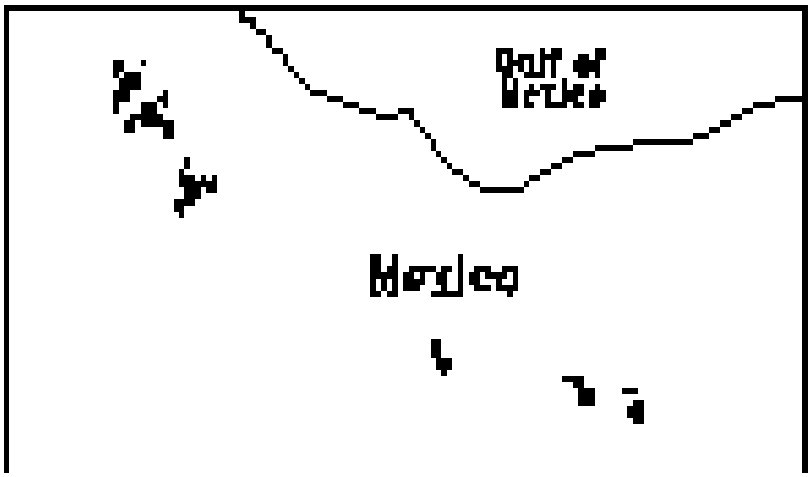
**SUMICHRAST'S WREN** *Hylorchilus sumichrasti* **V/R**[10]

*Possibly representing two distinct species, this enigmatic wren is confined to tropical forest on outcropping limestone in two areas of southern Mexico, where it remains poorly known, especially with reference to its distribution and ecology, and is threatened from habitat destruction.*

**DISTRIBUTION** Sumichrast's Wren exists in two disjunct populations in southern Mexico: one in west-central Veracruz and northernmost Oaxaca (nominate *sumichrasti*), and the other to the south-east in easternmost Veracruz and western Chiapas (race *navai*: see Remarks 1). Coordinates for Oaxaca are taken from Binford (1989), the remainder from OG (1956a).



*Veracruz* In the west-central part of the state, the species is known from a number of sites in a small area around Córdoba: localities include Paraje Nueve[1] (18°52'N 96°52'W), where a male and female (in USNM) were collected in March 1926; 1.5 km south of Amatlán[2] (18°50'N 96°55'W: 5 km south of Córdoba), where birds were seen in January 1984, April 1985, February 1987 and April–May 1990 (Hardy and Delaney 1987, S. N. G. Howell *in litt*. 1991); 10-15 km south of Córdoba[3], where birds were encountered in April 1985 (Hardy and Delaney 1987); Presidio[4] (18°41'N 96°45'W) and nearby, where 38 specimens were taken in March–May 1925 (Bangs and Peters 1927), one in July 1940 (male in DMNH) and another in March 1943 (male in MLZ); Motzorongo[5] (18°38'N 96°44'W) where two specimens (in USNM) were collected between 245 and 365 m during March 1894 (see also Nelson 1897); and La Gloria[6], 16 km south-west of Presidio, which is represented by specimens (two males and a female in MLZ) taken in July 1942 at 915 m (Crossin and Ely 1973). Other localities in this area are "Mata Bejuco" (untraced, but in the same region as Motzorongo: Nelson 1897), where the type-specimen was collected around 1869 (Lawrence 1871: see Remarks 2); and Rancho Caracol[7], 48 km south of Tezonapa (18°36'N 96°41'W), where two specimens (in LSUMZ, MLZ) were collected at the end of August 1945. Rancho Caracol is recorded on the specimens as being in Veracruz, although "48 km south of Tezonapa" places it near the shore of Presa Miguel Alemán, in northernmost Oaxaca (see below). In easternmost Veracruz, Sumichrast's Wren (presumably the race *navai*) has recently been recorded from the limestone areas of the Uxpanapa region[8] (S. N. G. Howell *in litt*. 1992).

