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DISTRIBUTION, NATURAL HISTORY AND CONSERVATION OF THE BLACK-AND-WHITE MONJITA (*HETEROXOLMIS DOMINICANA*) IN ARGENTINA, A SPECIES VULNERABLE TO EXTINCTION

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Resumen. – Distribución, historia natural y conservación de la Monjita Dominicana (*Heteroxolmis dominicana*) en Argentina, una especie vulnerable a la extinción. – La Monjita Dominicana (*Heteroxolmis dominicana*) está clasificada como vulnerable a la extinción, debido a una importante retracción de su distribución en Brasil y Argentina. Basándome sobre todo en muestreos de campo, encontré poblaciones en 32 localidades en Argentina, distribuidas en tres zonas disjuntas en las provincias de Corrientes (23 localidades), Entre Ríos (cuatro localidades) y Buenos Aires (cinco localidades). Las respectivas áreas de ocurrencia fueron calculadas como cubriendo 27.380, 144 y 4258 km^2. El hábitat preferido en Argentina es una combinación de pastos y hierbas altos y césped mas corto, en pasturas naturales en suelo húmedo o cerca del agua. Esta combinación suele resultar del pastoreo selectivo del ganado. Si bien la monjita se ve usualmente en parejas territoriales bien aisladas, bandadas de hasta 80 parejas se detectaron fuera de la temporada de cría. La formación de bandadas parece deberse a concentraciones de alimento, pero puede contribuir a la dispersión de individuos y al intercambio genético entre poblaciones aisladas. La temporada de cría cubre desde fines de Septiembre a Diciembre, y los nidos se construyen en matas de pasto. La población entrerriana tiene registros históricos solamente desde 1927 (especimenes), y es la menor de las tres, con probablemente 15 a 20 parejas, pero puede estar en contacto con poblaciones en el Uruguay. La población bonaerense se encuentra principalmente a lo largo del cordón de dunas de la costa atlántica norte. Se trata claramente de un relicto, ya que alrededor de 1900 la especie cubría mas de 128.000 km^2 de distintos tipos de pastizales en la provincia. El desarrollo urbano de Buenos Aires y sus alrededores es una causa probable de extinción a nivel local. La forestación con pinos y eucaliptos constituye hoy día la mayor amenaza en Corrientes y Buenos Aires.

Abstract. – The Black-and-white Monjita (*Heteroxolmis dominicana*) is currently classified as vulnerable to extinction, mostly because of extensive range retraction in Brazil and Argentina. Based mostly on field surveys, I report populations from 32 localities in Argentina, distributed in three disjunct areas in the provinces of Corrientes (23 localities), Entre Ríos (four localities) and Buenos Aires (five localities). The respective extents of occurrence were calculated as 27,380, 144 and 4258 km^2. The main habitat in Argen-

tina is a mosaic of tall grassland and shorter turf, usually in native pastures in wet soil or near water. This landscape is often created by selective grazing by cattle. Although the species occurs mostly as scattered, resident territorial pairs, flocks of up to 80 pairs were observed during the non-breeding season. The flocking episodes seem related to abundant food supplies, but nevertheless may facilitate dispersal (and eventually gene flow) between thinly distributed populations. Breeding occurs from late September to December, and nests were built on grass clumps. The Entre Ríos population has historical records (specimens) since 1927. It is the smallest of the three, probably consisting of 15–20 pairs, but may be in contact with populations in Uruguay. The Buenos Aires population was mostly found along a belt of sand dunes on the Atlantic coast. It is clearly relictual, because around 1900 the extent of occurrence in the province exceeded 128,000 km^2, in several types of grasslands. The urban development around Buenos Aires city is a plausible case of a local historical extinction. Forestry with pines and eucalypts is nowadays a main threat in Corrientes and Buenos Aires. *Accepted 23 August 2002.*

Key words: Black-and-white Monjita, *Heteroxolmis dominicana*, habitat, behavior, nesting, populations, range, Argentina.

