

New avian sight records for Nicaragua, with notes on abundance, distribution and habitat use

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Reportamos diez nuevas especies de aves para Nicaragua que no habían sido publicadas en revistas de revisión científica. Para algunas especies contamos con evidencia fotográfica: *Dendrocygna bicolor*, *Sula granti*, *Limnodromus scolopaceus*, *Charadrius wilsonia*, *C. alexandrinus*, *Limosa fedoa*, *Calidris alba*, *C. bairdii*, *Larus delawarensis* y *Tangara gyrola*. También estamos registrando observaciones adicionales de *Conopias albocittatus*, la expansión del rango de distribución más al norte de *Tangara gyrola* y la expansión del rango sur de distribución invernal de *Limnodromus scolopaceus*. La información acerca de la distribución de las aves de Nicaragua continua siendo deficiente, incluso registros de varias especies que probablemente se han registrado en el país no han sido publicados.

Not only has Nicaragua been largely overlooked in studies of avian distribution and ecology, general information on species richness is scarce and often outdated. Countrywide species lists range from 644 to 695^{10,20}, much lower than for neighbouring countries^{13,27}. A recent study added three new country records, Green Ibis *Mesembrinibis cayennensis*, Purple-throated Fruitcrow *Querula purpurata* and Tropical Mockingbird *Mimus gilvus*, and made important distributional records of several species³¹. In addition, Cooper's Hawk *Accipiter cooperii* was reported for the first time in Nicaragua, when 41 individuals were sighted on southbound migration in 2001 and 19 individuals in 2002, along with incidental observations of Eastern Kingbird *Tyrannus tyrannus*⁴. During habitat surveys in several areas of Nicaragua, we confirmed ten species not previously reported in the peer-reviewed literature. In addition, we report nine sightings of a species whose current range is reported as Costa Rica south to eastern Brazil. All locations mentioned are included in Fig. 1. Elevations are stated as metres above sea level. We cite observers by their initials, and the initials of observers other than the authors are given in the Acknowledgements.

Fulvous Whistling Duck *Dendrocygna bicolor*

There are no published reports from Nicaragua (though see Zolotoff & Lezama³³). The species is common, even abundant, at several localities. *D. bicolor* even appears in a species list posted at www.bio-nica.org/Biblioteca/BibliAves.htm (Kjelden, October 2005). We made several observations at Lake Moyuá in central Nicaragua: five, 13 March 1998 (JKM, JU); five, roosting near ten Black-bellied Whistling Ducks *Dendrocygna autumnalis* and c.30 Neotropic Cormorants *Phalacrocorax brasilianus*, 11 September 1999 (LJL, JKM); more than 1,500 during a survey of the lake and Tecomapa, Charco and Playitas, other

