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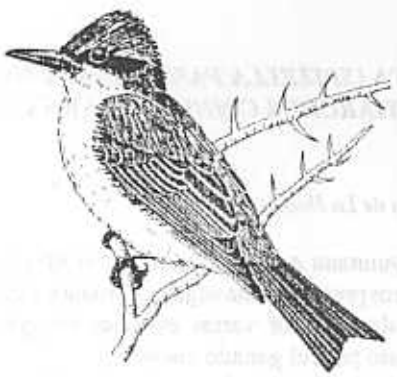
Tyrannus dominicensis



Pitirre, Gray Kingbird, Pestigre, Petchary

The Society of Caribbean Ornithology is a non-profit organization whose goals are to promote the scientific study and conservation of Caribbean birds and their habitats, to provide a link among island ornithologists and those elsewhere, to provide a written forum for researchers in the region (refereed journal—Ornitología Caribeña, published in conjunction with the Puerto Rico Ornithological Society) and to provide data or technical aid to conservation groups in the Caribbean.

La Sociedad de la Ornitología Caribeña es una organización sin fines de lucro cuyas metas son promover el estudio científico y la conservación de la avifauna caribeña, auspiciar un simposio anual sobre la ornitología caribeña, publicar una revista profesional llamada Ornitología Caribeña (publicada en conjunto con la Sociedad Ornitológica de Puerto Rico), ser una fuente de comunicación entre ornitólogos caribeños y en otras áreas y proveer ayuda técnica o datos a grupos de conservación en el caribe.

CONTENTS

(Continued on last page)

OBSERVATIONS OF AN AUDUBON'S [BLACK-HEADED] ORIOLE *ICTERUS GRADUACAUDA* IN PUERTO RICO, THE FIRST RECORD FOR THE CARIBBEAN

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We observed an adult male Audubon's [Black-Headed] Oriole *Icterus graduacauda* at an approximate distance of 15 m for 10 mins. beginning 15:13 hr, 12 June 1995 in the tree line off Jobos Beach, near Ramey, Puerto Rico. The following day, we identified the bird from the literature with the aid of our field drawings and notes. The bright yellow body (particularly the yellow back), and black head, wings, and tail of this adult male were distinctive and diagnostic. By reviewing the literature, we recognized that this oriole was not a species normally occurring in Puerto Rico (Biaggi 1983, Pérez-Rivera 1993, Raffaele 1989, Rivera-Cianchini and Mojica-Sandoz 1981).

The normal range for Audubon's Oriole is southern Texas to southern Mexico (Clements 1992), approximately 2200 km from the site of our observation. R. L. Norton (pers. comm.) informed us that no other reports of this oriole are known outside of its normal range. Audubon's Orioles almost always occur in pairs. Our observation of a solitary bird could suggest an escaped cage bird, or that at least low numbers of these birds are in Puerto Rico. The great distance from its normal range and lack of any records from islands between Central America and Puerto Rico suggest that we saw a formerly captive bird that had been transported to Puerto Rico. However, this bird was seen away from any human population center in its natural habitat (woodland near water), which is unlike the normal behavior of isolated, caged and released birds. Studies of released caged birds in Puerto Rico have shown that such birds do not leave cities (H. A. Raffaele, U. S. Fish and Wildlife Service, pers. comm.), although many exotics have eventually become established in rural areas. Audubon's Oriole is not a common cage bird in Puerto Rico, but some people have this species in captivity (R. A. Pérez-Rivera, pers. comm.). We have not been able to find records of recent sales of this animal, but no records would be expected because it can not be legally imported (Pérez-Rivera, pers. comm.). A range extension or wandering of this bird from Central America to Puerto Rico is unlikely, but is an alternate explanation.

We thank Raul A. Pérez-Rivera, Humacao University College, University of Puerto Rico; H. A. Raffaele, U. S. Fish and Wildlife Service; and Robert L. Norton, Caribbean Editor, *American Birds*, for reviewing the manuscript and for advice and additional information.

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NUEVO RECORD DEL GORRION DE CABEZA CARMELITA (*SPIZELLA PASSERINA*) Y NUEVO REPORTE DE FECHA PARA EL BOBITO DE CRESTA (*MYIARCHUS CRINITUS*) PARA CUBA.

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En el presente trabajo damos a conocer algunos resultados obtenidos de las observaciones y colectas de aves migratorias en el municipio Caimito, situado al noroeste de la provincia de La Habana durante el período comprendido entre los años 1990 y 1995.

Se colectó un ejemplar subadulto del Gorrión de Cabeza Carmelita (*Spizella passerina*), conocido con el nombre Inglés Chipping Sparrow (*Spizella p. passerina*) (Bechstein, 1798), el día 25 de noviembre de 1991, en un potrero de la zona ganadera Quintana Arriba, al norte de la Meseta de Anafe. Estos potreros presentan una vegetación baja y escasa, formada fundamentalmente por varias especies de gramineas con fines de pasto para el ganado vacuno.

El gorrión fue localizado en el suelo, alimentándose de semillas, posteriormente voló a una cerca próxima de un metro de altura, donde dejó oir un "chip" característico repetido varias veces. Durante esta actividad se mantuvo muy manso.

Esta especie es considerada como un visitante ocasional, del cual sólo se han colectado dos ejemplares en Cuba, uno por Juan Gundlach en el siglo pasado y otro por A. Naranjo, en el mes de noviembre, en la localidad de Ceiba del Agua (Garrido y García, Catálogo de las aves de Cuba, Acad. Cienc. Cuba, La Habana. 1975).

Este constituye el tercer ejemplar colectado para Cuba. Las dos últimas colectas han sido realizadas en este municipio habanero, por lo que se puede pensar que éste sea uno de los puntos de contacto durante la migración de la especie con el territorio cubano.

El segundo reporte se refiere al Bobito de Cresta (*Myiarchus c. crinitus*) (Linneo, 1758), el qué es considerado para Cuba como un raro visitante ocasional (Garrido y Garcia 1975, op. cit.). Estos autores reportan como fecha de arribo otoñal el 14 de octubre.

Colecté un macho adulto de esta especie el día 20 septiembre de 1995, en un guayabal (*Psidium guajaba*) (Linneo), al norte del municipio, luego de un día de fuertes vientos e intensas lluvias. Se observaron también otras especies de Passeriformes, que llegaron en dicha "oleda" migratoria, como Pitirre Americano, *Tyrannus tyrannus*, Bobito de Bosque, *Contopus virens*, Tordo Colorado, *Catharus fuscescens* y otras especies incluyendo algunas bijiritas.

Agradezco a los ornitólogos Bárbara Sánchez, Alejandro Llanes y Orlando Garrido, el corroborar la clasificación de los ejemplares.

NUEVO REGISTRO DE AVOCETA *RECURVIROSTRA AMERICANA* (AVES: CHARADRIIFORMES) EN CUBA

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La especie migratoria neárctica conocida por el nombre de Avoceta (*Recurvirostra americana*), es un ave colonial que cria en América del Norte. Sus colonias se localizan fundamentalmente en regiones salinas del oeste, lagos de las planicies centrales y costa Atlántica de Estados Unidos. En Canadá, ocupan solo una parte de los llanos centrales del país. Durante la migración otoñal, sus sitios de invierno se ubican al suroeste de América del Norte, Costa del Pacífico, regiones costeras del Golfo de México y en la Península de la Florida. Existen además otros registros de estas aves durante el invierno en algunas islas de las Antillas tales como: Cuba, Jamaica, Barbados, Tobago y Bonaire (Hayman et al. 1986). En Cuba, la Avoceta está considerada un visitante invernal muy raro o casual, puesto que ha sido reportada en pocas oportunidades en el país (Garrido y Garcia 1975).

