

Habitat destruction and introduced predators are blamed for reducing this distinctive mimid to near-extinction in two dry forest areas on the islands of Martinique and St Lucia respectively, and new initiatives are very urgently needed.

DISTRIBUTION The White-breasted Thrasher (see Remarks 1) is endemic to Martinique (nominate *brachyurus*) and St Lucia (race *sanctaeluciae*), and is today confined to single, very small areas of both.

Martinique The species appears to have been widespread in former times, having once even been found near Forte-de-France (Vincent 1966-1971). It was collected sometime before 1878 (in July and August) at Trois Islets (Lawrence 1878; four specimens in AMNH and USNM), and a bird was observed in the Jardin des Plantes, at St Pierre (date not given) (Lawrence 1878). A bird was taken at Presqu'île de la Caravelle in the north-east in June 1950 (see Bond 1951b), a pair was observed there in February 1966 (Bond 1966), and nowadays the area between Tartane and Le Phare on the peninsula appears to be the only locality for the species on the island (Pinchon 1976, King 1978-1979, Evans 1990).

St Lucia The race *sanctaeluciae* appears to have been once more widespread (see below), but is today restricted to the north-east coast valleys between Petite Anse and Dennery Knob (just south of Louvet) (Babbs *et al.* 1988). Bond (1928b) was told of birds in the southern mountains of the island, and Danforth (1935) also indicated that it had formerly had a "much more general distribution". Bond (1928b) collected the species in the north-east near Le Marquis in April 1927. In April 1932 it was taken at De Barra and Grande Anse, east of Morne La Sorcière (Danforth 1935), being observed again in the latter locality in 1969 (Wingate 1969); in Petite Anse it was collected in January 1950 (Bond 1956b; specimen in ANSP). In March 1951 the species was observed at Morne Fortune, near Castries (see Bond 1967, 1982), this being the only sighting this century away from the north-east coast (see Remarks 2); subsequent searches in that area were unsuccessful (Bond 1982). A survey in 1971 showed it was restricted to five ravines between Grande Anse and Louvet (a distance of less than 8 km, ranging inland no more than 1.5 km) (see King 1978-1979; also Diamond 1973). The investigation conducted by Babbs *et al.* (1988) identified what appears to be the last stronghold of the species, on the north-east coast in river valleys between Petite Anse and Dennery Knob (just south of Louvet) (their map details critical habitat).

POPULATION The White-breasted Thrasher is one of the rarest of West Indian birds; formerly it was much more numerous and widespread, but it has decreased steadily since the mid- nineteenth century (Bond 1957). It needs to be recognized very rapidly in France and on St Lucia that the populations are now critically low, with extinction possibly only a few years away.

Martinique The species appears to have been common and widespread in the nineteenth century (Taylor 1864, Bond 1950), even near Fort-de-France (Vincent 1966-1971, Pinchon 1976). After half a century with no records (specimen in AMNH taken in January 1896) Bond (1950) considered it extinct, but even as he published this opinion the species was rediscovered (in June 1950) on the Presqu'île de la Caravelle (specimen taken), and he modified his judgement of it to "very rare" (Bond 1956b). Of this there is no doubt: one recent estimate of the population on the peninsula gave only 40 pairs (Evans 1990), another a mere 15 pairs (Benito-Espinal and Hautcastel 1988).

St Lucia The species appears to have been reasonably common in the past, given that Semper and Sclater (1872) referred to it as "constantly to be met" in pairs or in small flocks of four or five pairs. Bond (1928b) was also informed that it was "at one time not uncommon" in the southern mountains, but that it was now extinct there. By 1927 it was already considered a "very rare bird" and "decreasing in numbers", Le Marquis being "one of the few localities where it could be found" (Bond 1928b; also Meyer de Schauensee 1941). In 1931 a thorough search of several days to find the species near Le Marquis was unsuccessful, and thus it was feared extinct (Danforth 1935). Further searches in 1932 in a different area (but still on the north-east coast, i.e. De Barra and Grande Anse) resulted in the collection of the species (see Distribution); in this general area Danforth (1935) considered it to be still abundant, though Bond (1950, 1956b) continued to characterize it as "rare and local".

