



## Research note

# New bird records for Cozumel Island found in scientific collections

## Nuevos registros de aves para la Isla Cozumel encontrados en colecciones científicas

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**Abstract.** We report here 4 new bird records found among a large-scale compilation of specimen records in museums worldwide, Atlas de las Aves de Mexico. The new records are for 4 migratory species, *Empidonax alnorum* (Alder Flycatcher), *Vireo solitarius* (Solitary Vireo), *Catharus fuscescens* (Veery), and *Zonotrichia leucophrys* (White-crowned Sparrow). These species are not to-date known from Cozumel, although they are considered transients in the Yucatán Peninsula.

Key words: migratory, Caribbean, *Empidonax*, *Vireo*, *Catharus*, *Zonotrichia*.

**Resumen.** Se encontraron 4 nuevos registros de especies de aves para la Isla Cozumel obtenidos a través del análisis de un compendio de registros de ejemplares de aves depositados en los museos del mundo, Atlas de las Aves de México. Las especies encontradas fueron *Empidonax alnorum* (mosquero ailero), *Vireo solitarius* (vireo cabeza azul), *Catharus fuscescens* (zorral rojizo) y *Zonotrichia leucophrys* (gorrión corona blanca). Para estas especies no se tenían registros en la Isla Cozumel aunque se consideran migratorias “de paso” en el área de la península de Yucatán.

Palabras clave: migratorias, Caribe, *Empidonax*, *Vireo*, *Catharus*, *Zonotrichia*.

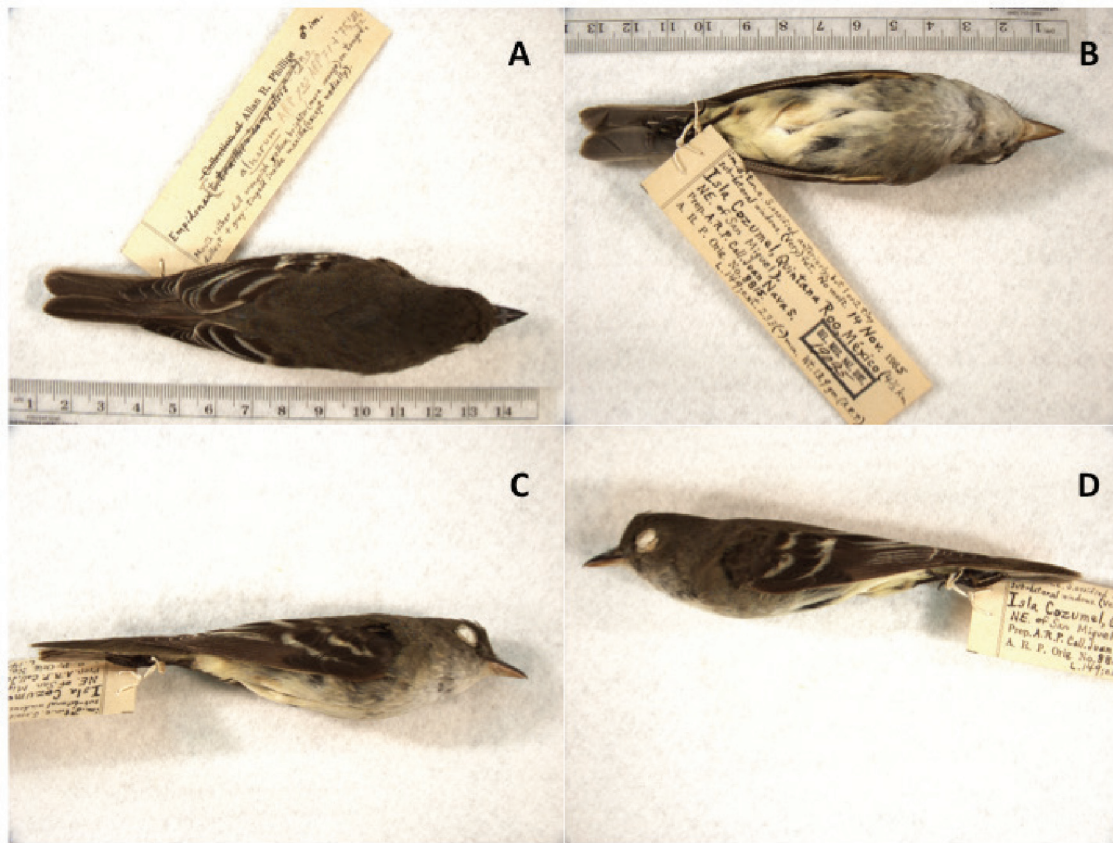
The avifauna of Cozumel Island has been studied since 1842, when John Lloyd Stephens went to the island to explore its Mayan ruins, Samuel Cabot participated in this expedition, and collected 2 birds of *Certhiola* (years later described as *Certhiola caboti*, now known as the *Coereba flaveola*). With these birds began the study of the Cozumel avifauna (Salvin, 1885).

