



Noteworthy bird records from central Sinaloa, Mexico

Alfredo Leal-Sandoval^{1*}, Juanita Fonseca-Parra², and José Alfredo Castillo-Guerrero³

¹Conservación, Investigación y Servicios Ambientales, A.C. Matías Lazcano 2339 B1, Col. Tierra Blanca, Culiacán, 80030, Sinaloa, México. E-mail: *lealsan@gmail.com.

²Departamento de Información y Bibliografía Especializada, Escuela de Biología, Universidad Autónoma de Sinaloa. Circuito interior s/n, Ciudad Universitaria, Culiacán, 80010, Sinaloa, México.

³Centro de Investigación Científica y de Educación Superior de Ensenada, B.C. Km 107, Carretera Tijuana-Ensenada, A.P. 360, Ensenada, 22860, Baja California, México.

Abstract

We report noteworthy bird records of *Anous stolidus*, *Stellula calliope*, *Sphyrapicus varius*, *Myiopagis viridicata*, *Dendroica pensylvanica* and *Pheucticus ludovicianus* from central Sinaloa, most of them obtained during mist net surveys. At first sight the records seem to be vagrants, but the severe habitat modification of Sinaloa's coastal zone could be facilitating the dispersal of some species. The absence of previous records for some of these species in Sinaloa might be due to low observation effort rather than to increases in the distribution range for these species.

Key words: distribution, molt, new records.

Registros notables de aves del centro de Sinaloa, México

Resumen

Reportamos registros meritorios de *Anous stolidus*, *Stellula calliope*, *Sphyrapicus varius*, *Myiopagis viridicata*, *Dendroica pensylvanica* y *Pheucticus ludovicianus* del centro de Sinaloa. La mayoría de las aves fueron capturadas con redes de niebla. Aunque los registros parecen ser de individuos vagabundos, podría ser que la severa modificación del hábitat de la zona costera de Sinaloa esté facilitando la dispersión de algunas especies. La ausencia de registros previos de estas especies parece estar más relacionada con un bajo esfuerzo de observación que con incrementos en la distribución geográfica de las especies.

Palabras claves: distribución, muda, nuevos registros.

HUITZIL (2009) 10(2):63-65

In the state of Sinaloa, Mexico, the convergence of desert, subtropical thorn forest and mountains result in high bird diversity. Nevertheless, research efforts have not reflected such diversity and at present, there is no published account about the birds of the state. The recent publication of several additions to the known bird list of Sinaloa (e.g., González-Bernal *et al.* 2003, 2006, 2007) demonstrates that basic bird knowledge is far from complete. In this note, we report some records of birds captured between November 2006 and March 2008 at the following three bird banding stations in central Sinaloa: (1) Cruz de Elota (23°54'N, 106°58'W; 20 m a.s.l.) at 7 km from the town of the same name. The station was located by a rocky-sandy beach, bordered by aquatic vegetation, mangrove, and thorn shrub. Mist nets were strung in mangrove (4 nets) and thorn shrub habitats (5 nets), as well as in the ecotone between them (4 nets); (2) Cosalá (24°24'N, 106°36'W; 380 m a.s.l.) at the edge of subtropical deciduous forest and riparian vegetation of a temporal stream (12 nets), near the town of the same name, and (3) the Botanic Garden of the city of Culiacán (24°49'N, 107°23'W; 60 m a.s.l.), an artificial

environment inside the city with exotic plant species mainly maintained by a permanent irrigation system (16 nets). At each station we made three monitoring pulses per year (in November, February and March) following the Monitoring Avian Winter Survival (MAWS) protocol, which entails the operation of 12-16 mist nets during 6 hours, for 3 consecutive days (De Sante and Saracco 2006). We include information about body condition (molt, body fat, wing length, and cloacal protuberance) as these data are very important to understand survival strategies, migration, and residence status of the birds (Latta and Faaborg 2002, Saracco *et al.* 2006).

Species account

Brown Noddy (*Anous stolidus*). On 18 September 2006 J.L. Alvarado, M. Cruz and A. de los Huertos photographed an individual resting at Playa Ceuta, three days after hurricane Lane passed. We identified the specimen as *A. stolidus*. In the Pacific, this species breeds on islands and islets off southern Mexico (Howell and Webb 1995) and, although it disperses in winter, there is

only one previous record in Sinaloa in 2001 (González-Bernal *et al.* 2007). The bird we recorded could have been dragged northward by the strong winds. It had moderate feather wear, but its general condition seemed good.