In 1969 the thrashers were found above Grande Anse Bay on the north-east slope of La Sorcière, and appeared to be “reasonably common” (Wingate 1969). A survey in 1971 revealed that the population in the five ravines between Grande Anse and Louvet (i.e. the total population of the island) was about 75 pairs (see King 1978-1979), with a mean 2.4 birds counted per hour on walks (Diamond 1973). In 1987, this population was estimated at 58 pairs maximum in river valleys between Petite Anse and Dennery Knob, no birds being observed elsewhere (Babbs *et al.* 1988; for results of partial censuses within in the species's range see their table 3a). Although this fieldwork slightly increased the known range, the census results compared with 1971 suggested a decline of 24%, and since the species probably occupied the valleys north of Grande Anse and south of Louvet the decline may have been even greater (Babbs *et al.* 1988). Ravine la Chaloupe (in the centre of the species's range) contained six confirmed and eight possible breeding pairs, this representing the most suitable habitat (Babbs *et al.* 1988). In March 1992 another census in Ravine la Chaloupe was conducted (not going beyond the fork in the main ravine: see the map in Babbs *et al.* 1988) and resulted in a total of 12 pairs (Burke 1992; see Remarks 3). From late April to mid-June 1992 a survey and census revealed a maximum of 46 pairs in the valleys between Marquis Bay and Dennery Bay, and when comparison was made with the 1987 results an overall rate of decline of 4.1% per year was disclosed (Ijsselstein 1992).

ECOLOGY The White-breasted Thrasher is a ground-haunting bird, living in dense thickets in semi-arid woodland with abundant leaf-litter and in riverine forest (Bond 1928b, 1957, 1979, Danforth 1935, Diamond 1973, Babbs *et al.* 1988). F. A. Ober indicated that the species was found in “deep woods” and along the borders of streams on Martinique (Lawrence 1878), although Pinchon (1976) mentioned that it could be found foraging even in the dry zone at the edge of mangroves. On St Lucia, R. L. Zusi found it in both spindly, short deciduous trees 3-6 m tall and near or on a canyon floor where the trees were 18-21 m tall and greener, this suggesting that the species once occurred in deeper forest than it does today (Storer 1989a). This theory is also bolstered by Taylor's (1864) indication of the species inhabiting “thick forest” and Wingate's (1969) observation of birds in the transitional zone between the dry coastal thickets and the rainforest of the mountains. In St Lucia, Babbs *et al.* (1988) found the species to be highly restricted to a narrow band of riverine forest at the bottom of the valleys.

The species has been reported searching for food in low shrubbery, mostly among leaves on the ground by turning over leaf-litter, vigorously tossing or sweeping leaves aside (Semper and Sclater 1872, Diamond 1973, Babbs *et al.* 1988, Storer 1989a). Semper and Sclater (1872) indicated that it “seems to be strictly insectivorous”, but Pinchon (1976) gave its diet as seeds, small insects and myriapods, Diamond (1973) reported one bird picking berries off a twig, and Babbs *et al.* (1988) indicated that, while the few identifiable food items brought to the nest were all insects, they also observed it feeding on berries and believed that small vertebrates could possibly be consumed.

The species has been recorded nesting in June (eggs) (Danforth 1935, Bond 1957), July (eggs and nestlings) and early August (nestlings) (Babbs *et al.* 1988), and thus the breeding season appears to occur mainly between April and July (Pinchon 1976, Evans 1990). The nest (a bulky cup) is situated in shrubs or saplings at low or moderate elevations above the ground (2-6 m); two eggs are laid (Bond 1957, 1979, Babbs *et al.* 1988). A description of the vegetation surrounding nests in St Lucia is in Babbs *et al.* (1988). Semper and Sclater (1872) reported seeing the species in pairs or small flocks of four or five pairs. Babbs *et al.* (1988) found it to be largely sedentary, with little evidence of movement between valleys.

THREATS Habitat destruction is presumably one of the major threats affecting the species (Babbs *et al.* 1988). On St Lucia it is certainly the main reason for concern: in the 1970s and 1980s, predictions that cassava growing, charcoal burning and illegal marijuana planting were “likely to continue” and “may increase” (Diamond 1973, Babbs *et al.* 1988) duly came true, and new clearings in Ravine la Chaloupe were detected in April 1992 (W. Burke *in litt.* 1992; also Ijsselstein 1992). The apparent sedentariness of the species may compound its problems as populations become isolated by loss of habitat in intervening valleys (Babbs *et al.* 1988). Clearance of habitat on Martinique is also blamed for the species's decline (Benito-Espinal and Hautcastel 1988), but whether it currently affects any part of the population on the Presqu'île de la Caravelle is unknown.

