

First sound recordings, new behavioural and distributional records, and a review of the status of Scimitar-winged Piha *Lipaugus uropygialis*

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La cotinga *Lipaugus uropygialis* es una especie muy poco conocida, mundialmente amenazada y de rango de distribución restringido al área endémica de aves EBA 055, Yungas superiores de Bolivia y Perú. Sus vocalizaciones son desconocidas y existe poca información sobre su comportamiento y distribución. A partir de las observaciones realizadas en 2001, publicamos la primera descripción de la vocalización, comportamiento y nuevos datos acerca de su distribución. También mostramos observaciones y especímenes no publicados que utilizamos en la revisión del estatus de conservación de esta especie. Concluyentemente, consideramos que *L. uropygialis* sigue siendo una prioridad de conservación. La razón para su distribución muy localizada sigue desconocida y son necesarias más investigaciones al respecto.

Records of the Scimitar-winged Piha *Lipaugus uropygialis*, a globally threatened and restricted-range species, exist for only a very limited number of localities in the Bolivian and Peruvian Upper Yungas Endemic Bird Area EBA 055^{1,8,10}. This paucity of knowledge regarding the distribution and habits of *L. uropygialis* raises concerns for the conservation of the species, as habitat has been degraded in areas for which past records exist. The vocalisations of *L. uropygialis* were unknown and behavioural information was also sparse^{7,9}. From recordings and observations made in Bolivia in 2001 we describe the species' voice and behaviour, and combine this with a review of existing unpublished and published data to assess its conservation status.

Methods

Field observations and sound recordings were made in 2001 during two biological inventory expeditions to previously unsurveyed areas of Bolivia: the first to the río Pampa Grande (16°39'S 66°29'W), Cordillera Cocapata, dpto. Cochabamba, between 2 August and 19 September⁵, and the other to Tokoaque (14°37'S 68°57'W), Madidi National Park, dpto. La Paz, on 31 October–14 November³. Observations were made at distances of 2–20 m, by six different observers, and sound recordings were made, using a Sony TCM-5000 tape-recorder and Sennheiser ME66 directional microphone, at río Pampa Grande. The behaviour of *L. uropygialis* is described based on the authors' observations and earlier, mainly unpublished, observations supplied by the observers listed in Table 1.

Voice

The only known vocal description⁸ is based on a recording made during an observation of *L. uropygialis*, on 27 October 1979. However, the

bird was not seen to vocalise and the recording was subsequently identified by the recordist as a Blue-winged Mountain-tanager *Anisognathus flavinucha* (R. A. Rowlett pers. comm.). No other recordings have been made and the vocalisations of *L. uropygialis* were unknown.

The voice of *L. uropygialis* is a noisy, variable shriek, like that of an *Aratinga* parakeet. Each burst of vocalisation consists of individual notes that rise and fall sharply with 3–4 harmonics at frequencies of 1.5–10.5 kHz (Fig. 2a). Single calls are given but usually there is a more complex combination of shrieks from a group of individuals. The sonogram represents, first, a single bird (Fig. 2a), followed by a typical burst of calling by a group (Fig. 2b). Four individuals were present during the



Figure 1. Distribution of all known specimens and observations of Scimitar-winged Piha *Lipaugus uropygialis*. 1 = Madidi National Park, 2 = Pilon-Lajas Reserve, 3 = Carrasco National Park, 4 = Amboró National Park. A = Abra de Maruncunca, Peru. B = Apa Apa, La Paz. C = Chapare, Cochabamba. D = Coroico & Cotapata, La Paz, E = Irupana, La Paz. F = río Pampa Grande, Cordillera Cocapata. G = Tokoaque, Madidi National Park.

Table 1. All known specimens and previous observations of Scimitar-winged Piha *Lipaugus uropygialis*. ANSP = Academy of Natural Sciences of Philadelphia, AMNH = American Museum of Natural History, BMNH = Natural History Museum (Tring), LSUMZ = Louisiana State University Museum of Zoology, MCZ = Museum of Comparative Zoology and SMF = Forschungsinstitut Senckenberg. Latitude and longitude are given at the first mention of each collection/observation site, where these are certain.

