

## ARTÍCULO/ARTICLE

**Primer Reporte de la Dieta del Búho Orejicorto *Asio flammeus* (Strigiformes: Strigidae) en Pichincha, Ecuador**Glenda M. Pozo-Zamora<sup>1\*</sup>, Jorge Brito<sup>1,2</sup>, Rubí García<sup>1</sup>, Ibeth Alarcón<sup>3</sup>, Héctor Cadena-Ortiz<sup>1,4</sup><sup>1</sup>Museo Ecuatoriano de Ciencias Naturales del Instituto Nacional de Biodiversidad, Calle Rumipamba 341 y Av. de los Shyris, Casilla: 17-07-8976, Quito, Ecuador.<sup>2</sup>Instituto de Ciencias Biológicas, Escuela Politécnica Nacional, Calle Ladrón de Guevara y Veintimilla, Casilla: 17-01-2759, Quito, Ecuador.<sup>3</sup>Aves y Conservación/BirdLife Ecuador, Área de Investigación y Monitoreo de Avifauna, Joaquín Tinajero E3-05 y Jorge Drom, Quito, Ecuador.<sup>4</sup>Aves Quito (Club de Observadores de Aves), Ecuador.

\*Autor para correspondencia/Corresponding author, e-mail: glenda.pozo@yahoo.es

Editado por/Edited by: Juan F. Freile.

Recibido/Received: 21-07-2016. Aceptado/Accepted: 01-03-2017.

Publicado en línea/Published on Web: 18-04-2017.

DOI:

**First report of the diet of Short-eared Owl *Asio flammeus* (Strigiformes: Strigidae) in Pichincha, Ecuador****Resumen**

Presentamos información sobre la dieta del Búho Orejicorto *Asio flammeus* en la provincia de Pichincha, Ecuador. Analizamos 52 egagrópilas, colectadas entre 2014 y 2016 en tres localidades rurales. Encontramos 167 ítems presas de 22 especies. La dieta incluyó mamíferos pequeños (50,8 %), seguida de insectos (43,1 %), aves (4,7 %) y anfibios y reptiles (0,5 % cada uno). El mayor aporte de biomasa fue proporcionado por los mamíferos (87 %). La dieta de *A. flammeus* en Pichincha es similar a aquellas reportadas para la especie en otras áreas a lo largo de América.

**Palabras Clave.** Alimentación, egagrópilas, historia natural, presas.**Abstract**

We present information on the diet of Short-eared Owl *Asio flammeus* from the province of Pichincha, Ecuador. We analyzed 52 pellets, collected between 2014 and 2016 in three rural localities. We found 167 prey items of 22 prey species. The diet included small mammals (50.8 %), insects (43.1 %), birds (4.7 %), and amphibians and reptiles (0.5 % each). The greatest biomass was contributed by mammals (87 %). The diet of *A. flammeus* in Pichincha is similar to those reported for the species in other areas throughout America.

**Keywords.** Diet, natural history, pellets, preys.

## INTRODUCCIÓN

El conocimiento de la ecología trófica de las especies es esencial para comprender las estrategias de alimentación, dinámicas de nicho, interacciones intra e interespecíficas y división trófica (Marti *et al.*, 1993; Bellocq, 2000). El Búho Orejicorto *Asio flammeus* es una especie con amplia distribución mundial (König & Weick, 2008). Su dieta ha sido estudiada en varios continentes, incluyendo Europa (Roberts & Bowman, 1986; Delibes *et al.*, 1991; Cullen & Smiddy, 2012; Kleefstra *et al.*, 2015), África (Djilali *et al.*, 2016), Asia (Lin & Yeh, 2002; Jathar *et al.*, 2011) y Norteamérica (Banfield, 1947; Clark 1975; Holt, 1993; Hogan *et al.*, 1996; Reid *et al.*, 2011; Williford *et al.*, 2011). En América del Sur, los hábitos tróficos de *A. flammeus* han sido estudiados en Colombia (Borrero 1962), Chile (Rau *et al.*, 1992; Fuentes *et al.*, 1993; Martínez *et al.*, 1998), Argentina (Diéguez, 1996; Cirignoli *et al.*, 2001; Bó *et al.*, 2007; Baladrón *et al.*, 2014) y Paraguay (Torres *et al.*, 2014).

El estado de conocimiento de las aves rapaces nocturnas en Ecuador es limitado (Freile *et al.*, 2012). Existen escasos estudios sobre la ecología trófica (Moreno, 2010; Cadena-Ortiz *et al.*, 2013; Moreno & Román, 2013; Brito *et al.*, 2015; Cadena-Ortiz *et al.*, 2016) y ninguno a largo plazo (Freile *et al.*, 2015). La única información disponible sobre la dieta de *Asio flammeus* en Ecuador proviene de la subespecie *Asio flammeus galapagoensis*, endémica de las islas Galápagos (de Groot, 1983). En esta publicación damos a conocer por primera vez información sobre la dieta de *Asio flammeus* en Ecuador continental.

## MÉTODOS

Entre septiembre 2014 y junio 2016, colectamos egagrópilas de *Asio flammeus* durante visitas esporádicas a tres localidades de moderada alteración antrópica en la provincia de Pichincha (todas ubicadas en el piso zoogeográfico Templado; Albuja *et al.*, 2012): (1) Yanacocha (0,103°S; 78,590°O, 3398 m), en zonas de pastizales abandonados; (2) áreas adyacentes al Aeropuerto Internacional Mariscal Sucre (AIMS) en Tababela (0,119°S; 78,361°O, 2371 m), en arbustales con vegetación nativa de bosque seco; y (3) hacienda Tambillo Alto (0,410°S; 78,555°O, 2834 m), en pastizales que bordean remanentes de bosque montano. En los tres sitios buscamos egagrópilas de manera activa en perchas y dormideros (aunque sin encontrar sitios de nidificación). En estas visitas observamos individuos adultos de *A. flammeus* forrajeando, perchando o volando en los alrededores de los sitios de colección de egagrópilas (Fig. 1). En total recolectamos 52 egagrópilas: 25 en Yanacocha, 21 en AIMS, y 6 en Tambillo. Secamos las egagrópilas a temperatura ambiente y tomamos medidas de longitud y ancho (en mm) utilizando un calibrador digital Buffalo Tools, con precisión de  $\pm 0,01$  mm. Pesamos cada egagrópila en una balanza analítica Fisher Scientific 120 g  $\times$  0,001 g. Todos los valores son expresados como media  $\pm$  desviación estándar (rango). El contenido de las egagrópilas fue separado, etiquetado por localidad con códigos únicos, y depositado en la colección del Museo Ecuatoriano de Ciencias Naturales (MECN), Quito.

Utilizamos las siguientes referencias para identificar los restos de mamíferos y para obtener la masa promedio de los taxones: Hershkovitz (1962), Carleton & Musser (1989), Tirira (2007), Weskler & Percequillo (2011), Moreno & Albuja (2014). Para obtener la masa de los reptiles utilizamos la información de Ramírez-Jaramillo *et al.* (2015). En el caso de los mamíferos, aves e insectos también comparamos con especímenes del MECN.

Debido al pequeño tamaño de muestra por localidad, todas las egagrópilas fueron analizadas de manera conjunta. Para cada ítem presa consumido calculamos el número mínimo de individuos (NMI), contando únicamente el número de pares de mandíbulas en insectos o restos de cráneos en aves y mamíferos con el fin de evitar recuento (Manning & Jones, 1990). Obtuvimos la biomasa de cada ítem presa multiplicando la masa media (en g) de cada especie por el NMI correspondiente (Herrera & Jaksic, 1980). Realizamos una correlación lineal simple entre el tamaño de la presa y su frecuencia en las egagrópilas mediante el programa Past 3.1 (Hammer *et al.*, 2011).

## RESULTADOS

Las egagrópilas midieron  $44,0 \pm 5,9$  mm (26,1–60,5 mm) de longitud,  $23,3 \pm 4,8$  mm (16,1–33,1 mm) de ancho y  $2,3 \pm 0,7$  g (1,0–6,02 g) de masa. El número promedio de presas por egagrópila fue  $2,6 \pm 1,1$  (1–5). En total encontramos 167 individuos presas de 22 especies. Los mamíferos fueron las presas más frecuentes en la dieta de *Asio flammeus* (50,8 % de todas los individuos), seguido por insectos (43,1 %), aves (4,7 %) y anfibios y reptiles (0,5 %, cada uno). Entre los mamíferos, los roedores fueron el grupo más consumido (75,2 % del total de mamíferos), siendo las especies más frecuentes *Phyllotis haggardi*, *Akodon* sp. (cf. *mollis*) y *Reithrodontomys soederstroemi* (Tabla 1). Los mamíferos hicieron la mayor contribución energética a la dieta de *A. flammeus*, con casi 87 % de la biomasa total (Tabla 1). La

contribución de biomasa de las aves alcanzó un poco más del 10 %, mientras que aquella de anfibios, reptiles e insectos fue mínima (Tabla 1). No encontramos relación entre la masa de las presas y su frecuencia en las egagrópilas ( $r^2 = -0,042$ ,  $p = 0,359$ ).



Figura 1: Búho Orejicorto *Asio flammeus* perchado en la localidad de Yanacocha, provincia de Pichincha, Ecuador. Fotografía: T. Santander.

Tabla 1: Presas del Búho Orejicorto *Asio flammeus* en tres localidades en la provincia de Pichincha, Ecuador. Localidades: Yanacocha (Y), Aeropuerto Internacional Mariscal Sucre (AIMS) y Tambillo Alto (TA).

Orden/Especie	Localidades			Masa (en g)	Individuos (%)	Biomasa en g (%)
	Y	AIMS	TA			
<b>MAMMALIA</b>					<b>85 (50,8)</b>	<b>2016,6 (86,5)</b>
PAUCITUBERCULATA						
<i>Caenolestes fuliginosus</i>	1	-	-	28	1 (0,6)	28 (1,2)
RODENTIA						
<i>Reithrodontomys soederstroemi</i>	1	12	-	15	13 (7,8)	195 (8,4)
<i>Akodon</i> sp. (cf. <i>mollis</i> )	8	5	1	15	14 (8,4)	210 (9,0)
<i>Phyllotis haggardi</i>	7	8	-	20	15 (9,0)	300 (12,9)
<i>Thomasomys baeops</i>	1	-	-	36	1 (0,6)	36 (1,5)
<i>Microryzomys altissimus</i>	6	-	-	16	6 (3,6)	96 (4,1)
<i>Thomasomys paramorum</i>	2	-	-	25	2 (1,2)	50 (2,1)
<i>Mus musculus</i>	-	2	2	14	4 (2,4)	56 (2,4)

Orden/Especie	Localidades			Masa (en g)	Individuos (%)	Biomasa en g (%)
	Y	AIMS	TA			
<b>CHIROPTERA</b>						
<i>Anoura</i> sp. (cf. <i>fistulata</i> )	2	-	-	12,7	2 (1,2)	25,4 (1,1)
<i>Anoura peruana</i>	4	-	-	15,3	4 (2,4)	61,2 (2,6)
<i>Dermanura</i> sp.	3	-	-	13	3 (1,8)	39 (1,7)
<b>LAGOMORPHA</b>						
<i>Sylvilagus andinus</i> (crías)	1	11	-	70	12 (7,2)	840 (36,0)
<b>EULIPOTYPHLA</b>						
<i>Cryptotis equatoris</i>	2	-	-	10	2 (1,2)	20 (0,9)
<i>Cryptotis osgoodi</i>	3	-	3	10	6 (3,6)	60 (2,6)
<b>AVES</b>						
<b>PASSERIFORMES</b>						
<i>Zonotrichia capensis</i>	-	4	-	22	4 (2,4)	88 (3,8)
<i>Phrygilus plebejus</i>	-	2	-	15	2 (1,2)	30 (1,3)
<i>Turdus fuscater</i>	1	-	-	130	1 (0,6)	130 (5,6)
<i>Catamenia</i> sp.	1	-	-	13	1 (0,6)	13 (0,6)
<b>ANURA</b>						
<i>Pristimantis unistrigatus</i>	1	-	-	0,9	1 (0,6)	0,9 (0,1)
<b>REPTILIA</b>						
<b>SAURIA</b>						
<i>Sternocercus guentheri</i>	-	1	-	11	1 (0,6)	11 (0,1)
<b>INSECTA</b>						
<b>COLEOPTERA</b>						
<i>Barotheus andinus</i>	48	2	4	0,5	54 (32,3)	27 (1,16)
<i>Heterogomphus bourcierii</i>	18	-	-	1	18 (10,8)	18 (0,1)
<b>Total individuos</b>	<b>94</b>	<b>47</b>	<b>10</b>		<b>167 (100)</b>	<b>2334,5 (100)</b>

## DISCUSIÓN

Nuestro estudio indica que la dieta de *Asio flammeus* en Pichincha, Ecuador, está compuesta principalmente por roedores, mayormente especies nativas. Estos resultados coinciden con lo reportado por otros estudios llevados a cabo a lo largo del continente americano (Banfield, 1947; Clark 1975, Rau *et al.*, 1992; Hogan *et al.*, 1996; Martínez *et al.*, 1998; Cirignoli *et al.*, 2001; Reid *et al.*, 2011; Williford *et al.*, 2011; Baladrón *et al.*, 2014; Torres *et al.*, 2014). No obstante, se ha reportado que las ratas del género *Rattus* pueden hacer una importante contribución de biomasa en la época invernal en áreas continentales (Martínez *et al.*, 1998), mientras que en áreas insulares parece consumir mayormente roedores introducidos y aves (de Groot, 1983; Fuentes *et al.*, 1993; Cullen & Smiddy, 2012).

König & Weick (2008) sugirieron que *Asio flammeus* se alimenta de murciélagos de manera poco frecuente. Sin embargo, Torres *et al.* (2014) y en este estudio evidenciamos el consumo de murciélagos. Al parecer, *A. flammeus* puede ser un depredador importante de quirópteros si estos son abundantes (Djilali *et al.*, 2016).

Varias de las especies de mamíferos y reptiles consumidos por *Asio flammeus* en nuestra área de estudio (e.g. *Reithrodontomys sodestromi*, *Phyllotis haggardi*, *Sylvilagus andinus*, *Sternocercus guentheri*) también son presas de otros depredadores simpátricos como *Lycalopex culpaeus* (Trujillo & Trujillo, 2007; Reina, 2013), *Tyto alba* (Moreno & Román, 2013) y *Athene cunicularia* (Cadena-Ortiz *et al.*, 2016). El solapamiento del nicho trófico sugiere que estas presas tienen poblaciones (localmente) numerosas, que son especies particularmente susceptibles de ser cazadas o que hay preferencia de los depredadores hacia estas presas.

Para definir el comportamiento de forrajeo de *Asio flammeus* es necesario estudiar simultáneamente la abundancia y tamaño de presas mediante la recolección de egagrópilas (Jaksic, 1989). *Asio flammeus* ha sido considerado como especialista en mamíferos y aves por su preferencia tanto numérica como de biomasa por estos grupos (Figuroa *et al.*, 2015). Sin embargo, nuestra muestra sugiere una especialización en mamíferos. La falta de correlación entre el tamaño de las presas y su frecuencia en las egagrópilas sugiere que el tamaño de presas manipulable por *A. flammeus* corresponde a mamíferos pequeños, menores a 70 g.

## AGRADECIMIENTOS

Agradecemos a Quiport por financiar el monitoreo biológico en áreas de influencia del AIMS y a César Garzón por coordinar la logística durante la fase inicial del estudio; a Jenny Curay y Rocío Vargas por su asistencia en el trabajo de laboratorio en el MECN; a Tatiana Santander y Esteban Guevara, de Aves y Conservación, por su apoyo en Yanacocha dentro del proyecto "Hacia la conservación participativa de los bosques alto andinos del nor-occidente de Ecuador"; a la familia Páez, propietarios de la finca en Yanacocha, y a Wilson Hipo por su ayuda y observaciones en campo; y a Ricardo Figueroa y un revisor anónimo por sus acertados comentarios para el mejoramiento del manuscrito. El Ministerio del Ambiente facilitó el permiso de investigación No. 01-2014-RIC-FAU-FLO-DPAP-MA, para el trabajo en el AIMS.