INTRODUCTION

The Black-and-white Monjita (*Heteroxolmis dominicana*), Tyrannidae) has been reported from southern Brazil, Uruguay and northeastern Argentina (Ridgely & Tudor 1994), with a few old or questionable records from Paraguay (Hayes 1995). This monjita was formerly placed in the related genus *Xolmis* (Lanyon 1986, Andors & Vuilleumier 1998). As the global population has been estimated in less than 10,000 individuals (Birdlife International 2000) the species is regarded as vulnerable to extinction. Recent publications (particularly Fontana & Voss 1995, Fontana 1997) cover details of the habitat preferences and behavior of the species in Brazil. Nevertheless, the natural history and distribution of the monjita, particularly in Argentina, remain relatively unknown. I present here information on habitat preferences, social and nesting behavior, and data on the past and present distribution of Black-and-white Monjitas in Argentina.

METHODS

I obtained natural history data in Argentina (provinces of Buenos Aires, Entre Ríos and Corrientes) and Uruguay (departamento Rocha). Black-and-white Monjitas are conspicuously colored, sexually dimorphic and rather easy to observe (Ridgely & Tudor 1994). My earliest observations date from 1990 (Fraga 2001) but most of the information was obtained from 1995 to 2002. I spent 147 days looking for Black-and-white Monjitas (17 days in Misiones, 80 days in Corrientes, 38 days in Entre Ríos, 6 days in Buenos Aires and 6 days in Uruguay). The monjitas were found and observed during 60 days (39 days in Corrientes, 12 days in Entre Ríos, 2 days in Buenos Aires and 4 days in Uruguay); total observation time is estimated to 160 h. No records were obtained in Misiones. The locality with most observations (26 days) was Estancia San Juan Poriahú, departmento San Miguel, Corrientes; see Fraga (2001) for a general description and Appendix 1 for coordinates. I recorded spontaneous vocalizations of monjitas with an AKG C568 EB shotgun microphone and a Sony Walkman Professional cassette recorder. The recordings will be deposited in the collection of Cornell University, Ithaca, New York.

Distributional data for Black-and-white Monjitas was compiled only for Argentina. I obtained data on localities during field trips to the Argentinean provinces where the species was reported (Ridgely & Tudor 1994,

BirdLife International 2000), covering approximately 33,000 km by road. Other post-1985 localities were obtained through a survey of endangered grassland birds from Argentina which I conducted on behalf of the Asociación Ornitológica del Plata/Aves Argentinas (Fraga 1998). For historical localities I searched the literature, and examined labels of museum specimens. Collections examined or consulted included the Museo Argentino de Ciencias Naturales (MACN), Museo de la Plata (MLP), British Museum (BM), American Museum of Natural History (AMNH), the Museum of Comparative Zoology (MCZ), and the National Museum of Natural History in Washington (USNM). I visited some historical localities for Buenos Aires province, particularly those along the road from the modern towns of General Lamadrid to Carhué, where the species was reported by Doering & Lorentz (1879) and Barrows (1883).

Coordinates of localities were obtained with a GPS, or taken from Paynter (1995). Unless separated by barriers (e.g., rivers, unsuitable habitat) sites less than five km apart are regarded as the same locality. Conservation biologists (e.g., Mace *et al.* 1992) use two estimations of a specie's distribution. The extent of occurrence is defined as the area containing all the localities where a species is (or was) regularly recorded, assuming a continuous distribution (Mace *et al.* 1992). The last assumption may not be realistic, but this variable is commonly used in conservation biology (e.g., BirdLife International 2000). I estimated the extent of occurrence by calculating the area of the smallest convex polygon containing all known localities. The second and more realistic estimate of a specie's range is known as the area of occupancy (i.e., the area effectively used). I estimated this variable with the use of cuadricules (quadrats) of 10 x 10 min (latitude and longitude), each one covering approximately 348 km^2. The area of occupation was calculated by superposing a map with localities on the grid and counting the number of occupied cuadricules. This estimate is free from the assumption of a continuous distribution. I used Arc View GIS 3.2 for maps and for all the area and distance calculations. Further sources used for defining the area of occupation were vegetation maps (Carnevali 1994) and satellite images, when available.