Locality	Month	Year	Altitude	No. of observations or specimens	Observer/ Collector
Abra de Maruncunca, Peru (14°14'S 69°17'W)	Nov–Dec	1980	2,000 m	3–4 observed, two specimens (♀) LSUMZ	L. Binford, L. Campos & T. S. Schulerberg
Abra de Maruncunca, Peru	Aug	1986	2,200 m	one observed	M. Kessler & B. Walker
Apa Apa, La Paz, Bolivia (16°21'S 67°30'W)	Mar	1996	2,300 m	one observed	B. Woods
Apa Apa, La Paz, Bolivia	Dec	1996	2,300 m	one observed	B. Woods
Apa Apa, La Paz, Bolivia	Dec	1996	2,200 m	one observed	T. Gullick
Apa Apa, La Paz, Bolivia	Aug	1999	2,400 m	one observed	A. B. Hennessey & A. Jaramillo
Apa Apa, La Paz, Bolivia	Oct	1999	?	one observed	D. Mason
Apa Apa, La Paz, Bolivia	Jul	2001	?	one observed	L. Rubey & B. Woods
Coroico (Tilotilo), La Paz, Bolivia (coordinates unknown)	?	1876	2,400 m	four specimens (2♂ and 2♀) BMNH	C. Buckley
Coroico (Chaco), La Paz, Bolivia (16°20'S 67°48'W)	Jun and Jul	1894	?	three specimens (2♂ and 1♀) AMNH and MCZ	G. Garlepp
Coroico (San Antonio), La Paz, Bolivia (coordinates unknown)	May	1895	?	one specimen (♀) SMF	G. Garlepp
Coroico (San Antonio), La Paz, Bolivia	?	pre-1900	?	one specimen	Reported in Hellmayr ²
Coroico (Sandillani), La Paz, Bolivia (16°12'S 67°54'W)	Jul	1896	2,500 m	three specimens (2♂ and 1♀) SMF and AMNH	G. Garlepp
Coroico (Sandillani), La Paz, Bolivia	Nov	1934	2,010 m	one specimen (♂) ANSP	M. A. Carriker
Coroico (Sacramento Alto), La Paz, Bolivia (16°16'S 67°47'W)	Aug	1979	2,575 m	one specimen LSUMZ	J. V. Remsen & L. Hale
Coroico (Sacramento Alto), La Paz, Bolivia	Oct	1979	?	one observed	R. A. Rowlett & R. S. Ridgley
Coroico (Corani), La Paz, Bolivia	Jul	1989	2,750 m	one observed	M. Kessler
Coroico, La Paz, Bolivia	Mar	1994	2,090 m	one observed	A. Moon
Coroico, La Paz, Bolivia	Mar	1996	?	one observed	J. Rossouw
Cotapata, La Paz, Bolivia	Sep	1999	2,400 m	one observed	J. Balderrama
Irupana, La Paz, Bolivia (coordinates unknown)	?	pre-1900	?	one specimen	Reported in Niethammer ⁵
Locatal (location unknown), Bolivia ?	Mar	1891	?	one specimen (♂) SMF	G. Garlepp
Old Chapare Road, Cochabamba, Bolivia (17°08'S 65°36'W)	?	1970s	?	up to ten observed	R. S. Ridgley
Old Chapare Road, Cochabamba, Bolivia	Apr	1977	1,800 m	one observed	R. S. Ridgley
Old Chapare Road, Cochabamba, Bolivia	?	1980s	?	small numbers noted	Reported in Ridgely & Tudor ⁸
Old Chapare Road, Cochabamba, Bolivia	Jul	1996	2,050 m	one observed	S. K. Herzog
Old Chapare Road, Cochabamba, Bolivia	Oct	1997	2,050 m	one observed	M. Kessler

recording of Fig. 2b. The sonogram shows three distinct sound patterns (with harmonics) over a period of one second, each pattern lasting c.0.2 seconds. This might represent three vocalising individuals but observations at the time suggested that only two birds vocalised and it is possible a single individual was producing two of the sounds. The pattern of silence interrupted by a burst of calls from different individuals is common in lekking species of the genus *Pipra* and, amongst the Cotingidae, in Andean Cock-of-the-rock *Rupicola peruviana* and Screaming Piha *Lipaugus vociferans*. We cannot eliminate the possibility that some sounds might be made by the males'

wings, as described for Dusky Piha *Lipaugus fuscocinereus*⁴, but this seems unlikely as we did not observe any wing movements associated with the sounds.

