Sociedad de la Ornitología Caribeña

EL PITIRRE

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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.

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AN UNUSUAL CONCENTRATION AND FIRST PHOTOGRAPHIC RECORD OF THE POMARINE JAEGER (*STERCORARIUS POMARINUS*) ON THE CARIBBEAN COAST OF GUATEMALA

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On 26 March 1992, I left Puerto Barrios, Guatemala, on the regularly scheduled boat trip north to Livingston (15°49'N, 88°45'W) at the mouth of the Río Dulce. The passage roughly paralleled 22 km of the west coast of the Bay of Amatique, Gulf of Honduras, about 1 km from shore. Half-way into the journey, I began to encounter dark seabirds with white patches in the primaries. These birds were substantially larger than the Laughing Gulls (*Larus atricilla*) which were also in the area. I also noted considerable barring on the body and a somewhat lighter base of the tail as the birds flew by the boat, then rested on the sea. The boat passed more individuals until we reached Livingston, where at least four or five more birds were seen harassing Royal Terns (*Sterna maxima*) and Sandwich Terns (*S. sandvicensis*) in the harbor.

During the afternoon of 27 March 1992, I used a 200-mm lens to take 4 color transparencies of the different jaegers as they flew past my hotel dock, about 1 km upstream (west) from the mouth of the Río Dulce. On 28 March, I again encountered the jaegers during the first half of my return boat trip to Puerto Barrios. One of these individuals exhibited a hint of a dark cap typical of jaegers (*Stercorarius* spp.), but none of the birds had elongated tail feathers. I left Guatemala uncertain of the species I had seen and photographed.

At the Carnegie Museum of Natural History (Pittsburgh, Pennsylvania), I asked D. Scott Wood and Kristin M. Williams to view the transparencies. Both tentatively identified the birds as immature Pomarine Jaegers (*Stercorarius pomarinus*). I also forwarded the transparencies to David Lee, North Carolina State Museum of Natural History, who also identified the birds as immature Pomarine Jaegers. In all cases, the identification was based on the depth of the body and the large wing area, and my comparison of size with that of the Laughing Gull.

The American Ornithologists' Union Checklist (1983) includes the West Indies and the northern coast of South America within the winter range of the Pomarine Jaeger, but states that this species has not been "recorded on the Caribbean coast of Middle America between southern Mexico and Costa Rica." In the western Atlantic, the winter range of the Pomarine Jaeger extends from both coasts of Peninsular Florida, the southeastern Gulf of Mexico, and all of the Caribbean Sea from the northern coast of the Yucatán Peninsula to Tobago, thence north and westward to the Bahama Islands (Furness 1987). Land (1970) did not report records of jaegers of any species from Guatemala, although 50 Pomarine Jaegers were seen 50-100 km off the Pacific coast of Guatemala on 15 April 1973 (Jehl 1974). One record of a Parasitic Jaeger (*S. parasiticus*) exists for Belize (Wood et al. 1986). No jaegers are listed among the avifauna of Honduras (Monroe 1968). In Costa Rica, the Pomarine Jaeger is regarded as rare and sporadic on both coasts, and immatures have been found in two gulfs along the Pacific coast (Stiles and Skutch 1989). Pomarine Jaegers have been regularly seen in the Colon Harbor on the Caribbean coast of Panama (Ridgely and Gwynne 1989).

In the past 5 years, I have sailed the 28 km from Belize City (200 km north of Livingston, Guatemala) to Caye Caulker, Belize, 3 times during the months when jaegers might be expected, including a trip 1 week after seeing jaegers at Livingston. I saw no jaegers either from the boats or during my stays on Caye Caulker.

Considering the scarcity of records for the Caribbean coast of Central America, the numbers of Pomarine Jaegers in the Bay of Amatique is surprising. I observed at least 12 jaegers in the 3 days.

The proximity of immature jaegers to the mainland coast and in the Río Dulce, 22 km west of the open ocean, and consistent concentration within the Bay of Amatique suggests that these birds are not restricted to open ocean. The question remains: Were the jaegers at Livingston an isolated occurrence, or is the area a part of their normal winter range?