RESULTS AND DISCUSSION

General distribution. Ridgely & Tudor (1994) include in the species' range the eastern part of Santa Fe, Chaco and Formosa provinces, but all records from this area are old or not well documented (no specimens, no locality data or precise dates). Even if correct, they are useless for the purposes of this paper. The case for Santa Fe province provides a good example. The most recent survey of the province's avifauna (De la Peña 1997) does not mention any particular specimen, sight record or locality for Black-and-white Monjitas, but the species is listed because it was mentioned in the previous provincial checklist (Martínez Achenbach 1957). Likewise, Martínez Achenbach gives no specific records for the species, apparently included in his list on the basis of older sources, unfortunately not specified. An old sight record from Córdoba province was discussed and regarded as erroneous by Nores (1996). All museum specimens of Black-and-white Monjitas from Argentina were collected in the provinces of Misiones, Corrientes, Entre Ríos and Buenos Aires.

From the grassland survey I obtained records in 14 localities from the provinces of Corrientes, Entre Ríos and Buenos Aires. No records of monjitas from Misiones, Santa Fe, Chaco, Formosa or Córdoba were obtained, although 35 localities having other endangered grassland birds were reported from all these provinces. During my trips I found

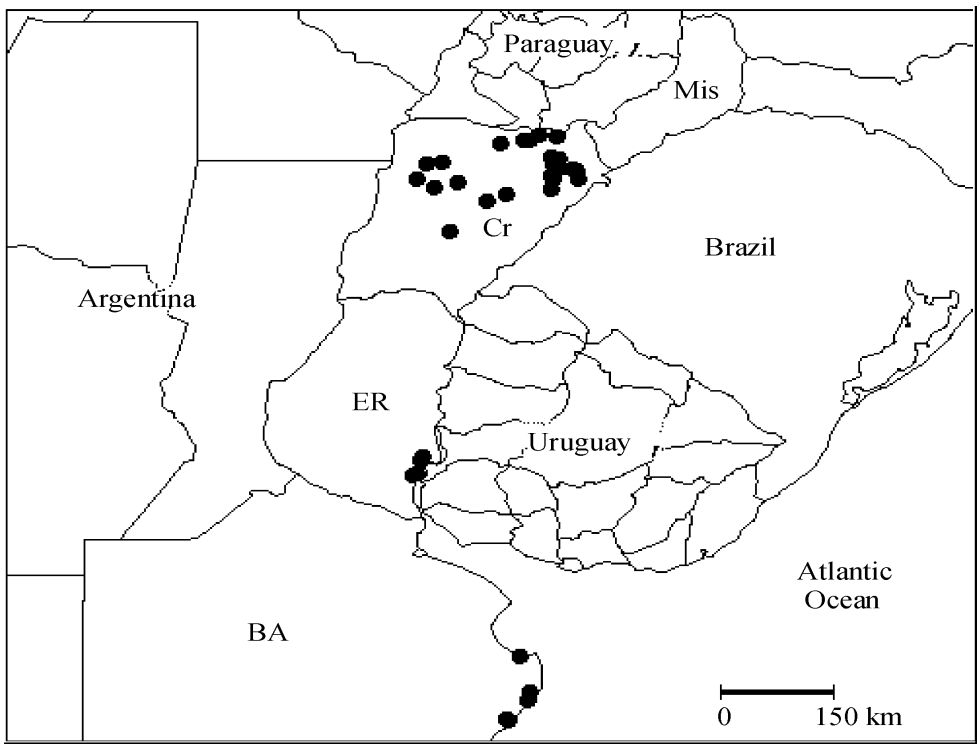

FIG. 1. Argentinean localities (black dots) with recent populations of Black-and-white Monjitas (*Heteroxolmis dominicana*). Argentinean provinces are abbreviated as follows: Mis = Misiones, Cr = Corrientes, ER = Entre Ríos, and BA= Buenos Aires.

monjitas in other 18 localities, and again the only provinces represented were Corrientes, Entre Ríos and Buenos Aires (Fig. 1 and Appendix 1). The three respective provincial populations are disjunct and isolated. Despite the negative results, there is still some probability of finding populations of the species in southern Misiones, because museum specimens were collected in that province up to 1960, and extant populations in Corrientes occur only 40 km from the provincial border with Misiones.