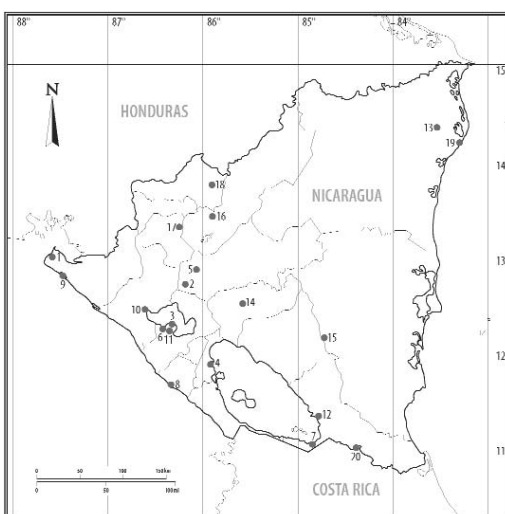


Figure 1. Map of Nicaragua depicting locations cited in the text, with elevations in metres. (1) Cosiguina and Los Farallones (13°06'N 87°40'W; 0 m); (2) Lake Moyuá and associated lakes (12°36'N, 86°03'W; 450 m); (3) Marina Chiltepe (12°12'N 86°17'W; 45 m); (4) Granada wetlands (12°00'N 85°53'W; 35 m); (5) Sébaco (12°36'N 86°03'W; 450 m); (6) Mateare wetlands (12°14'N 86°23'W; 45 m); (7) río La Palma, Los Guatusos (11°03'N 84°54'W; 35 m); (8) Chacocente (11°33'N 86°09'W; 0 m); (9) Padre Ramos estuary (12°47'N 87°29'W; 40 m); (10) Puerto Momotombo (12°25'N 86°34'W; 45 m); (11) Lake Xiloá (12°14'N 86°20'W; 55 m); (12) San Miguelito (11°25'N 84°54'W; 35 m); (13) km 51 Puerto Cabezas–Siuna highway (14°06'N 83°51'W; 50 m); (14) Mombachito (12°25'N 85°36'W; 866 m); (15) Rama (6 km west) (12°11'N 84°20'W; 50 m); (16) Finca Lindos Ojos (13°06'N 86°11'W; 1,100 m); (17) El Rosario–Murra (13°44'N 86°01'W; 900 m); (18) Wawa Bar (13°54'N 83°27'W; 0 m).

lakes associated with Moyuá, 9–10 March 2000 (JMZ, SM, EC, CG); 660 at Playitas Lake just south of Moyuá, 27 January 2001 (JPK); 15, roosting in trees on the swampy shore, 19 January 2002 (JKM, JTA, PSM); eight (photographed), roosting in bushes on a swampy shore, 10 February 2003 (JKM, JB); 75, at the same location, 9 May 2006 (JKM, WJA), of which most were roosting in groups of 2–25, usually near groups of 2–5 Black-bellied Whistling Ducks; ten, beside a flooded pasture near Marina Chiltepe, 7 January 2000 (JL); ten, flying over the Lake Nicaragua shoreline 5–10 km north of Granada, 8 November 2001 (JPK), and two at the same site, 31 December 2003 (JKM, DK); c.1,000 in a flooded rice field near Sébaco, 14 April 2003 (JPK). Though one of the most widespread ducks in the world^{12,13}, Fulvous Whistling Duck is perhaps the least studied of all North American waterfowl, and its abundance outside the USA poorly known¹². Formerly considered a vagrant in Panama, the species is now known to breed³. In Nicaragua, the species is a common resident in appropriate habitat, as documented by Zolotoff & Lezama³³.

Nazca Booby *Sula granti*

Twenty-two subadults and two adults (photographed), Los Farallones islets, Gulf of Fonseca, 6 March 2004 (JKM, BC). Adults were distinguished from other boobies by the yellow bill, yellowish legs and black flight-feathers; subadults had white collars which distinguished them from the more common subadult Brown *Sula leucogaster* and Blue-footed Boobies *S. nebouxii*. Though no regular migration pattern has been delineated¹, Masked Boobies banded in the Galápagos have been recovered in Pacific Guatemala and Mexico, and have been reported during migration periods in El Salvador¹⁴ and Panama^{3,18}. More recently, several *S. granti* were reported from El Salvador in July 2005, including one banded in the Galápagos¹⁵. The Los Farallones lie within the species' proposed breeding range (30°N–30°S)²³, which includes Cocos Island, Costa Rica⁸. Because there are now records from December, April and July in El Salvador (O. Komar pers. comm. 2006), coupled with the fact that we observed 22 subadults in close proximity to two adults, the Los Farallones should be monitored for potential breeding¹³.

Long-billed Dowitcher *Limnodromus scolopaceus*

Eighty, Mateare wetlands, 14 January 2001; 490, wetlands along Lake Nicaragua shoreline 5–10 km north of Granada, 3 March 2001 (JPK); two, in basic plumage in wetlands north of Granada, 26 January 2001 (JKM, JTA); two, wetlands 10 km north of Granada on the Lake Nicaragua shoreline, 29 January 2006 (JKM, JMZ, WJA). Species identification was confirmed by the extensive visible barring on the flanks; primaries that did not extend beyond

the tail; wing-coverts that were dark with brown fringes; a straight supercilium; a limited pale region around chin; dusky breast over buff to whitish belly; and very long, straight bill approximately twice the head length³². The two individuals observed on 29 January 2006 were seen for c.15 minutes and were flushed but did not call upon taking flight. Long-billed Dowitcher's reported winter range reaches as far south as El Salvador^{13,28}, though only one record exists for the country¹⁶. In Costa Rica, evidence suggests that *L. scolopaceus* is a passage migrant, with arrival in late October–early November^{27,28}. However, Angehr³ and Ridgely & Gwynne²⁵ consider Long-billed Dowitcher a winter resident in Panama. Our sight records reveal that it is most likely a 'winter' resident in Nicaragua as well.