Literature Cited

American Ornithologists' Union. 1983. Check-list of North American birds, 6th edition. Washington, D.C., Am. Ornithol. Union.

Furness, R.W. 1987. The skuas. T. & A.D. Poyser, Calton, England.

Jehl, J.R., Jr. 1974. The near-shore avifauna of the Middle American west coast. Auk 91:681-699.

Land, H.C. 1970. Birds of Guatemala. Wynnewood, Pennsylvania, Livingston Publ. Co.

Monroe, B.L., Jr. 1968. A distributional survey of the birds of Honduras. Ornithol. Monogr. 7. Lawrence, Kansas, Am. Ornithol. Union

Ridgely, R.S., and J.A. Gwynne. 1989. A guide to the birds of Panama, 2nd edition. Princeton, New Jersey, Princeton Univ. Press.

Stiles, F.G., and A.F. Skutch. 1989. A guide to the birds of Costa Rica. Ithaca, New York, Comstock Publ. Assoc.

Wood, C.S., R.C. Leberman, and D. Weyer. 1986. Checklist of the birds of Belize. Pittsburgh, Pennsylvania, Carnegie Mus. Nat. Hist.

OBSERVATIONS OF THE WOOD SANDPIPER AND LITTLE EGRET IN BARBADOS

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On the morning of 28 November 1992, I observed a Wood Sandpiper (*Tringa glareola*) in the artificial swamp at Mangrove, St. Philip, Barbados. At 20 cm, it was marginally smaller than the 2 juvenile Ruffs (*Philomachus pugnax*) and Stilt Sandpipers (*Calidris himantopus*) feeding nearby, but slightly larger than the White-rumped Sandpiper (*C. fuscicollis*). Greater (*Tringa melanoleuca*) and Lesser (*T. flavipes*) yellowlegs were also present.

Through the telescope, the most striking feature of the Wood Sandpiper was the broad white superciliary stripe, which stretched to the nape. The upperparts were dark brown, heavily spotted with white, as compared with the paler (i.e., gray-brown) upperparts of the Lesser Yellowlegs. At rest, the Wood Sandpiper's wings did not extend beyond the tail, unlike the Lesser Yellowlegs, whose wings extend past the tail. The underparts were white with a dusky brown wash on the throat and upper chest. Its leg color was pale yellow, intermediate between the orange yellow of the yellowlegs and the green-yellow of the Stilt Sandpiper. At close range, a thin white eye-ring was visible. The short bill was straight and black. In flight, it revealed its white rump and brown-barred tail, and the white outer primary shaft was also visible. The bird called with a high-pitched "chi-chi-pee" as it took flight, which was fast and direct.

The only other known record of the Wood Sandpiper in Barbados is a specimen collected in October 1955 (Bond 1959, 1965). This arctic species normally winters from the Mediterranean region south to southern Africa, Ceylon, the Malay Peninsula, East Indies, and Australia (American Ornithologists' Union 1983). However, it has also been recorded from Barbados (Amos and Wingate 1983).

On the morning of 1 January 1993, I observed a slightly larger white egret feeding among Snowy Egrets (*Egretta thula*) and an immature Little Blue Heron (*E. caerulea*) at the same artificial swamp at Mangrove. The black legs of the unidentified bird were much thicker than those of the Snowy Egret, which were posteriorly yellowish-green. Closer observation through the telescope showed several distinctive characteristics when compared with the Snowy Egrets. First, the unidentified heron's cere was grayish and not bright yellow. Second, as it waded, its lemon-yellow, not bright yellow, feet were noted. In addition, the black bill was slightly thicker and longer than that of the other herons.' The bird stood more upright than the Snowy Egrets and was definitely a more active feeder than the other egrets present.