Habitat. The main habitat of Black-and-white Monjitas in Argentina was a mosaic of tall grassland and shorter turf, usually in pastures in wet soil or near water. Native plants commonly observed in this habitat (Corrientes and Entre Ríos) included *Vernonia chamaedrys* , *Baccharis trimera*, *B. salicifolia* (Asteraceae), *Eryngium horridum* and *E. eburneum* (Apiaceae) and the grasses *Andropogon lateralis* and *Paspalum quadrifarium*. At Estancia San Juan Poriahú most of the higher and drier land consists of sandy ridges; the monjitas were found in the wetter locations within the ridges, either at the edges facing the esteros or near permanent ponds. As in southern Brazil (Fontana & Voss 1995) small marshes were used for foraging, shelter and roosting. However, at Estancia San Juan Poriahú, in the extensive marshes of Corrientes known as Esteros del Iberá (Fraga 2001) the monjita was never found inside the esteros during

many hours of boat trips. It only frequented the edges, in shallow waters.

As Azara (1805) observed, Black-and-white Monjitas avoid woodlands and are found only in open country. Historical data from Buenos Aires province indicate that the species was found in sites entirely devoid of trees (Doering & Lorentz 1879). In Corrientes, monjitas occur in the most treeless area of the province, around the Esteros del Iberá. At Estancia San Juan Poriahú, a typical Iberá locality, the area covered by woodlands is fairly small (less than 10%) and discontinuous. In this site the monjitas occasionally approached the edges of woodland patches, mostly during strong winds.

My data indicates that monjitas are not regularly found in the palm savannas of yatay (*Butia yatay*) and caranday (*Copernicia alba*) that cover thousands of km^2 in Corrientes (Carnevali 1994). However, monjitas do occur in groves of the dwarf palm or yatay-poñí (*Butia paraguayensis*), locally found in sandy ridges in Corrientes (north of 27°50'S), including Estancia San Juan Poriahú. The dwarf palms, mostly growing up to 2 m in height, were even used as perches for foraging sallies.

The Entre Ríos population inhabits rolling countryside, originally covered with grasslands, with smaller sections of riparian woodland, thorny scrub of espinillo or churqui (*Acacia caven*, Mimosaceae) and temporary marshes. Because of the rich soils, much of the natural pastures have been replaced by crop fields (wheat, soybean, sunflower). Monjitas prefer the most humid native grasslands near marshes or temporary streams. In eastern Buenos Aires Black-and-white Monjitas are usually found at the inner edge of the belt of sand dunes that borders the Atlantic coast, as described by Orians (1978). Their main habitat is small shallow marshes or wet meadows found in depressions between the dunes, with a short turf of grasses and sedges, and clumps of pampas grass (*Cortaderia selloana*) up to 2.5 m tall. According to Cabrera (1976) other typical plants in the depressions are *Androtrichum tryginum* (Cyperaceae) and *Tessaria absinthoides* (Asteraceae). In winter, the monjitas may frequent more typical pampean pastures up to 10 km inland (Y. Bilat pers. com.)

Monjitas coexisted with grazing horses and cattle (even sheep) in all the localities I visited. The only agricultural land used by the species were abandoned rice fields (two localities in Corrientes). Rice fields are abandoned in Corrientes mostly because of nutrient depletion and/or weed invasion, and are then used as pastures. Although implanted pastures of several African grasses are common in Corrientes, I did not see Black-and-white Monjitas using them.

Other species of monjitas in the genus *Xolmis* were sympatric with Black-and-white Monjitas (but not in Buenos Aires). This was the case with Grey (*X. cinerea*) and White (*X. irupero*) monjitas in Corrientes and Entre Ríos, and in the last province also with wintering Black-crowned Monjitas (*X. coronata*). No interspecific interactions were detected. Orians (1978) suggested that competition with related species could partially explain the limited distribution of Black-and-white Monjitas.