Durante una expedición efectuada del 9 al 19 de junio de 1995, a la localidad subcostera de las Arroceras del Jibaro ubicada entre los 79° 15' N y 21° 20' W al sur de la provincia de Sancti Spíritus, se observaron varios individuos de Avoceta Américana alimentándose en parcelas recién roturadas y cubiertas con agua, listas para el cultivo del arroz.

Con la realización de 9 censos efectuados en horarios comprendidos las 08:00–09:30 hrs en las áreas de fangueo o roturación de parcelas, se comprobó que el número de aves de la especies referida, alcanzó valores de 87-89 ind/km, aunque se estima que la cifra total existente en la región del Jíbaro durante el período muestreado fué superior a los 150 individuos. Esta afirmación está avalada por los resultados obtenidos durante la realización de otros cuatro censos efectuados en otras áreas del cultivo tales como: arroz recién sembrado y arroz verde sin espigar no drenado, dondé se observaron varios (4–10) de estas aves alimentandose y descansando.

Las Avocetas censadas se observaron por lo general, formando bandos que oscilaron entre 27–46 individuos (en su mayoría adultos con plumaje de cría bien definido, excepto 3 jóvenes). Para dejar constancia de este hallazgo no común en el territorio cubano, se tomaron varias fotos (36 mm) a los bandos más numerosos.

Se conoce que las poblaciones de Avoceta abandonan los sitios de invierno y arriban a sus áreas de reprodución a mediado del mes de abril, o finales de mayo (Gibson 1971). Es por ello que consideramos qué la dispersión, arribo y permanencia de este considerable número de inviduos de Avocetas en las Arroceras del Jíbaro puede estar asociado al surgimiento y desarrollo de condiciones meteorológicas no favorables para la migración acontecidas en la región del Golfo de México durante el mes de junio (depresiones ciclónicas acompañdas de fuertes vientos y lluvias).

La presente comunicación constituye el reporte con mayor número de individuos de esta especie registrado en el territorio del Archipielago cubano.

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WINTERING EASTERN PHOEBES (*SAYORNIS PHOEBE*), *EMPIDONAX* FLYCATCHERS AND ASEASONAL RECORDS OF KINGBIRDS IN THE BAHAMA ISLANDS

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The Eastern Phoebe (*Sayornis phoebe*) is a short-distance migrant with a winter range that is essentially confined to the southeastern United States (Bent 1942). Eastern Phoebes winter only in areas where the mean minimum January temperature is above -4°C (25°F) (Root 1988). The primary winter range is in Atlantic and Gulf coastal states from Virginia to Texas, and northern Mexico where the southern- and western-most records are from Oaxaca and Veracruz (American Ornithologists' Union 1983). Based on Christmas Bird Count data, areas of peak winter abundance are in eastern Texas and north-central Florida (September to May). This flycatcher is a rare and irregular winter resident in the Keys and extreme southern Florida (Root 1988, Robertson and Woolfenden 1992). Individuals establish winter feeding territories and defend them both intra- and inter-specifically.

Despite their winter abundance in coastal areas of the southeastern United States and a modest number of reports from Bermuda (Amos 1991), there are surprisingly few reports of Eastern Phoebes from the West Indies (Table 1). Bent (1942) and Barbour (1943) noted one from Guantanamo Bay, Cuba. The immature specimen was collected by Juan Gundlach in February 1846. It was such an unusual record that Gundlach, not familiar with the bird, named it as a new species — *Aulanax lembeyei*. Bond (1985) and Brudenell-Bruce (1975) cite two reports from the Bahamas–Bimini, 18 November; Grand Bahama, 10 October. Bond noted the period of occurrence for this species in the West Indies as 11 September–18 November. The only additional report of which we are aware is a single bird seen on Eleuthera, Bahamas on 7 February 1986 (*American Birds* 40:529). This was the only report for the Bahamas or West Indies since 1972.

Because of the small number of records for the West Indies, two sightings of Eastern Phoebe we obtained on Grand Bahama in November 1995 are of interest. On 25 November we found a single bird feeding over a small freshwater pond on the property of the Rand Nature Center (Bahamas National Trust), and on 26 November we encountered a second individual perched next to another small freshwater pond at West End. Both birds were watched intermittently for half an hour or more. Tail-wagging and other field marks were confirmed as the birds perched and foraged over the corners of the ponds they occupied. Rick and Kathy Oliver (Rand Nature Center) informed us that at least one of these was still present in mid-February 1996.

Although these records undoubtedly reflect as much the lack of previous field work and reporting as they do on the scarcity of Eastern Phoebes in the Bahamas (see discussion below), we should add that this may have been a particularly good winter for short-range migrants reaching the Bahamas. From 24 to 26 November we also recorded 2 American Robins (*Turdus migratorius*), 1 Ruby-crowned Kinglet (*Regulus calendula*), and 3+ Cedar Waxwings (*Bombycilla cedrorum*) on Grand Bahama. All are considered to be sporadic, irregular visitors to the Bahamas. Whether or not these birds collectively represented vanguards of an unseasonably cold winter in the southeastern United States or vagrants resulting from an earlier aberrant weather system is unknown.

These phoebe reports represent the fourth and fifth for the Bahamas, and the fifth and sixth for the West Indies. Dates of the sightings extend the period of known occurrence in the Bahamas by nearly three months and are outside the normal fall migration period for the species.

We also observed one *Empidonax* flycatcher at West End, Grand Bahama on 26 November 1995, and one of us (Lee) found three on Abaco in early December 1995. These records are at least a month past the fall migration period for any eastern North American *Empidonax*, and like the records of the Eastern Phoebes are here considered as records of wintering individuals. The Grand Bahama *Empidonax* was at the edge of a coastal shrub thicket ca. 100 m from the beach at West End. It was observed for approximately 10 minutes by all of us. Other than an incomplete eye ring, no useful field marks were noted. The Abaco birds were at the edge of a red mangrove (*Rhizophora mangle*) swamp bordering a beach front at Sandy Point (2 and 5 December) and at the airport at Marsh Harbor (6 December). This latter individual was perched on a wire under the eve of the air terminal — a most unexpected site of occurrence. The habitat surrounding the airport is open 30-year-old Caribbean pine (*Pinus caribaea*) forest. No distinct field marks were noted on any of the Abaco birds, and like the individual found on Grand Bahama all were non-vocal. The only previous winter record we know for the Bahamas is of a single unidentified *Empidonax* heard calling from dense vegetation on Eleuthera (Bahamas) on 7 February 1986 (*American Birds* 40:339).

Reported migration periods of *Empidonax* flycatchers for the Bahamas, and elsewhere in the West Indies, are scarce and identification in most cases is problematic. The birds are drab, usually silent, and often provide only fleeting views. Amos (1991), in describing the situation in Bermuda where

five species are reported to occur, sums up the problem nicely: "species identifications have been based on careful observation and some inspired conjecture." Furthermore, two *Empidonax* recently (1973) recognized as separate species are distinguished primarily by vocalizations and ecology. They are difficult to separate in migration or on wintering grounds where they are typically silent. Hussell (1990) showed that many immatures of Alder (*Empidonax alnorum*) and Willow (*E. traillii*) flycatchers cannot be separated, and Seutin (1991) recommended caution when attempting to identify these flycatchers with morphometrics.

