood *Guarea trichilioides* and corcho bobo *Pisonia albida*, and the area in general consists of virgin forest mixed with active and abandoned small farms (Wiley and Wiley 1981).

A survey of the literature and museum specimen labels indicated that food of the Hispaniolan Hawk includes rats *Rattus*, mice *Mus*, Common Ground-doves *Columbina passerina*, Red-legged Thrushes *Turdus plumbeus*, and lizards *Leiocephalus melanochlorus*, *Anolis* and *Amaevia taeniura* (Wiley and Wiley 1981). Breeding birds in 1976 brought to the nest lizards (28%), snakes (28%), mammals (rats and bats) (19.5%) and birds (8.5%), but only one frog despite an abundance of frogs in the forest; by biomass, mammals formed 48.1%, lizards 20.7% and snakes 17.6% (Wiley and Wiley 1981). Of 70 identified prey brought to two nests, the most numerous species were the snake *Uromacer oxyrhynchus* (13), the lizard *Anolis baleatus* (12) and the rat *Rattus rattus* (11) (for a complete list, plus items found in the nests, see Wiley and Wiley 1981).

The adjacent home ranges/territories of three pairs in Los Haitises, 1976, were calculated as 53.7, 47.4 and 72.2 (mean 57.8) ha (see Remarks 3) and the distances between their nests was 300, 880 and 1,000 m (average 727 m), two nests overlooking cultivated valleys, the third being in virgin forest, two being in dead trees, one in a living, at 6.1, 23.3 and 36.6 m from the ground, all three being more prominent than those around them (Wiley and Wiley 1981). Of four further nests reported, at least one (15 m up in the crown) was in a tree taller than its neighbours, and was under construction on 15 February (Stockton de Dod 1978); another, on Ile-à-Vache, 10 m up in the crown of a royal palm *Roystonea regia*, was under construction on 28 April (Wetmore and Lincoln 1933), while the two others, in the Massif du Nord in Haiti, 8 and 12 m up in pines, each held downy young on 2 May (Bond 1928a). In Los Haitises, nest-building was in February–March and egg-laying (clutch-size two) in March, with a minimum incubation period of 28–29 days; at the only nest where success was proved, two young took 12 weeks to fledge, were still being fed by their parents in week 13, and were still at least present in the territory in week 16 (Wiley and Wiley 1981).

The species has been noted for its tameness on the offshore islands (Wetmore and Swales 1931, Wiley and Wiley 1981).

THREATS Forest destruction and disturbance including shooting, appear to be the major threats to the Hispaniolan Hawk, and there is particular concern for wet forest: even in Los Haitises, a recently created national park (see Measures Taken), “clear-cutting and burning for farming continue at an alarming rate”, and the rate and extent of forest destruction in Haiti (one of the most environmentally degraded countries in the world: see, e.g., Threats under White-winged Warbler *Xenoligea montana*) leaves little hope for the future of the hawk there (Wiley and Wiley 1981, Wiley 1985a).

MEASURES TAKEN The Hispaniolan Hawk is protected by law in the Dominican Republic, although this does not prevent the species being shot (Wiley 1985a); on paper, Los Haitises National Park gives protection to what is evidently one of the most important remaining populations of the species (but see Threats).

MEASURES PROPOSED Wiley (1985a) urged that agricultural activities should be excluded from Los Haitises National Park, and additional populations should be identified and habitats preserved. The offshore islands where the species has been recorded need to be checked for surviving populations. A long-term study of the population ecology of the species would yield important information on the viability of birds in the various habitats from which they have been recorded. The proposed extension of the Los Haitises National Park (see DVS 1990) would also be of great value for the conservation of the Hispaniolan Hawk as its density there is higher than elsewhere in the island; Los Haitises National Park is also one of the few areas where the threatened Plain Pigeon *Columba inornata* (see relevant account) can be found in the Dominican Republic (see map II.15 in DVS 1990).

REMARKS (1) Although the named islands on the map in Wiley and Wiley (1981) are intended to

indicate the occurrence on them of the Hispaniolan Hawk (see Wiley 1986), it is not immediately clear whether the same is true of the named mountain ranges; there is, for example, no published record from the Sierra de Baoruco, and published data for the Massif du Nord and Sierra de Neiba (Bond 1928a, Stockton de Dod 1978) refer only to the single localities pinpointed on the Wiley and Wiley (1981) map. (2) Wiley and Wiley (1981) mistakenly attributed to Christy (1897) the view that the Hispaniolan Hawk was “common in some areas” in the last century. (3) Calculations were based on flat projection, the actual surface areas being larger through altitudinal variations in the terrain.