This bird was identified as a Little Egret (*Egretta garzetta*) and is the second record for Barbados. This Old World species principally winters in Southeast Asia and the African and Austalian regions. A specimen of the Little Egret was collected from Barbados in April 1954 (Bond 1966), whereas West Indian records include St. Lucia (Norton 1985, 1986) and Martinique (Bond 1966). Other New World records include Newfoundland (American Ornithologists' Union 1983), Quebec (American Ornithologists' Union 1983), Bermuda (Norton 1985), Trinidad (Bond 1966), and Surinam (American Ornithologists' Union 1983). I suspect the Little Egret was present in Barbados since November 1992, but was overlooked among the Snowy Egrets.

The identifications of both species have been confirmed by Edward Massiah and Captain Maurice Hutt, both of whom have seen these species in Europe. Both the Wood Sandpiper and Little Egret were still present at Mangrove on 25 January 1993.

LITERATURE CITED

American Ornithologists' Union. 1983. Check-list of North American birds, 6th edition. Allen Press, Inc., Lawrence, Kansas.

Amos, E.J.R., and D.B. Wingate. 1983. First record of the Wood Sandpiper *Tringa glareola*, from Bermuda. Am. Birds 37:115-116.

Bond, J. 1959. Fourth supplement to the Checklist of Birds of the West Indies (1956). Acad. Nat. Sci. Philadelphia.

Bond, J. 1965. Tenth supplement to the Checklist of Birds of the West Indies (1956). Acad. Nat. Sci. Philadelphia.

Bond, J. 1966. Eleventh supplement to the Checklist of Birds of the West Indies (1956). Acad. Nat. Sci. Philadelphia.

Norton, R.L. 1985. West Indies region. Am. Birds 39:214-215.

Norton, R.L. 1986. West Indies region. Am. Birds 40:338-340.

ABSTRACTS OF PAPERS PRESENTED AT THE 1992 ANNUAL MEETING OF THE SOCIETY OF CARIBBEAN ORNITHOLOGY

REASSESSMENT OF BLACK-CAPPED PETREL IN CUBA
(REEVALUCION DEL DIABLOTIN EN CUBA)

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Since late the 1970s several authors have included the Sierra Maestra of eastern Cuba as part of the breeding range of the Black-capped Petrel, *Pterodoma hasitata*. This was based on a collection of six birds made in 1977, but the collection was never formally reported. In 1992 we revisited the collection site and concluded that breeding reports there are unfounded. We heard petrels as they foraged in the oceanic fronts in deep water (500 m) near the Cuban coast. They did not fly inland and it is likely that they represent breeding birds commuting from Haiti. The only known population is in southern Hispaniola, and there is considerable evidence that it is rapidly declining. We are very concerned about the conservation of this Caribbean endemic. Based on population estimates off the southeastern United States and incomplete information from Haiti and the Dominican Republic, we believe that there are currently fewer than 10,000 pairs of this bird and the actual number may be far less.

Desde fines de la década de 1970 varios autores han incluido la Sierra Maestra en la parte occidental de Cuba como parte del territorio reproductivo del Diablotín, P*terodoma hasitata*. Esto se basa en la recolección de séis pájaros durante 1977, pero la colecciόm núnca fue reportada formalmente. En 1992 revisitamos el sitio donde las aves fueron recolectadas y concluímos que los reportes reproductivos eran infundados. Escuchamos Diablotínes mientras se alimentaban a lo largo del farallón oceánico, en aguas profundas (500 m), muy cerca de la costa cubana. Estos no volaron tierra adentro, y es probable que representen aves provenientes de Haití. La población del sur de la Hispaniola es la única presente actualmente, y hay considerable evidencia de que está declinando rapidamente; estamos muy preocupados por la conservación de esta ave endémica del Caribe. Basado en estimados poblacionales en las afueras de la costa sureste de los EE.UU. e información incompleta de Haití y de la República Dominicana creémos que actualmente hay menos de 10,000 parejas de estas aves y que el número real puede ser aún mucho menor.

SURVEY OF LEAST TERN NESTING SITES ALONG THE SOUTH COAST OF JAMAICA
(CENSO DE SITIOS DE ANIDAJE DE LA GAVIOTA PEQUEÑA A LO LARGO DE LA COSTA SUR DE JAMAICA)

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Four wetland areas along the south coast of Jamaica, where the nesting of the Least Tern (*Sterna antillarum*) has been previously reported, were recently surveyed. Nesting colonies were found at only two sites, Yallahs Salt Pond, St. Thomas, and Long Pond, St. Catherine. The type of substrate and size of the colonies are described. The study attempts to improve the lack of data on the nesting of these birds in Jamaica and provides baseline information for management and further research.