## REFERENCIAS

- Albuja, L., Almendáriz, A., Barriga, R., Montalvo, L. D., Cáceres, F., & Román, J. L. (2012). *Fauna de Vertebrados del Ecuador*. Quito: Instituto de Ciencias Biológicas, Escuela Politécnica Nacional.
- Baladrón, A. V., Cavalli, M., & Cardoni, D. A. (2014). Presas del nuco (*Asio flammeus*) en un área de pastizal pampeano de Argentina. *Boletín Chileno de Ornitología*, 20(1-2), 33–36. Recuperado de: <http://aveschile.cl/web/wp-content/uploads/2015/07/Baladr%C3%B3n-et-al..pdf>
- Banfield, A. W. F. (1947). A study of the winter feeding habits of the Short-eared Owl (*Asio flammeus*) in the Toronto Region. *Canadian Journal of Research*, 25(2), 45–65. doi: <http://doi.org/10.1139/cjr47d-003>
- Belloq, M. I. (2000). A review of the trophic ecology of the Barn Owl in Argentina. *Journal of Raptor Research*, 34(2), 108–119. Recuperado de: <https://sora.unm.edu/node/53810>
- Bó, M. S., Baladrón, A. V., & Biondi, L. M. (2007). Ecología trófica de Falconiformes y Strigiformes: tiempo de síntesis. *El Hornero*, 22(2), 97–115. Recuperado de: <http://ref.scielo.org/qp5cdf>
- Borrero, J. I. (1962). Notas varias sobre *Asio flammeus bogotensis* en Colombia. *Revista de Biología Tropical*, 10(1), 45–59. Recuperado de: <http://www.ots.ac.cr/rbt/attachments/volumes/vol10-1/06-Borrero-Asio.pdf>
- Brito, J., Orellana-Vásquez, H., Cadena-Ortiz, H., Vargas, R., Pozo-Zamora, G., & Curay, J. (2015). Mamíferos pequeños en la dieta de la lechuza *Tyto alba* (Strigiformes: Tytonidae) en dos localidades del occidente de Ecuador, con ampliación distribucional de *Ichthyomys hydrobates* (Rodentia: Cricetidae). *Papéis Avulsos de Zoología*, 55(19), 261–268. doi: <http://dx.doi.org/10.1590/0031-1049.2015.55.19>
- Cadena-Ortiz, H., Freile, J. F., & Bahamonde-Vinueza, D. (2013). Información sobre la dieta de algunos búhos (Strigidae) del Ecuador. *Ornitología Neotropical*, 24(4), 469–474. Recuperado de: <https://sora.unm.edu/node/133393>
- Cadena-Ortiz, H., Garzón, C., Villamarín-Cortéz, S., Pozo-Zamora, G. M., Echeverría-Vaca, G., Yáñez, J., & Brito-M, J. (2016). Diet of the Burrowing Owl *Athene cunicularia*, in two locations of the inter-Andean valley Ecuador. *Revista Brasileira de Ornitología*, 24(2), 122–128. Recuperado de: [http://www4.museu-goeldi.br/revistabornito/revista/index.php/BJO/article/view/1153/pdf\\_960](http://www4.museu-goeldi.br/revistabornito/revista/index.php/BJO/article/view/1153/pdf_960)
- Carleton, M. D., & Musser, G. G. (1989). Systematic studies of *Oryzomyine rodents* (Muridae, Sigmodontinae): a synopsis of *Microroryzomys*. *Bulletin of the American Museum of Natural History*, 191, 1–83. Recuperado de: <http://digitallibrary.amnh.org/handle/2246/953?show=full>
- Cirignoli, S., Podestá, D. H., & Pardiñas, U. F. J. (2001). Diet of the Short-eared Owl in northwestern Argentina. *Journal of Raptor Research*, 35(1), 68–69. Recuperado de: <https://sora.unm.edu/sites/default/files/journals/jrr/v035n01/p00068-p00069.pdf>
- Clark, R. J. (1975). A field study of the Short-eared Owl, *Asio flammeus* (Pontoppidan), in North America. *Wildlife Monographs*, 47, 3–67. Recuperado de: <http://www.jstor.org/stable/3830422>
- Cullen, C., & Smiddy, P. (2012). Diet of Short-eared Owls *Asio flammeus* over seven winters in country Cork, Ireland. *Biology and Environment: Proceedings of the Royal Irish Academy*, 112B(2), 217–223. Recuperado de: <http://www.jstor.org/stable/41714033>
- De Groot, R. S. (1983). Origin, status and ecology of the owls in Galapagos. *Ardea*, 71, 167–182. Recuperado de: [http://ardea.nou.nu/ardea\\_show\\_abstract.php?lang=nl&nr=957](http://ardea.nou.nu/ardea_show_abstract.php?lang=nl&nr=957)
- Delibes, J., Hiraldo, F., & Heredia, B. (1991). Datos sobre la dieta invernal de la Lechuza Campesina (*Asio flammeus*) en un periodo de abundancia de Topillo Campesino (*Microtus arvalis*) en la Submeseta Norte (España). *Ecología*, 5, 355–358. Recuperado de: [http://www.mapama.gob.es/gl/parques-nacionales-oapn/publicaciones/ecologia\\_05\\_28\\_tcm10-45780.pdf](http://www.mapama.gob.es/gl/parques-nacionales-oapn/publicaciones/ecologia_05_28_tcm10-45780.pdf)

- Diéguez, A. J. (1996). Aves depredadas por *Asio flammeus suinda* – 1 – en Saladillo, Provincia de Buenos Aires. *APRONA Boletín Científico Asociación para la Protección de la Naturaleza*, IX (30), 25–26. Recuperado de: [http://www.sarem.org.ar/wp-content/uploads/2015/08/BoletinAPRONA\\_30\\_ago1996.pdf](http://www.sarem.org.ar/wp-content/uploads/2015/08/BoletinAPRONA_30_ago1996.pdf)
- Djilali, K., Sekour, M., Souttou, K., Ababsa, L., Guezoul, O., Denys, C., & Doumandji, S. (2016). Diet of Short-eared Owl *Asio flammeus* (Pontoppidan, 1763) in desert area at Hassi El Gara (El Golea, Algeria). *Zoology and Ecology*, 26(6), 159–165. doi: <http://dx.doi.org/10.1080/21658005.2016.1184907>
- Figueroa, R. A., Rau, J. R., Mayorga, S., Martínez, D. R., Corales, E. S., Mansilla, A., & Figueroa, R. (2009). Rodent prey of the barn owl *Tyto alba* and short-eared owl *Asio flammeus* during winter in agricultural lands in southern Chile. *Wildlife Biology*, 15(2), 129–136. doi: <http://doi.org/10.2981/08-005>
- Figueroa, R. A., Alvarado, S., Corales, E. S., González-Acuña, D., Schlatter, R., & Martínez, D. R. (2015). Los Búhos de Chile. En: P. L. Enríquez (Ed), *Los Búhos Neotropicales: diversidad y conservación* (pp.173–272). México: Ecosur.
- Freile, J. F., Castro, D. F., & Varela, S. (2012). Estado del conocimiento, distribución y conservación de aves rapaces nocturnas en Ecuador. *Ornitología Neotropical*, 23(supplement), 235–244. Recuperado de: <https://sora.unm.edu/sites/default/files/Freile.pdf>
- Freile, J. F., Guevara, E., Pacheco, C., & Santander, T. (2015). Los Búhos del Ecuador. En P. L. Enríquez (Ed), *Los Búhos Neotropicales: diversidad y conservación* (pp. 333–353). México: Ecosur.
- Fuentes, M. A., Simonetti, J. A., Sepúlveda, M. S., & Acevedo, P. A. (1993). Diet of the Red-backed Buzzard (*Buteo polyosoma exsul*) and the Short-eared Owl (*Asio flammeus suinda*) in the Juan Fernández Archipelago of Chile. *Journal of Raptor Research*, 27(3), 167–169. Recuperado de: <https://sora.unm.edu/node/53368>
- Hammer,  $\phi$ ., Harper, D. A. T., & Ryan, P. D. (2001). PAST: Paleontological statistics software package for education and data analysis. *Palaeontologia Electronica*, 4(1), 1–9. Recuperado de: [http://palaeo-electronica.org/2001\\_1/past/issue1\\_01.htm](http://palaeo-electronica.org/2001_1/past/issue1_01.htm)
- Herrera, C. M., & Jaksic, F. M. (1980). Feeding ecology of the barn owl in Central Chile and southern Spain: a comparative study. *Auk*, 97(4), 760–767. Recuperado de: <http://www.jstor.org/stable/4085747>
- HersHKovitz, P. (1962). Evolution of Neotropical cricetine rodents (Muridae) with special reference to the Phyllotine group. *Fiel-diana Zoology*, 46, 1–524. doi: <http://dx.doi.org/10.5962/bhl.title.2781>
- Hogan, K. M., Hogan, M. L., Gable, J., & Bray, M. (1996). Notes on the diet of Short-eared Owls (*Asio flammeus*) in Texas. *Journal of Raptor Research* 30(2), 102–104. Recuperado de: <https://sora.unm.edu/node/53537>
- Holt, D. W. (1993). Trophic niche of Nearctic Short-eared Owls. *Wilson Bulletin*, 105(3), 497–503. Recuperado de: <http://www.jstor.org/stable/4163325>
- Jaksic, S. M. (1989). What do carnivorous predators cue in on: size or abundance of mammalian prey? A crucial test in California, Chile, and Spain. *Revista Chilena de Historia Natural*, 62(2), 237–249. Recuperado de: [http://rchn.biologiachile.cl/pdfs/1989/2/Jaksic\\_1989.pdf](http://rchn.biologiachile.cl/pdfs/1989/2/Jaksic_1989.pdf)
- Jathar, G. A., Deshmukh, A. J., Khawale, V. S., Patil, P. S., Pradhan, M. S., Talmale, S. S., Nandvikar, P. D., & Sawant, A. D. (2011). Winter diet of Short-eared Owls *Asio flammeus* in Akola, Maharashtra. *Indian Birds*, 7(1), 17–19. Recuperado de: <http://www.indianbirds.in/pdfs/Short-eared%20Owls.pdf>
- Kleefstra, R., Barkema, L., Venema, D. J., & Spijkstra-Scholten, W. (2015). A plague of voles, an invasion of breeding Short-eared Owls *Asio flammeus* in the province of Friesland in 2014. *Limosa*, 88(2), 74–82. Recuperado de: [http://www.nou.nu/limosa/limosa\\_samenvatting.php?language=UK&nr=5128](http://www.nou.nu/limosa/limosa_samenvatting.php?language=UK&nr=5128)
- König, C., & Weick, F. (2008). *Owls of the world, second edition*. London: Christopher Helm.
- Lin, W. L., & Yeh, C. C. (2002). Winter diet of the Short-eared Owl *Asio flammeus* (Pontoppidan) at the Augu Farm and the Tatu Rivermouth of Taiwan. *Endemic Species Research*, 4(2), 63–71.
- Manning, R. W., & Jones, J. K. (1990). Remains of small mammals recovered from Barn Owl pellets from Crosby county, Texas. *Texas Journal of Science*, 42, 311–312. Recuperado de: <http://www.freepatentsonline.com/article/Texas-Journal-Science/128674097.html>
- Marti, C. D., Steenhof, K., Kochert, M. N., & Marks, J. S. (1993). Community trophic structure: the doles of diet, body size,

and activity time in vertebrate predators. *Oikos*, 67(1), 6–18. doi: <http://doi.org/10.2307/3545090>

Martínez, D. R., Figueroa, R. A., Ocampo, C. L., & Jaksic, F. M. (1998). Food habits and hunting ranges of Short-eared Owls (*Asio flammeus*) in agricultural landscapes of southern Chile. *Journal of Raptor Research*, 32(2), 111–115. Recuperado de: <https://sora.unm.edu/node/53667>

Moreno, P. (2010). Mamíferos presentes en la dieta de la Lechuza de Campanario (*Tyto alba*) en Valdivia, provincia de Guayas, Ecuador. *Avances en Ciencias e Ingenierías*, 2(3), B87–B90. doi: <http://dx.doi.org/10.18272/aci.v2i3.50>

Moreno, P., & Román, J. L. (2013). Clasificación del género *Reithrodontomys* en el Ecuador y comentarios sobre la alimentación de la lechuza de campanario (*Tyto alba*) en los alrededores de Quito. *Boletín Técnico, Serie Zoológica*, 11(8-9), 16–23. Recuperado de: <http://bibdigital.epn.edu.ec/handle/15000/6456>

Moreno C., P., & Albuja, L. (2014). Una nueva especie de musaraña del género *Cryptotis* Pomel 1848 (Mammalia: Soricomorpha: Soricidae) de Ecuador y estatus taxonómico de *Cryptotis equatoris* Thomas (1912). *Papéis Avulsos de Zoología*, 54(28), 403–418. doi: <http://dx.doi.org/10.1590/0031-1049.2014.54.28>

Ramírez-Jaramillo, S., Bejarano-Muñoz, P., Rodríguez-Badillo, M., & Yáñez-Muñoz, M. (2015). Uso de perchas nocturnas por *Sternocercus guentheri* (Iguanidae: Tropidurinae) en dos ecosistemas del distrito metropolitano de Quito (Ecuador). *Boletín de la Asociación Herpetológica Española*, 26(1), 29–32. Recuperado de: [http://www.herpetologica.org/BAHE/BAHE26\(1\)\\_%5B240%5D\\_04\\_HNat11.pdf](http://www.herpetologica.org/BAHE/BAHE26(1)_%5B240%5D_04_HNat11.pdf)

Rau, J. R., Villagra, M. C., Mora, M. L., Martínez, D. R., & Tillería, M. S. (1992). Food habits of the Short-eared Owl (*Asio flammeus*) in southern South America. *Journal of Raptor Research*, 26(1), 35–36. Recuperado de: <https://sora.unm.edu/node/53259>

Reid, D. G., Doyle, F. I., Kenney, A. L., & Krebs, C. J. (2011). Some observations of Short-eared Owl, *Asio flammeus*, ecology on Arctic Tundra, Yukon, Canada. *Canadian Field-Naturalist* 125(4), 307–315. Recuperado de: <http://canadianfieldnaturalist.ca/index.php/cfn/article/view/1259/1242>

Reina, D. S. (2013). Análisis de los componentes alimentarios en la dieta del lobo de páramo *Lycalopex culpaeus* (Carnivora: Canidae) en el sector de la plataforma del Nuevo Aeropuerto "Mariscal Sucre", parroquia Tababela, cantón Quito, provincia de Pichincha (Tesis de Licenciatura). Escuela de Biología, Universidad Central del Ecuador, Quito, Ecuador.

Roberts, J. L., & Bowman, N. (1986). Diet and ecology of Short-eared Owls *Asio flammeus* breeding on heather moor. *Bird Study*, 33(1), 12–17. doi: <http://dx.doi.org/10.1080/00063658609476885>

Tirira, D. (2007). *Guía de campo de los mamíferos del Ecuador*. Quito, Ecuador: Ediciones Murciélago Blanco.

Torres, J. C., Teta, P., & de la Sancha, N. U. (2014). Presas del Búho Campestre (*Asio flammeus*) en un Agroecosistema Subtropical de Paraguay. *Nuestras Aves*, 59, 24–27. Recuperado de: <http://hdl.handle.net/11336/9738>

Trujillo, F., & Trujillo, J. (2007). Alimentación del lobo (*Lycalopex culpaeus*), en el Bosque Protector Jerusalen, Guayllabamba-Ecuador. *Politécnica, Biología*, 27(7), 68–75. Recuperado de: <http://bibdigital.epn.edu.ec/handle/15000/3838>

Weskler, M., & Percequillo, A. (2011). Key to the genera of the tribe Oryzomyini (Rodentia: Cricetidae: Sigmodontinae). *Mastozoología Neotropical*, 18(2), 281–292. Recuperado de: <http://www.redalyc.org/articulo.oa?id=45722044010>

Williford, D., Woodin, M. C., & Skoruppa, M. K. (2011). The winter diet of Short-eared Owls in subtropical Texas: do southern diets provide evidence of opportunism? *Journal of Raptor Research*, 45(1), 63–70. doi: <http://dx.doi.org/10.3356/JRR-10-40>

1

## ARTÍCULO/ARTICLE

**Rare Birds in Ecuador: Third Report of the Committee for Ecuadorian Records in Ornithology (CERO)**Juan F. Freile<sup>1,2\*</sup>, Alejandro Solano-Ugalde<sup>1,3</sup>, Dušan M. Brinkhuizen<sup>1,4</sup>, Paul J. Greenfield<sup>1,5</sup>, Mitch Lysinger<sup>1,6</sup>, Jonas Nilsson<sup>1,7</sup>, Lelis Navarrete<sup>1</sup>, Robert S. Ridgely<sup>1,8</sup><sup>1</sup>Comité Ecuatoriano de Registros Ornitológicos (CERO).<sup>2</sup>Red Aves Ecuador. Pasaje El Moro E4-216 y Norberto Salazar, Tumbaco.<sup>3</sup>Fundación Imaymana, Paltapamba 476, San Pedro del Valle, Nayón.<sup>4</sup>Rockjumper Birding Tours, Casilla Postal 17-07-9345, Quito.<sup>5</sup>Mindo Cloudforest Foundation, Urb. El Bosque, 2da Etapa, calle Sexta #161, edif. El Parque, Quito.<sup>6</sup>Cabañas San Isidro, avenida Siena 318 y calle A, edif. MDX, of. 310, Cumbayá.<sup>7</sup>Wildsumaco Lodge, Leonardo da Vinci 239 y Rafael Sanzio, edif. Oberer, Cumbayá.<sup>8</sup>Rainforest Trust, 7078 Airlie Road, Warrenton, VA 20187.

\* Autor para correspondencia/Corresponding author, e-mail: cero.ecuador@gmail.com

Editado por/Edited by:

Recibido/Received: . Aceptado/Accepted: .

Publicado en línea/Published on Web: . Impreso/Printed: .

DOI:

**Aves raras en Ecuador: tercer reporte del Comité Ecuatoriano de Registros Ornitológicos (CERO)****Resumen**

Presentamos nuevos registros de distribución de aves del Ecuador que han sido presentados al Comité Ecuatoriano de Registros Ornitológicos (CERO) entre abril 2014 y agosto 2015. Incluimos reportes de seis especies nuevas para Ecuador (*Anas crecca*, *Thalassarche bulleri*, *Puffinus puffinus*, *Morus* sp., *Numenius americanus* y *Elaenia strepera*), una especie nueva para el Ecuador continental (*Fregatta grallaria*), cuatro especies con primera documentación en Ecuador (*Calidris alpina*, *Larus argentatus*, *Stercorarius longicaudus* y *Tyrannus dominicensis*), extensiones considerables de distribución de 14 especies (*Podilymbus podiceps*, *Pterodroma phaeopygia*, *Charadrius semipalmatus*, *C. collaris*, *Bartramia longicauda*, *Calidris alba*, *Limnodromus scolopaceus*, *Phalaropus fulicarius*, *Stercorarius longicaudus*, *Sternula superciliaris*, *Chlidonias niger*, *Galbula dea*, *Elaenia spectabilis* y *Geothlypis philadelphia*), nuevos reportes de 12 especies raras (*Aythya affinis*, *Sula leucogaster*, *Busarellus nigricollis*, *Stercorarius chilensis*, *Chordeiles minor*, *Psittacara wagleri*, *Philydor fuscipenne*, *Muscisaxicola fluviatilis*, *Pyroderus scutatus*, *Passerina caerulea*, *Vermivora chrysoptera* y *Setophaga castanea*) y el primer reporte moderno de *Oreopholus ruficollis*. Presentamos el primer registro en Ecuador de la subespecie *Lurocalis semitorquatus semitorquatus* y el segundo registro de la subespecie *Petrochelidon pyrrhonota melanogaster*. Finalmente, invalidamos los registros previos de *Picumnus castelnau*, especie que no habita en Ecuador. CERO revisa y actualiza el listado de aves del Ecuador, que en la actualidad alcanza las 1679 especies (1626 confirmadas y documentadas, y 53 no documentadas).

**Palabras Clave.** Aves, nuevos registros, extensiones de distribución.**Abstract**

Here we present noteworthy records of birds in Ecuador submitted to the Committee for Ecuadorian Records in Ornithology (CERO) from April 2014 through August 2015. This report includes six species new to Ecuador (*Anas crecca*, *Thalassarche bulleri*, *Puffinus puffinus*, *Morus* sp., *Numenius americanus* and *Elaenia strepera*), one species new to continental Ecuador (*Fregatta grallaria*), four species with first documented records (*Calidris alpina*, *Larus argentatus*, *Stercorarius*



*longicaudus* and *Tyrannus dominicensis*), remarkable range extensions for 14 species (*Podilymbus podiceps*, *Pterodroma phaeopygia*, *Charadrius semipalmatus*, *C. collaris*, *Bartramia longicauda*, *Calidris alba*, *Limnodromus scolopaceus*, *Phalaropus fulicarius*, *Stercorarius longicaudus*, *Sternula superciliaris*, *Chlidonias niger*, *Galbula dea*, *Elaenia spectabilis* and *Geothlypis philadelphia*), and new records of 12 rare species (*Aythya affinis*, *Sula leucogaster*, *Busarellus nigricollis*, *Stercorarius chilensis*, *Chordeiles minor*, *Psittacara wagleri*, *Philydor fuscipenne*, *Muscisaxicola fluviatilis*, *Pyroderus scutatus*, *Passerina caerulea*, *Vermivora chrysoptera* and *Setophaga castanea*), and the first modern record of *Oreopholus ruficollis*. We present the first record of the subspecies *Lurocalis semitorquatus semitorquatus*, and the second record of the subspecies *Petrochelidon pyrrhonota melanogaster*. Finally, we invalidate previous records of *Picumnus castelnau*, a species that does not occur in Ecuador. CERO revises and updates the bird list of Ecuador, which currently stands at 1679 species (1626 confirmed and documented; 53 undocumented).