Collected *Empidonax* specimens and sight records are usually combined in writing species accounts for specific islands, masking accuracy of statements, and making it difficult to decipher what level of confidence can be placed on what has been published. The situation in Bahamas is a good example of the problem. A single migrant collected on New Providence on 14 October 1961 is an Acadian Flycatcher (*E. virescens*). Based on this record this species is the only *Empidonax* mentioned for the Bahamas (Brudenell-Bruce 1975) and the descriptive text only tells how to distinguish the genus *Empidonax* from the Greater Antillean Peewee (*Contopus caribaeus*). Subsequently, the Acadian Flycatcher has since appeared as the only *Empidonax* on a checklist of the birds of the Bahamas (Bahamas National Trust).

On 25 November 1995, we also found a single Gray Kingbird (*Tyrannus dominicensis*) and one Western Kingbird (*T. verticallis*) at West End, Grand Bahama. Both were foraging in a large fig (*Ficus* sp.) tree with ripe fruit. Both are late-season records for the northern Bahamas.

Brudenell-Bruce (1975) reported the latest date in fall for the Gray Kingbird on New Providence as 12 November, but also includes a 12 December report for Great Inagua much farther south. Bond (1985) notes that the Gray Kingbird winters in northern South America but is "chiefly a permanent resident from Hispaniola eastward." Emlen (1977), however, reported Gray Kingbirds for Grand Bahamas on 10 January 1968 and 14 March 1969.

The Western Kingbird is a rare passage migrant in the Caribbean, known only in migration from the Bahamas and Swan Islands (Bond 1985). Brudenell-Bruce (1975) recorded it from 15 October to 1 November on New Providence. Western Kingbirds have also been seen on Bimini, Grand Bahama, and Eleuthera. The latest occurrence date reported by Brudenell-Bruce is 26 November (Eleuthera), but there is a report of 31 Western Kingbirds for Greater Abaco from 24 December 1983 to 2 January 1984 (*American Birds* 38:362), another from Abaco on 16-19 November 1990 (*American Birds* 45:500), and a report from North Andros of one on 10 November 1968 (*American Birds* 23:38).

We suggest that all these species may occur with greater regularity and at dates well outside the extreme periods of occurrence summarized here, and we conclude that further field work will show all of the species discussed here to be more common, wide-spread, or less seasonally-restricted in the Bahamas and Greater Caribbean Basin than is presently believed. Resolving the identification and status of migrant and wintering *Empidonax* flycatchers will require systematic collections of specimens from several islands, seasons, and habitats, not just in the Bahamas, but throughout the West Indies.

This report results from an agreement among the North Carolina State Museum of Natural Sciences, The Bahamas National Trust, The College of the Bahamas, and the Bahamas Department of Agriculture. The focus of this agreement is the development of an understanding and the long-range conservation of nearctic migrants under the umbrella of the International Partners-in-Flight Program. We thank Robert L. Norton, Anthony White, and Catherine Levy for reviewing the manuscript.

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Table 1. Non-breeding distributions of nearctic migrant tyrant flycatchers known or reported from the Bahama Islands and Caribbean (sources: Amos 1991, Fitzpatrick 1980, Robertson and Woolfenden 1992, Stevenson and Anderson 1994, and sources cited in text).

Species	Winter distribution	Winter records—Caribbean	Migrant records—Caribbean	Remarks
Eastern Phoebe *Sayornis phoebe*	SE US to S Mexico	Bahamas, Cuba	Bahamas, Cuba	Occurrence in Caribbean 11 Sept. through Feb. Winters in SE US and Bermuda.
Western Kingbird *Tyrannus verticalis*	S Mexico to Nicaragua	none	Bahamas, Swan Islands	Over 200 reports from Florida (where it has been reported for all months) and winters in Bermuda.
Gray Kingbird *Tyrannus dominicensis*	S West Indies (rare), Panamá, N Colombia, Guyana	S and E from Hispaniola	N/A	Stevenson and Anderson (1994) believed Florida Christmas Bird Count reports were stragglers and not winter residents. Spring and fall migrant in Bermuda.
Yellow-bellied Flycatcher *Empidonax flaviventris*	NE Mexico to Panamá	none	none	Recorded from Bermuda in winter. Transient only in Florida.
Willow Flycatcher *Empidonax traillii*	S Mexico to Panamá	none	Cuba, Isle of Pines, Jamaica	Fall transient in Bermuda, rare fall and casual spring migrants in Florida. No winter Florida records.
Alder Flycatcher *Empidonax alnorum*	NW Colombia to Paraguay and Argentina	none	Cuba, Isle of Pines, Jamaica	Fall transient in Bermuda, rare fall and casual spring migrants in Florida. No winter Florida records.
Acadian Flycatcher *Empidonax virescens*	Costa Rica to W Colombia and NW Venezuela	none	Bahamas, Cuba, Isle of Pines	Fall transient in Bermuda; transient in peninsular Florida, a few unconfirmed winter reports.
Least Flycatcher *Empidonax minimus*	N Mexico to W Panamá	Grand Cayman (10 March)	Grand Cayman	Fall transient in Bermuda. A few individuals winter in south Florida.

OBSERVING MIXED-SPECIES FORAGING FLOCKS OF RESIDENT AND MIGRATORY BIRDS IN CARIBBEAN HABITATS

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Participants at the 1995 Society of Caribbean Ornithology meeting in Trinidad expressed interest in making observations on mixed-species flocks in Caribbean habitats. Our purposes in this brief note are to provide suggestions on how to quantify and standardize field observations of mixed-species flocks and to encourage SCO members to gather and publish their data on the composition, habitats, and behavior of mixed-species flocks.

Characteristic of tropical forest habitats, mixed-species flocks of birds typically consist of one or more nuclear individuals of a highly social and often vocal species, often a tanager, accompanied by individuals of other species. In certain mainland habitats, such flocks have highly stable composition, consisting of mated pairs of several species which travel together through a common home range throughout the year (Moynihan 1962, Valburg 1992). Such flocking behavior is poorly known in the Caribbean (Willis 1973, Ewert and Askins 1991, Carlo and Vilella 1992, Hamel and Kirkconnell 1995). It is possible that such flocks, which in the Caribbean consist of resident species as well as numerous migratory species during the northern winter, are an important part of the avifauna of the islands. Flocking may be an adaptive behavior of the nonbreeding ecology of migratory birds as well as resident Caribbean species. Because of the recognized importance of conservation of resident and endemic Caribbean species, as well as the interest in migratory birds expressed by the Partners-in-Flight ad hoc network (Pashley and Hamel 1995), studies of the composition and habitats of mixed-species flocks are important and timely contributions to Caribbean ornithology.

Our suggested techniques parallel those of Morse (1970), who reviewed literature on mixed-species flocks, and presented data and analyses of flocks in temperate North America. Morse (1970) identified several hypotheses to explain the function of flocking behavior. Whether flocks function to alert members to predators, to improve foraging efficiency of members (or both), or for some other advantage remain crucial questions for which no complete answers have been found. Observations of flock composition and behavior will help to answer these questions.