Snowy Plover *Charadrius alexandrinus*

Single, foraging near a Wilson's Plover *C. wilsonia*, in wetlands 5 km north of Granada, 27 January 2001 (JKM, JTA). Distinguished from *C. wilsonia* by its smoky grey legs, longer and less deep-based bill, white supercilium, and much paler upperparts. Though more data are needed from Mesoamerica to document the full extent of its range²⁴, the species winters along the Pacific coast of Washington (USA) to Baja California and at least rarely from Guatemala to Panama (three records), where perhaps overlooked^{2,3,6,13,26}. In El Salvador, *C. alexandrinus* is a regular migrant and winter visitor¹⁷. In Nicaragua, it is listed as a probable migrant by Martínez-Sánchez²⁰, but is likely a winter visitor, though there are as yet insufficient data to suggest the species' abundance.

Wilson's Plover *Charadrius wilsonia*

Single, río La Palma in Los Guatuzos, hunting insects over a muddy field in a floodplain where water had recently receded, 22 February 2000 (OA, RA, RC, YO); single, feeding at edge of flooded fields 5 km north of Granada along the Lake Nicaragua shoreline, c.5 m from a Snowy Plover *C. alexandrinus* feeding in mud at edge of open water, 27 January 2001 (JKM, JTA); single in basic plumage, sandy beach at Chacocente, 8 September 2002 (JKM PSM), was part of a loose, foraging aggregation comprising two Black-bellied Plovers *Pluvialis squatarola*, six Semipalmated Plovers *Charadrius semipalmatus*, a Spotted Sandpiper *Actitis macularius* and two Sanderlings *Calidris alba*; two in alternate plumage on mudflats with two Collared Plovers *Charadrius collaris*, Padre Ramos estuary, Pacific Ocean, 30 June 2002 (JKM PSM); two in basic plumage, at distance of <20 m on rocky shoreline of Lake Managua at Marina Chiltepe, 26 April 2003 (KM); 65, 40 and 20 individuals, respectively, on 4–6 March 2006, along Lake Managua shoreline 2 km east of Puerto

Momotombo (LJL). Howell & Webb¹³ report breeding populations of Wilson's Plover from the USA to Panama and north-east Brazil. Wintering populations of northern breeders are found from the Gulf coast of Louisiana, north-east Florida and Texas, south through Baja California and Sonora, Mexico, along the Pacific coast to north-west Peru⁷. The species was not included in a biodiversity survey of the Moskitia region of Honduras². In El Salvador, a threatened breeding population is augmented in winter by migrants¹⁶. In Costa Rica, the species is a permanent resident on the Pacific Coast²⁷, with small numbers always present on Cocos Island⁸. In Nicaragua, it probably breeds in small numbers, though more documentation is needed, especially for populations on the Pacific coast.

Marbled Godwit *Limosa fedoa*

Single, foraging in wetlands along Lake Nicaragua, c.5 km north of Granada, 26 January 2001 (JTA, JKM), near two Lesser Yellowlegs *Tringa flavipes* and c.15 Black-necked Stilts *Himantopus mexicanus*. It was distinctive with an upturned, pinkish, black-tipped bill and mottled wings, which at rest extended slightly beyond the tail-feathers. Winters from south-west British Columbia to Colombia and northern Chile²⁷, but in Central America it winters locally south of El Salvador along the Pacific coast to Costa Rica¹¹ and Panama³. In Nicaragua, reported as a probable migrant by Martínez-Sánchez²⁰. Our January observation suggests the species is a winter resident at wetlands and shores of Nicaragua, but additional records are needed.

Sanderling *Calidris alba*

Six, Wawa Bar, 25 December 2000, foraging within the intertidal zone with a Baird's Sandpiper *C. bairdii* and a Least Sandpiper *C. minutilla* (SM), were distinguished by black eyes and bill, and black leading edges to wings in flight; two in basic plumage foraging in surf along sandy beach at Chacocente, 8 September 2002 (see Wilson's Plover), demonstrating typical behaviour (JKM, PSM). The majority of North America's Sanderling populations winter in Central and South America between the Tropics of Cancer and Capricorn¹⁹. *C. alba* was not found during a survey of the Moskitia region of Honduras². In El Salvador, Sanderlings are migrants to coasts and present year-round¹⁶. During autumn and spring migrations, respectively, migrants arrive in Costa Rica from mid-August through October, and mid-March to early May²⁷. Martínez-Sánchez²⁰ did not mention Sanderling as a probable visitor to Nicaragua, though Howell & Webb¹³ report the extent of the species' winter range from coastal North America to

South America. We suggest that Sanderlings are at least uncommon winter residents in Nicaragua.