**Keywords.** Birds, new country records, range extensions.

---

## INTRODUCTION

With two annual reports published to date, the Committee for Ecuadorian Records in Ornithology (CERO) has updated and revised the national checklist of birds with data reported by several observers from February 1997 through March 2014 (Freile et al., 2013; Nilsson et al., 2014). To date, CERO has reported 15 new country records (13 species and 2 subspecies), first documented records for 19 species, and significant range extensions for over 60 species. Likewise, CERO has removed six species from the country's bird list due to previous identification or collections errors (Janni & Pulcher, 2007; Nilsson et al., 2014).

The increasing number of observers compiling and publishing information on the birds of Ecuador, combined with an ongoing upsurge in ornithological literature on the systematics of Neotropical birds (Remsen et al., 2016), has generated numerous advances in the knowledge of the taxonomy, distribution, ecology, and status of Ecuadorian birds. The goal of CERO is to contribute to this growing body of information by periodically updating, revising and publishing the official checklist of birds of Ecuador on its webpage: [www.ceroecuador.wordpress.com](http://www.ceroecuador.wordpress.com)

Currently, the Ecuador bird list, including the results presented in this third report, stands at 1679 species (53 undocumented) (Freile et al., 2016).

## METHODS

CERO receives and reviews record forms of rare species, new country records, and/or significant range extensions, voluntarily submitted by the observer or observers themselves through CERO's webpage and e-mail address ([cero.ecuador@gmail.com](mailto:cero.ecuador@gmail.com)). The updated country checklist and a list of 'most-wanted' species are published in the webpage, allowing observers to consult the status of the birds of Ecuador. New country records are evaluated and have to be accepted by unanimous vote, while first documentation and undocumented records of previous hypothetical species are accepted by majority vote.

Most sound-recordings were deposited by observers at xeno-canto online archive ([www.xeno-canto.org](http://www.xeno-canto.org)), for which a XC code and citation are provided in the species accounts. Photographs are deposited at CERO digital archives, and most are published in this report (Figs. 1–8). Locality coordinates and elevation are provided in Table 1. New country records are marked with an asterisk (\*) in the species accounts. Taxonomy and species sequence follows the latest (August 2016) version of SACC (Remsen et al., 2016).

In this report CERO presents 51 records of 45 species submitted in the period from April 2014 through August 2015. The received records were made between September 1996 and June 2015, using different survey protocols and documentation techniques.

## RESULTS AND DISCUSSION

### Green-winged Teal *Anas crecca*

Record no. 2015-031: Province of Manabí, La Segua, 28 and 30 December 2014, R. Ahlman, D. Brinkhuizen and J. Nilsson (photo).

A single drake was first observed on 28 December 2014 by R. Ahlman. It was foraging among a flock of Blue-winged Teal *Anas discors* and White-cheeked Pintail *A. bahamensis*. It was relocated by D. Brinkhuizen and J. Nilsson on 30 December 2014, at the same place. This record was first published, including voucher photograph, by Ahlman (2016). The species regularly winters in southern North America, Central America and the Caribbean, with few accidental records in northern Colombia, northern Venezuela, and Trinidad and Tobago (Madge & Burn, 1988; Restall et al., 2006).

### Lesser Scaup *Aythya affinis*

Record no. 2015-029: Province of Cotopaxi, Laguna de Yambo, January-March 2014, A. Soria, S. Niquinga, J. M. Loaiza, J. Bedoya, J. Freile, A. Naveda, and G. Bucheli (photo).

Two females were observed from late January through late March during waterbird censuses and birding visits (Fig. 5a). They were feeding among a flock of Ruddy Ducks *Oxyura jamaicensis* in fairly shallow waters along the lake's shoreline. Record localities and overall numbers of this boreal migrant duck in Ecuador have notably increased in recent years (Freile et al., 2013; Nilsson et al., 2014), suggesting that the species is currently an annual visitor to northern Ecuador. This is the species' southernmost record in the Interandean valley of Ecuador, and the first for Laguna de Yambo.

### Pied-billed Grebe *Podilymbus podiceps*

Record no. 2014-050: Province of Napo, Laguna Añangucocha, 2 February 2014, C. Talkington (photo).

A single individual was seen at close range (less than 100 m) swimming at Laguna Añangucocha, Napo Wildlife Centre (Fig. 4a). This represents the species' first record for eastern Ecuador, 190-200 km E of its breeding range in the Andean wetlands in Pichincha and Imbabura provinces (Ridgely & Greenfield, 2001). This individual most likely belongs to the subspecies *P. p. antarcticus*, because of its proportionately heavy and thick bill.

### \*Buller's Albatross *Thalassarche bulleri*

Record no. 2014-041: Province of Santa Elena, Ayangué, 1997, R. Carvajal and P. Amador (*vide* B. Haase) (photo).

One fresh, washed-out dead individual was found and photographed on an undetermined date (possibly April) in 1997 at Ayangué (Haase, 2011). The specimen was not collected but a single photograph was delivered to B. Haase (Fig. 1a). Bill and underwing patterns confirm the identification, excluding similar Grey-headed *Thalassarche chrysostoma* and Salvin's *T. salvini* albatrosses (Onley & Scofield, 2007). This represents the first record for Ecuador (Ridgely & Greenfield, 2001; Freile et al., 2016). The species has been reported as a rare austral visitor to south and central Peru (Schulenberg et al., 2007), but regularly winters off central Chile (Onley & Scofield, 2007).

### Galapagos Petrel *Pterodroma phaeopygia*

Record no. 2014-042: Province of Carchi, Gualchán, 16 March 2010, José María Loaiza, and José Hernández (photo).

A single adult male, as labeled by the collectors, was found by José Hernández. The bird was present along a small river for c. 3 months before it weakened, and was finally trapped for inspection, but died (Fig. 4b). The specimen is deposited at the Museo Ecuatoriano de Ciencias Naturales (MECN 0192). This represents the first record for inland Ecuador, c. 105 km from the coast at an elevation of c. 1100 m (Ridgely & Greenfield, 2001; Freile et al., 2016), and the first inland continental record we are aware of a *Pterodroma* petrel (Onley & Scofield, 2007).

Table 1: Localities of records submitted to the Committee for Ecuadorian Records in Ornithology (CERO) between April 2014 and August 2015. Asterisk indicates localities mentioned in species accounts only, not records submitted to CERO.

Locality, province	Coordinates	Elevation (m)
15 km on Pachijal-Guayabillas road, Pichincha	c. 0.203/-78.897	c. 700
2 Km N San Cristóbal, Galápagos	-0.65/-89.366	0
3-4 km S Catamayo, Loja	-4.05/-79.367	1200
7 km N of Canelos, Pastaza	-1.525/-77.761	700
Aeropuerto de Quito, Tababela, Pichincha	-0.108/-78.365	2350
Atacames bypass, Esmeraldas	0.866/-79.833	50
Ayangue, Santa Elena	-1.983/-80.733	0
Bermejo, Sucumbíos*	0.176/-77.360	980
Camino de Borja, Napo	0.416/-77.833	c. 1600
Canal Bolívar, Galápagos	-0.2069/-91.4616	0
Cascada de San Rafael, Napo*	-0.109/-77.593	1250
Durán, Guayas*	-2.20/-79.833	3
El Corazón de Nuevo Mundo, Carchi	0.70/-78.133	1595
Gualchán, Carchi	0.711/-78.197	c. 1100
Isla de los Pájaros, Esmeraldas*	1.366/-78.9	0
Isla Española, Galápagos*	1.416/-89.70	0
Jardín Botánico de Quito, Pichincha	-0.186/-78.485	2780
Kapawi, Pastaza*	-2.75/-76.75	200
La Chocolatera, Santa Elena	-2.189/-81.011	0
La Segua, Manabí	-0.713/-80.201	2
La Selva, Sucumbíos	-0.498/-76.373	250
Lagartococha, Sucumbíos*	-0.601/-75.244	180
Laguna Añangucocha, Orellana	-0.533/-76.400	220
Laguna de Papallacta, Napo	-0.376/-78.166	3356
Laguna de Yambo, Cotopaxi	-1.102/-78.589	2585
Laguna Limpio-pungo, Cotopaxi*	-0.62/-78.476	3660
Las Peñas, Esmeraldas	1.10/-79.15	0
Limoncocha, Sucumbíos	-0.390/-76.599	230
Mindo, Pichincha*	-0.083/-78.767	1260
Near Guadual, Imbabura	c.0.688/-78.197	1800
off Salinas, Santa Elena	c. -2.20/-81.216	0
Playa de Tarqui, Manabí	-0.933/-80.716	0
Playas de Chito, Zamora Chinchipe	-4.9419/-79.053	1040
Puente de Chimbo, Chimborazo*	-2.213/-79.136	330
Puerto Pitahaya, El Oro*	-3.424/-80.077	0
Punta Carnero, Santa Elena	-2.289/-80.913	1
Reservorio de Cumbayá, Pichincha	-0.193/-78.427	2360
Río Bigal Biological Reserve, Orellana	-0.537/-77.425	900
Río Blanco, Esmeraldas*	0.0435/-79.403	90
Río Napo near Añangu, Orellana	c. -0.505/-76.401	c. 220
Río Verde, Sucumbíos*	0.237/-77.576	750
Samana, Los Ríos	-1.657/-79.323	700
San Sebastián, Galápagos	Unknown locality	0
Tipischa, Sucumbíos	0.295/-76.177	c. 300
Tiputini Biodiversity Station, Orellana	-0.638/-76.150	c. 235
Sarayacu, Loreto, Peru	-6.733/-75.10	125
Yaguarcocha, Imbabura*	0.372/-78.103	2200

**\*Manx Shearwater *Puffinus puffinus***

Record no. 2015-030: Province of Galápagos, 2 km N of San Cristóbal Island, 13 August 2011, G. Armistead (photo).

An adult was recorded by G. Armistead 2 km N of San Cristóbal, and a single photograph was published in *Cotinga*



Figure 1: New country records for Ecuador. a) *Thalassarche bulleri* (R. Carvajal, P. Amador); b) *Puffinus puffinus* (G. Armistead); c) *Elaenia strepera* (J. G. Blake).

34: 186 (Kirwan et al., 2012). Additional photos submitted by the observer to CERO allowed for a more thorough assessment to confirm its identification (Fig. 1b). This is the first record for Galápagos and Ecuador (Wiedenfeld, 2006; Freile et al., 2016). This Atlantic Ocean species has occasionally been reported from the Pacific Ocean off Washington, Oregon and California, USA, south to Oaxaca, Mexico; also around Cape Horn and off S and C Chile (Sibley, 2003; Howell, 2012; Carboneras et al., 2016).

**\*White-bellied Storm-Petrel *Fregetta grallaria***

Record no. 2015-004: Province of Santa Elena, La Chocollatera, 25 August 2014, J. Nilsson.

A presumably adult bird was observed flying slowly, alternating between glides and flaps, and tilting from side to side, periodically (every 4–5 m) dashing its breast against the water, then bouncing free while dangling its feet. Several times it sliced the water's surface with one wing tip, a behavior described as typical and distinctive of the genus *Fregetta* (Onley & Scofield, 2007). It was observed at 80–100 m distance range under good to medium light conditions. Careful study of field characters permitted identification from congeners and from the less chunky *Oceanodroma* and *Oceanites* storm-petrels. There are a few confirmed records from Galápagos, including one specimen (Wiedenfeld, 2006), but no previous records of this species from Ecuador's mainland coast. It normally ranges well to the west of mainland Ecuadorian waters (Onley & Scofield, 2007), with a few undocumented records from Peru (Schulenberg et al., 2007), but post-breeding movements are not well known (Onley & Scofield, 2007). Given the lack of documentation to support this record, the species is classified as hypothetical (i.e., undocumented) for mainland Ecuador.

**Brown Booby *Sula leucogaster***

Record no. 2015-006: Province of Santa Elena, La Chocollatera, 6 September 2014, C. Hinkle, A. Hinkle, J. Nilsson and B. Haase (photo).

A single individual was observed flying southwards, low over the water. The species has been regularly observed

at La Chocolatera since 2013 (Freile et al., 2013; Nilsson et al., 2014), with earlier records from 2010 (Haase, 2011). Despite the low number of records until 2010, we now believe *S. leucogaster* is a regular wanderer or transient along the Ecuadorian coast. Therefore, CERO no longer requests records of this species from the Santa Elena province.

**\* Gannet sp. *Morus* sp.**

Record no. 2015-023: Province of Santa Elena, La Chocolatera, 13 May 2002, B. Haase.

An adult was observed flying low over the water, at a distance of c. 150 m. The bird was alone, flying northwest. The following characters were noted: very large 'booby', white body and basal half of wings; pale lead-grey bill with dark linings; black mask; noticeable yellow cast to crown and hindneck; black flight feathers and tail. The bird was identified as Cape Gannet *Morus capensis* by the observer, who provided a detailed description, with comparisons of *Sula* species known to visit the Ecuadorian coast, either regularly or accidentally. However, description details were insufficient to separate it from the extremely similar Australasian Gannet *M. serrator* (Harrison, 1987). Even though *M. capensis* – and not *M. serrator* – has previously been recorded from the Pacific coast of South America (García-Godos, 2002), we prefer to tentatively accept this record as a gannet *Morus* sp. Due to absence of documentation, the species is classified as hypothetical.

**Black-collared Hawk *Busarellus nigricollis***

Record no. 2014-050: Province of Sucumbíos, Laguna Limoncocha, 29 May 2014, R. Ahlman (photo).

An adult was observed at the northeast section of Laguna Limoncocha, along a marsh-fringed, stream-like portion of the lake (Fig. 5b). In Ecuador, the species is known mainly from the Lagartococha River drainage at the far eastern border with Peru (Ridgely & Greenfield, 2001), 130–150 km E of Limoncocha. It was not previously reported from Limoncocha despite extensive fieldwork from 1963 through 1976 (Pearson et al., 1972; Tallman & Tallman, 1977).

**Tawny-throated Dotterel *Oreopholus ruficollis***

Record no. 2015-021: Province of Santa Elena, La Chocolatera, 3-21 June 2015, B. Haase and J. Nilsson (photo).

A single adult was first found on 3 June and last seen on 21 June 2015 in open, barren, desert-like terrain bordering the ocean, with gently rolling sand dunes and rocky areas (Fig. 3). The previous mainland record for Ecuador was in 1898, when two birds were collected in Santa Elena Peninsula, one of them labeled as immature (Salvadori & Festa, 1900). There is in addition a single observation of a bird photographed on Isla Española, Galápagos, on 23 June 1991 (Ridgely & Greenfield, 2001). The bird of La Chocolatera belongs to the subspecies *Oreopholus ruficollis pallidus* as it showed pale buffy scapulars and wing-coverts with very thin black central stripes (nominate *O. r. ruficollis* has much broader, darker lines over a richer, deeper creamy background). It also had a paler grey crown, back and breast compared with the nominate form (Schulenberg et al., 2007). The subspecific identity of Ecuadorian birds has not been fully resolved, but Ridgely & Greenfield (2001) suggested they were *O. r. pallidus*. Subspecific identity of the two 1898 specimens, as well as of the Galápagos bird has to be determined. The species was ranked as extirpated from Ecuador (Granizo, 2002) but it is not fully clear if *O. ruficollis* is a resident or an occasional wanderer from coastal Peru.

**Semipalmated Plover *Charadrius semipalmatus***

Record no. 2015-016: Province of Pichincha, Aeropuerto de Quito, Tababela, 19 December 2014, J. Nilsson (photo).

A single bird was feeding on mudflats at a reservoir shore, at a distance of c. 200 m. Due to the distance and given that no voice was heard, the Common Ringed Plover *Charadrius hiaticula* from Eurasia could not be entirely ruled out. However, we consider it very unlikely this species was involved, as there are no confirmed records in South America (Remsen et al., 2016). There are a few previous records of *C. semipalmatus* from Andean Ecuador (Ridgely & Greenfield, 2001), including Reservorio de Cumbayá and Laguna Limpiopungo, 8 km W and 32 km SW of Tababela, respectively.

**Collared Plover *Charadrius collaris***

Record no. 2015-007: Province of Pichincha, Reservorio de Cumbayá, 30 October 2014, J. Nilsson (photo).

A single bird was observed from 30 October to 1 November 2014 (Fig. 4c). This is the species' first highland record in Ecuador, where it is normally found along riverbanks and beaches in the lowlands and along the coast (Ridgely & Greenfield, 2001). There are few records in the Andes of Bolivia (Fjeldså & Krabbe, 1990).

**Upland Sandpiper *Bartramia longicauda***

Record no. 2015-017: Province of Manabí, Playa de Tarqui, Manta, 18 September 2014, J. Nilsson, B. Olson and J. Olson (photo).

A single individual was observed on a stone pier between the open ocean and a shallow bay with mudflats (Fig. 4d). There are only a few scattered records of this boreal migrant from the western lowlands, including an old specimen from Río Blanco, Esmeraldas province (Ridgely & Greenfield, 2001), one bird observed at Salinas (Haase, 2011), and another one seen at Durán, Guayas province (R. Ahlman, in litt. 2011).

**\*Long-billed Curlew *Numenius americanus***

Record no. 2015-002: Province of Santa Elena, Punta Carnero, 29 August 1997, W. Nezdal.

An adult was observed for c. 5 min resting and preening on sandy mudflats behind a beach. The bird was described as being brown with a scaly upperside, more plain buffy underparts, lacking bold head-stripes of Whimbrel *Numenius phaeopus*, and being more cinnamon brown than *N. phaeopus*. It also appeared nearly the size of a nearby Snowy Egret *Egretta thula*, and was much bigger than Willet *Tringa semipalmata*, which was also feeding nearby. Bill was reported as extremely long and down-curved. *Numenius americanus* is known to winter primarily in Central America and the Caribbean, with few records from northernmost South America along the Caribbean coasts of Colombia, Venezuela, and Trinidad and Tobago (Hayman et al., 1986). The species has been accepted unanimously as hypothetical for Ecuador given the lack of documentation. The species is generally rare in South America and currently near-threatened (BirdLife International, 2016).

**Sanderling *Calidris alba***

Record no. 2014-063: Province of Pichincha, Aeropuerto de Quito, Tababela, 10 November 2014, R. Ahlman (photo).

Record no. 2015-014: Province of Napo, Laguna de Papallacta, 18 November 2014, J. Nilsson (photo).