*Oaxaca* Sumichrast's Wren is known only from northernmost Oaxaca, where the population is presumably continuous with that in west-central Veracruz. A female (Miller *et al.* 1957 recorded two specimens) taken in November 1943 by M. del Toro Avilés at Soyaltepec[9] (San Miguel Soyaltepec: 18°12'N 96°29'W) has been doubted (Binford 1989), owing to the known unreliability of this collector's data (L. C. Binford *in litt*. 1991). San Miguel Soyaltepec is now situated on an island in the Presa Miguel Alemán (flooded after del Toro Avilés's specimen was collected), two birds being seen on an adjacent island (8 km west of Temascal[10]: 18°15'N 96°24'W) at 75 m in June 1964 (Binford 1989). The specimens collected at Rancho Caracol, "Veracruz" (in LSUMZ, MLZ), apparently come from Oaxaca, the locality being near the western shore of Presa Miguel Alemán, west of but still very close to the other localities.

*Chiapas* Records of the species come from the southern side of Lago Malpaso (locally called Presa Nezahualcoyotl) in the central depression of western Chiapas. The species was first discovered there (leading to the description of the race *navai*) in December 1969 when a bird of uncertain identity was seen at 760 m, 26 km north of Ocozocoautla[11] along the Malpaso road (Crossin and Ely 1973). Six specimens


BirdLife International (1992) Threatened Birds of the Americas.
Cambridge, UK: BirdLife International.

were collected there, in a forest block of only a few square miles, during December 1970 and January 1971, and at least 10 were heard and presumably three collected (since nine were taken in total) in the winter of 1971-1972 (Crossin and Ely 1973). More recently, Sumichrast's Wren has been found on the north side of the "canyon of the río La Venta"[12] (c.17°01'N 93°47'W: P. J. Bubb *in litt*. 1991), at 400-500 m in the north-western corner of the El Ocote Ecological Reserve: five birds were seen there on different days in September 1990 along a 2 km path following a tributary of the valley (P. J. Bubb *in litt*. 1991), and c.10 birds (see Population) were recorded along a 2.4 km transect during July and August 1991 (P. Atkinson *in litt*. 1991).

**POPULATION** The problematic terrain, localized range and quiet post-breeding period make population assessments of Sumichrast's Wren very difficult; location of calling or singing birds gives the easiest opportunity for such assessments, which have yet to be done in any systematic way (see Measures Proposed). Nevertheless, although once described as "one of the rarest and most local of all North American birds" (Bangs and Peters 1927), modern evidence suggests that Sumichrast's Wren is "locally common" (S. N. G. Howell *in litt*. 1987). As noted under Distribution, 38 specimens were taken at and around Presidio, Veracruz, in a three-month period, despite being "hard work to find" (Bangs and Peters 1927), indicating that the species was not uncommon. The study at El Ocote Ecological Reserve in July and August 1991 produced an average of 3.24 birds per kilometre of transect, this being extrapolated to give an approximate population density of 10 to 25 birds per $km^2$ (the average being c.20/$km^2$) (Atkinson *et al*. in prep.). In west-central Veracruz near Amatlán, the species was noted as a locally common resident in coffee plantations: records include two seen in April 1985; two seen (one singing) with 4–6 heard singing in a small area on 22 April 1990; a pair seen at a nest (containing young), with 2–3 heard on 11 May 1990 (S. N. G. Howell *in litt*. 1991; also Hardy and Delaney 1987); and between 2.5 and 6.25 birds per kilometre of transect during September 1991 (Atkinson *et al*. in prep). The last record in the adjacent Oaxaca part of the range was in 1964 (see Distribution).

**ECOLOGY** Sumichrast's Wren is apparently restricted to the lower to middle elevations (75-915 m; see Crossin and Ely 1973, Binford 1989) in steep hill country covered by dense tropical semi-deciduous to evergreen forest (Hardy and Delaney 1987), or coffee with shade-trees (S. N. G. Howell *in litt*. 1991). At río La Venta, Chiapas, the forest canopy (at 15-20 m high) was closed and therefore the understorey was very sparse (P. J. Bubb *in litt.* 1991, Atkinson *et al.* in prep.), this evidently being similar to the habitat described by Nelson (1897) at Motzorongo: however, near Amatlán, the canopy (at 20-30 m, and comprising shade trees) was more open and hence the ground cover (an overgrown coffee plantation) was denser (Atkinson *et al*. in prep.).