A flock is a group of birds that moves together in the same general direction, calling back and forth, or otherwise behaves in concert. Within a flock, the nuclear individuals or nuclear species will be recognized as those individuals that are generally in the center of the flock, that call more often or more vigorously, and that are followed by the other individuals. Minimal observations of flocks consist of the identity and number of individuals of each species present in the flock. Observations of flocks may require several minutes for the identification of each species and numbers of individuals, especially for species that are relatively silent or slow moving. A suggested method for making observations involves a team of three persons. One observer counts the total number of birds in the flock. Tallying the number of individuals in the flock is most effectively done when the observer is at the front of the flock, although the observer must use care not to disturb the flock. The second observer identifies which species are in the flock and the total number of individuals (or proportion) of each. The third observer notes which species are the nuclear species, which species are followers, and which species join only as the flock passes through their territories. The team follows the flock until no longer able to do so, and then compiles their observations into a single summary of the observation of that flock (W. Barrow and C.-C. Chen, pers. comm.).

We suggest that flocks be tallied as to the date; time; location; and the number, age (e.g., juvenile, hatching year, after hatching year, etc.), and sex, whenever possible, of individuals of each species recorded. Particularly important are data on which species are the "nuclear species," or species around which the flocks form and which keep the flock together. In North America, these species are frequently parids (*Parus* sp.). In Cuba, the Yellow-headed Warbler (*Teretistris fernandinae*) and the Oriente Warbler (*T. fornsi*), are the nuclear species (Quesada and de las Pozas 1984, Hamel and Kirkconnell 1995). In the Dominican Republic, the Black-crowned Palm-Tanager (*Phaenicophilus palmarum*) and the White-winged Warbler (*Xenoligea montana*) act as flock nuclear species (Vilella, pers. obs.). In Puerto Rico, the Puerto Rican Tanager (*Nesospingus speculiferus*) usually provides this function (Willis 1973, Carlo and Vilella 1992), the Lesser Antillean Pewee (*Contopus latirostris*) occasionally acts as a nuclear species (C. Delannoy, pers. comm.), and migratory species occasionally do so (W. Arendt, pers. comm.).

Additional useful data that should be gathered on flocks are numerous. For example, we suggest that observers record the habitat in which the flocks occur; the relative position in the vertical strata of the vegetation that the flock, as well as the individual members of the flock, occupy; the rate of movement

of the flock through the habitat, in m/min; the consistency of composition of a particular flock from day to day within a season (possible only when birds have been individually color banded); the participation of known individuals from season to season; the consistency of the home range or movement area of the flock from day to day and seasonally; the daily assembly of the flock; the roosting behavior of the flock members; changes in flock composition from breeding to nonbreeding season of resident species; intra- as well as inter-specific interactions (e.g., aggression) among flock members; changes in behavior of resident species as flock composition changes with arrival and departure of migratory species; a determination of which species participate only when a flock moves through its territory as opposed to members that participate throughout the "home range" of the flock; changes in behavior of species when participating in flocks as opposed to when solitary.

Other important observations include information on the phenology (flowers, fruits, seeds) of vascular plants (trees, shrubs, vines) in the areas visited by flocks. For example, in the Dominican Republic certain species of trees (e.g., *Trema micrantha*) commonly attract flocks of resident (e.g., *Xenoligea montana*) as well as migratory birds (e.g., *Dendroica tigrina*), that readily feed on their fruits (Dod 1978; S. Guerrero, pers. comm.). It is important to distinguish aggregations of birds attracted to localized resources like fruiting trees from flocks of birds that move jointly through their habitats.

Summaries of flock composition and size, by study area, will be useful for comparison of this phenomenon among islands of the Caribbean. Comparison of flock membership by species with species occurrence and abundance on point count data will provide information on the importance of mixed-species foraging flocks in Caribbean habitats. By noting individuals observed separately from flocks it will be possible also to determine the proportion of individuals of each species that participate in flocks, to determine any differences in flock participation among age and sex classes within species, to note the relative amount of time individuals of different species spend in flocks, and the propensity of different species to participate in flocks.

We look forward to corresponding with colleagues in the SCO concerning this phenomenon in the future. Our understanding of the importance of flock participation will assist in determination of conservation priorities among the islands of the Caribbean. Nuclear species are of potentially greater concern because their conservation may affect not only their own numbers but also, indirectly, those of other resident and migratory species which are regular flock attendants.

To aid observers in recording data in the field, we include a field data sheet (Fig. 1). The scheme of Remsen and Robinson (1990) will be very useful for recording foraging behaviors. Remsen and Robinson (1990) identify 27 standard terms for foraging maneuvers (Fig. 1).

We appreciate the comments of Carlos Delannoy, Wayne Arendt, Wylie Barrow, and Chao-Chieh Chen on this manuscript.

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OBSERVACIONES SOBRE BANDADAS MIXTAS DE AVES RESIDENTES Y MIGRATORIAS FORRAJEANDO EN AMBIENTES BOSCOSOS DE LAS ANTILLAS

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Los participantes en la reunión anual de la Sociedad Ornitológica del Caribe (SCO, por sus siglas en inglés) celebrada en Trinidad durante el 1995 manifestaron su interés en recopilar observaciones sobre bandadas mixtas en ambientes caribeños. Nuestros propósitos en este breve comunicado son los de proveer sugerencias y un protocolo para observar bandadas mixtas y alentar a la matrícula de la SCO a recopilar y publicar datos sobre la composición, hábitats, y comportamiento de bandadas mixtas.

Típico de ambientes boscosos tropicales, las bandadas de especies mixtas de aves consisten de uno o más individuos de una especie gregaria y usualmente vocalmente conspicua, comúnmente Tráupideos, acompañados de individuos de otras especies. En hábitats continentales las bandadas tienen una composición muy estable, la cual consiste de parejas reproductoras de varias especies quienes se desplazan a través de un territorio común durante todo el año (Moynihan 1962, Valburg 1992). Bandadas como éstas y su comportamiento son muy poco conocidas en el caribe (Willis 1973, Ewert y Askins 1991, Carlo y Vilella 1992, Hamel y Kirkconnell 1995). Es posible que estas bandadas, las cuáles consisten de especies residentes así como de varias especies migratorias durante los meses de invierno, formen una parte integral de la avifauna antillana. Las bandadas pueden formar un componente esenciál del ciclo no-reproductivo de las especies migratorias y residentes en el caribe. Dada la importancia de conservar la avifauna antillana residente y endémica, así como del interés por especies migratorias manifestado a través de la red establecida por Aves de las Américas (Pashley y Hamel 1995), investigaciones sobre la composición y hábitats de bandadas mixtas son una importante y oportuna contribución a la ornitología en el caribe.

Las técnicas que ofrecemos son similares a las propuestas por Morse (1970), quién revisó la literatura sobre bandadas mixtas y presentó datos y análisis sobre bandadas en las regiones templadas de América del Norte. Morse (1970) identificó una serie de hipótesis para explicar las funciones del comportamiento gregario. Si las bandadas alertan sus miembros sobre depredadores, incrementan la eficiencia de forrajeo, ambas de las anteriores, o por otra ventaja desconocida, permanecen como interrogantes que no se han explicado completamente. La observación sobre la composición y el comportamiento de bandadas será de utilidad para responder a estas preguntas.