A single individual was observed and photographed on the rocky edge of the airport reservoir. Another bird in non-breeding plumage was observed feeding at the shores of Laguna de Papallacta. There is one previous Andean record of this primarily coastal migrant in Ecuador from Yaguarcocha, Imbabura province (Santander et al., 2011), 50 km NNE of Tababela and 62 km N of Papallacta.

**Dunlin *Calidris alpina***

Record no. 2014-062: Province of Esmeraldas, Las Peñas, 23 November 2014, R. Ahlman (photo, video).

A single immature was observed on a sandbar of an abandoned shrimp pond, resting among a group of c. 200 waders (Fig. 2a). Overall size and shape, bill length and shape, and the presence of rufous scapular fringing confirm its identification. There are three previous observations reported in the literature, from Santa Elena peninsula and the Isla de los Pájaros, near San Lorenzo, Esmeraldas province (Ridgely & Greenfield, 2001; Haase, 2011; Freile et al., 2013). The Las Peñas record represents the first documentation for this accidental boreal transient.

**Long-billed Dowitcher *Limnodromus scolopaceus***

Record no. 2015-019: Province of Sucumbíos, Río Napo near Añangu, 26 February 2015, P. Greenfield, D. Zorrilla and J. Guzmán (photo).



Figure 2: First documented records of species previously considered as hypothetical in Ecuador. a) *Calidris alpina* (R. Ahlman); b1) *Stercorarius longicaudus* (R. Ahlman); b2) *Stercorarius longicaudus* (C. Heese); c) *Larus argentatus* (J. Nilsson); d) *Tyrannus dominicensis* (J. Nilsson).



Figure 3: Tawny-throated Dotterel *Oreopholus ruficollis*, La Chokolatera, Ecuador (J. Nilsson).

A juvenile in first-winter plumage was observed in rather still water near the shoreline of a river island (Fig. 4e). Species identification was consulted with several experts on waders (R. S. Ridgely, L. Bevier, D. Paulson and N. van Duivendijk, in litt. 2015) and photos were uploaded at the electronic discussion forum of Dutch Birding (<https://www.dutchbirding.nl/forum>) resulting in an identification consensus as *Limnodromus scolopaceus* based on the following

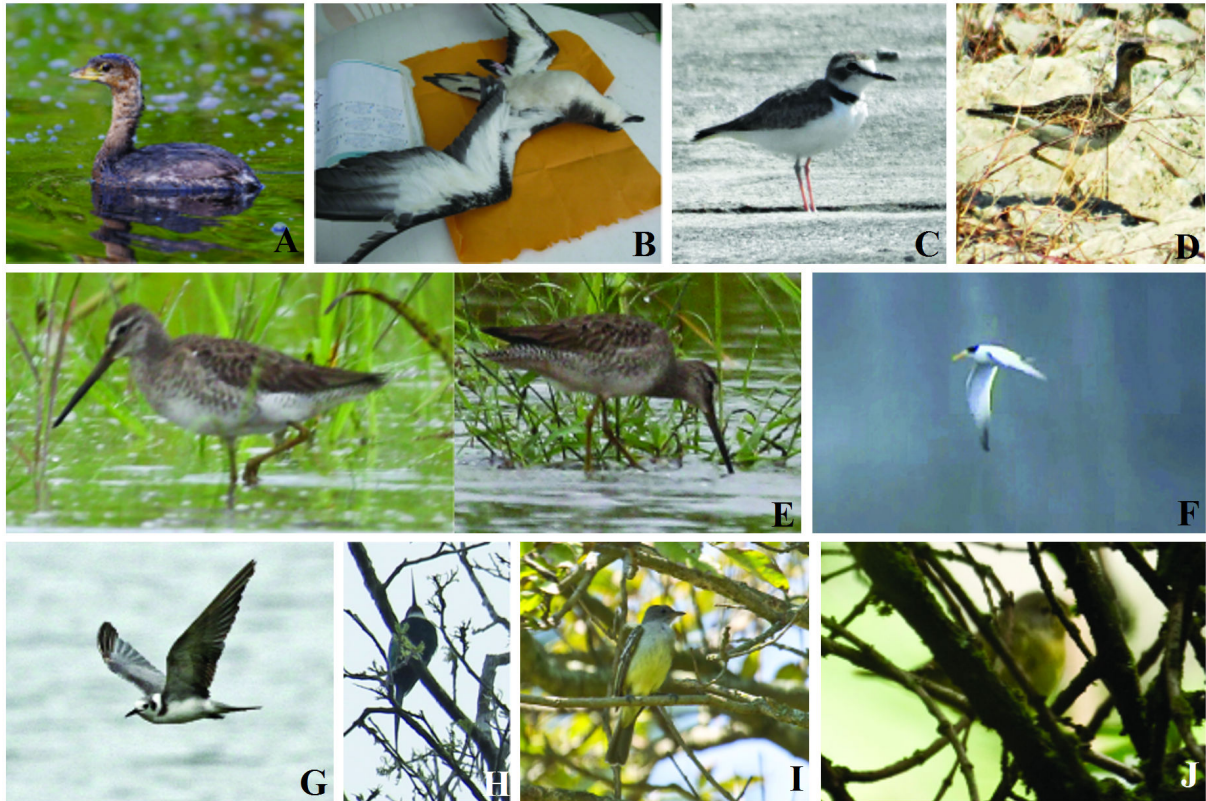


Figure 4: Major range extensions and extralimital records of birds in Ecuador. a) *Podilymbus podiceps* (C. Talkington); b) *Pterodroma phaeopygia* (J. M. Loaiza); c) *Charadrius collaris* (J. Nilsson); d) *Bartramia longicauda* (J. Nilsson); e) *Limnodromus scolopaceus* (D. Zorrilla, J. Guzmán); f) *Sternula superciliaris* (J. Nilsson); g) *Chlidonias niger* (R. Ahlman); h) *Galbula dea* (D. M. Brinkhuizen); i) *Elaenia spectabilis* (D. M. Brinkhuizen); j) *Geothlypis philadelphia* (D. M. Brinkhuizen).

field marks: scapular feather edging, breast and flank pattern, tail pattern, primary projection, shape of loreal stripe, and bill shape at tip. The species was only recently confirmed for Ecuador (Putnam et al., 2009; Freile et al., 2013). This record is the first for the entire Amazon basin (Van Gils et al., 2016).

#### Red Phalarope *Phalaropus fulicarius*

Record no. 2015-027: Province of Esmeraldas, north of Las Peñas, 2 December 2014, J. Nilsson.

An adult in non-breeding plumage was observed in a marsh along the coast. There are very few inland and coastal records in Ecuador from Santa Elena peninsula (Haase, 2011). The species is more often seen at sea during pelagic trips (Ridgely & Greenfield, 2001), and primarily from Santa Elena peninsula and Isla de la Plata areas.

#### Chilean Skua *Stercorarius chilensis*

Record no. 2014-064: Province of Santa Elena, La Chocolatera, 7 August 2014, R. Ahlman.

A bird was observed migrating south in powerful, low flight, amidst a continuous passage of Sooty Shearwaters *Ardenna grisea* that were also migrating south. Identification was based on size, reddish tone to underparts, dark cap, and extent of white at the base of primaries (Olsen & Larssen, 1997). There is a single previous published record of a *Stercorarius* skua in Salinas, Ecuador, but it was not safely identified to species (Ridgely & Greenfield, 2001). This record was made by B. Haase at Salinas (Ridgely & Greenfield 2001), who considered it as unconfirmed (B. Haase, in litt. 2011). T. Seimola also reported a flyby *S. chilensis* from the province of Santa Elena, but further details have not yet been submitted. Further information is needed to confirm the status of *S. chilensis* in Ecuador, as well as that of other large skuas (South Polar *S. maccormicki* and Brown *S. antarcticus*).





Figure 5: Rare birds recorded in Ecuador. a) *Aythya affinis* (J. Bedoya); b) *Busarellus nigricollis* (R. Ahlman); c) *Muscisaxicola fluviatilis* (R. Ahlman); d) *Pyroderus scutatus* (V. Obando); e) *Passerina caerulea* (R. Vickers); f) *Setophaga castanea* (J. Freile).

#### Long-tailed Jaeger *Stercorarius longicaudus*

Record no. 2015-025: Province of Santa Elena, pelagic off Salinas, 20 September 2014, R. Ahlman (photo).

Record no. 2014-064: Provinces of Orellana/Sucumbíos, Río Napo, 18 September 2008, C. Hesse (photo).

A single adult was observed and photographed flying 5–8 m above the ocean, 10–15 km off the coast of Salinas, in rather fast and steady flight in a southward direction (Fig. 2b1). Another single immature was observed and photographed flying along the Napo River (Fig. 2b2). As far as we are aware, this unexpected inland record represents the first for the Amazon basin (Furness et al., 2016). These records provide the first documentation of the species

in Ecuador, which was previously known only from a few observations from the Salinas area (Ridgely & Greenfield, 2001). Haase (2011) reported a washed-out specimen photographed at Mar Bravo, but not collected; photos of this specimen remain unpublished.

### **Herring Gull *Larus argentatus***

Record no. 2015-024: Province of Pichincha, Aeropuerto de Quito, Tababela, and Reservorio de Cumbayá, 20 December 2014–26 April 2015, J. Nilsson (photo).

A bird in first-winter plumage was first found at the reservoir west of Quito's Airport in Tababela (Fig. 2c). Given the complicated identification of large gulls and their age, a thorough study of the bird's plumage was made. Species identification was based on: 1) pale gray inner primaries forming a contrasting pale window against darker secondaries and outer primaries [separating it from all subspecies of Lesser Black-backed Gull *L. fuscus*, California Gull *L. californicus*, which has darker primaries with only a faint window, and Slaty-backed Gull *L. schistisagus*, which has pale webs on the outer primaries; see Howell & Dunn, 2007]; 2) dark markings on the tips of the inner webs of primaries 1-3; 3) smoky, uniform underparts, neck and mantle especially on mid-belly, without any obvious streaking, lining or spots; 4) undertail coverts broadly barred blackish, with thinner and paler off-white bars (separating it from other taxa in the Herring Gull complex, which normally has darker bars thinner than pale ones; this also rules out Slaty-backed Gull and Western Gull *L. occidentalis*); 5) heavily barred uppertail coverts with fairly broad dark bars, with the darker bars being broader than the paler ones; 6) mainly dark blackish tail with some paler mottling on the outer web of the outermost rectrices; 7) black bill with pale base to the lower mandible; 8) mainly dark tertials with paler fringes/notches on the tips only; 9) dark smudgy brown on the mantle and lower neck, contrasting with paler head; 10) irregular pattern on the scapulars; 11) a hint of a darker bar on the greater coverts on one wing; 12) irregular pattern on the wing coverts (see Howell & Dunn, 2007). There is a single previous record of an adult-plumaged individual seen at the Napo River upstream of La Selva lodge on 13 February 1991 (Ridgely & Greenfield, 2001). A photograph of apparently the same individual, taken by J. M. Carrión at Cumbayá reservoir, was published by Cisneros-Heredia et al. (2015). These observations in the Quito area represent the first documented records for Ecuador. The photographed individual belonged to the North American *Larus argentatus smithsonianus* subspecies, which is often considered as a separate species from the European Herring Gull *L. argentatus* (Crochet et al., 2002).

### **Yellow-billed Tern *Sternula superciliaris***

Record no. 2015-012: Province of Pichincha, Aeropuerto de Quito, Tababela, 10 November 2014, J. Nilsson (photo).

An adult in non-breeding plumage was observed at the artificial reservoir west of the airport (Fig. 4f). This represents the first highland record for Ecuador (Ridgely & Greenfield, 2001). The species is a resident breeder of the Amazon lowlands, occurring up to 400 m along the Napo River (Ridgely & Greenfield, 2001). We are not aware of other records elsewhere in the Andes.

### **Black Tern *Chlidonias niger***

Record no. 2014-056: Province of Sucumbíos, Laguna de Limoncocha, 28 May 2014, R. Ahlman (photo).

A sub-adult bird was seen and photographed at Laguna de Limoncocha (Fig. 4g). The species is considered as an uncommon to erratic transient in the country (Ridgely & Greenfield, 2001). This observation is likely the fourth record from Amazonian Ecuador, and the second from this locality (Tallman & Tallman, 1977; Freile et al., 2013).

### **Common Nighthawk *Chordeiles minor***

Record no. 2015-018: Province of Pichincha, Reservorio de Cumbayá, 28 October 2014, J. Nilsson.

Ten birds were observed flying back and forth high over a semi-urban creek with a mixture of vegetation and buildings. There are a few records of the species in Andean and western Ecuador, but it likely is semi-regular in the inter-Andean valleys around Quito (Ridgely & Greenfield, 2001). There is little information on numbers passing through Ecuador, but elsewhere it is known to migrate in flocks of up to 20–40 individuals (Cleere & Nurney, 1998). This record of 10 birds is likely the highest published count in Ecuador, with an additional flock of 13 individuals reported (Stotz, 2008) at Río Verde, Sucumbíos Province, in October 2008.

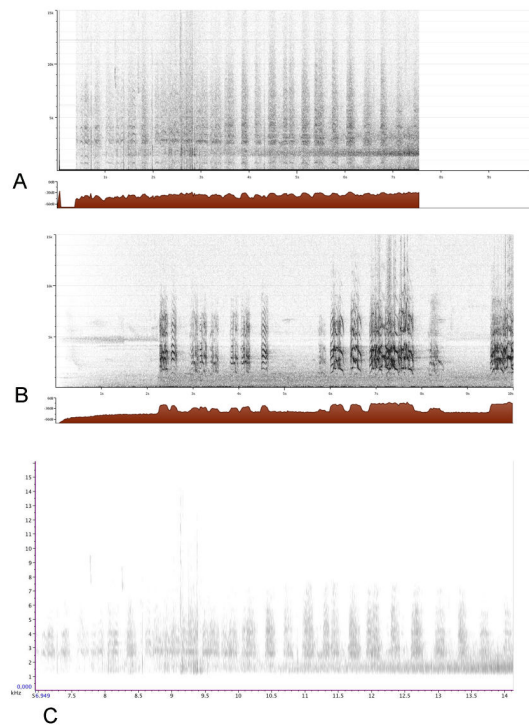


Figure 6: Sonograms of the flight calls of: a) and c) flock of Scarlet-fronted Parakeet *Psittacara wagleri* (Lysinger, 2015), audio-recorded by M. Lysinger at Catamayo, Loja; b) flock of Red-masked Parakeet *Psittacara erythrogyens* (Krabbe, 1991), audio-recorded by N. Krabbe at Buenaventura, El Oro. Sonograms a) and b) generated by xeno-canto; sonogram c) generated with Raven Lite.

### Short-tailed Nighthawk *Lurocalis semitorquatus*

Record no. 2015-028: Province of Pastaza, 7 km N of Canelos, 17 September 1996, N. Krabbe (audio recording).

A single bird was briefly observed and audio-recorded flying over a cultivated plot in a forested area. A later analysis of the audio recording (Krabbe, 1996b), revealed that it is attributable to the nominate subspecies. The voice matches other recordings of *Lurocalis semitorquatus semitorquatus*, being notably different from *L. s. nattereri* (Fig. 7), the only subspecies previously recorded in E Ecuador (Ridgely & Greenfield, 2001). Calls of *L. s. nattereri* are much longer (0.2–0.3 s) than that of *L. s. semitorquatus* (about 0.03–0.04 s) (Fig. 7). Voices of the nominate subspecies are very similar to those of western subspecies *L. s. stonei* and *L. s. noctivagus* (Moore et al., 2013; Fig. 7), but their occurrence in the Amazonian lowlands seems less likely. In the light of the Peruvian records (Schulenberg et al., 2007) of *L. s. semitorquatus*, we believe that this subspecies, and not trans-Andean *L. s. stonei* or *L. s. noctivagus*, is expected to occur in SE Ecuador. *Lurocalis s. noctivagus* has been synonymised with *L. s. stonei* by Cleere (2016). Notably, *L. s. nattereri* has been recorded at Kapawi (Krabbe, 1996a; 1996c), c. 150 km southeast of Canelos.

### Paradise Jacamar *Galbula dea*

Record no. 2014-061: Province of Sucumbíos, Tipischa, 15 June 2014, D. Brinkhuizen, R. Ahlman and J. Nilsson (photo).

Up to three birds were observed and audio-recorded at primary forest edge along a road (Fig. 4h; Ahlman, 2014; Brinkhuizen, 2014). There are a few, scattered records of this species across the Ecuadorian Amazon, most of them concentrated in the Pastaza River basin, with additional records from the Lagartococha River in easternmost Sucumbíos Province (Ridgely & Greenfield, 2001). Its habitat preferences in Ecuador are not well known.



Figure 7: Sonogram of the calls of Short-tailed Nighthawk *Lurocalis semitorquatus*; left *L. s. nattereri*; right *L. s. semitorquatus* (new taxon to Ecuador); audio-recordings and sonogram by N. Krabbe.

### Scarlet-fronted Parakeet *Psittacara wagleri*

Record no. 2015-008: Province of Loja, 3–4 km S of Catamayo airport, 15 March 2015, M. Lysinger (audio-recording; Fig. 6).

A flock of up to 18 individuals was recorded in *Acacia* scrubland near the entrance road to El Tambo (Lysinger, 2015). According to local residents, the species regularly congregates at this site after sunrise and during the day. There are only a few confirmed records of *P. wagleri* in southern Ecuador, including observations in the Catamayo valley (Ridgely & Greenfield, 2001). Its status and distribution in Ecuador is poorly known, and the species is likely declining following extensive habitat disturbance and loss (Ribadeneira, 2002).

### Slaty-winged Foliage-gleaner *Philydor fuscipenne*

Record no. 2014-044: Province of Los Ríos, Samana, 9-11 February 2011, J. Freile, F. Chiriboga and L. Rösiö.

Up to four pairs were observed and heard daily in secondary forest and forest borders, mainly attending mixed species flocks. The birds foraged actively on epiphytes along large branches, near tree trunks, and less often in dense foliage of terminal twigs. They often hung upside down or vigorously searched inside moss and epiphyte clumps. The species has become increasingly rare in Ecuador, where it has a small, fragmented and largely unprotected range (Ridgely & Greenfield, 2001; Freile, 2002). There are a few recent records, mostly from El Oro province. The nearest record comes from Puente de Chimbo, Chimborazo province, 63 km S from Samana (Chapman, 1926; Ridgely & Greenfield, 2001). The isolated Ecuadorian population might represent an undescribed, endemic taxon (Ridgely & Greenfield, 2001; Remsen, 2003).

### Large Elaenia *Elaenia spectabilis*

Record no. 2014-060: Province of Pichincha, Jardín Botánico de Quito, 25 September 2014, D. Brinkhuizen (photo).

A single individual was repeatedly observed from 25 September through 18 October 2014. It was active but elusive in treetops or inside shrubbery, and feeding on berries (Fig. 4i). This austral migrant has been recorded from a few localities in the eastern lowlands up to 600 m elevation (Ridgely & Greenfield, 2001). As far as we are aware, the Quito record represents the first for the high Andes (Hosner, 2016).