Baird's Sandpiper *Calidris bairdii*

Single, Wawa Bar, 25 December 2000, at a distance of 6 m, foraging in a mixed flock of Least Sandpipers *C. minutilla* and Sanderling *C. alba*; see above (SM). Identification was confirmed by the mottled breast, black legs, long wings extending well beyond the tail and lack of a white rump. Flock of ten, Mateare wetlands, with ten White-rumped Sandpipers *C. fuscicollis*, six Pectoral Sandpipers *C. melanotos* and 12 Spotted Sandpipers *Actitis macularius*, 1 May 2003 (JKM). They were easily distinguished from the White-rumped Sandpipers by absence of white in the uppertail-coverts and browner overall coloration. Baird's Sandpiper breeds in north-west North America and winters in South America²¹. In spring, northbound migrants are uncommon but regular in neighbouring Costa Rica²⁷. Our December sighting suggests that the species may be a winter resident in Nicaragua, but more evidence is needed.

Ring-billed Gull *Larus delawarensis*

Several in basic and immature plumages (50 and 35, respectively), Lake Xiloá, 20–21 February 1998, and again on 4, 8 and 9 March 1998 (22, 20 and 15 individuals) (JKM, LJL); 11, 19 March 1998, with Laughing Gulls *Larus atricilla* (JKM); two in basic plumage, flying over shore of Lake Nicaragua on south side of San Miguelito, 9 January 2003 (JKM, JTA). At least five seen again, on 10 January 2003, over the lake just north of San Miguelito; four in basic plumage at Punta San José on Cosiguina, 6 March 2004 (JKM). They were near large flocks and scattered individuals of Laughing Gulls and Caspian Terns *Sterna caspia*, and were distinguished from immature Laughing Gulls and similar species by the paler mantle and yellowish or pale bill with a darker tip; the precise bill tip colour was not noted due to the distance (usually 50–100 m). Regularly winters as far south as northern Central America¹³. Reported from Honduras⁵ and, although rare, occurs as far south as Panama^{3,26} and north-west South America⁹. Apparently rare in El Salvador, as Komar¹⁷ reported just one, in 1992, at Acajutla, prov. Sonsonate (13°36'N 89°52'W). In Nicaragua, our sightings, including several in January–February, suggest that *L. delawarensis* is a rare to uncommon winter visitor.

White-ringed Flycatcher *Conopias albobittatus*

First documented for Nicaragua in 2003 by Múnera-Roldán *et al.*²², we offer the following additional observations: single, edge of mature humid tropical forest north of the Puerto Cabezas–Siuna Highway at km 51 by Tasawala

community, 6 March 2003 (JKM); single, Mombachito Nature Reserve, near Boat-billed Flycatchers *Megarhynchus pitangua* high in trees in open forest, 7 May 2003 (JKM, PSM); two, upper canopy bordering an open, swampy field 6 km west of Rama, 5 January 2004 (JKM, DK); singles on two different occasions, perched in a *Erythrina fusca* at the river edge in front of Refugio Bartola, 18 September 2005 and 16 March 2006 (RHS CMR); two, upper canopy bordering swampy pastures 10 km north of Granada, 29 January 2006 (JKM, WJA) and again, 12 February 2006 (JKM, DK); a pair near a nest in a *Citrus limon* at El Jaguar Cloud-forest Reserve (Jinotega), 9 March 2006 (JKM, WJA). In addition to its song, the species is further distinguished from the similar Social Flycatcher *Myiozetetes similis* by its bold black cheeks and black crown surrounded by a continuous white superciliary, unlike the superciliary broken at the nape of Social Flycatcher. White-ringed Flycatcher's reported range is eastern Honduras to Ecuador, mainly in riparian habitat^{2,13,17}. Múnera-Roldán *et al.*'s²² sightings in south-eastern Nicaragua, coupled with ours in various habitats widely scattered throughout Nicaragua, confirm the species is widespread and common. In the past, it probably has been confused with Social Flycatcher.