Behavior. Black-and-white Monjitas were found year round in all the Argentinian populations I sampled. Local movements are probable, but old accounts of migrations in Buenos Aires are contradictory (Gibson 1918, Hudson 1920). Hudson regarded the species as partially migratory, and his USNM specimens from Conchitas (near the Río de la Plata, Buenos Aires) have the English name "winterbird" written on the original labels. The name simply suggests that Black-and-white Monjitas were winter visitors to his locality, and this agrees with other sources from this area (Durnford 1877). Perhaps the

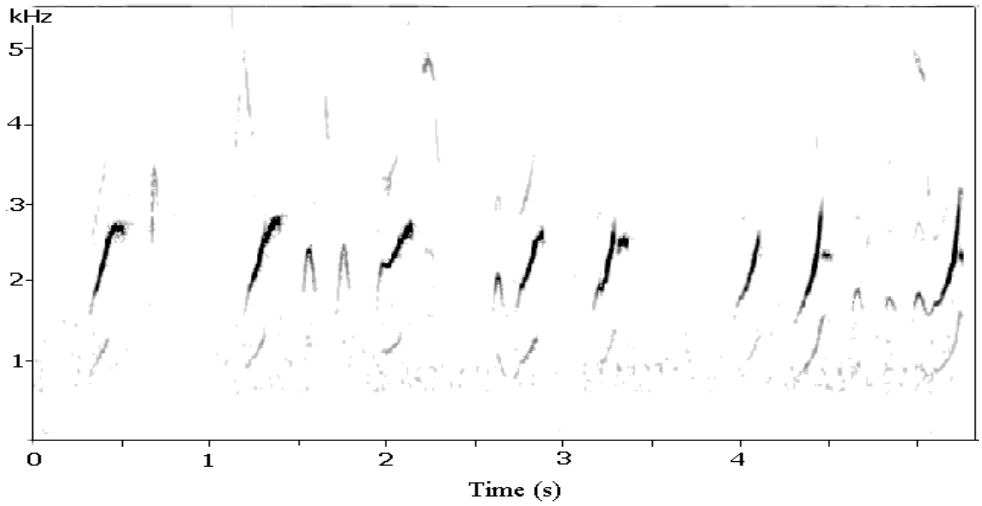

FIG. 2. Vocalizations produced by a pair of Black-and-white Monjitas (*Heteroxolmis dominicana*) after an agonistic interaction (Estancia San Juan Poriahú, Corrientes, 23 March 1999). Time expressed in seconds, pitch in kHz.

extinct populations in southwestern Buenos Aires were migratory, but there are no reliable data.

Black-and-white Monjitas were usually found as scattered territorial pairs, sometimes with one to three dependent juveniles. Frequently paired males and females foraged 100 m or more from each other, coming together at intervals of 30 min or more. The mean density of monjitas at Estancia San Juan Poriahú was estimated at about 1–2 pairs per 10 km^2. Territorial conflicts between pairs or family groups were seen three times, involving much chasing by both sexes. The species was normally silent, even during agonistic interactions. Once at Estancia San Juan Poriahú series of calls mixing ascending whistles with chevron-shaped notes (Fig. 2) were produced after an agonistic interaction.

The foraging behavior of Black-and-white Monjitas has been described several times (Azara 1802, Orians 1978, Belton 1985, and particularly Fontana & Voss 1995). My observations agree with this information. The monjitas select some perch up to 2 m tall, and sally to ground or to low vegetation to obtain prey. Most of their food seems to be arthropods. Foraging interactions with Saffron-cowled Blackbirds (*Xanthopsar flavus*) in Argentina have been previously described (Fraga *et al.* 1998).

Breeding activities were detected in the three populations. A female was seen carrying nest material (mostly feathers) to a bunchgrass clump in Corrientes (Estancia Los Arroyos, 28 September 1996). A nest containing three chicks and one infertile egg was found by J. Leiberman (pers. com.) on 14 December 2000, built 28 cm above the ground in a grass clump at Puerto Boca, Entre Ríos. Judging from detailed photographs the chicks, in short pinfeathers and half-opened eyes, were about 5-days old. The nest cup (collected) was built of dry grass, rootlets and some feathers (mostly of white herons), and had an external diameter of 13.5 cm. The structure was more symmetrical than those described by Fontana (1997). The egg

was pale cream-colored with a few scattered and faded brownish spots. As with other Tyrannidae, the chicks' mouth lining was bright yellow and the rictal flanges yellow. The chicks were fledged when I visited the site on 28 December 2000. A pair in Estancia Las Cruces, Entre Ríos (20 November 1996) was observed with two recently fledged chicks. The chicks had chestnut edges in the flight feathers. Few observations on parental care were obtained; only the female brooded the nestlings (J. Leiberman pers. com.), but both sexes fed the chicks. Juveniles were observed with adults as late as mid-June at Estancia San Juan Poriahú.