### \*Slaty Elaenia *Elaenia strepera*

Record no. 2015-011: Province of Orellana, Tiputini Biodiversity Station, 19 March 2014, J. G. Blake and B. A. Loiselle (photo).

A single bird was mist-netted and photographed in slightly hilly terra firme forest understory with a relatively open canopy at Tiputini Biodiversity Station (Fig. 1c). Owing to its two prominent ochraceous wing bars, it was identified as an immature bird (Schulenberg et al., 2007). This is the first record of the species in Ecuador, though not entirely unexpected (Ridgely & Greenfield, 2001). The species is known to breed in S Bolivia to NW Argentina and to winter in N Venezuela, with transient records in Amazonian Bolivia, Peru, and Colombia (Marantz & Remsen, 1991). Our record involves a northbound transient, given that the species likely migrates northwards through western Amazonia

from mid March to late April (Marantz & Remsen, 1991).

**Little Ground-Tyrant *Muscisaxicola fluviatilis***

Record no. 2014-052: Provinces of Orellana/Sucumbíos, river island on Río Napo, 12 July 2014, R. Ahlman, D. Gualinga, F. Broulik and S. Magee (photo).

A single bird was observed and photographed at close range on a river island sandbar, littered with driftwood logs and debris (Fig. 5c). This sighting is the first record with photographic evidence for the country, as previous records involved birds observed along the same general area of the Río Napo (Ridgely & Greenfield, 2001). The species is presumably a non-breeding visitor to Ecuador, with only three additional records (Ridgely & Greenfield, 2001).

**Grey Kingbird *Tyrannus dominicensis***

Record no. 2015-005: Province of Esmeraldas, Atacames bypass, 2 December 2014, J. Nilsson (photo).

Two birds were observed on 2 December 2014 and a single on 27 January 2015 at two sites along the Atacames bypass (Fig. 2d). The first two individuals were seen perching on wires along a road bordered by scattered trees and bushes. The second sighting, most likely one of the two individuals seen on 2 December 2014, was in fairly dense vegetation at low to mid heights, on a few occasions perching atop trees. This represents the first documented record of *T. dominicensis* for Ecuador, the only previous one being an observation from Puerto Pitahaya, El Oro province (Ridgely & Greenfield, 2001).

**Red-ruffed Fruitcrow *Pyroderus scutatus***

Record no. 2015-001: Province of Carchi, El Corazón de Nuevo Mundo, 17 November 2014, V. E. Obando-Clavijo (photo).

Three birds were observed in a *Cecropia*-dominated forest patch surrounded by pastureland (Fig. 5d). The birds were apparently consorting with a group of six Andean Cock-of-the-rocks *Rupicola peruvianus*. They were also vocalizing frequently, which suggests the presence of a lek. The western Andean slopes of Carchi Province are likely a stronghold for the species in Ecuador, given that most recent records come from the same general area, 16–20 km N of El Corazón de Nuevo Mundo (Freile et al., 2013).

**Cliff Swallow *Petrochelidon pyrrhonota***

Record no. 2015-010: Province of Pichincha, Reservorio de Cumbayá, 7 October 2014, J. Nilsson (photo).

One was observed perching on wires and flying low above water (Fig. 8). Its dark chestnut forehead indicates the subspecies *Petrochelidon pyrrhonota melanogaster* (Clements et al., 2015), previously known from a single record in Ecuador (Freile et al., 2013). Other subspecies are excluded by coloration of forehead and undertail coverts (Turner, 2004).

**Blue Grosbeak *Passerina caerulea***

Record no. 2014-043: Province of Napo, camino de Borja, 15 March 2014, R. Vickers (photo).

A female was first reported at eBird (Vickers, 2014) and later submitted to CERO without details of habitat, behavior, weather conditions during observation, and time of the day (Fig. 5e). This is the third published record of the species in Ecuador and the first for the Andean slopes (Ridgely & Greenfield, 2001; Brinkhuizen et al., 2011).

**Golden-winged Warbler *Vermivora chrysoptera***

Record no. 2015-020: Province of Pichincha, 15 km between Pachijal-Guayabillas road, 25 March 2015, R. D. M. Edgar and J. C. Calvachi.

A single male was observed moving rapidly and exploring undersides of leaves close to a Canada Warbler *Cardellina canadensis* at the forest edge. It is considered a rare boreal migrant to the country (Ridgely & Greenfield, 2001), with

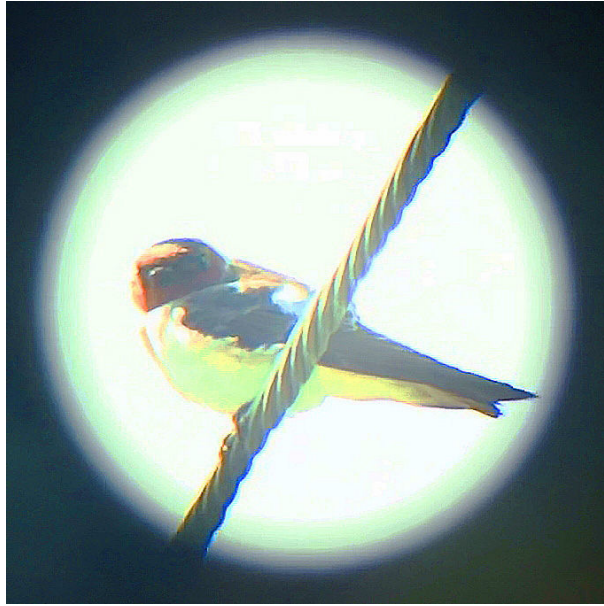


Figure 8: Second record of *Petrochelidon pyrrhonota melanogaster* in Ecuador (J. Nilsson).

few records, the most recent being a female at Yanayacu, Napo Province, in 2012 (Freile et al., 2013); the closest locality is Míndo, were first seen in February 1981 (Ridgely & Greenfield, 2001). Due to the limited number of records and the species' recent population decline (Buehler et al., 2007), CERO encourages the submissions of all records in the country.

#### **Mourning Warbler *Geothlypis philadelphia***

Record no. 2014-059: Province of Pichincha, Jardín Botánico de Quito, 28 October 2014, D. Brinkhuizen (photo).

One immature was seen on 28 October and one adult on 14 November 2014, mostly skulking low in dense bushes (Fig. 4j). This is the first record of the species in the Inter-Andean valleys of Ecuador, and the highest elevation recorded for the species (Curson, 2016). Otherwise, it is known from a few localities along the Andean subtropics, foothills, and adjacent lowlands, in Pichincha, Napo, Orellana, and Tungurahua provinces (Ridgely & Greenfield, 2001).

#### **Bay-breasted Warbler *Setophaga castanea***

Record no. 2014-045: Province of Orellana, Río Bigal Biological Reserve, 4 January 2014, J. Freile (field sketch).

A single bird was observed attending a mixed-species flock in the mid-story of secondary forest edge (Fig. 5f). Blackpoll Warbler *Setophaga striata* was the only other boreal migrant warbler detected in the same flock. Recent records of *S. castanea* from several new localities in northern Ecuador, including Cascada de San Rafael and Bermejo, in Napo and Sucumbíos provinces respectively, suggest that it may be a regular, but rare visitor here (Ridgely & Greenfield, 2001; Nilsson et al., 2014). Identification in non-breeding plumage from the very similar *S. striata* might be difficult, so CERO encourages documentation of sightings.

#### **Invalidated records**

In tandem with a previous CERO report (Nilsson et al., 2014), we revised the status of an additional species whose occurrence in Ecuador was considered unlikely (Ridgely & Greenfield, 2001).

#### **Plain-breasted Piculet *Picumnus castelnaui***

Record no. 2015-x01: two specimens reportedly collected at Sarayacu (1862) and Río Napo (1890) localities.

Two XIX century specimens with imprecise collection data were the only evidence available for Ecuador (Río Napo

and Sarayacu). Schulenberg (2013) recently showed that the species was collected in a Sarayacu locality along the Ucayali River, Peru (Stephens & Traylor, 1983), because its collector (Francis de LaPorte de Castelnau) actually never visited Ecuador. Further, as discussed by Ridgely & Greenfield (2006), the Río Napo locality might be located in the lower section of the river, which currently corresponds to Peru but was within Ecuadorian territory until the 1940s. Chapman (1926) correctly assigned the species to Ecuador because at that time, Ecuador extended east all the way to the mouth of the Napo River into the Marañón River. Later changes in Ecuador's official boundaries excluded the species from the country's territory. Given the absence of any modern records, we conclude that the species should be removed from the Ecuadorian bird fauna (see also Ridgely & Greenfield, 2006).

Table 2: Summary of rejected records submitted to the Committee for Ecuadorian Records in Ornithology (CERO) between April 2014 and August 2015.

Record number	Species	Locality, province	Date	Notes
2014-057	Flesh-footed Shearwater <i>Ardenna carneipes</i>	La Chicolatera, Santa Elena	5 August 2014	Insufficient information to exclude other shearwaters
2015-013	Wilson's Storm-Petrel <i>Oceanites oceanicus</i>	La Chicolatera, Santa Elena	6 September 2014	Insufficient information to exclude other storm-petrels
2014-058	Brown Bobby <i>Sula leucogaster</i>	San Sebastián, Galápagos	No date	Insufficient information to exclude other bobbies
2014-047	Mississippi Kite <i>Ictinia mississippiensis</i>	La Selva, Sucumbíos	19 February 2014	Misidentified Plumbeous Kite <i>I. plumbea</i>
2014-049	Long-tailed Jaeger <i>Stercorarius longicaudus</i>	Canal Bolívar, Galápagos	23 September 2014	Insufficient information to exclude other jaegers
2015-025	Long-tailed Jaeger <i>Stercorarius longicaudus</i>	La Chicolatera, Santa Elena	4 September 2014	Insufficient information to exclude other jaegers
2014-046	Peruvian Pigeon <i>Patagioenas oenops</i>	Playas de Chito, Zamora Chinchipe	20 September 2007	Deficient documentation
2014-051	Southern Martin <i>Progne elegans</i>	Limoncocha, Sucumbíos	28 May 2014	Insufficient information to exclude Purple Martin <i>P. subis</i>
2015-022	*Stripe-tailed Yellow-Finch <i>Sicalis citrina</i>	near Guadual, Imbabura	24 January 2015	Deficient documentation

### Rejected records

Nine records were rejected (Table 2) due to insufficient information for accurately assessing them. Those records include one species not previously found in Ecuador, one species not previously found in continental Ecuador, three species that lack voucher documentation in Ecuador, one rare austral pelagic, one rare austral migrant in continental Ecuador, and one rare wanderer to the Galapagos Islands. Lastly, the revision of one record of Green Heron *Butorides virescens* was postponed pending further revision of submitted material by experts on ardeids.

## ACKNOWLEDGMENTS

We thank all observers who submitted their records to CERO (see under species accounts). Special thanks to Roger Ahlman, former chair of CERO, for all his committed work and his numerous observations submitted to date. Thanks to external advisory on some species identification provided by Alvaro Jaramillo, Steve N. G. Howell, Daniel F. Lane, Ben Haase, Tuomas Seimola, Louis Bevier, Dennis Paulson and Nils van Duivendijk; also to Niels Krabbe and one anonymous referee for their comments, and to our institutions and tour operators for allowing us to take regular field trips.

## REFERENCES

- Ahlman, R. (2014). XC 182548 Paradise Jacamar, *Galbula dea*. Xeno-canto. URL: <http://www.xeno-canto.org/182548>
- Ahlman, R. (2016). Green-winged Teal *Anas crecca carolinensis*, first record for Ecuador. *Cotinga*, 38, 40.
- BirdLife International. (2016, April 28). *Species factsheet: Numenius americanus*. BirdLife International. URL: <http://www.birdlife.org>.
- Brinkhuizen, D. M. (2014). XC 182345 Paradise Jacamar, *Galbula dea*. Xeno-canto. URL: <http://www.xeno-canto.org/182345>
- Brinkhuizen, D. M., López, D., Ferrer, J., Rodríguez, G., Ardaiz, J. & Seitz, L. (2011). First record of Blue Grosbeak *Passerina caerulea* in western Ecuador. *Cotinga*, 33, 81.
- Buehler, D.A., Roth, A.M., Vallender, R., Will, T.C., Confer, J.L., Canterbury, R.A., Swarthout, S.B., Rosenberg, K.V. & Bullock, L.P. (2007). Status and conservation priorities of Golden-winged Warbler (*Vermivora chrysoptera*) in North America. *Auk*, 124(4), 1439-1445. DOI: [http://dx.doi.org/10.1642/0004-8038\(2007\)124\[1439:SACPOG\]2.0.CO;2](http://dx.doi.org/10.1642/0004-8038(2007)124[1439:SACPOG]2.0.CO;2)
- Carboneras, C., Jutglar, F. & Kirwan, G.M. (2016, October 31). Manx Shearwater (*Puffinus puffinus*). En J. del Hoyo, A. Elliott, J. Sargatal, D.A. Christie & E. de Juana (Eds.), *Handbook of the birds of the world alive*. Barcelona, España: Lynx Edicions. URL: <http://www.hbw.com/node/52573>
- Chapman, F.M. (1926). The distribution of bird-life in Ecuador. *Bulletin of the American Museum of Natural History*, 55, 1–784.
- Cisneros-Heredia, D.F., Amigo, X., Arias, D., Arteaga, J., Bedoya, J., Espinosa, S., Montenegro, E., Nazati, G. & Carrión, J.M. (2015). Reporte del 1er Conteo Navideño de Aves de Quito, Ecuador. *Avances en Ciencias e Ingenierías*, 7(2), B37–B51. DOI: <http://dx.doi.org/10.18272/aci.v7i2.256>
- Cleere, N. (2016, October 31). Short-tailed Nighthawk (*Lurocalis semitorquatus*). En J. del Hoyo, A. Elliott, J. Sargatal, D.A. Christie & E. de Juana (Eds.), *Handbook of the birds of the world alive*. Barcelona, España: Lynx Edicions. URL: <http://www.hbw.com/node/55160>
- Cleere, N. & Nurney, D. (1998). *Nightjars: a guide to the nightjars and related birds*. Robertsbridge, UK: Pica Press.
- Clements, J.F., Schulenberg, T.S., Iliff, M.J., Roberson, D., Fredericks, T.A., Sullivan, B.L. & Wood, C.L. (2015, Marzo 20). *The eBird/Clements checklist of birds of the world: v2015*. URL: <http://www.birds.cornell.edu/clementschecklist/download/IOC>
- Crochet, P.A., Lebreton, J.D. & Bonhomme, F. (2002). Systematics of large white-headed gulls: patterns of mitochondrial DNA variation in western European taxa. *Auk*, 119(3), 603–620. DOI: [http://dx.doi.org/10.1642/0004-8038\(2002\)119\[0603:SOLWHG\]2.0.CO;2](http://dx.doi.org/10.1642/0004-8038(2002)119[0603:SOLWHG]2.0.CO;2)
- Curson, J. (2016, Mayo 03). Mourning Warbler (*Oporornis philadelphia*). En J. del Hoyo, A. Elliott, J. Sargatal, D.A. Christie & E. de Juana (Eds.), *Handbook of the birds of the world alive*. Barcelona, España: Lynx Edicions. URL: <http://www.hbw.com/node/61506>
- Fjeldså, J. & Krabbe, N. (1990). *Birds of the high Andes*. Copenhagen, Denmark: Apollo Books.
- Freile, J.F. (2002). Limpiafrondas Alipizarrosa *Philydor fuscipennis*. En T. Granizo, C. Pacheco, M.B. Ribadeneira, M. Guerrero & L. Suárez (Eds.), *Libro rojo de las aves del Ecuador* (pp. 280-281). Quito, Ecuador: Simbioe, Conservación Internacional, EcoCiencia, Ministerio del Ambiente and UICN.
- Freile, J.F., Brinkhuizen, D.M., Solano-Ugalde, A., Greenfield, P.J., Ahlman, R., Navarrete, L. & Ridgely, R.S. (2013). Rare birds in Ecuador: first annual report of the Committee of Ecuadorian Records in Ornithology (CERO). *Avances en Ciencias e*



*Ingenierías*, 5(2), B24–B41. <http://www.usfq.edu.ec/Publicaciones/Avances/B24-5-2-2013>

Freile, J.F., Brinkuizen, D.M., Greenfield, P.J., Lysinger, M., Navarrete, L., Nilsson, J., Ridgely, R.S., Solano-Ugalde, A., Ahlman, R. & Boyla, K.A. (2016, March 10). *Lista oficial de las aves del Ecuador*. Comité Ecuatoriano de Registros Ornitológicos. URL: <http://www.ceroecuador.wordpress.com>

Furness, R.W., Kirwan, G.M. & de Juana, E. (2016, March 28). Long-tailed Jaeger (*Stercorarius longicaudus*). En J. del Hoyo, A. Elliott, J. Sargatal, Christie, D.A. & E. de Juana (Eds.), *Handbook of the Birds of the World Alive*. Barcelona, Spain: Lynx Edicions. URL: <http://www.hbw.com/node/53960>.

García-Godos, I. (2002) First record of the Cape Gannet *Morus capensis* for Peru and the Pacific Ocean. *Marine Ornithology*, 30(1), 50. [http://www.marineornithology.org/PDF/30\\_1/30\\_1\\_16.pdf](http://www.marineornithology.org/PDF/30_1/30_1_16.pdf)

Granizo, T. (2002). Chorlo Cabezón Cuellicanelo *Oreopholus ruficollis*. En T. Granizo, C. Pacheco, M.B. Ribadeneira, M. Guerrero & L. Suárez (Eds.), *Libro rojo de las aves del Ecuador* (pp. 63). Quito, Ecuador: Simbioe, Conservación Internacional, EcoCiencia, Ministerio del Ambiente and UICN.

Haase, B. (2011). *Aves marinas de Ecuador continental y acuáticas de las piscinas artificiales de Ecuasal*. Guayaquil, Ecuador: Aves & Conservación, BirdLife International and Ecuasal S. A.

Harrison, P. (1987). *Seabirds of the world: a photographic guide*. London, UK: Christopher Helm.

Hayman, P., Marchant, J. & Prater, T. (1986). *Shorebirds. An identification guide*. Boston: Houghton Mifflin Company.

Hosner, P. (2016, March 10). Large Elaenia (*Elaenia spectabilis*). En J. del Hoyo, A. Elliott, J. Sargatal, D.A. Christie & E. de Juana. (Eds.), *Handbook of the Birds of the World Alive*. Barcelona, Spain: Lynx Edicions. URL: <http://www.hbw.com/node/57143>.

Howell, S.N.G. (2012). *Petrels, albatrosses, and storm-petrels of North America: a photographic guide*. Princeton: Princeton University Press.

Howell, S.N.G. & Dunn, J. (2007). *A reference guide to gulls of the Americas*. Boston: Houghton Mifflin Company.