We heard vocalisations during four of our five observations at Pampa Grande in August–September, but none was heard during the Madii observation, in November. Individuals were observed vocalising at distances down to 5 m on four occasions and recordings made twice. Birds responded strongly to playback. Such stimulation, both immediately following recording and one week subsequently, resulted in birds increasing the volume and tempo of their calls and approaching

closer. One observation was made after undetected birds responded to playback made the previous week at the same location. The birds first started calling and then moved into sight, before landing immediately overhead.

Behavioural observations

Based on the reports included in Table 1, birds are most frequently observed quietly perching in the subcanopy within forest or, less often, at the forest edge. They tend to perch c.10–15 m above ground and have been observed to remain motionless for several minutes (L. Rubey pers. comm.). During the 1970s, R. S. Ridgely (pers. comm.) regularly observed *L. uropygialis* as singles accompanying mixed flocks and less often in pairs. Once, M. Kessler (pers. comm.) observed 4–5 birds chasing each other through the canopy.

Our six observations ranged from a single to groups of four. Groups were active and noisy, with birds often chasing each other through the understorey and subcanopy, 5–15 m above ground. Usually one bird would fly into view and land on a tree close to the trunk, where it would pause and actively survey its surroundings. A second individual would then land nearby. The first individual would then take flight, accompanied by shrieking calls (described above) by both birds. The process would be repeated, with the birds chasing each other 5–10 m from perch to perch. On three occasions two more birds, chasing either each other or the first two, followed. Occasionally they would perch motionless, as recorded by other observers and described above. No wing noise was heard whilst the birds were in flight.

Records of stomach contents⁷ and observations of birds feeding (ABH pers. obs.) indicate that *L.*

urophygialis feeds on berries and tree fruits to some extent. During one observation a single individual performed a series of what appeared to be flycatching sallies (A. Moon & L. Rubey pers. comm.). The bird flew 2–3 m up before returning to the same or a nearby perch. During one of our observations birds were observed in the upper subcanopy/lower canopy, perching mainly on major branches, making short sallies to moss-covered branches and flying to a new perch afterwards; foraging behaviour quite similar to that of Greyish Mourner *Rhytipterna simplex*. Once we observed a bird consume a caterpillar, after first wiping it vigorously against a tree branch.

Specimens and observations

Records of *L. uropygialis* are confined to the upper Yungas forests of central and west Bolivia (on the east Andean slope) and south-east Peru. The species is known from six Bolivian localities (Coroico, Cotapata, Irupana, Apa Apa, Locotal, Chapare) and one in Peru (Abra de Maruncunca), all at 1,800–2,750 m (Table 1; Fig. 1).

Eighteen specimens of *L. uropygialis* were collected between 1876 and 1979 (Table 1); this total includes six specimens not mentioned by Remsen *et al.*⁷. The majority of specimens are from Coroico, La Paz. Fourteen were collected before the close of the 19th century, in groups of up to four, followed by the collection of two singles and a pair in the 20th century. The decline in the frequency and number of individuals collected could be the results of a new approach by collectors, but we believe that the lack of 20th-century specimens may represent evidence for a population decline, a conclusion supported by the fewer field observations in recent years.