Further publications were done by R. Ridgway (1885a, b, c) who described 57 species from the island, and by O. Salvin (1885) who reported 27 species from Cozumel. Salvin (1888, 1889, 1890) published a list of 160 bird species based on a collection made by G. F. Gaumer, but Gaumer was inconsistent in labeling specimens, so Paynter (1955), Bond (1961), and Howell and Webb (1995) considered that his records should be regarded as hypothetical. Ludlow Griscom (1926) recorded 81 species from the island; many authors have since added new records; in sum, by the most recent summary (Howell 2004), the list of Cozumel birds included 224 species.

We requested the data for bird specimens from Cozumel Island contained in the Atlas de las Aves de Mexico from A. Townsend Peterson and Adolfo Navarro-Sigüenza.

This database contains 221 757 specimen records of birds collected in Mexico deposited in 26 natural history museums or ornithological collections across the United States, Mexico, Canada, and Europe. We also have conducted an exhaustive search for all publications in the scientific literature since 1840.

We examined data associated with 3 618 bird specimens of 136 species housed in scientific collections that hold specimens from Cozumel Island (Academy of Natural Sciences, Philadelphia, Pennsylvania; American Museum of Natural History, New York; British Museum (Natural History) Tring, U.K.; Bell Museum of Natural History, University of Minnesota; Carnegie Museum of Natural History, Pittsburgh, Pennsylvania; Canadian Museum of Nature; Colección Nacional de Aves Instituto de Biología-Universidad Nacional Autónoma de México (UNAM), México; Cornell University Museum of Vertebrates; Delaware Museum of Natural History, Greenville, Delaware; ECO-SUR-Ch. El Colegio de la Frontera Sur (antes Centro de Investigaciones de Quintana Roo, (CIQRoo), México; Field Museum of Natural History, Chicago, Illinois; KU Natural History Museum, University of Kansas, Lawrence, Kansas; Los Angeles County Museum of Natural History, Los Angeles, California; Museum of Natural Science, Loui-