Janni, O. & Pulcher, C. (2007). Reidentification of Ecuadorian specimens of *Pachyrhamphus rufus* as *P. castaneus*. *Bulletin of the British Ornithologists Club*, 127(3), 246–247. <http://www.biodiversitylibrary.org/item/127048#page/80/mode/1up>

Kirwan, G.M., Calderón, D., Minns, J. & Roesler, I. (2012). Neotropical notebook. *Cotinga*, 34, 179–194.

Krabbe, N. (1991). XC238921 Red-masked Parakeet, *Psittacara erythrogenys*. Xeno-canto. URL: <http://www.xeno-canto.org/238921>

Krabbe, N. (1996a). XC238440 Short-tailed Nighthawk, *Lurocalis semitorquatus*. Xeno-canto. URL: <http://www.xeno-canto.org/238440>

Krabbe, N. (1996b). XC 238442 Short-tailed Nighthawk, *Lurocalis semitorquatus*. Xeno-canto. URL: <http://www.xeno-canto.org/238442>

Krabbe, N. (1996c). XC 238443 Short-tailed Nighthawk, *Lurocalis semitorquatus*. Xeno-canto. URL: <http://www.xeno-canto.org/238443>

Lysinger, M. (2015). XC 314108 Scarlet-fronted Parakeet, *Psittacara wagleri*. Xeno-canto. URL: <http://www.xeno-canto.org/314108>

Olsen, K.M., & Larsson, H. (1997). *A guide to the skuas and jaegers of the world*. New Haven: Yale University Press.

Onley, D., & Scofield, P. (2007). *Albatrosses, petrels and shearwaters of the world*. London, UK: Helm Field Guides.

Madge, S., & Burn, H. (1988). *Waterfowl. An identification guide to the ducks, geese and swans of the world*. Boston: Houghton Mifflin Company.

Marantz, C.A., & Remsen, J.V. (1991). Seasonal distribution of the Slaty Elaenia, a little-known austral migrant of South America. *Journal of Field Ornithology*, 62(2), 162–172. <http://www.jstor.org/stable/4513620>

Moore, J.V., Krabbe, N. & Jahn, O. (2013). *Bird sounds of Ecuador, a comprehensive collection*. San Jose, California: John

## V. Moore Nature Recordings.

- Nilsson, J., Freile, J.F., Ahlman, R., Brinkhuizen, D.M., Greenfield, P.J., & Solano-Ugalde, A. (2014). Rare birds in Ecuador: second annual report of the Committee for Ecuadorian Records in Ornithology (CERO). *Avances en Ciencias e Ingenierías*, 6(2), B38–B50. [http://www.usfq.edu.ec/publicaciones/avances/archivo\\_de\\_contenidos/Documents/volumen\\_6\\_numero\\_2/012\\_6\\_2\\_2014.pdf](http://www.usfq.edu.ec/publicaciones/avances/archivo_de_contenidos/Documents/volumen_6_numero_2/012_6_2_2014.pdf)
- Pearson, D.L., Tallman, D. & Tallman, E. (1972). *Birds of Limoncocha*. Quito, Ecuador: Instituto Lingüístico de Verano.
- Putnam, C., Jones, A. & Ridgely, R.S. (2009). Two Long-billed Dowitcher *Limnodromus scolopaceus* specimens from Ecuador. *Cotinga*, 31, 130–132.
- Remsen, J.V. 2003. Family Furnariidae (ovenbirds). En J. del Hoyo, A. Elliott & D. Christie (Eds.), *Handbook of the birds of the world, volume 8: broadbills to tapaculos* (pp. 162–357). Barcelona, Spain: Lynx Edicions.
- Remsen, J.V., Areta, J.I., Cadena, C.D., Jaramillo, A., Nores, M., Pacheco, J.F., Pérez-Emán, J., Robbins, M.B., Stiles, F.G., Stotz, D.F. & Zimmer, K.J. (2016, August 8). *A classification of the bird species of South America*. American Ornithologists' Union. URL: <http://www.museum.lsu.edu/~Remsen/SACCBaseline.html>
- Restall, R., Rodner, C., & Lentino, M. (2006). *Birds of northern South America. An identification guide*. London, UK: Helm Field Guides.
- Ribadeneira, M.B. (2002). Perico Frentiescarlata *Aratinga wagleri*. En T. Granizo, C. Pacheco, M.B. Ribadeneira, M. Guerrero & L. Suárez (Eds.), *Libro rojo de las aves del Ecuador* (pp. 85). Quito, Ecuador: Simbioe, Conservación Internacional, EcoCiencia, Ministerio del Ambiente and UICN.
- Ridgely, R.S. & Greenfield, P.J. (2001). *The birds of Ecuador*. Ithaca: Cornell University Press.
- Ridgely, R.S. & Greenfield, P.J. (2006). *Aves del Ecuador*. Quito, Ecuador: Academia de Ciencias de Philadelphia and Fundación Jocotoco.
- Salvadori, T. & Festa, E. (1900). Viaggio del Dr. Enrico Festa nell'Ecuador. XII: Uccelli. Parte terza-Trochili-Tinami. *Bolletino dei Musei di Zoologia ed Anatomia Comparata della Reale Università di Torino*, 15(368), 1–54. <http://www.biodiversitylibrary.org/item/43398#page/13/mode/1up>
- Santander, T., Terán, K., Mueces, T., Lara, A., Llumiquinga, C. & Guevara, E.A. (2011). Registros inusuales de aves costeras en lagunas altoandinas de Ecuador. *Cotinga*, 33, 105–107.
- Schulenberg, T.S. (2013). The type locality of Plain-breasted Piculet *Picumnus castelnaui* is valid. *Bulletin of the British Ornithologists Club*, 133(1), 77–78.
- Schulenberg, T.S., Stotz, D.F., Lane, D.F., O'Neill, J.P. & Parker, T.A. (2007). *Birds of Peru*. London, UK: Helm Field Guides.
- Sibley, D.A. (2003). *The Sibley field guide to the birds of western North America*. New York: Knopf Doubleday Publishing.
- Stephens, L. & Traylor, M.A. (1983). *Ornithological gazetteer of Peru*. Cambridge, Massachusetts: Museum of Comparative Zoology. <http://www.biodiversitylibrary.org/page/14527749#page/3/mode/1up>
- Stotz, D. F. (2008, October 22). *eBird checklist*: <http://ebird.org/ebird/view/checklist/S12491103>. eBird: An online database of bird distribution and abundance. Ithaca, New York. URL: <http://www.ebird.org>
- Tallman, D.A. & Tallman, E.J. (1977). Adiciones y revisiones a la lista de avifauna de Limoncocha, provincia del Napo, Ecuador. *Revista de la Universidad Católica*, 5(16), 217–224. [http://www.puce.edu.ec/publicaciones/Centro\\_de\\_Publicaciones/Revistas/Publicaciones/Revista%2016.pdf](http://www.puce.edu.ec/publicaciones/Centro_de_Publicaciones/Revistas/Publicaciones/Revista%2016.pdf)
- Turner, A. (2004). Family Hirundinidae (swallows and martins). En J. del Hoyo, A. Elliot & D. Christie (Eds.), *Handbook of the birds of the world, volume 9: cotingas to pipits and wagtails* (pp. 602–685). Barcelona, Spain: Lynx Edicions.
- Van Gils, J., Wiersma, P. & Kirwan, G.M. (2016, March 9). Long-billed Dowitcher (*Limnodromus scolopaceus*). En J. del Hoyo, A. Elliott, J. Sargatal, D.A. Christie & E. de Juana (Eds.), *Handbook of the Birds of the World Alive*. Barcelona, Spain: Lynx Edicions. URL: <http://www.hbw.com/node/53886>.
- Vickers, R. (2014, Marzo 15). *eBird checklist*: <http://ebird.org/ebird/view/checklist/S17564247>. eBird: An online database of bird distribution and abundance. Ithaca, New York. URL: <http://www.ebird.org>

Wiedenfeld, D.A. (2006). Aves, the Galapagos Islands, Ecuador. *Check List*, 2(2), 1–27. DOI: <http://dx.doi.org/10.15560/2.2.1>

## ARTÍCULO/ARTICLE

**Primer Registro de Tinamú Serrano *Nothocercus bonapartei* (Tinamiformes: Tinamidae) en la cordillera del Cóndor, Sureste de Ecuador****Leonardo Ordóñez-Delgado\*, Fausto López, Fabián Reyes-Bueno***Departamento de Ciencias Biológicas, Universidad Técnica Particular de Loja. CP: 11-01-608. Loja, Ecuador.**\*Autor para correspondencia/Corresponding author; e-mail: lyordonez2@utpl.edu.ec*

Editado por/Edited by: Esteban Guevara.

Recibido/Received: 06-07-2016. Aceptado/Accepted: 29-03-2017.

Publicado en línea/Published on Web: 18-04-2017.

DOI:

**First Record of Highland Tinamou *Nothocercus bonapartei* (Tinamiformes: Tinamidae) in the cordillera del Cóndor, Southeast Ecuador****Resumen**

El Tinamú Serrano *Nothocercus bonapartei* es un ave rara, de comportamiento sigiloso y poco conocida que habita bosques densos y poco disturbados al este de los Andes en Ecuador, donde existen pocos registros. Presentamos los primeros registros de la presencia de esta especie en la cordillera del Cóndor, un macizo montañoso aislado de los Andes orientales.

**Palabras Clave.** Aves, Nueva Distribución, Zamora Chinchipe.

**Abstract**

The Highland Tinamou *Nothocercus bonapartei* is a rare, secretive, and poorly known bird that inhabits dense and undisturbed forests in the eastern Andes of Ecuador, where it is unfrequently recorded. We present the first records of this species in the cordillera del Cóndor, a mountain massif isolated from eastern Andes.

**Keywords.** Birds, New Distribution, Zamora Chinchipe.

---

La cordillera del Cóndor es un sistema montañoso aislado de la cordillera de los Andes, ubicado en el sureste de Ecuador y noreste de Perú (Freile & Santander, 2005). Se conecta con los Andes solamente por un pequeño ramal montañoso ubicado en la parte sur de la cuenca hidrográfica del Nangaritza. La cordillera del Cóndor posee una longitud de aproximadamente 150 km y una elevación máxima de 2900 m en el sector de Cerro Plateado (Neill, 2005). Esta cordillera posee extraordinarios niveles de endemismo, principalmente debido a su aislamiento y la existencia de varios ecosistemas que se desarrollan sobre algunas mesetas de arenisca (Schulenberg & Awbrey, 1997; Neill, 2005; Jadán & Aguirre, 2011). Sin embargo, la cordillera del Cóndor se considera una de las áreas menos exploradas de Ecuador (Ridgely & Greenfield, 2001; Montalvo, 2012; Freile *et al.*, 2014). Varios esfuerzos de investigación ornitológica en los últimos años han permitido lograr una mejor documentación de la distribución, historia natural y ecología de las especies de aves en la zona: Ágreda *et al.*, (2005), Loiza *et al.*, (2005), Krabbe & Ahlman (2009), Freile *et al.*,

(2011a, b, 2014), Montalvo (2012). En la cordillera del Cóndor hay evidencia de la presencia significativa de especies de aves de los Andes y la Amazonía (Krabbe & Sornoza, 1994; Balchin & Toyne, 1998; Freile *et al.*, 2014). Hasta la actualidad se han registrado 535 especies de aves en la porción ecuatoriana de la cordillera del Cóndor, 14 de estas especies se consideran globalmente amenazadas y algunas poseen una distribución restringida a hábitats específicos de la misma (Freile *et al.*, 2011a, b, 2014). Todos estos elementos han contribuido a que la cordillera del Cóndor sea reconocida en Ecuador como un Área de Importancia para la Conservación de Aves (Freile & Santander, 2005).

El Tinamú Serrano *Nothocercus bonapartei* es una de las dos especies del género que están presentes en Ecuador (Ridgely & Greenfield, 2001; Cabot *et al.*, 2014). Se distribuye desde Costa Rica y Panamá, pasando hacia el sur por Venezuela, Colombia, Ecuador y Perú (Cabot *et al.*, 2014; BirdLife International, 2015; Gomes & Kirwan, 2015). En Ecuador, su distribución comprende los bosques montanos de las estribaciones orientales de los Andes entre 1600 y 2200 m de altitud (Fjeldså & Krabbe, 1990; Ridgely & Greenfield, 2001, 2006; McMullan & Navarrete, 2013), con un registro inusual logrado a 3075 m en Oyacachi, en la región andina nororiental del país (Krabbe *et al.*, 1997); y, un solo registro previo documentado fuera de los Andes de Ecuador, en la cordillera de Kutukú a 1700 m (cordillera ubicada al norte de la cordillera del Cóndor, de la cual está separada por el río Santiago; Robbins *et al.*, 1987). Debido a su amplia distribución, la Unión Internacional para la Conservación de la Naturaleza UICN clasifica *N. bonapartei* en la categoría de Preocupación Menor (LC, por sus siglas en inglés), a pesar de que sus poblaciones se encuentran disminuyendo, principalmente por actividades de cacería insostenible (BirdLife International, 2015). El estado de conservación de esta especie no ha sido evaluado en Ecuador. Se considera una especie poco común, solitaria y encontrada únicamente al interior de bosques con cobertura vegetal densa y poco disturbada (Gomes & Kirwan, 2015). En este tipo de hábitats su registro visual es improbable; por ende, es más fácil oír su característica e insistente vocalización que se escucha como un repetitivo co-á, co-á, co-á, co-á..., la cual puede durar desde unos 30 segundos a varios minutos (Ridgely & Greenfield, 2006; McMullan & Navarrete, 2013). En la presente publicación presentamos los primeros registros del Tinamú Serrano *Nothocercus bonapartei* en la cordillera del Cóndor, ampliando así su distribución hacia una región del país en la cual previamente no había sido documentada.

El 1 de noviembre de 2012 durante el desarrollo de una evaluación ecológica rápida logramos grabar la vocalización de *Nothocercus bonapartei* en un bosque denso maduro. Este registro fue realizado en la parte baja de una meseta de arenisca en el sector La Zarza (3,781389°S, 78,494722°O, 1400 m), al oeste de la cordillera del Cóndor. Las vocalizaciones se registraron de manera repetida en la misma zona durante tres días y por períodos prolongados de tiempo, sobre todo entre las 07h00 y 09h00, y luego de las 16h30.

El 8 de noviembre de 2012, logramos un segundo registro a aproximadamente 2,5 km al norte del primero, en el sector El Colibrí (3,761667°S, 78,499167°O, 1450 m), un bosque denso poco disturbado, relativamente plano y poco drenado, con algunas zonas anegadas. En esta ocasión, el tinamú se registró por su vocalización característica pero también logramos fotografiarlo (Figura 1). En ambos casos, la identificación de la especie se basó en las fotografías, las notas de campo y las grabaciones de audio. Las grabaciones se encuentran disponibles en la base de datos en línea xeno-canto (Ordóñez-Delgado, 2012a, b, c, d). Estas grabaciones fueron comparadas con archivos de audio confirmados de *Nothocercus bonapartei* (Krabbe & Nilsson, 2003; Lysinger *et al.*, 2005; Moore *et al.*, 2013).

El tinamú observado en el sector El Colibrí se encontraba acompañado por una cría, por lo cual se sugiere que era un macho (en este grupo de aves son los machos quienes realizan el cuidado parental de las crías; Handford & Mares, 1985; Ridgely & Greenfield, 2001; Brennan, 2009; Freile, 2009; Gomes & Kirwan, 2015). La cría siempre se mantuvo junto al adulto, y mientras este vocalizaba, la cría emitió un llamado de contacto particular, un leve *hug, hug, hug, huggg...*, (Ordóñez-Delgado, 2012a: minutos 1:40 a 2:04, 2012e: minutos 00:01 a 0:16, 0:38 a 0:57 y 1:07 a 1:13). Este llamado de contacto es similar a los sonidos reportados por Slud (1964) y McKay (1980) para las crías de esta especie. La cría era de aproximadamente la mitad del tamaño del adulto, coloración café oscuro, sin patrones evidentes de coloración de otro tipo en las plumas de su cuerpo, lo que difería con el adulto, en el cual si se pudo evidenciar tonalidades de color café oscuro en sus flancos y unas tenues marcas blancas en la rabadilla, además de plumas de un marcado color herrumbroso en la garganta (Figura 1).

Estos registros se obtuvieron a altitudes que se encuentran por debajo del rango altitudinal previamente conocido para la especie en Ecuador y Perú (1600 y 2200 m; Ridgely & Greenfield, 2001, 2006; Schulenberg *et al.*, 2007; Gomes & Kirwan, 2015). El área donde se realizaron los registros corresponde a la formación vegetal de Bosque Montano Bajo (Sierra *et al.*, 1999; Jadán & Aguirre 2011), caracterizada por estar dominada por árboles de entre 5 y 25 metros de alto. Esta vegetación es de transición y se compone de especies de flora de las tierras bajas amazónicas y andinas. Algunas de las especies de plantas más representativas de esta zona son: *Clarisia racemosa*, *Dacryodes cupularis*, *Miconia punctata*, *Nectandra cissiflora*, *Weinmannia elliptica* y *Wettinia maynensis* (Jadán & Aguirre, 2011).



Figura 1: Adulto de Tinamú Serrano *Nothocercus bonapartei* fotografiado el 8 de noviembre del 2012 en el sector Colibrí - cordillera del Cóndor, sureste de Ecuador.

Estos dos registros de *Nothocercus bonapartei* en la cordillera del Cóndor amplían el rango de distribución de la especie en Ecuador a una zona en la cual previamente se desconocía su presencia (Figura 2). La localidad conocida más cercana corresponde a la cordillera de Numbala, a 2000 m en los Andes del sur del Ecuador (donde se colectó un individuo depositado en el Museo Ecuatoriano de Ciencias Naturales, MECN Or. 7231). El reporte en la cordillera de Kutukú (Robbins *et al.*, 1987), el único fuera de los Andes, se ubica a aproximadamente 130 km al norte de las localidades aquí reportadas.

Estos registros permiten corroborar la afinidad de la especie por bosques poco perturbados (Gomes & Kirwan, 2015). Es posible que su distribución en esta región sea continua en la ladera occidental de la cordillera del Cóndor, hasta encontrarse con el piedemonte andino en la parte alta de la cuenca del río Nangaritzza.

El intercambio directo de individuos provenientes de los Andes es altamente improbable por la presencia del río Zamora, un accidente biogeográfico difícil de atravesar para un tinamú. Freile *et al.*, (2014) presentaron uno de los estudios ornitológicos más completos sobre las aves de la cuenca del Nangaritzza, cuyo flanco oriental es parte de la cordillera del Cóndor. En dicha publicación, se reportaron cinco especies de la familia Tinamidae: *Tinamus tao*, *T. major*, *Crypturellus cinereus*, *C. soui*, *C. obsoletus*, en 11 localidades de muestreo y un rango temporal de 25 años de estudios, sin embargo estos autores no reportaron a *N. bonapartei* para la cuenca del Nangaritzza, lo que podría estar ligado a la rareza de la especie.