Cuatro zonas anegadas a lo largo de la costa sur de Jamaica donde la Gaviota Pequeña (*Sterna antillarum*) ha sido anteriormente reportada anidando fueron censadas recientemente. Fueron encontradas colonias solo en dos sitios, Yallahs Salt Pond, St. Thomas y en Long Pond, St. Catherine. El tipo de terreno de la localidad y el tamaño de la colonia son descritos. Este estudio pretende aumentar y mejorar la información de anidaje de estas aves y servir de base para su manejo y futuras investigaciones.

GROWTH RATES OF BIRDS FROM PREDATOR-FREE ISLANDS
(VELOCIDAD DE CRECIMIENTO DE LAS AVES EN ISLAS LIBRES DE DEPREDADORES)

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Altricial birds have the highest rate of development of any group of vertebrates. A high rate of development allows birds to minimize the time spent in the egg and nestling stages. Since mortality, particularly due to predators, is greater during this period it follows that a high rate of growth allows birds to reduce the time spent during the more vulnerable stages. This observation has led to the generally accepted idea that the high rate of growth of altricial birds has been molded by nest predation pressure as a selective force. As an indirect test of this hypothesis, we have compared the length of the incubation and nestling periods of species of birds from oceanic, predator-free islands with those of related species from continental areas. We find that, when controlling for

body mass, total nest period of native oceanic species is greater than that of related continental species. However, species introduced by man to the islands have similar nest periods to those of continental populations. We conclude that predation has been an important factor in the evolution of growth rates of birds.

Los pájaros altriciales tienen la mayor tasa de desarrollo de cualquier grupo de vertebrados. Un alto grado de desarrollo permite a los pájaros reducir el tiempo invertido durante las etápas de incubación y empollamiento. Debido a que la mortalidad, particularmente por depredadores, es mayor durante este período, se desprende que un alto grado de desarrollo permitirá al ave reducir el tiempo invertido durante esta etapa más vulnerable. Esta observación ha conducido a la idea generalmente aceptada de que la gran tasa de desarrollo de las aves altriciales ha sido moldeada por la presión de depredación a los nidos como una presión selectiva. Como una prueba indirecta de esta hipótesis hemos comparado el período de incubación y anidaje de especies de aves en islas oceánicas, libres de depredadores, con aquellas especies relacionadas de tierra firme. Encontramos que, cuando controlamos la masa corporal, el período total de anidaje para las especies oceánicas nativas es mayor que para las especies relacionadas continentales. Sin embargo, las especies introducidas por el hombre a estas islas tienen un período de anidaje similar que aquellas de la población continental. Concluímos que la depredación ha sido un factor importante en la evolución de tasas de crecimiento en las aves.

RESOURCE PARTITIONING AMONG A FLYCATCHER GUILD IN JAMAICA
(DIVISION DEL USO DEL RECURSO ENTRE UN GRUPO DE AVES INSECTIVORAS EN JAMAICA)

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I studied resource use by a flycatcher guild in a Jamaican wet limestone forest. Members of the guild included Tyrannidae (*Contopus caribaeus, Myarchus barbirostris, M. validus, Pachyramphus niger, Tyrannus caudifasciatus*) and Todidae (*Todus todus*). Most of the species foraged by sally-hovering for insects from leaf surface, but aerial hawking and frugivory were also important foraging modes. Differences and similarities in the foraging ecology and morphology of the species within the guild are discussed and related to community organization.