Para propósitos de definición, un grupo de aves que se comporte o se mueva juntamente se considerará como una bandada. El núcleo de la bandada se reconocerá como dos o más individuos moviéndose juntos, comunicandose y manteniendo contacto uno con el otro a través de cantos. Las observaciones mínimas sobre bandos de aves consisten de la identificación y número de individuos de cada especie presente. Las observaciones sobre bandos de aves pueden exigir varios minutos para poder determinar el número de especies y de individuos de cada especie en la bandada, particularmente para aquellas especies que se mueven lentamente o en silencio. Un método sugerido para observar bandos necesita un equipo de tres observadores. El primero conta el número total de aves en la bandada. Para contar el número de individuos, este observador se pone en frente del bando; es necesario que no perturbe los miembros de la bandada. El segundo identifica las especies y el número (o el por ciento) de cada especie. El tercero registra la especie núcleo, identifica cuáles especies son las sequidoras, y cuáles especies se juntan solámente cuando el bando pasa sus territorios. El equipo sigue el bando hasta posible, y después ellos recopilan sus observaciónes juntos (W. Barrow y C.–C. Chen, comm. pers.).

Recomendamos que las observaciones incluyan fecha, hora, lugar, número, edad como juvenil, adulto, año de empollado, despues de año de empollado, etc., y sexo de los individuos de cada especie en la bandada. Si posible deben ser anillados. De importancia singular son los datos sobre las especies que actúan como especies núcleo, o aquellas especies alrededor de las que se organiza el bando y quiénes ayudan a mantenerlo junto. En América del Norte éstas son usualmente Parídeos. En Cuba, la Chillina (*Teretistris fernandinae*) y el Pechero (*T. fornsi*) son las especies núcleo (Quesada y de las Pozas 1984; Hamel y Kirkconnell 1995). En la República Dominicana, el Cuatro Ojos (*Phaenicophilus palmarum*) y la Cubera (*Xenoligea montana*) actúan como especies núcleo (Vilella, obs. pers.). En Puerto Rico, la Llorosa (*Nesospingus speculiferus*) es la especie núcleo principal (Willis 1973, Carlo y Vilella 1992), aunque el Bobito (*Contopus latirostris*) puede actuar en algunas ocasiones (Delannoy, com. pers.), y algunas especies migratorias a veces también (W. Arendt, comm. pers.).

La información adicional que se puede recoger sobre bandos mixtos es numerosa. Ejemplos concretos son, el hábitat en el que las bandadas ocurren; la localización relativa al perfil vertical que ocupa la bandada así como cada miembro

en el perfil de la vegetación; la tasa de movimiento del bando a través del área; la composición del bando de día a día dentro de una temporada; la participación de individuos conocidos (anillados) de una temporada a otra; la fidelidad en el área utilizada por la bandada de día a día y por temporada; la formación diaria del bando; cambios en la composición de especies residentes en la bandada de la temporada no-reproductiva a reproductiva; interacciones tanto intra como interespecíficas (ej., agresión) de individuos en el bando; cambios etológicos (ej., conducta alimentaria o altura de forrajeo) en las especies residentes a medida que la composición de la bandada cambia con la entrada y salida de especies migratorias; determinación de cuales especies se juntan solamente á las bandadas pasando su territorio y cuales especies se participan en todas partes del rango del bando; cambios etológicos en las especies cuando participen en bandadas y cuando se encuentren sólos.

Otras observaciones relevantes son información sobre la fenología (ej., flores, frutos y semillas) de plantas vasculares (ej., árboles, arbustos, lianas) en las áreas visitadas por las bandadas. Por ejemplo, en la República Dominicana existen especies de árboles como el mimosillo de paloma (*Trema micrantha*), que atraen grupos de aves residentes (ej., *Xenoligea montana*) y migratorias (ej., *Dendroica tigrina*), las que se alimentan de sus frutos (Dod 1978; S. Guerrero, com. pers.). Es importante distinguir entre las agregaciónes de aves atraídas a recursos localizados (ej., arboles con muchos frutos) y los bandos de aves que se mueven juntos a través de los habitats.

La recopilación de composición y tamaño de bandadas por área de estudio sería de gran utilidad para comparar este fenómeno entre las diferentes antillas. La comparación de la participación en bandos por especie con su presencia y abundancia relativa determinado por parcelas circulares puede proveer información sobre la importancia de bandos mixtos y su forrajeo en ambientes del caribe. El observar individuos solitarios puede arrojar información sobre la proporción de individuos que participan en bandadas, determinar diferencias en participación por sexo y edad de una especie, estimar la cantidad de tiempo que pasan individuos de diferentes especies en bandadas, y cúan propenso son diferentes especies a participar en bandadas.

Estamos a la entera disposición de nuestros colegas en la SCO para servir de enlace en cuánto a este interesante fenómeno en el futuro. El entendemiento de la importancia del fenómeno de participación en bandos mixtos nos ayudará a determinar las prioridades para la conservación de aves en las islas caribeñas. La conservación de las especies núcleos será más importante, probablemente, porque los números de otras especies, las seguidoras de los bandos, ambos residentes y migratorias, dependerá de la conservación de especies núcleos.

Incluimos un ejemplo de una forma para registrar datos sobre bandadas en el campo (Fig. 1). El modelo de Remsen y Robinson (1990), que incluye 27 definiciónes para comportamientos de forrajeo, será muy útil para registrar la conducta alimentaria de los miembros de los bandos (Fig. 1).

Agradecemos para los comentarios sobre este trabajo por Carlos Delannoy, Wayne Arendt, Wylie Barrow, y Chao-Chieh Chen.

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FIG. 1. Form for recording observations of mixed-species flocks.

Date / Fecha _____ Study Area / Lugar _____ Observer / Observador _____ Habitat / Habitat _____ Rate of Movement / Velocidad _____ Page ___ of ___ / Pagina ___ de ___

Time / Hora	Species / Especie	Age / Edad	Sex / Sexo	Num. Inds. Num. Inds.	Nucl. Sp? Esp. Nucl?	Position in Flock Estación dentro Bando	Position in Vegetation Estación dentro Follaje	Substrate Species Especie de Planta	Behavior, including Foraging Comportamiento, incluyendo Forrajeando
___	_____	___	___	_____	_____	_____	_____	_____	_____
___	_____	___	___	_____	_____	_____	_____	_____	_____
___	_____	___	___	_____	_____	_____	_____	_____	_____
___	_____	___	___	_____	_____	_____	_____	_____	_____
___	_____	___	___	_____	_____	_____	_____	_____	_____
___	_____	___	___	_____	_____	_____	_____	_____	_____
___	_____	___	___	_____	_____	_____	_____	_____	_____

Diagram of Flock:
Diagrama de Bandada:

Foraging Behaviors (see Remsen and Robinson 1990):
Near Perch Surface: Glean, Reach-up, Reach-out, Reach-down, Hang-up, Hang-down, Hang-sideways, Hang-upsidedown, Lunge
Subsurface: Probe, Gape, Peck, Hammer, Chisel, Flake, Pry, Pull, Scratch
Aerial (include distance and angle from perch):
Leap, Sally-strike, sally-glide, sally-stall, sally-hover, sally-pounce, Flutter-chase, Flush-pursue, Screen

THE CHARLES-EUGÈNE JEANNERET COLLECTION OF CUBAN BIRDS

CARLOS WOTZKOW[1] AND BRIGITTE STRAUB[2]

[1] *Route de Reuchenette 22, CH–2502, Bienne, Switzerland,* and [2] *Mettstrasse 27, CH–2503, Bienne, Switzerland*

The bird collections of Charles-Eugène Jeanneret are a lost chapter in Cuba's natural history. Jeanneret, born in 1824, was a friend of Juan Cristobal Gundlach and a disciple of Felipe Poëy. Using the taxidermy and collecting skills he learned from Gundlach, Jeanneret collected Cuban birds in the nineteenth century. He amassed a large collection of Cuban birds, which is housed at the Museum of Natural History, Neuchâtel (Table 1).