Los tinamúes (familia Tinamidae) son el grupo de aves menos estudiado y conocido en Ecuador (Freile *et al.*, 2006) siendo la información sobre especies particulares como *N. bonapartei* aún más escasa. Los datos aquí descritos permiten incrementar nuestro conocimiento sobre la distribución geográfica de la especie en nuestro país, así como estimaciones de su época reproductiva. Nuestro encuentro con un adulto y su cría en noviembre, concuerda con los datos publicados anteriormente en relación con la temporada de reproducción de esta especie en Colombia, en donde se ha reportado individuos con crías en noviembre y en marzo-junio (Miller, 1963; Hilty & Brown, 1986; Cabot *et al.*, 2014).

El registro de *Nothocercus bonapartei* en la cordillera del Cóndor resalta una vez más la importancia biológica y ecológica de esta región geográfica del país, la misma que enfrenta serias amenazas, principalmente por actividades de desarrollo que involucran el incremento de la deforestación para implementación de zonas agrícolas y ganaderas, además de crecientes procesos de minería legal e ilegal.

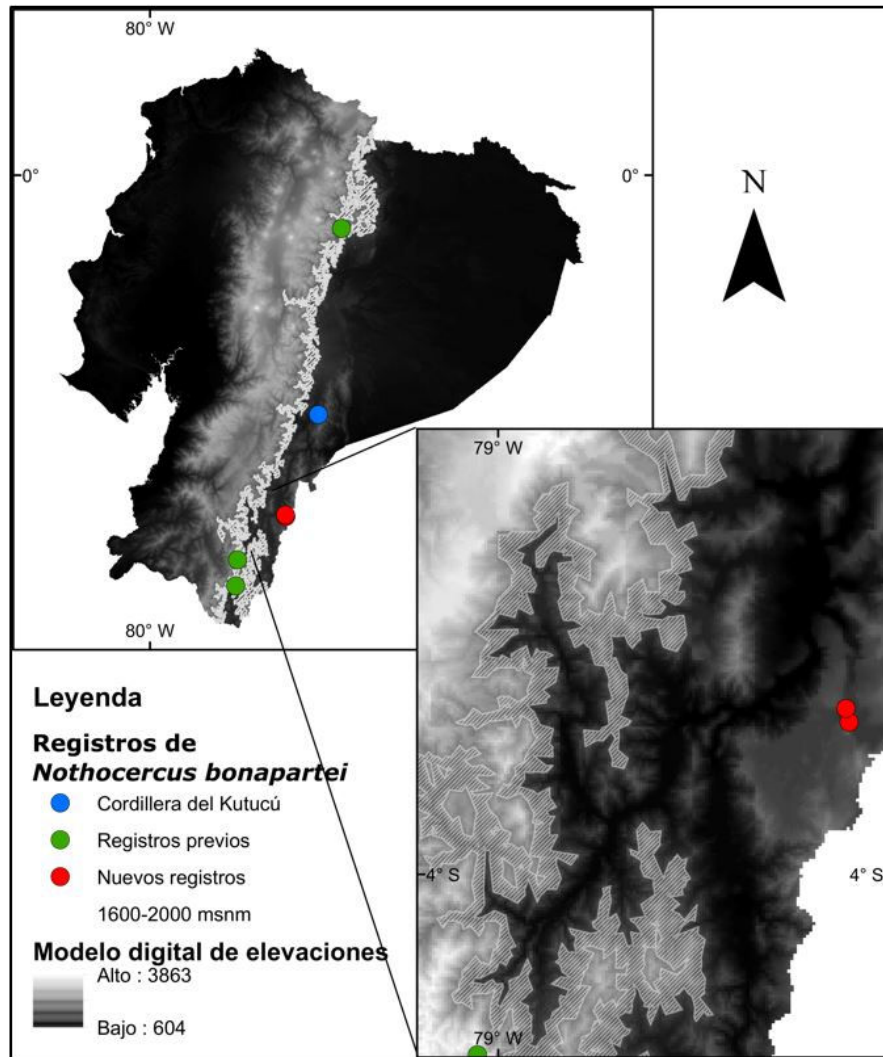


Figura 2: Mapa de distribución de *Nothocercus bonapartei* en Ecuador tomado de Ridgely & Greenfield (2006) (área sombreada). Los puntos verdes corresponden a registros previos documentados de la especie en los Andes de Ecuador (Cosanga - Napo; Estación Científica San Francisco, Reserva Tapichalaca, cordillera de Numbala - Parque Nacional Podocarpus, Cerro Romerillos, La Canela) (MECN, eBird, J. Freile com. pers.), el punto azul se ubica en la cordillera de Kutukú (Robins *et al.*, 1987); y, los puntos rojos corresponden a los registros en la cordillera del Cóndor presentados en este documento.

Es fundamental que este tipo de información sea utilizada en la toma de decisiones locales para fortalecer los procesos de planificación del uso del territorio de esta singular y frágil región, solo así se podrá asegurar la permanencia a largo plazo de la biodiversidad asociada a la misma y de los servicios ambientales que provienen de ella.

### AGRADECIMIENTOS

Este trabajo se desarrolló con permiso de investigación del Ministerio del Ambiente No 15-2012-IC-FAU-DPAP-MA. Agradecemos a la Compañía Aurelian Ecuador S.A. - Kinross (actualmente Lundin Gold), quienes financiaron la ejecución de la campaña de campo para evaluaciones faunísticas en el Alto Machinaza. La fase de campo contó con la valiosa colaboración de los guías locales: Manuel Jima y Luis Gualán. Al Museo Ecuatoriano de Ciencias Naturales (MECN) por compartirnos los datos de especímenes colectados de la especie en Ecuador. Un agradecimiento especial a Boris Tinoco (Universidad del Azuay) por sus valiosas observaciones y aportes a las versiones iniciales de este documento; y, a los dos revisores anónimos cuyos comentarios permitieron consolidar el mismo.

## REFERENCIAS

- Ágreda, A., Nilsson, J., Tonato, L., & Román, H. (2005). A new population of Cinnamon-breasted Tody-Tyrant (*Hemitriccus cinnameipectus*) in Ecuador. *Cotinga*, 24, 16-18.
- Balchín, C.S., & Toyne, E.P. (1998). The avifauna and conservation status of the Río Nangaritza Valley, Southern Ecuador. *Bird Conservation International*, 8, 237-253. doi: <http://dx.doi.org/10.1017/S0959270900001908>
- BirdLife International. (2015). *Nothocercus bonapartei*. The IUCN Red List of Threatened Species 2012: e.T22678154A40069601. Recuperado de: <http://dx.doi.org/10.2305/IUCN.UK.2012-1.RLTS.T22678154A40069601.en>.
- Brennan, P. (2009). Incubation in Great Tinamou (*Tinamus major*). *The Wilson Journal of Ornithology* 121(3), 506-511 doi: <http://dx.doi.org/10.1676/08-073.1>
- Cabot, J., Jutglar, F., Sharpe, C.J., & Kirwan, G.M. (2001). Highland Tinamou (*Nothocercus bonapartei*). En: J. del Hoyo, A. Elliott, J. Sargatal, D.A. Christie, E. & de Juana, (Eds), *Handbook of the Birds of the World Alive*. Barcelona: Lynx Editions. Recuperado de: <http://www.hbw.com/node/52414>
- Fjeldsá, J., & Krabbe, N. (1990). Birds of the high Andes. Copenhagen: Zoological Museum.
- Freile, J.F. (2009). Aves del Ecuador. En Boada, C., Freile, J. F., Jiménez, P., Nogales-Sornoza, F., & Valencia, J. H. *Fauna de Vertebrados del Ecuador* (pp. 177-259). Loja: Universidad Técnica Particular de Loja.
- Freile, J.F., & Santander, T. (2005). Áreas Importantes para la Conservación de las Aves en Ecuador. Quito: Aves y Conservación, BirdLife International, Conservación Internacional y Ministerio del Ambiente de Ecuador.
- Freile, J.F., Piedrahita, P., Buitrón-Jurado, G., Rodríguez, C.A., & Bonaccorso, E. (2011a). Aves de los Tepuyes de Nangaritza, Cordillera del Cóndor. En J. M. Guayasamin, & E. Bonaccorso (Eds.). *Evaluación Ecológica Rápida de la Biodiversidad de los Tepuyes de la Cuenca Alta del Río Nangaritza, Cordillera del Cóndor, Ecuador* (pp 63-76). Quito: Conservación Internacional.
- Freile, J.F., Piedrahita, P., Buitrón-Jurado, G., Rodríguez, C.A., Jadan, O., & Bonaccorso, E. (2011b). Observations on the natural history of the Royal Sunangel (*Heliangelus regalis*) in the Nangaritza Valley, Ecuador. *The Wilson Journal of Ornithology* 123(1), 85-92. doi: <http://dx.doi.org/10.1676/10-054.1>
- Freile, J.F., Carrión, J.M., Prieto-Albuja, F., Suárez, L., & Ortiz-Crespo, F. (2006). La ornitología en Ecuador: Un análisis del estado actual del conocimiento y sugerencias para prioridades de investigación. *Ornitología Neotropical*. 17, 183-202. Recuperado de: <https://sora.unm.edu/sites/default/files/journals/on/v017n02/p0183-p0202.pdf>
- Freile, J.F., Krabbe, N., Piedrahita, P., Buitron-Jurado, G., Rodríguez-Saltos, C.A., Ahlman, F., Brinkhuizen D.M., & Bonaccorso, E. (2014). Birds, Nangaritza River Valley, Zamora Chinchipe Province, southeast Ecuador: Update and revision. *Check List* 10(1), 54-71. doi: <http://dx.doi.org/10.15560/10.1.54>
- Gomes, V. & Kirwan, G.M. (2015). Highland Tinamou (*Nothocercus bonapartei*). En T.S. Schulenberg (Ed) *Neotropical Birds Online*. Ithaca: Cornell Lab of Ornithology. Recuperado de: [http://neotropical.birds.cornell.edu/portal/species/overview?p\\_p\\_spp=56436](http://neotropical.birds.cornell.edu/portal/species/overview?p_p_spp=56436)
- Handford, P., & Mares, M.A. (1985). The mating systems of ratites and tinamou: an evolutionary perspective. *Biological Journal of the Linnean Society*, 25(1), 77-104. doi: <http://dx.doi.org/10.1111/j.1095-8312.1985.tb00387.x>
- Hilty, S.L., & Brown, W.L. (1986). A guide to the birds of Colombia. New Jersey: Princeton University Press.
- Jadan, O., & Aguirre, Z. (2011). Flora de los Tepuyes de la Cuenca Alta del Río Nangaritza, Cordillera del Cóndor. En: J.M. Guayasamin, & E. Bonaccorso (Eds.), *Evaluación Ecológica Rápida de la biodiversidad de los Tepuyes de la Cuenca Alta del Río Nangaritza, Cordillera del Cóndor, Ecuador*. Quito: Conservación Internacional.
- Krabbe, N. & Ahlman, L. (2009). Royal Sunangel (*Heliangelus regalis*) at Yankuam Lodge, Ecuador. *Cotinga*, 31, 132.
- Krabbe, N., & Nilsson, J. (2003). Birds of Ecuador: 1.24. (2003-2012). *Sounds and photographs DVD ROM*. Netherlands: Bird Songs International.
- Krabbe, N., & Sornoza, F. (1994). Avifaunistic results of a subtropical camp in the Cordillera del Condor, southeastern Ecuador. *Bulletin of The British Ornithologists Club*, 114, 55-61.
- Krabbe, N., Poulsen, B.O., Frolander, A., & Rodríguez B., O. (1997). Range extensions of cloud forest birds from the high Andes of Ecuador: New sites for rare or little-recorded species. *Bulletin British Ornithologists' Club*, 117, 248-256.



- Loaiza, J.M., Sornoza, A.F., Agreda, A.E., Aguirre, J., Ramos, R., & Canaday, C. (2005). The Presence of Wavy-breasted Parakeet *Pyrrhura peruviana* confirmed for Ecuador. *Cotinga*, 23. 37-38.
- Lysinger, M., Moore, J.V., Krabbe, N., Coopmans, P., Lane, D., Navarrete, L., Nilsson, J., & Ridgely, R. (2005). *The Birds of Eastern Ecuador. Volume I: The Foothills and Lower Subtropics*. USA: John V. Moore Nature Recordings.
- McKay, W. D. (1980). Nest and young of the Highland Tinamou in southern Colombia. *Condor*, 82, 107. Recuperado de: <https://sora.unm.edu/sites/default/files/journals/condor/v082n01/p0107-p0108.pdf>
- McMullan, M., & Navarrete, L. (2013). *Fieldbook of the Birds of Ecuador, including the Galapagos Islands*. Quito: Fundación de Conservación Jocotoco.
- Miller, A. H. (1963). Seasonal activity and ecology of the avifauna of an American equatorial cloud forest. *University of California Publications in Zoology*, 66: 1-178.
- Montalvo, L. D. (2012). Notas de distribución de aves en la Cordillera del Cóndor. *Revista Politécnica* 30(3), 172-178.
- Moore, J. V., Krabbe, N., & Jahn, O. (2013). *Bird Sounds of Ecuador: A Comprehensive Collection*. San José, California: John V. Moore Nature Recordings.
- Neill, D. (2005). Cordillera del Cóndor. Botanical treasures between the Andes and the Amazon. *Plant Talk*, 41, 17-21.
- Ordóñez-Delgado, L. (2012a). XC124860 Tinamú serrano *Nothocercus bonapartei plumbeiceps*. Available from <http://www.xeno-canto.org/124860>
- Ordóñez-Delgado, L. (2012b). XC124266 Tinamú serrano *Nothocercus bonapartei plumbeiceps*. Available from <http://www.xeno-canto.org/124266>
- Ordóñez-Delgado, L. (2012c). XC124265 Tinamú serrano *Nothocercus bonapartei plumbeiceps*. Available from <http://www.xeno-canto.org/124265>
- Ordóñez-Delgado, L. (2012d). XC124264 Tinamú serrano *Nothocercus bonapartei plumbeiceps*. Available from <http://www.xeno-canto.org/124264>
- Ordóñez-Delgado, L. (2012e). XC 124861 Tinamú serrano *Nothocercus bonapartei plumbeiceps*. Available from <http://www.xeno-canto.org/124861>
- Ridgely, R.S., & Greenfield, P.J. (2001). *The birds of Ecuador*. Ithaca: Cornell University Press.
- Ridgely, R.S. & Greenfield, P.J. (2006). *Aves del Ecuador, guía de campo*. Quito: Academy of Natural Science of Philadelphia y Fundación de Conservación Jocotoco.
- Robbins, M.B., Ridgely, R.S., Schulenberg, T.S., & Gill, F.B. 1987. The avifauna of the Cordillera de Cutucú, Ecuador, with comparisons to other Andean localities. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 129(1), 243-259.
- Schulenberg, T. S., & Awbrey, K. (Eds.). (1997). *The Cordillera del Condor Region of Ecuador and Peru: A Biological Assessment. RAP Working Papers 7*. Washington, D.C: Rapid Assessment Program, Conservation International.
- Schulenberg, T.S., Stotz, D. F., Lane, D.F., O'Neill, J.P., & Parker, T.A. (2007). *Birds of Peru*. Princeton: Princeton University Press.
- Sierra, R., Cerón, C., Palacios, W. & Valencia, R. (1999). *Propuesta preliminar de un Sistema de clasificación de vegetación para el Ecuador Continental*. Quito: Proyecto INEFAN/GEF-BIRF y ECOCIENCIA.
- Slud, P. (1964). The birds of Costa Rica. Distribution and ecology. *Bulletin of the American Museum of Natural History*, 128, 1-430.

## ARTÍCULO/ARTICLE

**New information on the distribution, breeding and conservation of Double-banded Greytail *Xenerpestes minlosi* (Furnariidae) in Ecuador**Alejandro Solano-Ugalde<sup>1,2,3,\*</sup>, Lelis Navarrete<sup>2,3</sup>, Juan F. Freile<sup>2</sup><sup>1</sup> Fundación Imaymana, Paltapamba 476 San Pedro del Valle, Nayón, Quito, Ecuador.<sup>2</sup> Comité Ecuatoriano de Registros Ornitológicos (CERO), Pasaje El Moro E4-216 y Norberto Salazar, Tumbaco, Ecuador.<sup>3</sup> Neblina Forest Natural History and Birding Tours, Isla Floreana e8-129, Quito, Ecuador.\* Autor para correspondencia / Corresponding author, e-mail: [jhalezion@gmail.com](mailto:jhalezion@gmail.com)Editado por/Edited by: Diego F. Cisneros-Heredia  
Recibido/Received: 12/05/2017. Aceptado/Accepted: 14/08/2017.  
Publicado en línea/Published online: 11/12/2017.DOI: <http://dx.doi.org/10.18272/reo.v0i1.890>**Nueva información sobre la distribución, reproducción y conservación del Colagrís Alibandeado *Xenerpestes minlosi* (Furnariidae) en Ecuador****Resumen**

Existen pocos registros del Colagrís Alibandeado *Xenerpestes minlosi* en Ecuador, la mayoría en la provincia de Pichincha. En esta nota presentamos nuevos registros de distribución y los primeros datos de reproducción en Ecuador. La especie no se considera globalmente amenazada, pero la elevada tasa actual de pérdida de bosques en su pequeña área de distribución en Ecuador sugiere que su estado de conservación en este país es más crítico de lo que se considera.

**Palabras clave:** Amenazas, Chocó, registros, reproducción, *Xenerpestes minlosi*.

**Abstract**

There are few records of the Double-banded Greytail *Xenerpestes minlosi* in Ecuador, mostly from Pichincha province. Here we report new distributional records and the first breeding data for Ecuador. The species is not ranked as globally threatened, but current rates of forest loss along its narrow distributional range in Ecuador suggest that its conservation status in this country is more critical than currently expected.

**Keywords:** breeding, Chocó, records, threats, *Xenerpestes minlosi*.

The Double-banded Greytail *Xenerpestes minlosi* was known, until recently, from sparse records in the lowlands of eastern Panama, the Pacific coast of Colombia (south to the lower Río San Juan), and along the northern base of the Andes in Colombia to the mid-Magdalena Valley (Hilty & Brown, 1986). The species was recorded for the first time in Ecuador as recently as 1995 near Pedro Vicente Maldonado, Pichincha province (Ridgely & Greenfield, 2001). It occurs up to 900 m a.s.l. in Colombia (Hilty & Brown, 1986), but it does not range above 600 m in Ecuador (400–500 m in Ridgely & Greenfield, 2001; below 600 m in McMullan & Navarrete, 2013).