Early sources (particularly Barrows 1884, Hudson 1920) mention flocks of Black-and-white Monjitas during the non-breeding season, chiefly during fall and winter. From the grassland survey I received information of flocks of 20–30 individuals near the town of General Lavalle, Buenos Aires during the winter. At Estancia Medaland (in the same province) Y. Bilat (pers. com.) saw a winter flock of 13 individuals. At Estancia San Juan Poriahú, in Corrientes, I observed a group of 11 pairs foraging around a patch of dwarf palms, apparently on green orthopteroid insects (20 September 1997). The largest flock of monjitas was observed along a dirt road in a marsh near Laguna Negra (33º56'S, 53º40'W), Rocha, Uruguay, on 17 June 1997. About 80 pairs were seen simultaneously, distanced about 10 m from each other. The monjitas, after short fluttering flights, landed on the road, on the grass, and even on floating vegetation of *Pistia stratioides* and *Eichhornia crassipes*. They were preying on hairy blackish caterpillars, that were moving in high numbers. The caterpillars were first beaten against the ground or vegetation to remove the hairy skin. The data suggests that Black-and-white Monjitas flock in response to unusual abundances of prey, but more information is needed. Whatever the proximate explanation, flocking behavior may facilitate dispersal (and eventually gene flow) among thinly distributed populations.

Status of past and present populations. The main area of distribution in Argentina is nowadays the central part of Corrientes province, around the Esteros del Iberá (Fig. 1). The Corrientes population has historical records back to 1790 (Azara 1805) and 1826-1827 (D'Orbigny 1844). According to the last author, it was not a common species ("peu commune"), and its northern limit was at about 30°S latitude. Changes in the distribution of the species in Corrientes are unknown, because no major ornithological surveys were conducted in the province between the visit of D'Orbigny in 1827 and the collecting expeditions of W. H. Partridge in 1959–1962. Nowadays Black-and White Monjitas are known from 23 localities in Corrientes, with an estimated extent of occurrence of 27,380 km^2. To obtain the effective area of distribution one should subtract from that value the areas covered with unsuitable habitat, including the area with permanent deep water of the Iberá Marshes (6,290 km^2, Carnevali 1994), woodlands and palm savannas. Using other vegetation data in Carnevali (1994) I estimate the area of occupancy of Black-and white Monjitas in Corrientes to approximately 10,000 km^2 . The 23 Corrientes localities fall into 28 quadrats, with a total area of 9744 km^2. Extrapolating from the estimated density of Black-and-white Monjitas at Estancia San Juan Poriahú, the total Corrientes population is probably in the range of 1000–1500 pairs. The main threat to Black-and-white Monjitas in the province is the explosive increase of pine and eucalypt plantations, steadily replacing thousands of hectares of natural pastures.

The next population to the south was found in SE Entre Ríos, 420 km away from the nearest Corrientes locality. The intervening land between these populations lack mod-

TABLE 1. Historical localities (before 1985) of Black-and-white Monjitas (*Heteroxolmis dominicana*) in Buenos Aires Province.

Year	Locality	Coordinates	Source
1826–1827	Buenos Aires (city)	34º36'S, 58º27'W	D'Orbigny 1844
1868	Conchitas	34º47'S, 58º10'W	Specimens in USNM
1876	Punta Lara	34º49'S, 57º59'W	Specimen in BM
1876	Belgrano	34º34'S, 58º27'W	Durnford 1877
1879	Puán	37º37'S, 62º25'W	Doering & Lorentz 1879
1881	Azul	36º47'S, 59º51'W	Barrows 1883
1881	Río Sauce Chico	38º06'S, 62º14'W	Specimens in MCZ
1881	Arroyo Pigué	37º11'S, 62º44'W	Barrows 1883
1883	La Plata	34º55'S, 57º57'W	White 1883
1880–1888	Lomas de Zamora	34º46'S, 58º24'W	Withington & Sclater 1888
1888–1891	Estancia Espartilla	33º40'S, 58º15'W	Holland 1892
1872–1916	Estancia Los Yngleses	36º31'S, 56º53'W	Gibson 1918
1901	Barracas al Sur	34º39'S, 58º22'W	Hartert & Venturi 1909
1909	Estancia Linconia	36º24'S, 56º58'W	Grant 1911
1973	Pinamar	37º07'S, 56º50'W	Orians 1978
1973	Villa Gesell	37º15'S, 56º55'W	Orians 1978