Estudié el uso de recursos entre un grupo homogéneo de aves insectívoras en un bosque húmedo de calizox en Jamaica. Miembros del grupo incluían la familia Tyranidae (*Contopus caribaeus, Myarchus barbirostris, M. validus, Pachyramphus niger, Tyrannus caudifasciatus*) y la familia Todidae (*Todus todus*). La mayoría de las especies se alimentaba mediante breves saltos sostenidos ("sally-hovering") atrapando insectos en la superficie de las hojas, pero la alimentación en vuelo ("aerial hawking") y la frugivoridad fueron también métodos importantes de forragéo. Diferencias y similitudes en la ecología alimenticia y en la morfología de las especies dentro del grupo son discutidas y relacionadas a la organización comunal.

ESTUDIO PRELIMINAR EN DOS COMUNIDADES DE AVES EN LA LOMA NALGA DE MACO
(PRELIMINARY STUDY OF TWO BIRD COMMUNITIES IN LOMA NALGA DE MACO)

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Se presentan lo resultados de los estudios que sobre avifauna se realizaron en la Loma Nalga de Maco, provincia de Elías Piña, la cual está enmarcada en la Cordillera Central. Los mismos se llevaron a cabo durante los meses de marzo, abril y agosto de 1991. Para la realización de los censos se escogieron dos zonas: una de cultivos con bosques ribereños (Río Limpio) y otra de bosque latifoliado (Vallecito y Pinar Claro) con altura de 800, 1200 y 1700 m, respectivamente. Las especies más comunes fueron: el Carpintero (*Melanerpes striatus*), con abundancia de 3.2 aves/Km, el Barrancolí (*Todus angustirrostris*) y la Ciguita Común (*Coereba flaveola*), ambos con abundancia de 2.6 aves/km. Dentro de los migratorios se detectaron sólo cuatro especies; las más abundanes fueron: *Dendroica c. caerulescens* y *Setophaga ruticilla*. En el área se observaron otras aves consideradas muy amenazadas como son: la Cotorra (*Amazona ventralis*), la Cúa (*Hyetornis rufigularis*), la Ciguita Aliblanca (*Xenoligea montana*) y la Paloma Ceniza (*Columba inornata*), entre otras.

We present the results of avifaunal studies on Loma Nalga de Maco, Elías Piña Province, in the Cordillera Central, during March, April, and August 1991. Two zones were selected for the censuses: an agricultural area with riverside forest (Río Limpio, 800 m) and a broadleaf forest (Vallecito, 1200 m and Pinar Claro, 1700 m). The most common species were the Hispaniolan Woodpecker (*Melanerpes striatus*), with an abundance of 3.2 birds/km., the Narrow-billed Tody (*Todus angustirrostris*) and the Bananquit (*Coereba flaveola*), both with an abundance of 2.6 birds/km. Among the migratory birds, only four species were detected, and the most common were *Dendroica caerulescens* and *Setophaga ruticilla*. Birds considered threatened were observed in the area, including the Hispaniolan Parrot (*Amazona ventralis*), Bay-breasted Cuckoo (*Hyetornis rufigularis*), White-winged Warbler (*Xenoligea montana*), and Plain Pigeon (*Columba inornata*).

YOUTH EDUCATING YOUTH
(JOVENES EDUCANDO JOVENES)

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W.E.C.A.N. has been in existence for a little over one year and has approximately 110 members. The group spans a wide cross-section of Jamaican society. Members are from 9 to 24 years old, with an average age of about 15 years. W.E.C.A.N.'s aim is to become a resource center for environmental issues for children. Conservation activities and environmental education are developed for and by youth. Through bird watching, bird banding, constructing and maintaining bird feeders, and employing various other methods, the club has been dedicated to the study and conservation of Jamaican birds.

"W.E.C.A.N." ha estado funcionando por poco más de un año y cuenta con aproximadamente 110 miembros. El grupo abarca una amplia sección de la sociedad jamaiquina. Los miembros tienen de 9 a 24 años de edad con un promedio de 15. La meta de "W.E.C.A.N." es convertirse en un centro de recursos de asuntos ambientales para niños. Las actividades conservacionistas y la educación ambiental son por y para jóvenes. A través de la observación de aves, anillaje, construcción y mantenimiento de comederos y del empléo de varios otros métodos, el club ha estado dedicado al estudio y la conservación de las aves de Jamaica.