Calliope Hummingbird (*Stellula calliope*). On 14 February 2007 we captured a second-year female at Cosalá. It had an incipient incubation patch and medium levels of fat. It exhibited some molt in all groups of feathers, except in the rectrices where it still retained juvenile feathers. Wing length was 41 mm and it weighed 2.4 g. Along Mexico's Pacific slope this species is a transient and winter visitor without previous records for Sinaloa (Howell and Webb 1995). Our record indicates its presence in the central part of the state, although only one record in 2,214 mist-net hours indicates that it is rare.

Yellow-bellied Sapsucker (*Sphyrapicus varius*). We captured a first-year female on two occasions (22 January and 22 March 2007) at the Botanical Garden. It had an incipient incubation patch the second time it was captured, exhibited limited molt on the secondary coverts and molt on the primaries, secondaries and tertiaries. The rectrices and body feathers exhibited limited molt. Its weight increased from 42.7 to 50.1 g between the two capture events and its wing length was recorded as 121 and 123 mm, respectively. We identified it as a Yellow-bellied Sapsucker by the white throat and the lack of red nape spot, typical of the Red-naped Sapsucker (*Sphyrapicus nuchalis*) that is more common in NW Mexico. There is only one previous record of this species for Sinaloa (Sibley 2001), three in Sonora (Russell and Monson 1998) and some in Baja California (Erickson *et al.* 2001), indicating that its presence in northwestern Mexico is rare but regular.

Greenish Elaenia (*Myiopagis viridicata*). Two individuals were captured at Cosalá on 15 February 2007: one adult (after second-year) female with a 63 mm wing length and 9.3 g of weight and one juvenile of unknown sex (61 mm wing length, 9.5 g) with limited molt of body feathers. Along the Pacific slope, the species is a common resident from southern Durango and Nayarit to Central and South America (Howell and Webb 1995), but no previous records are available from Sinaloa. The habitat continuity (subtropical deciduous forest) from its previous distribution limits to Cosalá indicates the possibility of residence in the area. These specimens were aged by G. David and P. Pyle.

Chestnut-sided Warbler (*Dendroica pensylvanica*). On 18 November 2007 an adult male (older than second-year) was captured at Cruz de Elota. It did not have a cloacal protuberance or fat. It had some body plumage

molt, but no flight feather molt, which exhibited little wear. Wing length was 65 mm and weight 9.2 g. The winter range reported for the species goes from southern Veracruz on the east coast of Mexico to northern Colombia and Venezuela (Howell and Webb 1995, AOU 1998). Our observation is the first report for the species in the state of Sinaloa, although there is a previous record from Sonora (Russell and Monson 1998) and several from the Baja California peninsula (Erickson *et al.* 2001), indicating that the species can be a vagrant or a rare winter visitor in northwestern México.

Rose-breasted Grosbeak (*Pheucticus ludovicianus*). We caught an adult (after second-year) male on 17 November 2007 at Cruz de Elota. It had no cloacal protuberance, fat deposits filled half, and there was no molt of flight feathers or body plumage. Flight feathers exhibited little wear. The primaries, secondaries, rectrices, primary coverts, and body plumage were formative (formerly considered first prebasic plumage, Howell *et al.* 2003) while the tertiaries and the secondary coverts had limited molt. Wing length was 101 mm and weight 37.9 g. This species is a winter visitor along both coasts of Mexico. Along the Pacific slope, it is fairly common from southern Nayarit to Central America. Some records exist from Sonora and Baja California (Howell and Webb 1995, Russell and Monson 1998, Erickson *et al.* 2001), but there is only one previous record from the highlands of Sinaloa (Howell and Webb 1995). This record reflects its presence in the coastal zone in central Sinaloa.

We consider two potential and non-exclusive explanations for the absence or scarcity of previous records for the species reported here: (1) a previous low sampling effort and (2) habitat changes in coastal Sinaloa. The possibility that absence of previous Sinaloan records were more related with low sampling effort than to increases in the distribution range for these species is evidenced by previous records, many of them from Sonora and Baja California. On the other hand, during the last decades, habitat transformation has been severe in Sinaloa. Vegetation and land-use data indicate that 50% of native vegetation has been modified by human activities, mainly to agriculture (23% of state area) and cattle farming (43% of state area; INEGI-INE 1996, CONABIO 1999). Thorn shrub and subtropical deciduous forest are the more impacted habitat types (30 and 60% remnants from original cover respectively; INEGI-INE 1996, CONABIO 1999, González-Medina *et al.* 2009). Then, severe habitat modification of Sinaloa's coastal zone since the 1950's could be facilitating the colonization of species such as the Chestnut-sided Warbler and the Rose-breasted Grosbeak, which have benefited from increases in human activities in North America (Richardson and Brauning 1995, Wyatt and

Francis 2002). Even when at first sight the records appear to be vagrants, limited avifaunal knowledge prevents the assessment of how extensive habitat changes during the last decades have modified the distribution patterns of some species.