The species's decline on St Lucia has also been attributed to colonization of the island by the Bare-eyed Thrush *Turdus nudigenis* which proved to be highly aggressive towards other thrush-like birds and was held to be responsible for the near-extinction there of the near-threatened Forest Thrush *Cichlherminia*

lherminieri (Bond 1982). The thrasher's terrestrial habits make it a potential prey of the introduced mongoose *Herpestes* (Danforth 1935, King 1978-1979), but this has not been proved (Diamond 1973, Babbs *et al.* 1988); nevertheless, mongoose and rat predation are considered likely causes of decline in Martinique, where the former was introduced in 1893-1894 (Vincent 1966-1971, Pinchon 1976, Benito-Espinal and Hautcastel 1988). The Pearly-eyed Thrasher *Margarops fuscatus* and possibly the Trembler *Cinclocerthia ruficauda* are nest predators that could pose a threat to eggs and nestlings (Babbs *et al.* 1988).

MEASURES TAKEN A reserve on Martinique, perhaps expressly for the species, is a sign that its conservation is at last being taken seriously, yet evidence of thorough distributional and biological work on the bird there is lacking; by contrast, such work has been done on St Lucia (e.g. Babbs *et al.* 1988) but no reserve has yet been established.

Martinique The White-breasted Thrasher occurs within the Caravelle Natural Reserve (see the map in Wright 1988), and it is claimed that the preservation of its habitat is thereby assured, although the area in question is only 517 ha (Benito-Espinal and Hautcastel 1988).

St Lucia The species is legally protected (CCA 1991b). Part of its present distribution gains what in the 1970s was regarded as paper protection by lying within Castries Forest Reserve (King 1978-1979; see the map in Wright 1988). St Lucia's commitment to forest and parrot conservation during the 1980s (see Measures Taken under St Lucia Amazon *Amazona versicolor*) indicates that the legal, social and infrastructural basis exists to carry new initiatives to improve the status of the thrasher.

MEASURES PROPOSED This bird now requires a great deal of work: it needs to be determined very quickly through highly competent study on both islands whether the present critically low numbers are the consequence simply of habitat loss or whether other factors, notably predation by exotic mammals, are involved. Any delay here runs the risk of having to seek the answers as a post mortem exercise. Collaboration between designated researchers on the two islands would be sensible, and indeed the funding agencies involved should require such mutual assistance. These agencies should also be ready to fund practical management initiatives as soon as problems accessible to such management become known. Searches in suitable habitat in both islands from where the species is believed to have disappeared are of great importance in case further populations still exist, but should not deflect the immediate need to manage known populations intensively so as to increase their numerical levels rapidly.

Martinique Surveys of the Presqu'île de la Caravelle should be urgently conducted to ascertain the current status of the species, and biological investigation of its ecology and population dynamics must begin as soon as possible. Actual and potential threats need to be assessed at the same time, along with an evaluation of the efficacy of the existing reserve in meeting the species's requirements.

St Lucia Despite work already done, similar research to that proposed for Martinique is still needed, covering several years. Ravine la Chaloupe has been suggested as a nature reserve as a first step in preventing the extinction of the species (CCA 1991b, Burke 1992), and Ijsselstein (1992) has also suggested the Louvet area for the same treatment; however, the protection of riverine vegetation throughout the north-east coast of the island between Petite Anse and Dennery Knob remains equally important in the long term (Babbs *et al.* 1988, which see for maps of different ravines containing critical habitat; also Ijsselstein 1992). A call for *in situ* captive breeding (Ijsselstein 1992) is premature but, given the rate of decline identified by the same worker, very understandable.

It is important to recognize the great value of the lowland forest of north-east St Lucia, where the species occurs in sympatry with an isolated (subspecifically distinct) population of the Rufous Nightjar *Caprimulgus rufus otiosus* and with the near-threatened endemic St Lucia Oriole *Icterus laudabilis* and Black Finch *Melanospiza richardsoni* (Diamond 1973, Robbins and Parker unpublished, Burke 1992).

REMARKS (1) The White-breasted Thrasher is the sole representative of its genus (Hellmayr 1934, Mayr and Greenway 1960, Storer 1989a). (2) Most of the specimens in museums give no precise

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collecting locality other than “St Lucia”, except of those taken from the north-east after 1932 (e.g. Grande Anse, Petite Anse and De Barra: specimens in ANSP, USNM and YPM). (3) Although the 1992 census method differed from 1987, Burke (1992) believed he had not overestimated or underestimated the number of birds. However, the 1987 census are probably inappropriate as the areas censused were different.