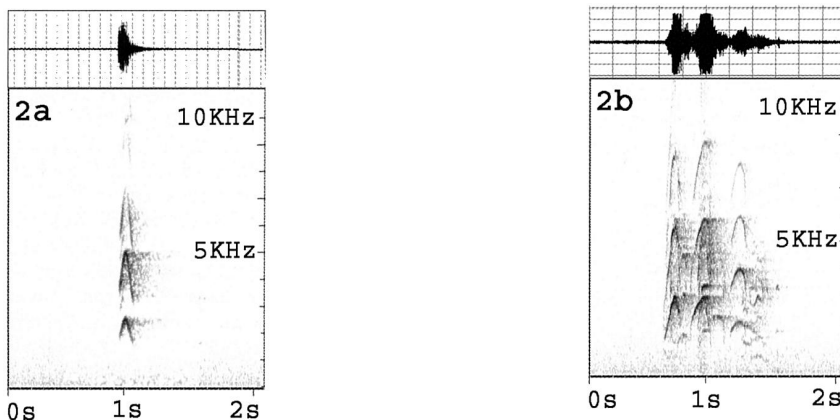


Figure 2. Sonogram of Scimitar-winged Piha *Lipaugus uropygialis*: a) single call from one bird, 23 August 2001, at 2,450 m; b) vocalisations from a group of up to four, 22 August 2001, at 2,550 m, Pampa Grande Valley, dpto. Cochabamba, Bolivia. Recordings by Steve Ewing & Ross MacLeod, sonogram prepared using Cool Edit 2000 version 1.1.

Prior to our observations, *L. uropygialis* had been observed on 17 occasions in 1970–2001. In the 1970s a maximum of ten individuals, in singles and pairs, was recorded at Coroico and along the Old Chapare road. In 1986 and 1989 groups of 3–5 were seen at Abra de Maruncunca. Since then, there are 12 known sightings of singles at a tiny number of localities. The sites around Coroico now appear degraded, with less than pristine habitat, and although frequently visited by ornithologists there are extremely few records of *L. uropygialis*. At sites that have been frequently visited (Apa Apa, Coroico, Old Chapare road), both the number of observations and group size have declined in recent decades, correlating with a reported deterioration in habitat quality.

Our observations were made first at the rio Pampa Grande on 18 August–8 September 2001. Five observations, believed to involve at least eight individuals, were made in two locations, during 50 days field work in montane evergreen forest by six experienced ornithologists. The two locations are at 2,450 m and 2,550 m, on opposite sides of the valley, c.2 km apart. The habitat at each was primary montane forest on a steep ridge. One site was along a permanent trail within a small (c.10 m-wide) clearing, with some human disturbance. A further observation was made by MIG, on 8 November 2001, at 2,500 m in primary montane evergreen forest at Tokoaque, during the first ornithological survey of the upper Yungas section of Madidi National Park³.

Discussion and conservation assessment

L. uropygialis was designated as globally threatened in 2000, when classified as Vulnerable¹. This classification was based on the unpublished information presented in Table 1. The new data collected by 2001, combined with previously unpublished records, reveal that *L. uropygialis* is a genuinely rare species, even in pristine forest.

As mentioned above, in the Pampa Grande Valley, at Copacata, observations were made on just five occasions at only two locations, both on ridges. Previous observations and specimens further suggest that the species is extremely local as such records are from just seven localities. Four of the five observations at Pampa Grande were made at a location visited near daily, suggesting that the birds might be utilising large tracts of forest in the area. Interestingly, the observation by M. Kessler in 1997 was made at exactly the same place on the Old Chapare road as the individual recorded by SKH in 1996. The pattern of the species only appearing at one place within a locality is repeated elsewhere, e.g. Apa Apa, where four observations have been made near the same ridgetop. All recent observations, with the exception of that Copacata, have come from primary forest. The apparent restriction

to specific spots within such forest, often associated with ridges, suggests that the species may have unknown microhabitat requirements. It cannot be assumed that the species will occur in all apparently suitable primary forests within its range.

Much of the forest habitat where *L. uropygialis* has been recorded has been degraded as a result of selective logging, road construction, agriculture, clearance for plantations, grazing and hunting. We believe this probably explains the recent paucity of records from areas of former occurrence.

Within Bolivia and south-east Peru there are still extensive areas of undisturbed forest, where little or no survey work has been undertaken, and the true status of *L. uropygialis* will remain unknown until these have been searched. However, the limited range and localised distribution of the species, even in primary forest, combined with continued habitat degradation in the upper Yungas (EBA 55)¹⁰ suggest the species is indeed globally threatened and should continue to be treated as Vulnerable. Its highly localised distribution and apparent dependence on pristine forest means that the species may be subject to even greater threats than other birds endemic to the upper Yungas. Future surveys for *L. uropygialis* should concentrate on the Yungas forests of south-east Peru and Bolivia, at 1,500–3,000 m, and should aim to pinpoint new localities and monitor existing ones. Knowledge of population densities and habitat preferences are essential before an accurate estimate of the global population can be made and the level of threat properly assessed. Such actions should be supported by protection of pristine habitat in the species' known range.

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