All of the known localities are characterized by extensive limestone outcrops, the species spending a majority of its time at or near ground level (never more than 1 m from the top of the nearest rock), always in the shade, and foraging in and around rocks and small caves formed by the outcrops and vegetation (Crossin and Ely 1973, Hardy and Delaney 1987, Atkinson *et al*. in prep.). Birds hop from rock to rock (flying has only been recorded over short distances) and forage on the moss-covered surface of the limestone and in the cracks and crevices of boulders, by peering into crevices and gleaning insects (Atkinson *et al*. in prep.); the long bill obviously facilitates gleaning from such cracks. Recently, the species has been seen in humid coffee plantations (under shade-trees), suggesting that it may in fact be able to adapt to modified habitat as long as limestone outcrops and shade are present (S. N. G. Howell *in litt*. 1987; see Threats). It is generally solitary and shy, although unwary of people (often approaching a tape, when responding to playback, to within "a few feet", even if someone was holding the tape-recorder): at El Ocote, singing birds were usually recorded singly, and only infrequently were two individuals heard at the same time (Atkinson *et al*. in prep.).

Breeding has been recorded on a number of occasions in Veracruz: three nests were found near Presidio in 1925, each containing three eggs, on 6, 17 and 20 May, the last two containing eggs that were at the point of hatching, suggesting that they were laid on about 1 May (Bangs and Peters 1927). All nests were at c.610 m, in mountains where the slopes were rough and broken with immense rocks and deep depressions, two nests being located in crevices in the side of large rocks, and one in a crevice in the roof

of a cave (Bangs and Peters 1927). In the Amatlán–Córdoba area, birds were heard singing at the end of April 1985 (Hardy and Delaney 1987); the end of April 1990, with a nest (containing young) found on 11 May 1990 (S. N. G. Howell *in litt*. 1991); and in early September 1991 (Atkinson *et al.* in prep.). Singing at El Ocote has been recorded (throughout the day) in July and August (1991), and although birds were seen at the same locality the previous September they were then just calling (Atkinson *et al*. in prep., P. J. Bubb *in litt*. 1991). A bird trapped at El Ocote on 2 August 1991 was undergoing a complete body moult, indicative of post-breeding (Atkinson *et al*. in prep.). The species is a (presumed) permanent resident (Binford 1989), the northern population being represented by specimens or observations from January to September (the doubtful Soyaltepec specimen was reportedly taken in November), while in the southern population birds have been recorded during July–September and December–January (see Distribution and Population).

**THREATS** In Veracruz, the steep rocky limestone forested areas the species inhabits are poor for cultivation, which spared them for longer than the adjacent lowlands, but now even these are being attacked, and expansion of limestone quarrying around Amatlán may pose a real threat (S. N. G. Howell *in litt.* 1987). A similar situation exists in Chiapas where the vast majority of the forest along the Malpaso road (between Ocozocoautla and Lago Malpaso) has been cut and converted to grazing and agriculture, the presence of abundant limestone outcroppings apparently being the only reason for the survival of the small forest block where the species was found in the early 1970s (Crossin and Ely 1973). Even here though, there was found to be some cutting for "cafetales" along the edges of the forest (Crossin and Ely 1973), Atkinson *et al*. (in prep.) being unable to find the species in August 1991, and suggesting that the Ocozocoautla–Apic Pac road has opened up surrounding areas for cultivation and caused the rapid reduction of suitable habitat. Much forest within the immediate range of Sumichrast's Wren has presumably been destroyed by the creation of Presa Miguel Alemán and Lago Malpaso.