Bay-headed Tanager *Tangara gyrola*

Two, feeding on fruits of *Cecropia peltata* and other trees in cloud forest at El Jaguar Cloud-forest Reserve, Jinotega, 5 April 2002 (SM, AM SV). One, an adult male, had an entirely rich chestnut head, golden-yellow shoulder patch and bright blue underparts. The other, an immature, was green with scattered chestnut spots in the head and wing, though those on the wings were duller and the blue breast-feathers were diffuse. Rufous-winged Tanagers *T. lavinia* were also observed in the reserve, permitting comparison. Male, 14 April 2002, north of Finca Lindos Ojos near Miraflores, north-east of Estelí, feeding in mid-level foliage with five Common Bush Tanagers *Chlorospingus ophthalmicus*, two White-naped Brush Finches *Atlapetes albinucha* and a Wilson's Warbler *Wilsonia pusilla* (JTA). Male, in open remnant evergreen broadleaf woodland at El Rosario community, Murra, Nueva Segovia, 24 November 2002 (JPK). It was differentiated from *T. lavinia* by the lack of chestnut in the wings and the bright turquoise breast. JPK has experience with both species in Costa Rica. Adult male, upper canopy of broadleaf evergreen trees at El Jaguar, 21 January 2006, (WJA, MT); a pair, feeding on *Cecropia* fruits, 9 March 2006, and later in closed forest in a mixed flock with a pair of *T. lavinia*, 12 May 2006, c.200 m from the previous sighting (JKM). The 2002 Nueva Segovia sighting, west and north of the first reported sighting, and the more recent 2006

sightings in El Jaguar Cloud-forest Reserve, provide additional information on the species' habitat use and range in the country, and may constitute a northward range extension as the contemporary range is reported as Costa Rica to western Ecuador, northern Bolivia and eastern Brazil²⁷. However, the species simply may have been overlooked, having arrived in the area several years ago following the opening of dense forests as a result of human activities.

Discussion

Distributional information on Neotropical birds is generally scant and often 'hidden' in obscure local journals and reports³⁰. Consequently, much valuable information is inaccessible to those unfamiliar with, or unable to access, such journals²⁹. Within the last few decades, however, there has been a burgeoning global interest in the rich biodiversity of the Neotropics. As a result, there has been a surge of professionals armed with state-of-the-art field and analytical technologies. Contemporary biologists, following in the footsteps of the forefathers of Neotropical ornithology, have made significant progress in increasing our knowledge of the diversity, distribution and habitat use of tropical birds, but not all countries share equally the amount of accumulated information or breadth of zoogeographic knowledge of their respective species. In Nicaragua, for example, new species are constantly being added, a trend that should continue for some time as local ornithologists continue to expand their monitoring programmes into additional habitats, and especially into more remote areas. Our sightings of ten additional species further demonstrate that Nicaragua's avifauna is considerably under-reported. Two of our ten sight records may be extensions of reported ranges. Alternatively, these species may have been present for some time, but simply overlooked. These records serve to increase our knowledge of the contemporary distribution and temporal habitat use of birds within Nicaragua's borders.