TABLE 1. Summary of the specimens of Cuban birds in the Charles-Eugène Jeanneret collection in the Museum of Natural History, Neuchâtel.

Family	No. of specimens	No. of species	Family	No. of specimens	No. of species
Pelicanidae	1	1	Trochilidae	7	2
Anhingidae	1	1	Trogonidae	4	1
Fregatidae	2	1	Alcedinidae	2	1
Ardeidae	3	2	Todidae	2	1
Anatidae	8	6	Picidae	11	3
Accipitridae	10	7	Tyrannidae	5	3
Rallidae	5	4	Hirundinidae	2	1
Jacanidae	1	1	Mimidae	3	2
Charadriidae	4	2	Sylviidae	2	1
Recurvirostridae	3	1	Bombycillidae	1	1
Scolopacidae	2	2	Turdidae	1	1
Laridae	2	2	Vireonidae	4	2
Columbidae	4	2	Parulidae	26	13
Psittacidae	2	2	Coerebidae	1	1
Cuculidae	3	2	Thraupidae	3	1
Strigidae	3	2	Icteridae	17	5
Caprimulgidae	2	1	Fringillidae	11	4

For each specimen in the collection we have extracted information on gender and age, as well as bill, wing, tarsus, and tail measurements. In addition, Jeanneret's notes on some species are available. We are in the process of developing a more detailed description of the Jeanneret collection.

TROPICAL ORNITHOLOGY COURSE

The Instituto de Ecología, A. C. Graduate Program and the Departamento de Ecologia y Comportamiento Animal at Xalapa, Veracruz, México will be offering its first course in Tropical Ornithology 24 June–28 July 1996. The course is field oriented and will last five weeks (two weeks at Xalapa City and surroundings, and three weeks at La Mancha Field Station, Veracruz). Course objectives include (1) to expose students to avian studies in the tropics, (2) to integrate evolutionary ecology theory with field research, (3) to use ecological criteria in conservation and sustainable management of natural resources, and (4) the training of young researchers. Participants will be trained to design and execute field research projects. Lectures and seminars will be given by several professors. Course participation is limited to 15 persons and the cost will be $650.00 USD. For more information, contact Dr. Juan Francisco Ornelas, Departamento de Ecologia y Comportamiento Animal, Instituto de Ecologia, A. C., Apdo. 63, Xalapa, Veracruz 91000, México. Telephone: 52-28-18-6000; fax: 52-28-7809; e-mail: ornelasj@sun.ieco.conacyt.mx).

THE REGIONAL WILDLIFE MANAGEMENT PROGRAM FOR MESOAMERICA AND THE CARIBBEAN

The mission of the Regional Wildlife Management Program for Mesoamerica and the Caribbean (PRMVS), coordinated by Costa Rica's National University in Heredia, is to train wildlife and natural resource professionals to effectively conserve the fauna and habitats of tropical America. As in all countries, the leaders of Central American, Mexican, South American and Caribbean nations must answer complex socio-ecological questions involving wildlife. The PRMVS is committed to educating the growing cadre of dedicated and regionally trained professionals who will be faced with these decisions.

During their two-year course of study, graduate students receive intensive training in wildlife management, animal population ecology, rural sociology, computer science, and environmental education. They also chose from a range of elective courses, including biological conservation, environmental impact assessment, and wildlife diseases. Nearly half of the student's time is spent in the field. Ongoing PRMVS research projects in Costa Rica include GIS, Gap Analyses, and Biodiversity; Mammals and Dry Tropical Forest Conservation; Scarlet Macaw Survival; and Waterfowl and Marshland Restoration.

Since 1987, more than 60 students from 15 Latin American countries have received training at PRMVS. Student's thesis projects have significantly added to wildlife management and conservation in the region. Graduates of the program now hold a wide variety of positions in wildlife conservation. PRMVS graduates work in research institutions, natural science agencies and other government departments; they head conservation groups and teach at universities throughout Latin America.

The PRMVS is also home to the Wildlife Documentation Center (BIODOC). Established in 1988, BIODOC is an extensive collection of books, scientific journals, reprints, bulletins, theses, and unpublished literature about wildlife worldwide, with an emphasis on neotropical species. PRMVS itself contributes to the growing body of scientific information on tropical wildlife by publishing *Neotropical Wildlife* (*Vida Silvestre Neotropical*), a quarterly technical journal that presents research results of scientists and wildlife managers working in the American tropics.

PRMVS receives funding from organizations including the U.S. Fish and Wildlife Service, the German Academic Exchange Program, the World Wildlife Fund-U.S., the Jessie Smith Noyes Foundation, the MacArthur Foundation, and the Organization of American States. For further information about PRMVS, contact Claudette Mo, M.Sc., Directora, Programa Regional en Manejo de Vida Silvestre, Apartado 1350 - 3000 Heredia, Costa Rica, Telephone 506 237-7039, FAX 506 237-7036, E-mail clee@irazu.una.ac.cr

PROPOSED CHANGE FOR SOCIETY OF CARIBBEAN ORNITHOLOGY CONSTITUTION

The Society's Executive Committee proposes the following change to the SCO constitution.

Article III
B. Section 4 reads "The representatives of a territory/nation/state who are elected to the Board of Governors shall serve a two-year term."

Proposed change:
B. Section 4. The representatives of a territory/nation/state who are elected to the Board of Governors shall serve a four-year term. Should a territory/nation/state need to hold an election for a Board of Governor representative they can request the President to call for an election in that territory/nation/state.

Justification: The Executive Committee feels this change is needed to enhance the effectiveness of the Board of Governors and allow for a period of continuity in island/territory representation. Currently, elections for some positions (Executive Committee or Board of Governors) are held every year at the Annual Meeting. Elections are time consuming and have costly mailings associated with them. Therefore, the Executive Committee feels the goals of the SCO could be better served if the Board of Governors serves a four-year term.

The constitution may be amended by mail ballot by two-thirds majority, or at any regular general meeting by a two-thirds vote of the members present, provided that the amendment has been proposed at the preceding general meeting or has been recommended by a two-thirds vote of the Executive Committee, and a copy has been sent to every member of the Society at least four months prior to the date of action.

This proposed change to Section 4 of the constitution has been recommended by a two-thirds vote of the Executive Committee. It is being sent to every member of the Society via this issue of *El Pitirre*. A vote will be taken during the SCO business session at the Society's Annual Meeting in Nassau, Bahamas in August.

SOCIETY OF CARIBBEAN ORNITHOLOGY ANNUAL MEETING
2-7 AUGUST 1996
NASSAU, BAHAMAS

The 1996 Annual Meeting will be held at South Ocean Beach Hotel, Nassau, Bahamas. South Ocean Beach Hotel will accept most major credit cards. The costs for accommodation are as follows: oceanfront luxury US $80, standard garden view US$60 for single, double and family occupancy. There is a government room tax of 8%, a porter charge one time per person, and a US$2.35 per person daily maid service charge. Persons sharing a double occupancy room will each pay 50% of the room cost, plus tax and maid service charge.