**Figura 1.** *Empidonax alnorum*. A), dorsal view; B), ventral view; C), right side view; D), left side view.

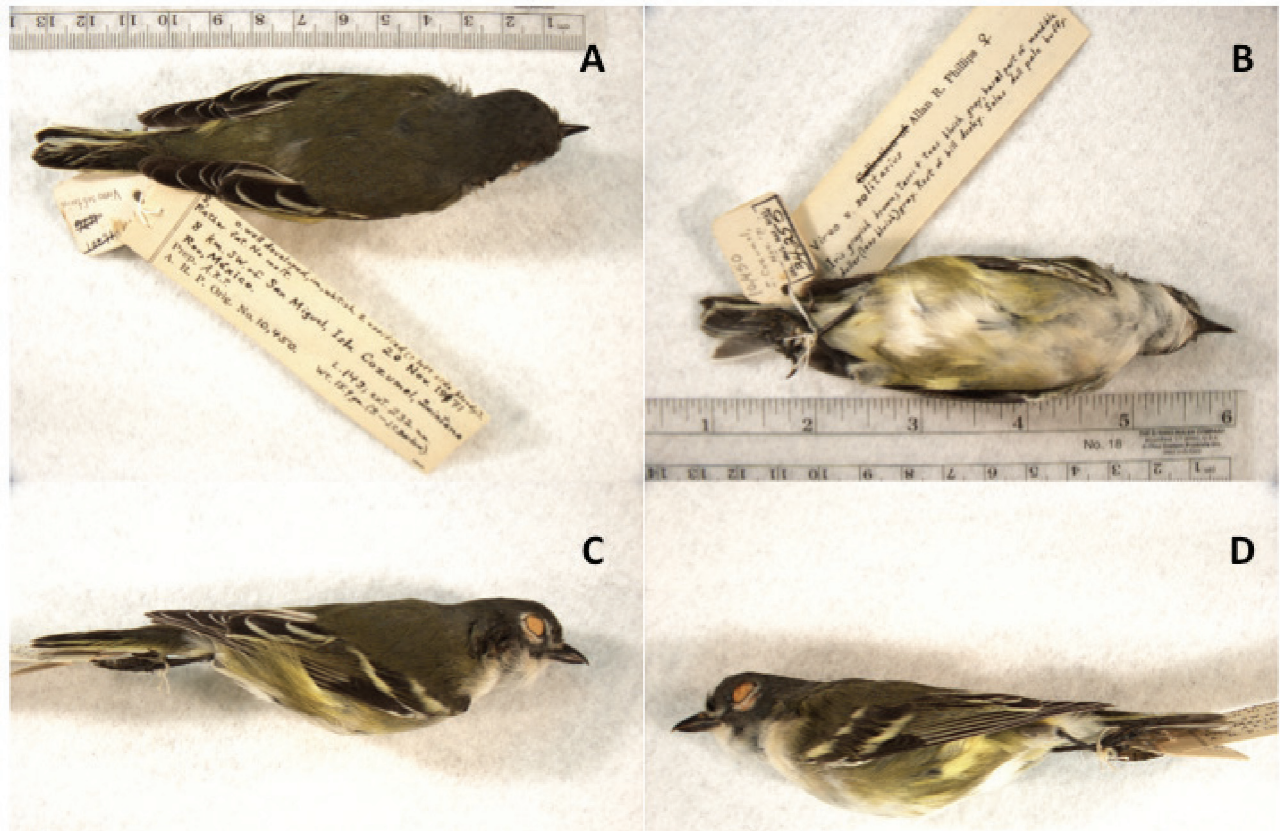
siana State University, Baton Rouge, Louisiana; Museo de las Aves de México, Saltillo, Coahuila, México; Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts; Museo de Zoología, Facultad de Ciencias, Universidad Nacional Autónoma de México (UNAM), México; Moore Laboratory of Zoology, Occidental College; Royal Ontario Museum, Toronto, Ontario; Southwestern College, Winfield, Kansas; Florida Museum of Natural History, Gainesville, Florida; Museum of Zoology, University of Michigan, Ann Arbor, Michigan; United States National Museum of Natural History, Washington, DC; Burke Museum, University of Washington, Seattle, Washington; Peabody Museum of Natural History, Yale University, Hartford, Connecticut). We also compiled data on the birds of Cozumel from 46 publications, which included records of 224 species.