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References

- Anderson, D. J. (1993) Masked Booby (*Sula dactylatra*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 73. Philadelphia, PA: The Birds of North America Inc.
- Anderson, D. L., Wiedenfeld, D. A., Bechard, M. J. & Novak, S. J. (2004) Avian diversity in the Moskitia region of Honduras. *Orn. Neotrop.* 15: 447–482.
- Angehr, G. R. (2006) Waterbird Conservation for the Americas: Panama Country Report. Panama City: Panama Audubon Society & BirdLife International. Unpubl. report (available from angehr@si.edu).
- Arengi, J. T. & McCrary, J. K. (2004) Raptor migration monitoring in Nicaragua. *Hawk Migration Stud.* 29: 20–25.
- Brown, H. C. & Monroe, B. L. (1974) Bird records from Honduras. *Condor* 76: 348–349.
- Castro, G. & Myers, J. P. (1988) Snowy Plover (*Charadrius alexandrinus*) records from Panama. *Amer. Birds* 42: 374.
- Corbat, C. A. & Bergstrom, P. W. (2000) Wilson's Plover (*Charadrius wilsonia*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 516. Philadelphia, PA: The Birds of North America Inc.
- Dean, R. & Montoya, M. (2005) Ornithological observations from Cocos Island, Costa Rica (April 2005). *Zeledonia* 9: 62–69.
- Downing, C. (2005) New distributional information for some Colombian birds, with a new species for South America. *Cotinga* 24: 13–15.
- Gillespie, T. W., Nicholson, K. E. & McCrary, J. K. (2001) Patterns of vertebrate species richness and conservation in Nicaragua. *Nat. Areas J.* 21: 159–167.
- Gratto-Trevor, C. (2000) Marbled Godwit (*Limosa fedoa*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 492. Philadelphia, PA: The Birds of North America Inc.
- Hohman, W. L. & Lee, S. A. (2001) Fulvous Whistling-Duck (*Dendrocygna bicolor*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 562. Philadelphia, PA: The Birds of North America Inc.
- Howell, S. N. G. & Webb, S. (1995) *A guide to the birds of Mexico and northern Central America*. Oxford: Oxford University Press.
- Jehl, R. J. (1974) The near-shore avifauna of the Middle American west coast. *Auk*: 91: 681–699.
- Jones, H. L. & Komar, O. (2005) Regional reports: Central America. *N. Amer. Birds* 59: 660–662.
- Komar, O. (1998) Avian diversity in El Salvador. *Wilson Bull.* 110: 511–533.
- Komar, O. (2001) Contribuciones a la avifauna de El Salvador. *Cotinga* 16: 40–45.
- Loftin, H. (1991) An annual cycle of pelagic birds in the Gulf of Panama. *Orn. Neotrop.* 2: 85–94.
- MacWhirter, B., Austin-Smith, P. & Kroodsma, D. (2002) Sanderling (*Calidris alba*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 653. Philadelphia, PA: The Birds of North America Inc.
- Martínez-Sánchez, J. C. (2000) *Check-list of the birds of Nicaragua*. Managua: Fundación Cocibolca.
- Moskoff, W. & Montgomerie, R. (2002) Baird's Sandpiper (*Calidris bairdii*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 661. Philadelphia, PA: The Birds of North America Inc.
- Múnera-Roldán, C., Cody, M. L., Schiele-Zavala, R. H., Rigel, B. J., Woltmann, S. & Kjeldsen, J. P. (2007) New and noteworthy records of birds from south-eastern Nicaragua. *Bull. Brit. Orn. Club* 127: 152–161.
- Nelson, J. B. (1978) *The Sulidae*. Oxford: Oxford University Press.
- Page, G. W., Warriner, J. S., Warriner, J. C. & Paton, P. W. C. (1995) Snowy Plover (*Charadrius alexandrinus*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 154. Philadelphia, PA: The Birds of North America Inc.
- Ridgely, R. S. & Gwynne, J. A. (1989) *A guide to the birds of Panama*. Princeton, NJ: Princeton University Press.
- Smith, S. M. & Stiles, F. G. (1979) Banding studies of migrant shorebirds in northwestern Costa Rica. *Stud. Avian Biol.* 2: 41–47.
- Stiles, F. G. & Skutch, A. F. (1989) *A guide to the birds of Costa Rica*. Ithaca, NY: Cornell University Press.
- Takekawa, J. Y. & Warnock, N. (2000) Long-billed Dowitcher (*Limnodromus scolopaceus*). In: Poole, A. & Gill, F. (eds.) *The birds of North America*, 493. Philadelphia, PA: The Birds of North America Inc.
- Vuilleumier, F. (2000) Some reflections about the problem of diffusion of publications among ornithologists studying Neotropical birds. *Orn. Neotrop.* 11: 185–187.
- Vuilleumier, F. (2003) Perspectives in ornithology. Neotropical ornithology: then and now. *Auk* 120: 577–590.
- Wiedenfeld, D. A., Morales, J. & Lezama, M. (2001) Sight records of new species for Nicaragua and noteworthy records on range and occurrence. *Cotinga* 15: 53–57.
- Wilds, C. & Newlon, M. (1983) The identification of dowitchers. *Birding* 15: 151–166.
- Zolotoff-Pallais, J. M. & Lezama, M. (2001) Estado de conservación de aves acuáticas y sus hábitats en Nicaragua. Managua: Fundación Cocibolca. Unpubl. rep. (available from zolotoff@ibw.com.ni).

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