Children sharing a room with a parent stay and eat free. A ki'sd camp is supervised daily from 09:00 - 22:00 hr, including lunch, games, and educational activities. Full day camp (08:30 - 17:00 hr) costs US$25, a half day costs US$16, whereas evening camp (17:00 - 22:00 hr) costs US$18.

There is an 18-hole golf course which costs US$40 net per person per day, including green fees and mandatory share cart, four tennis courts and pro. A 2-tank dive is US$65 per person including weights & belts; other equipment will cost extra. A snorkel trip including gear costs US$25 per person. Other hotel sporting activities include beach games.

Breakfast, lunch, and morning and afternoon coffee breaks together will cost US$20 per day per person, plus a 15% service charge. Conference participants will have to make their own arrangements for dinner. The SCO Banquet on Tuesday, 6 August, will cost US$35 per person. The cash bar will cost extra.

The price for the field trip, on Sunday 4 August, has not yet been determined. The price will be payable upon arrival. The trip will begin in the morning and an afternoon boat trip will follow lunch. If you are interested in field trips to Abaco or Inagua before or after the conference, please call for further details.

For conference participants to receive a group discount on American Airlines' flights to Nassau, bookings must be made through Marazul Tours. Please contact Ramon Hernandez from Marazul at 1-800-223-5334 or (201) 319-9670 to purchase your ticket. When making reservations please identify yourself as an SCO member.

Airport transfers are US$16 per person round-trip. The hotel should be advised of flight arrival and departure times. The meeting registration fee is US$75 or $35 for students with identification.

Conference Events:

Thursday 1 August - Delegates arrive, registration
Friday 2 August - Opening ceremony, conference begins, welcoming reception 18:30 - 19:30 hr.
Sunday 4 August - All day field trip
Tuesday 6 August - Evening banquet
Thursday 8 August - Delegates depart

For further information please call Rosemarie Gnam at (703) 739-9803 (evenings only).

ANNOUNCEMENTS

SCO Annual Dues Reminder

If you have not already done so, please pay your 1996 dues. Individual memberships are $15.00 (US). Please make your check or postal money order payable to the Society of Caribbean Ornithology and mail to Dr. Rosemarie Gnam, 13 E. Rosemont Ave., Alexandria VA 22301, USA.

Elections

1996 is an election year for territory/nation/state representative to the Board of Governors for the Society of Caribbean Ornithology. Dr. Joseph Wunderle Jr., President of the Society will be contacting the current territory/nation/state (island) representative regarding the procedures for the election. Please take the time to vote in your country!

US Representative Elected

Jerry Jackson has been elected as the Society's US Representative.

American Bird Conservancy William Belton Grants Program

The Project Council of the American Bird Conservancy is reviewing proposals for research projects. Priorities include conservation actions for threatened species, research on threatened habitats and training and environmental education for the Caribbean or Latin America. Applications are due by 30 September for the December proposal review. To receive an application package and receive more information, please contact: William Belton Grants Program, American Bird Conservancy, 1250 24th St., NW, Suite 220, Washington, DC 20037, USA; Tel. (202) 467-8348; e-mail abc@mnsinc.com.

MEETINGS OF INTEREST

19–22 May 1996 – **Annual Meeting of the Association of Systematics Collections**, Agricultural Research Center, Beltsville, Maryland. (Amy Y. Rossman; Telephone: 301-504-5364; Fax: 301-504-5810; amy@fungi.ars-grin.gov).

3-7 June 1996 – **Society of Avian Paleontology and Evolution**, Washington, D.C. [Storrs Olson, NHB MRC 116 (Birds), Smithsonian Institution, Washington, D.C. 20560, U.S.A.; Telephone: 202-357-2031; Fax: 202-786-2328].

2–7 August 1996 – **Society of Caribbean Ornithology**, Nassau, Bahama Islands. (Jim Wiley, 2201 Ashland St., Ruston, Louisiana 71270, U.S.A.; Telephone: 318-274-2499; Fax: 318-274-3870).

13–17 August 1996 – **American Ornithologists' Union**, Boise State University, Boise, Idaho. (Peter Lowther, Field Museum of Natural History, Roosevelt Road at Lakeshore Drive, Chicago, Illinois 60605, U.S.A.; lowther@fmnh.org).

20–24 August 1996 – **2nd International Symposium and World Congress on the Preservation and Conservation of Natural Science Collections**, St. Johns College, Cambridge, United Kingdom. (Chris Collins, Natural Sciences Congress '96, Geological Conservation Unit. Department of Earth Sciences, Downing St., Cambridge, CB2 3EQ, United Kingdom; Telephone: 0223-62522; Fax: 0223-60779).

29 September - 4 October 1996 – **6th International Behavioral Ecology Congress**, Australian National University, ACT, Australia. [Andrew Cockburn, Botany and Zoology, Australian National University, ACT, 0200, Australia (e-mail: isbe6@anu.edu.au].

2–5 October 1996 – **2nd Raptor Research Foundation International Conference on Raptors**, University of Urbino, Urbino, Italy. (Dr. Massimo Pandolfi, Insituto di Scienze Morfologiche, Via Oddi 21, 61029 Urbino, Italy; Telephone: 39-722-328033; Fax: 39-722-329655).

5-9 October, 1996 — **Southern Hemisphere Ornithological Congress**, Western Australia. For information contact the President of the Royal Australasian Ornithologists' Union, Professor Brian Collins, School of Environmental Biology, Curtin University of Technology, GPO Box U 1987, Perth, Western Australia 6001 (Tel: 619-351-7041; fax: 619-351-2495).

16-22 August 1998 - **XXII International Ornithological Congress**, Durban, South Africa. (Dr. Aldo Berruti, Department of Ornithology, Durban Natural Science Museum, Durban, South Africa; Fax: 27-31-262-6114; berruti@superbowl.und.ac.za).

PUBLICATION AVAILABLE

Media Publishing (Nassau, Bahamas) wishes to announce publication of the educational coloring book, Let's Get to Know the Bahama Parrot. Society of Caribbean Ornithology Treasurer Rosemarie Gnam authored the book and Franklin Rojas Suarez (Venezuela) did the artwork.

Media Enterprises hopes the book will be a delight to Bahamians as well as tourists. The book is available for US $3.50, plus postage, from Neal Sealey, Media Enterprises, P. O. Box N-9240, Nassau, Bahama Islands. Sales will help conservation efforts for this endangered Caribbean parrot. Hopefully, the book will serve as a model for other educational projects with parrots.

CARIBBEAN POSTERS AVAILABLE

The CITES Conservation Treaty Support Fund (CTSF) has published a beautiful poster entitled "Wild Treasures of the Caribbean," depicting sea turtles, birds, coral, and other endangered species of the Caribbean. The poster ties in with a brochure published by World Wildlife Fund/TRAFFIC USA as part of the "Buyer Beware" campaign that urges tourists and others not to buy endangered species or their products. The poster is beautiful and depicts Caribbean wildlife in a natural setting. Its design was done by the renowned wildlife artist, Mary Helsaple.

The Society of Caribbean Ornithology helped fund the production of this poster as part of the Society's public education effort. The idea for the poster and brochure was conceived at the 1992 CITES Training Workshop for English-speaking Caribbean nations.