The species is nearly endemic to the Chocó biogeographic region (Stattersfield *et al.*, 1998). Globally, it is not considered at risk (BirdLife International, 2016), but it was ranked as Vulnerable in Ecuador (Guerrero, 2002), being rare and local in the canopy of tropical and foothill primary forests and adjacent secondary woodland in the Pacific lowlands and western base of the Andes. In Ecuador, it was known primarily from two localities: Simón Bolívar Road, near Pedro Vicente Maldonado, province of Pichincha; and Salto del Tigre, southwest

province of Imbabura (Ridgely & Greenfield, 2001). With records being scarce, new information on its distribution, natural history, and conservation is desirable.

In this note, we present novel records from the provinces of Esmeraldas and Pichincha and provide the first observations of breeding in the country. We also discuss its conservation status in Ecuador and present a map of potential distribution and currently known localities (Fig. 1). This map was prepared using the software Maxent (Phillips *et al.*, 2006), using 19 bioclimatic Worldclim variables (<http://worldclim.org/bioclim>) and all known distribution records of the species; areas with more than 68% of occurrence probability were selected for the final model (Fig. 1).

Our first record was obtained on 20 September 2007 when LN found an active nest at Tundaloma Lodge (1.18305, -78.755, 35 m), roughly 17 km east of San Lorenzo town, province of Esmeraldas. Three birds were observed feeding chicks, actively moving in and out the nest while a large mixed species flock was crossing the nest tree area. The birds were acrobatically clinging upside down from big leaves looking for small prey, spending more time searching the undersides of foliage. The buffy-whitish underparts, grey upperparts, long white supercilium, whitish wingbars, and longish tail were key features for visual identification (Ridgely & Greenfield, 2001). The nest was located c. 30 m above the ground on the terminal branches of a large tree at the gardens close to the lodge's main deck. It was bulky and globular, and was attached to a fork on a horizontal and partially hidden thin branch. The dimensions were visually estimated to be 30 cm tall by 20 cm wide. The nest was made of thin and longish dry sticks, with a lateral entrance facing downwards.

Two additional individuals were observed by AS-U acrobatically following a mixed sub-canopy flock on 13 March 2008 at Tundaloma Lodge. Further observations from the lodge deck overlooking the canopy of forest edge, revealed that one of this pair was feeding a third individual. The latter bird had similar plumage pattern but lacked the well-defined wing bars and showed conspicuous yellowish gapes, suggesting it was a juvenile. Another pair was heard and seen by AS-U on 12 January 2008 at the Quinto Piso Private Reserve (1.095, -78.852, 28 m), c. 6.5 km S from Yalare town, on the way to Concepción, province of Esmeraldas.

A new record in the province of Pichincha involves a single bird briefly observed by JFF and AS-U following a mixed species flock in forest edge and gallery forest along a small stream at Mashpi (0.1588, -78.902, 525 m a.s.l.), 30 km north-west of San Miguel de Los Bancos, on 4 January 2014. It moved acrobatically among the outer foliage of terminal twigs in dense bushes and trees, coming in and out of foliage as if actively searching prey. It kept going with the passing flock and soon went out of sight.

Our records fill an important gap in the distribution of the species in Ecuador and represent the first detailed records from the province of Esmeraldas (Ridgely & Greenfield, 2006). The Esmeraldas records presented herein are at a lower elevation compared to previous published records in the country (Ridgely & Greenfield, 2001; McMullan & Navarrete 2013). In Panama and Colombia the species is also known from low elevations (Hilty & Brown, 1986; Ridgely & Gwynne, 1989).

To our knowledge the observations presented herein, together with a pair seeing carrying nesting material on 23 May 2006 at Silanche Bird Sanctuary, province of Pichincha (R. Alhman, in litt. 2007), represent the first observations of breeding of the species in Ecuador, and confirms previous remarks about its nest (Remsen, 2016). Breeding in the province of Esmeraldas might occur during the onset of the wet season (late September), which broadly coincides with the breeding periods of a large number of species in the Chocó region (Greeney & Nunnery, 2006; Solano-Ugalde *et al.*, 2007). Additional breeding data is scarce, but a juvenile was being fed in April in Panama, during the onset of the rainy season (Durán-Quesada *et al.*, 2012).

We report the first observation of nest helpers in *Xenerpestes* (Parker & Parker, 1980; Remsen, 2016) from our observation of three birds visiting the nest and feeding chicks at Tundaloma. Nest helpers, defined as additional individuals attending nestlings and feeding young, are a major rarity in the Furnariidae family as far as known (Remsen, 2003; 2016). It has been reported for the enigmatic Pink-legged Graveteiro *Acrobatornis fonsecai* (Whitney *et al.*, 1996), which is closely related to *Xenerpestes* (Derryberry *et al.*, 2011). The Orange-fronted Plushcrown *Metopothrix aurantiaca*, grouped in the same clade as *Xenerpestes* and *Acrobatornis*, has individuals of previous offspring participating in family nest attendance (Remsen, 2003). A species grouped in a different clade, the Rufous-fronted Thornbill *Phacellodomus rufifrons*, breeds in pairs accompanied by additional individuals, presumably young birds of previous offspring, which help in nest building,

maintenance and defence but apparently not –or very occasionally only– in chick rearing (Thomas, 1983; Remsen, 2003). Likewise, in the Caatinga Cachalote *Pseudoseisura cristata* up to four adult birds feed nestlings, while young birds of previous offspring also help in nest building (Remsen, 2003). Nest architecture was similar to the Equatorial Greytail *X. singularis*, for which nesting data is also scarce (Remsen, 2003). As discussed by Zyskowski & Prum (1999), nest architecture is phylogenetically informative in the Furnariidae. Even though it seems plausible that other aspects of their breeding biology are also informative in systematics, like the presence of nest helpers; they might actually be ecologically driven and not phylogenetically related.

In Figure 1 we present the potential distribution and known localities of *Xenerpestes minlosi* in Ecuador, showing a large gap in knowledge between northern Esmeraldas and Pichincha. The occurrence of *X. minlosi* in the Cotacachi Cayapas Ecological Reserve (243,638 ha), the only large protected area within its Ecuadorian range, remains to be determined (Guerrero, 2002). To our knowledge, the species has only been reported from three privately owned protected areas in the country: Tundaloma (65 ha), Silanche (81 ha), and Canandé (c. 2,000 ha), and one communal reserve (Playa de Oro; c. 4,400 ha), where the status of the species is not well known. There is only one unconfirmed sighting in a 9-years study period in Playa de Oro community, neighbouring Cotacachi Cayapas (Jahn, 2011). This suggests that the species is an extremely rare resident in Playa de Oro (Jahn, 2011), but it is also conceivable that the species is an infrequent visitor to the region. A single additional record from Playa de Oro area was obtained in October 2014 (Gelís, 2014). The species might also occur in the Awá Ethnic Reserve (c. 120,000 ha) and Cayapas Mataje Ecological Reserve (49,350 ha), as suggested by a single record by Jahn (2011) at 80–150 m a.s.l. from Awacachi Biological Corridor, 25 km NE of Playa de Oro and c. 10 km E of Tundaloma. Additionally, our Mashpi record is located within a municipal protected area, under a management category of conservation and sustainable use area.

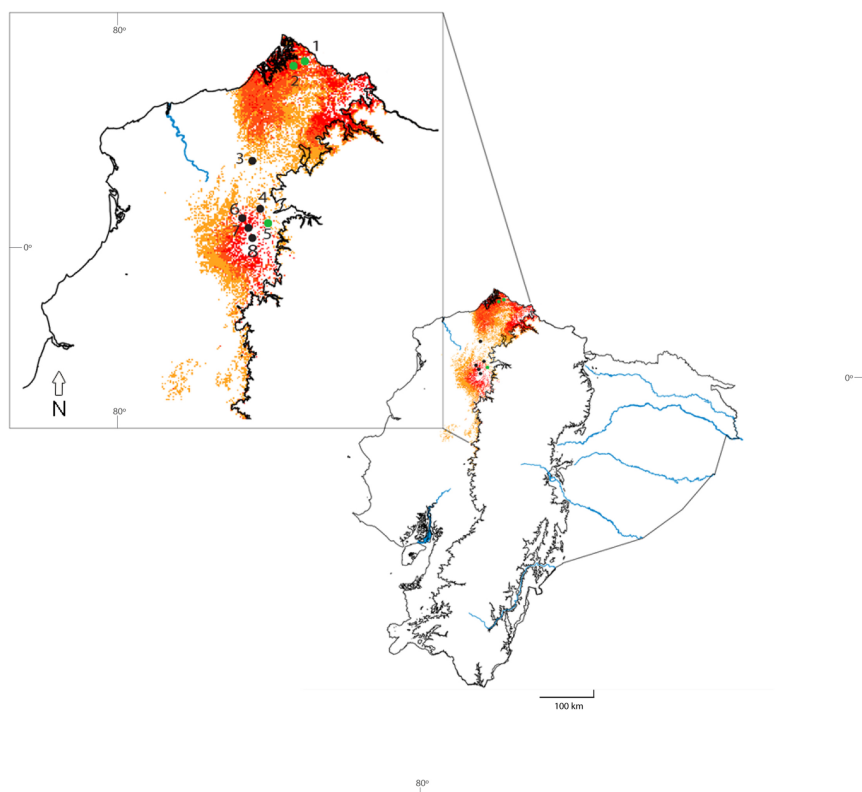


Figure 1: Potential distribution and currently known localities of Double-banded Greytail *Xenerpestes minlosi* in Ecuador. Redder areas show higher occurrence probability: dark red (>91% probability); reddish (79–91%); ochre (68–78%). Deforested areas are not segregated. Green dots represent new localities presented in this note. Black contour line at 1,000 m a.s.l. Localities: 1) Tundaloma; 2) Quinto Piso; 3) Canandé; 4) Salto del Tigre; 5) Mashpi; 6) Simón Bolívar Road; 7) Silanche; 8) west of Pedro Vicente Maldonado.

Tundaloma and Silanche are small and might only hold minor populations. The situation in previously known localities (Simón Bolívar Road and Salto del Tigre) is more critical due to extensive deforestation and forest

clearing for cattle ranching, oil palm, and palm-heart monoculture. Populations in these areas are likely declining and will continue to do so at a fast rate. Even though it apparently was never numerous in the Silanche area, records were more frequent in the late 1990s and early 2000s (pers. obs.), whereas recent sightings are becoming scarcer despite being visited by observers on a regular almost monthly basis. Our two localities in Esmeraldas also face a critical conservation status. At Tundaloma, we have witnessed the decline or disappearance of several forest species over the last decade. There is little connectivity between this small reserve and more extensive forest tracts to the east and south. Likewise, the surroundings of Quinto Piso, Yalare and Concepción have either been legally or illegally logged and turned into monoculture crops and grasslands. At a broader scale, northwest Ecuador has the highest deforestation rate in the country, with over 25,400 ha lost annually, while the province of Esmeraldas has the highest deforestation rate in the region (12,485 ha/year; MAE, 2012). Habitat loss rates are also among the largest in the Neotropics (Aide *et al.*, 2013). Additionally, coverage by national protected areas is dramatically low. Roughly, 73–98% of the area covered by ecosystems where *X. minlosi* occurs is not protected according to Cuesta *et al.* (2015). Based on deforestation rates, very low protection, and the species preference for forested habitats, we suggest a revision of its conservation status in Ecuador, where it might rank as Endangered following the International Union for Conservation of Nature (IUCN) guidelines for regional assessments (IUCN, 2003). Although its status in Colombia is less severe, a more thorough conservation assessment of its global population is also suggested, taking into account future deforestation and climate change scenarios (Bird *et al.*, 2011).

The scanty basic natural history data available to date either suggest that *X. minlosi* occurs in low densities or that its elusive behaviour precludes obtaining behavioural and ecological information. Further field studies might demonstrate that its putative rarity is related to specific habitat requirements, small clutch size, low recruitment, or high predation rates, and that populations are experiencing a serious decline. Further, its taxonomic status needs study since the Ecuadorian population (currently assigned to the Colombian subspecies *X. m. umbraticus*, which apparently does not range south to the Colombia-Ecuador boundary) might represent an undescribed, geographically isolated taxon (Ridgely & Greenfield 2001). Texto...

## ACKNOWLEDGEMENTS

Thanks to Roger Ahlman for sharing field observation and to two anonymous referees for their critical revisions. AS-U thanks A. Arcos T. for continuous support, and Fundación Imaymana, Neblina Forest and Mamba Negra for facilitating his field work. JF thanks the Mashpi community for their hospitality and friendship, Fernando Espíndola for help with distribution models, and Mary Imba for her permanent support.

## REFERENCIAS

Aide, T.M., Clark, M.L., Grau, H.R., López-Carr, D., Levy, M.A., Redo, D., Bonilla-Moheno, M., Riner, G., Andrade-Núñez, M.J. & Muñiz, M. (2013). Deforestation and reforestation of Latin America and the Caribbean (2000–2010). *Biotropica*, 45, 262–271. doi: <http://doi.org/10.1111/j.1744-7429.2012.00908.x>

Bird, J.P., Buchanan, G.M., Lees, A.C., Clay, R.P., Develey, P.F., Yépez, I. & Butchart, S.H.M. (2011). Integrating spatial explicit habitat projections into extinction risk assessments: a reassessment of Amazonian avifauna incorporating projected deforestation. *Diversity and Distributions*, 2011, 1–9. doi: <http://doi.org/10.1111/j.1472-4642.2011.00843.x>

BirdLife International. (2016, December 12). *Species factsheet: Xenerpestes minlosi*. BirdLife International. URL: <http://www.birdlife.org>.

Cuesta, F., Peralvo, M., Baquero, F., Bustamante, M., Merino-Viteri, A., Muriel, P., Freile, J. & Torres, O. (2015). *Áreas prioritarias para la conservación de la biodiversidad en el Ecuador continental*. Quito: Ministerio del Ambiente, Condesan, Pontificia Universidad Católica del Ecuador and GIZ.

Derryberry, E.P., Claramunt, S., Derryberry, G., Chesser, R.T., Cracraft, J., Aleixo, A., Pérez-Emán, J., Remsen, J.V. & Brumfield, R.T. (2011). Lineage diversification and morphological evolution in a large-scale

- continental radiation: the Neotropical ovenbirds and woodcreepers (Aves: Furnariidae). *Evolution*, 65, 2973–2986. doi: <http://doi.org/10.1111/j.1558-5646.2011.01374.x>
- Durán-Quesada, A.M., Reboita, M. & Gimeno, L. (2012). Precipitation in tropical America and the associated sources of moisture: a short review. *Hydrological Sciences Journal* 57: 612–624. doi: <http://doi.org/10.1080/02626667.2012.673723>
- Gelis, R. A. (2014, Octubre 8). *eBird checklist S20202924*. eBird: An online database of bird distribution and abundance. Ithaca, New York. URL: <http://ebird.org/ebird/view/checklist/S20202924>
- Greeney, H.F. & Nunnery, T. (2006). Notes on the breeding of northwestern Ecuadorian birds. *Bulletin of the British Ornithologists Club*, 126(1), 38–45. URL: <http://www.biodiversitylibrary.org/item/127064#page/40/mode/1up>
- Guerrero, M. (2002). Colagris Alibandeado, *Xenerpestes minlosi*. En T. Granizo, C. Pacheco, M.B. Rivadeneira, M. Guerrero & L. Suárez (Eds.), *Libro rojo de las aves del Ecuador* (pp. 277). Quito: Simbioe, Conservación Internacional, EcoCiencia, Ministerio del Ambiente and UICN.
- Hilty, S.L. & Brown, W.L. (1986). *A guide to the birds of Colombia*. Princeton: Princeton University Press.
- IUCN (2003). *Guidelines for application of IUCN red list criteria at regional levels, version 3.0*. IUCN Species Survival Commission. International Union for Conservation of Nature, Gland, Switzerland. URL: <http://www.iucnredlist.org/technical-documents/categories-and-criteria>
- Jahn, O. (2011). Bird communities of the Ecuadorian Chocó: a case study in conservation. *Bonner Zoologische Monographien*, 56, 1–514. URL: [http://www.zobodat.at/pdf/Bonner-Zoologische-Monographien\\_56\\_0001-0514.pdf](http://www.zobodat.at/pdf/Bonner-Zoologische-Monographien_56_0001-0514.pdf)
- Ministerio del Ambiente del Ecuador–MAE. (2012). *Línea base de deforestación del Ecuador continental*. Quito: Ministerio del Ambiente.
- Phillips, S.J., Anderson, R.P. & Schapire, R.E. (2006). Maximum entropy modeling of species geographic distributions. *Ecological Modeling*, 190, 231–259.
- Remsen, J.V. (2003). Family Furnariidae. En J. del Hoyo, A. Elliott & D. Christie (Eds.), *Handbook of the Birds of the World, vol. 8: broadbills to tapaculos* (pp. 162–357). Barcelona: Lynx Edicions.
- Remsen, J.V. (2016, August 23). Double-banded Greytail (*Xenerpestes minlosi*). En J. del Hoyo, A. Elliott, J. Sargatal, D.A. Christie & E. de Juana. (Eds.), *Handbook of the Birds of the World Alive*. Barcelona: Lynx Edicions. URL: <http://www.hbw.com/node/56522>
- Ridgely, R.S. & Gwynne, J.A. (1989). *A guide to the birds of Panama*. Princeton: Princeton University Press.
- Ridgely, R.S. & Greenfield, P.J. (2001). *The birds of Ecuador*. Ithaca: Cornell University Press.
- Ridgely, R.S. & Greenfield, P.J. (2006). *Aves del Ecuador*. Quito, Ecuador: Academia de Ciencias de Philadelphia and Fundación Jocotoco.
- Solano-Ugalde, A., Arcos-Torres, A. & Greeney, H.F. (2007). Additional breeding records for selected avian species in northwest Ecuador. *Boletín Sociedad Antioqueña de Ornitología*, 16(1), 17–25.
- Stattersfield, A.J., Crosby, M.J., Long, A.J. & Wege, D.C. (1998). *Endemic Bird Areas of the world: priorities for biodiversity conservation*. Cambridge, UK: BirdLife International.
- Thomas, B. T. (1983). The Plain-fronted Thornbird: nest construction, material choice, and nest defense behaviour. *Wilson Bulletin*, 95, 106–117. URL: <https://sora.unm.edu/node/130005>

Whitney, B.M., Pacheco, J.F., da Fonseca, P.S.M. & Barth, R.H. (1996). The nest and nesting ecology of *Acrobatornis fonsecai* (Furnariidae), with implications for intrafamilial relationships. *Wilson Bulletin*, 108, 434–448. URL: <https://sora.unm.edu/sites/default/files/journals/wilson/v108n03/p0434-p0448.pdf>

Zyskowski, K. & Prum, R.O. (1999). Phylogenetic analysis of the nest architecture of Neotropical ovenbirds (Furnariidae). *Auk*, 116, 891–911. URL: <https://sora.unm.edu/node/26128>