The species has been found in humid coffee plantations (see Ecology), which suggests that it is the limestone outcrops that are essential and that the coffee plants, presumably as long as shade-trees are present, can act as surrogate forest (S. N. G. Howell *in litt* 1991). Unfortunately, there is an increasing trend to plant coffee that does not require shade (S. N. G. Howell *in litt*. 1991): whether or not the species can adapt to this habitat is unknown. In Chiapas, the most immediate potential impact on this species and its habitat is the proposed Ocozocoautla–Sayula highway, the initial route of which was planned to follow the río La Venta, inside the El Ocote Ecological Reserve, and cross the river at the precise site where Sumichrast's Wren was found in 1990: however, a new route which bye-passes the reserve has recently been approved by presidential decree (P. J. Bubb *in litt*. 1991, verbally 1992). The highway, wherever it cuts through the El Ocote area, will have a detrimental impact in the large, remote and still well forested region of Chimalapas and Uxpanapa, the latter being where the species has recently been found (P. J. Bubb *in litt.* 1991, S. N. G. Howell *in litt.* 1992). Apart from its direct impact, the highway will also inevitably bring secondary deforestation and settlement along the road corridor, potentially destroying most of the species's remaining habitat in this area.

**MEASURES TAKEN** There is apparently just one existing reserve in which Sumichrast's Wren has been found, this being the El Ocote Ecological Reserve in western Chiapas (called "Reserva Especial de la Biosfera Selva del Ocote" in Anon. 1989). This reserve comprises c.48,000 ha south of Lago Malpaso, with the río La Venta flowing along its southern edge, and includes the area where the species was seen in 1990 (see Distribution). Its current value is diminishing with the development of plans for the Ocozocoautla–Sayula highway (see Threats), although the Mexican environmental body ECOSFERA is actively campaigning against these plans, and is now using Sumichrast's Wren as a figurehead species for the conservation of the reserve (P. J. Bubb *in litt*. 1991). The Cañon del Río Blanco National Park in Veracruz (c.55,700 ha: Anon. 1989) is adjacent to the main area of the species's distribution in west-central Veracruz, although the bird has to date not been recorded from the park.

**MEASURES PROPOSED** ECOSFERA is working towards producing a management plan for the El Ocote Ecological Reserve, although a survey for new sites for Sumichrast's Wren there has not yet been

planned (P. J. Bubb *in litt*. 1991). In view of the potential importance of this reserve for the conservation of the species (see Remarks 1), a systematic survey should be undertaken in order to determine its actual distribution and population within the reserve, and conservation of the bird should be taken into consideration in the subsequent management plan. Determining the bird's status and distribution in the Uxpanapa area is an equally high priority owing to the detrimental effects of the planned highway, and searches should also be aimed at discovering whether the bird occurs in the Chimalapas area of easternmost Oaxaca. More generally, a detailed ecological study of the species may help identify other suitable areas and determine the size of forest necessary to sustain viable populations. This would be particularly pertinent to the forest remnants on limestone outcrops in the Córdoba area, the edges of which are gradually being eroded owing to agricultural encroachment, and also to the forests in and around the Presa Miguel Alemán. The forests around the Presa Miguel Alemán obviously protect the watershed that feeds the reservoir, so any surveys of the surrounding hillsides should take this into consideration (L. C. Binford *in litt*. 1991). An assessment of the species's status, distribution, and remaining habitat in the Córdoba area is also an urgent need before an effective conservation strategy can be designed.

**REMARKS** (1) Recent observations and studies of birds at El Ocote and in the Uxpanapa region have indicated that *Hylorchilus (sumichrasti) navai* may in fact be a separate species, Nava's Wren (Atkinson *et al.* in prep., *World Birdwatch* 13,4 [1991]: 4, S. N. G. Howell *in litt.* 1992). If the two subspecies are given full specific status, this will present the situation where distributionally Nava's Wren is known from a minute area in part protected by the El Ocote Ecological Reserve, while Sumichrast's Wren, although recorded from a larger area, would be left totally unprotected. From a conservation standpoint such a split would make the situation more urgent: a reserve would be essential to protect a population of Sumichrast's Wren; and the viability of the Nava's Wren population in the El Ocote reserve would need to be determined before habitat destruction in the Uxpanapa area adversely affects the only other known population. (2) Phillips (1991) suggests that “Mata Bejuco” must in fact have been a local name for Sumichrast's Wren, and not a locality; hence the type-locality is unknown although it is obviously in the Motzorongo region (see Distribution).