Posters will be made available for free to the CITES Management Authorities on each Caribbean island. SCO Island Representatives can contact the CITES Management Authority on their island to help with distribution of the posters. A limited number of posters is available to the public to help raise funds for CITES and our Society. The Society of Caribbean Ornithology will receive a 10% profit from sales of the poster. SCO members can obtain the poster by sending a check or postal money order for $25 (U.S.) to the Conservation Treaty Support Fund (CTSF), 3705 Cardiff Road, Chevy Chase, Maryland 20815 U.S.A. Please indicate that you are a SCO member on your order. Discounts are available for wholesale purchases (20 posters or more). For further information, contact George Furness, Jr. at (301) 654-3150 or by fax at (301) 652-6390. PLEASE HELP SUPPORT THE SCO IN THIS FUND-RAISING PROJECT!!!!

SOCIETY OF CARIBBEAN ORNITHOLOGY T-SHIRTS AVAILABLE

The SCO has produced a T-shirt to promote the Society and help raise much needed funds toward the Society's annual operating costs. The T-shirt depicts the Society's logo, the Pitirre (Gray Kingbird), on a light blue shirt. Large and X-large shirts are available. The cost of the shirt is $15 (U.S.), which includes shipping costs. Please purchase a shirt today and help support the Society! The shirt makes a great gift for Caribbean birdwatchers. Send your order and a check or postal money order made payable to the Society of Caribbean Ornithology to Rosemarie Gnam, Treasurer SCO, 13 East Rosemont Avenue, Alexandria, VA 22301, U.S.A. Please don't miss out on this opportunity to promote the Society!

"Almost Certainly Extinct"

This title quotes part of the title of a recent article by Lammertink and Estrada (1995, *Bird Cons. Intl.* 5:53-59) which provides a grim reminder that extinction in the Caribbean is not just an event of the past. Admittedly documenting the absence of the last individual of a species is difficult, but the Lammertink and Estrada findings suggest that little optimism remains for the survival of the Ivory-billed Woodpecker ("Carpintero Real"). Lammertink and Estrada searched the area of eastern Cuba where the last population was known to occur. During the 120 days of field work in 1989, 1991, and 1993 the two authors and their assistants failed to detect the bird or find evidence of its recent excavations. Moreover, in the area from which the last woodpeckers were known, no suitable large old-growth forest habitat remains. It was the destruction of old-growth forests which is believed to be mostly responsible for the ivory-bill's demise, as the species required extensive old-growth forest for survival. The ivory-bill disappeared from the southeastern United States, most by the 1950s, as bottomland forests were extensively cut for timber. However, a population managed to survive in eastern Cuba until recently, when presumably the effects of past deforestation finally caught up with it. Despite the recent efforts of the Cuban authorities to protect the species and its last known habitat, the Ivory-billed Woodpecker appears to have finally succumbed.

Even in the 1970s Garrido and Montaña (*1975, Catálogo de las Aves de Cuba*) considered the ivory-bill to be almost extinct in Cuba. It appears that the species managed to survive there with nonviable populations for quite some time, and that it was already among the "living dead" when concerted conservation efforts were initiated. It seems unlikely that much could have been done for this species once most old-growth forests were cut by the late 1800s and early 1900s. Sadly, we have lost another element of our ecological heritage, and future generations are unlikely to appreciate just what it was that was lost. Unfortunately, in the Caribbean there are no other woodpeckers of the size and grandeur of the ivory-bill, although some exist on the nearby continents.

The loss of the Ivory-billed Woodpecker should serve as a reminder that extinction in the Caribbean is still a very real threat and that biodiversity loss is not an event confined to the past. Admittedly, it was probably the habitat loss in the past which led to this most recent extinction, and has contributed to the population reductions of many of our threatened and endangered species in the region. Currently, only about an average of 21% of the area of Caribbean islands remain in natural forest. Therefore, many island species are often confined to relatively small habitat patches. This, of course, restricts population size, making many island species even more vulnerable to a variety of stresses which would not normally be of concern for larger populations. Thus the possibility of extinction is high for many of our island species, requiring vigilance and constant protection to ensure their survival.

"Casi Extinto de Seguro"

En este título se cita parte del título de un artículo reciente de Lammertink y Estrada (1995, *Bird Cons. Intl.* 5:53-59) el cual provee un triste recordatorio de que la extinción en el Caribe no es cosa del pasado. Damos por sentado que documentar la ausencia del último individuo de una especie es difícil, pero los hallazgos de Lammertink y Estrada no son muy optimistas acerca de la supervivencia del Carpintero Real. Lammertink y Estrada buscaron en el área oriental de Cuba donde se tenía conocimiento de la última población de esta ave. Durante 120 días de trabajo de campo en 1989, 1991 y 1993 los dos autores y sus asistentes no encontraron al ave o evidencia de sus excavaciones recientes. Más aún, en el área donde los últimos carpinteros fueron vistos, no se encuentran porciones significativas de bosque maduro. Se cree que fue la destrucción de este tipo de bosque lo que llevó a la merma de esta especie, ya que la especie requiere de extensas áreas de bosque maduro para su subsistencia. El Carpintero Real desapareció del sudoeste de los EE. UU. en los años cincuenta cuando los bosques maduros fueros diezmados severamente para uso maderero. Sin embargo, una población logró sobrevivir en el este de Cuba, hasta que los efectos de las pasadas deforestaciones finalmente le alcanzaron. A pesar de los recientes esfuerzos de las autoridades cubanas para proteger esta especie y su hábitat, el Carpintero Real aparentemente ha sucumbido finalmente.

Aún en los años setenta Garrido y Montaña (1995, *Catálogo de las aves de Cuba*) consideraban al Carpintero Real prácticamente extinto en Cuba. Aparentemente la especie pudo sobrevivir en la zona por un tiempo con una población que no era viable, y ya se encontraba entre los muertos vivientes cuando se concentraron los esfuerzos para su recuperación. Se ve improbable que mucho se pudiera haber hecho por la especie cuando la mayoría del bosque maduro de la zona fue talado a fines del siglo pasado y principios del presente. Lamentablemente, hemos perdido otro elemento de nuestra herencia cultural y futuras generaciones no podrán apreciar que fue exactamente lo que perdimos. Desafortunadamente, en el Caribe no hay otros carpintero de de tamaño y porte, pero sí los hay en el continente adyacente.

La extinción del Carpintero Real debe servirnos como recordatorio que la pérdida de la biodiversidad en el Caribe no es un proceso del pasado sino una amenaza real. Debemos admitir que fue la pérdida del hábitat en el pasado lo que llevo a la extinción de esta especie y a contribuido a la reducción de muchas poblaciones de nuestras aves amenazadas o en peligro de extinción en la región. En el presente, solo un 21% del área de las islas del Caribe permanece forestada. Por lo tanto, muchas especies de islas permanecen confinadas a espacios dispersos de hábitat. Esto por supuesto restringe el tamaño de la población, haciendo a muchas de las especies de islas aún más vulnerables a varios tipos de problemas, lo que no sería de mayor preocupación para poblaciones mayores. Por lo tanto, la posibilidad de quedar extintas es alta para muchas de nuestras especies caribeñas, requiriendo de protección y constante vigilancia para proteger y asegurar su supervivencia.

Joseph M. Wunderle

CONTENTS (CONTINUED FROM FIRST PAGE)

From: Dr. James W. Wiley
2201 Ashland St.
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