ern or historical records of monjitas, an it is mostly an open savanna of espinillo or churqui and ñandubay (*Prosopis* sp.). Palm savannas of *Butia yatay* also cover extensive sections of the land. The Entre Ríos population is remarkably small, with an extent of occurrence of 144 km^2 (after discounting the area covered by the city of Gualeguaychú). It might be in contact with Uruguayan populations across the lower Uruguay river (Azpiroz 1997) which is however 5–8 km wide at this point. The size and range of this Uruguayan population were not searched and remain unknown. The Entre Ríos population is estimated to be about 10–15 pairs; the maximum number reported was a group of 11 individuals in 26 July 1992 (A. Mouchard pers. com.). The past history of the population is unknown, except that two specimens were collected in February 1927 at Puerto Boca (MACN). In Entre Ríos the land is too expensive for pine and eucalypt plantations, so radical habitat modifications are not expected.

In Buenos Aires province Black-and-white Monjitas survive in an isolated area at the northeastern coast (Narosky & Di Giacomo 1993). The minimum distance to the Entre Ríos population is 382 km. More historical data for the species are available for this province (Table 1), and these show a drastic decline. Up to 1910 monjitas were known from 16 localities and had an extent of occurrence of 128,000 km^2. With the method of cuadricules, the past area of occupation of the species covered a minimum of 5916 km^2. The species occurred as far south and west as "Río Sauce Chico", where it was collected by Barrows on 15 March 1881 (specimens at MCZ). The exact location of this site along the Sauce Chico (140 km long) is somewhat undefined. However, from the collector's known itinerary (Barrows 1883), the collecting locality was located between Bahía Blanca and Pigué, and near Sierra de la Ventana, probably near the modern town of Tornquist (38º06'S, 62º14'W). According to D'Orbigny (1844), the southern limit of the species was at 38ºS.

The present extent of occurrence in the province covers 4258 km^2 along the Atlantic

coast, from General Lavalle (36º25'S, 56º57'W) southward to Estancia Medaland (37º28'S, 57º09'W). Black-and-white Monjitas are known to occur up to 10 km inland from the Atlantic coast, and as the total length of the coastline is 149 km, the area of effective occupation can be calculated as covering 1490 km^2. When breeding, however, the monjitas seem confined to the narrow (1 km) belt of sand dunes (Orians 1978). The total population is estimated to be 50–100 pairs.

The reasons for the general decline of the species in Buenos Aires province are mostly unknown. Patches of native grasslands still occur in the historical area of the southwest, near Sierra de la Ventana (pers. observ.). However, the extensive urban development along the Río de la Plata coastline (large and sprawling cities like Buenos Aires and La Plata, and their suburbs) surely destroyed habitats and eliminated local populations. Black-and-white Monjitas were formerly found in and around the cities of Buenos Aires and La Plata (Table 1). The last record for this area is from 1901 (Hartert & Venturi 1909; specimen at AMNH). According to Hussey (1916), the monjitas were still found in the vicinity of La Plata as late as 1914. Unfortunately this record is doubtful: Hussey attributed a black crown to the species, suggesting a confusion with the Black-crowned Monjita. The Museo de La Plata, active since the 1890's, has no specimens of the species. A female skin at the MACN, from 1919, has "Buenos Aires?" as locality, but that could refer to the province and not the city. The extinction of monjitas in northern Buenos Aires may have effectively isolated the remaining populations elsewhere in the province.

Few public natural reserves in Argentina contain populations of Black-and-white Monjitas. Monjitas have not been found during a recent, extensive survey in Parque Nacional Chaco (A. Bodrati pers. com.). At Parque Nacional Mburucuyá (Corrientes), the species is not regularly found, probably because grasslands occur there in small patches surrounded by woodlands, and comprise only 14.1% of the park area (Saibene & Montanelli 1997). The Reserva Provincial del Iberá protects mostly the marshes, and not the dry land around them. Fortunately Estancia San Juan Poriahú, a private reserve, contains a small breeding population (Fraga 2001 and above), and other private reserves in the Iberá area are being developed.