Literature cited

- AOU (American Ornithologists' Union). 1998. Checklist of North American birds, 7th. ed. American Ornithologists' Union. Washington, D.C.
- CONABIO (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad). 1999. Uso de suelo y vegetación modificado por CONABIO. Escala 1: 1,000,000. CONABIO. México, DF.
- DeSante, D.F. and J.F. Saracco. 2006. Instrucciones para el establecimiento y manejo de estaciones de anillamiento de aves del programa MoSI (Monitoreo de Sobrevivencia Invernal). Manual MoSI 2006-07. The Institute for the Bird Populations. Point Reyes, California.
- Erickson, R.A., R.A. Hamilton, and S.N.G. Howell. 2001. New information on migrant birds in northern and central portions of the Baja California Peninsula, including species new to Mexico. *Monographs in Field Ornithology* 3:112-170.
- González-Bernal, M.A., X. Vega, and E. Mellink. 2003. Nesting of Western Gulls in Bahía de Santa María-La Reforma, Sinaloa, Mexico. *Western Birds* 34:175-176.
- González-Bernal, M.A., J.A. Castillo-Guerrero, C. Hernández-Celis, and X. Vega. 2006. Primer registro del rascón pinto (*Pardirallus maculatus*) en Sinaloa. *Huitzil* 7:35-36.
- González-Bernal, M.A., J.A. Castillo-Guerrero, C.R. Hernández-Celis, and E. Mellink. 2007. Noteworthy bird records of Sinaloa, México. *Western Birds* 38:52-56.
- González-Medina, E., U.T. Angulo-Gastélum, J.A. Castillo-Guerrero, and M. Guevara-Medina. 2009. Distribución y abundancia relativa invernal del vireo de cabeza negra (*Vireo atricapilla*) en Sinaloa, México. *Ornitología Neotropical* 20: 291-298.
- Howell, S.N.G. and S. Webb. 1995. A guide to the birds of Mexico and Northern Central America. Oxford University Press. New York.
- Howell, S.N.G., C. Corben, P. Pyle, and D.I. Rogers. 2003. The first basic problem: a review of molt and plumage homologies. *The Condor* 105:635-653.
- INEGI (Instituto Nacional de Estadística, Geografía e Informática) - INE (Instituto Nacional de Ecología). 1996. Uso de suelo y vegetación. Agrupado por CONABIO (1998). Escala 1:1,000,000. CONABIO. México, DF.
- Latta, S.C. and J. Faaborg. 2002. Demographic and population responses of Cape May Warblers wintering in multiple habitats. *Ecology* 83:2502-2515.
- Richardson, M. and D.W. Brauning. 1995. Chestnut-sided Warbler (*Dendroica pensylvanica*). 20 pp. In: A. Poole (ed.). *The Birds of North America*, No. 190. Cornell Lab of Ornithology. The Academy of Natural Sciences, Philadelphia, Pennsylvania and The American Ornithologists' Union, Washington, D.C.
- Russell S.M. and G. Monson. 1998. *The birds of Sonora*. The University of Arizona Press. Tucson.
- Saracco, J.F., D.F. DeSante, and D.R. Kaschube. 2006. Modelling overwintering survival of declining landbirds: the 2005-06 Annual Report of the Monitoring Avian Winter Survival (MAWS) program on four DoD Installations in southeastern United States. Technical report. The Institute for Bird Populations. Point Reyes Station, California.
- Sibley, D.A. 2001. *The Sibley Guide to Birds*. Alfred A. Knopf Inc. New York.
- Wyatt, V.E. and C.M. Francis. 2002. Rose-breasted Grosbeak (*Pheucticus ludovicianus*). 24 pp. In: A. Poole (ed.). *The Birds of North America*, No. 692. Cornell Lab of Ornithology. The Academy of Natural Sciences, Philadelphia, Pennsylvania and The American Ornithologists' Union, Washington, D.C.

Acknowledgments

We thank P. Pyle and G. David for their help in species identification and interpretation of molt patterns. J.L. Alvarado, M. Cruz and A. de los Huertos provided the Brown Noddy record. The Institute for Bird Populations supported the mist netting efforts. We appreciate the improvements in English made by E. Mellink and A. Lievana.

Received: 12th June 2009; Revision accepted: 25th December 2009.
Associated editor: Borja Milá.