Comparing the list from the literature with those from ornithological collections, we found 4 species unrecorded in the literature. Three of these species are at Delaware Museum of Natural History (DMNH), and the other is at the Colección Nacional de Aves, Instituto de Biología,

Universidad Nacional Autónoma de México (CNAV-IBUNAM). We requested Jean L. Woods, of DMNH to confirm the identification of the species; we personally confirmed the identification of the specimen maintained in CNAV-IBUNAM. All the specimens are preserved as study skins. These 4 specimens are as follows:

Alder Flycatcher (*Empidonax alnorum*): DMNH 19095. Locality: Cozumel Island, 4.5 km NE San Miguel. Sex: Male. Collector: J. S. Nava. Date: 14 November 1965. Note: Identification verified multiple times by A. R. Phillips (Figs. 1A-D). This species is a Neotropical migrant that winters from southern Mexico south through Central America and northern South America. Howell and Webb (1995) considered it as transient bird in April-early June and August-September on the Atlantic Slope, Pacific Slope, and Isthmus of Tehuantepec, but indicated no records from the Yucatán Peninsula.

Solitary Vireo (*Vireo solitarius*): DMNH 34255. Locality: Cozumel Island, San Miguel, 8 km SW. Sex: Female. Collector: A. R. Phillips. Date: 20 November 1971 (Figs. 2A-D). This vireo is a Neotropical migrant that winters



**Figura 2.** *Vireo solitarius*, A), dorsal view; B), ventral view; C), right side view; D), left side view.

mostly on the Gulf Coast and in the southeastern Atlantic states in the United States, and south through Central America. Howell and Webb (1995) mentioned this species as a transient and winter visitor from late September to mid May on both slopes.

Veery (*Catharus fuscescens*): CNAV 007579. Locality: Cozumel Island. Collector: A. González (Figs. 3A-B). Also CNAV 023577. Locality: Cozumel Island, El Cedral, 18 km S San Miguel. Sex: Male. Collector P. Escalante. Date: 13 November, 1994 (Figs. 3C-D). This is a Neotropical migrant bird that crosses the Gulf of Mexico in spring and fall; it is also a spring and fall transient on the Atlantic Slope from southern Veracruz to Honduras (Howell & Webb, 1995).

White-Crowned Sparrow (*Zonotrichia leucophrys*): DMNH 18058. Locality: Cozumel Island, San Miguel, NE, at airport entrance. Sex: Female. Collector: A. R. Phillips. Date: 5 November, 1965 (Figs. 4A-D). This species winters in northern and central Mexico. It is transient and winter visitor (September-May) on the Pacific Slope south to Nayarit, and irregular in the Yucatán Peninsula, and vagrant on Campeche Bank, Isla Holbox, and the Belize Cays (Howell and Webb, 1995).

The specimen record is of incalculable importance because it allows repeated examination for scientific verification and further study (Winker, 1996). In this case, specimens served to document the presence of 4 species on Cozumel Island not previously observed there. None of these species was considered by Bond (1961), or Howell and Webb (1995) in their lists of species for the island.

These records may support the conclusion that they are rare overwintering species on the Island, and support the importance of Cozumel Island habitats as stopover places for migratory birds. The provenance of these records from November suggests that they may not simply be passing through and rather that they may be rare winter visitors or winter residents. More data are clearly needed to clarify their status on Cozumel.

We are particularly grateful to A. Townsend Peterson, University of Kansas, and Adolfo G. Navarro Sigüenza, Facultad de Ciencias, Universidad Nacional Autónoma de México for access to the Atlas de las Aves de México data set, as well as all their students and colleagues that made the compilation of the data used here, especially thanks to the curators of the collections listed in Results section to permit them the access to material under their care.





Figura 3. *Catharus fuscescens*. Specimen 1: A), ventral view; B), right side view. Specimen 2: C), ventral view; D), right side view.



Figura 4. *Zonotrichia leucophrys*. A), dorsal view; B), ventral view; C), right side view; D), left side view.

We thank Jean L. Woods, Curator of Birds –DMNH; and Marco Antonio Gurrola, CNAV IBUNAM for the images and the corroboration of bird identification. We greatly appreciate the reading and commenting on the manuscript to A. Townsend Peterson.

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