The bulk of the Entre Ríos population is unprotected. No permanent populations of monjitas occur at Parque Nacional El Palmar, a site much visited by ornithologists and bird watchers. In Buenos Aires, the single record reported by Chebez (1993) for Reserva Ribera Norte is regarded here as representing a rare vagrant. This reserve is too small (14 ha) and lacks proper habitat, being surrounded by San Isidro, a large suburb of Buenos Aires. Although regularly visited by ornithologists and bird watchers (including myself), no further records are known. Black-and-white Monjitas have been reported from Reserva Privada Campos del Tuyú (near the town of General Lavalle), apparently only during the non-breeding season. The coastal sand dunes of Buenos Aires are threatened by urban developments (main beach communities like Villa Gesell and Pinamar) and by pine plantations in the sand dunes. Satellite images indicate that some good habitat is already lost. A reason for moderate optimism is the discovery of monjitas (a family group, seen by Y. Bilat and myself) in the recently created Reserva Provincial Natural de Médanos Punta Querandí, just in the limit with Estancia Medaland. This reserve is located 45 km south from Pinamar, and protects a section of the remaining coastal habitat.

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APPENDIX 1. Present (post-1985) localities with Black-and-white Monjitas (*Heteroxolmis dominicana*) in Argentina. Provinces names are abreviated as follows: Cr = Corrientes, ER = Entre Ríos, and BA= Buenos Aires. The comment "breeding" means that nests, fledged chicks or dependent juveniles were observed in a given locality.

Locality	Province	Coordinates	Comments
Estancia Puerto Valle	Cr	27º35'S, 56º29'W	
Ituzaingó	Cr	27º36'S, 56º41'W	
Estancia Sangará	Cr	27º40'S, 56º51'W	
Estancia San Juan Poriahú	Cr	27º45'S, 57º15'W	Breeding
Fortín Santa María	Cr	27º52'S, 56º32'W	
Estancia Los Arroyos	Cr	27º59'S, 56º26'W	Breeding
Estancia María Teresa	Cr	28º03'S, 56º27'W	
Parque Nacional Mburucuyá	Cr	28º05'S, 58º07'W	
Loma Alta	Cr	28º05'S, 58º20'W	Breeding
Estancia San Lorenzo	Cr	28º05'S, 56º29'W	
Estancia El Carmen	Cr	28º06'S, 56º28'W	
Bañado Santa Ursula	Cr	28º09'S, 56º31'W	
Estancia Paraíso	Cr	28º09'S, 56º12'W	Breeding
Desiderio Sosa	Cr	28º12'S, '56º08'W	
Santa María del Aguapey	Cr	28º16'S, 56º32'W	
Saladas	Cr	28º20'S, 58º30'W	
Estancia Mora Cué	Cr	28º22'S, 56º10'W	Breeding
Gomez Cué	Cr	28º30'S, 56º31'W	

APPENDIX 1. Continuation.

Locality	Province	Coordinates	Comments
Ruta 41	Cr	28º36'S, 57º10'W	
Concepción	Cr	28º24'S, 57º53'W	
Rincón de Luna	Cr	28º28'S, 58º14'W	
Rincón del Socorro	Cr	28º42'S, 57º27'W	
Mercedes 6 km	Cr	29º14'S, 58º00'W	
Estancia Ñandubaysal	ER	33º01'S, 58º34'W	
Puerto Boca	ER	33º04'S, 58º26'W	Breeding
Punta Caballo	ER	33º18'S, 58º30'W	
Estancia Las Cr uces	ER	33º20'S, 58º32'W	Breeding
General Lavalle	BA	36º24'S, 56º56'W	
Near Pinamar	BA	37º 01'S, 56º49'W	
Estancia El Talar	BA	37º07'S, 56º51'W	
Playa Querandí	BA	37º23'S, 57º04'W	
Estancia Medaland	BA	37º28'S, 57º09'W	Breeding