POPULATION DECLINE OF THE PUERTO RICAN BROAD-WINGED HAWK AND SHARP-SHINNED HAWK
(MERMA POBLACIONAL DEL GUARAGUAO DE BOSQUE Y DEL FALCON DE SIERRA)

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From August 1991 to May 1992, I conducted a status survey of the Broad-winged Hawk (*Buteo platypterus*) and Sharp-shinned Hawk (*Accipiter striatus*) in Puerto Rico. Broad-winged Hawks occur in montane habitat of Río Abajo, Carite, and Luquillo Forest. Sharp-shinned Hawks are restricted to montane habitats in Maricao, Toro Negro, Guilarte, Luquillo, and Carite Forests. There are approximately 150 Sharp-shinned Hawks and 130 Broad-winged Hawks island-wide. The Sharp-shinned Hawk has experienced a 40% population decline in a period of 7 years (from 250 individuals in 1985 to 150 in 1992). Locally, the Carite population experienced a 60% decline and the Luquillo population a 93% decline. There are approximately 50 Broad-winged Hawks in Río Abajo and Carite Forest and 22 in Luquillo. Broad-winged Hawks have experienced a local population decline of approximately 50% in Luquillo Forest (from 50 individuals in 1984 to 22 in 1992). Current threats to this species and its habitats are serious obstacles to its continued survival. Broad-winged Hawk threats are: furtive hunting, highway development through prime Broad-winged Hawk habitat in Río Abajo Forest, and lack of comprehensive management plans for all Commonwealth Forests.

Desde agosto de 1981 hasta mayo de 1992 llevé a cabo un censo de Guaragao de Bosque (*Buteo platypterus*) y Falcón de Sierra (*Accipiter striatus*) en Puerto Rico. Los Guaragao de Bosque habitan en las montañas de los bosques de Río Abajo, Carite y Luquillo. Los Falcónes de Sierra están restringidos a las montañas de los bosques de Maricao, Toro Negro, Guilarte, Luquillo y Carite. Hay en la actualidad 150 Falcónes de Sierra y 130 Guaragao de Bosque en toda la isla. El Falcón de Sierra ha sufrido un declive del 40% en un período de 7 años (de 150 individuos en 1985 a 100 en 1992). Localmente, la población de Carite experimentó una merma del 60% y la población de Luquillo una de 93%. Hay aproximadamente 50 Guaragaos de Bosque en los bosques de Río Abajo y Carite y 22 en el de Luquillo. El Guaragao de Bosque ha experimentado un declive poblacional de aproximadamente el 50% (de 50 en 1984 a 22 en 1992). Las amenazas actuales a estas especies son serios obstáculos para su supervivencia. Las amenazas del Guaragao de Bosque son: cacería furtiva, desarrollo de carreteras en el hábitat óptimo de esta especie en el bosque de Río Abajo y la falta de un plan de manejo abarcador para todos los bosques administrados por el Gobierno de Puerto Rico.

FIRST RELEASE OF PUERTO RICAN PLAIN PIGEON *COLUMBA INORNATA WETMOREI*
(PRIMERA LIBERACION DE PALOMAS SABANERAS CRIADAS EN CAUTIVERIO)

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The first ten captive-bred Puerto Rican Plain Pigeons will be released in September 1992 in an effort to re-introduce this species to a new location in Puerto Rico. The release site is the Smith–Kline Beecham Pharmaceutical facility in Cidra, central Puerto Rico. Birds to be released were reared, in part, on natural foods. Natural food supplied consisted of: *Miconia* sp., *Solanum eriantum*, *Cordia sulcata*, *Guapira fragans*, *Cestrum diurnum*, *Cecropia peltata*, *Eugenia jambos*, *Roystonea borinquena*, and others. Commercial pellets were also provided as a food supplement. Dummy radio-transmitters (11 grams) were placed on birds. This is to examine if changes in behavior occur with the transmitters.

Las primeras diéz Palomas Sabaneras criadas en cautiverio serán liberadas en septiembre, 1992, en un esfuerzo por reintroducir esta especie a una nueva localidad de Puerto

Rico. El sitio de la restauración será las facilidades de la farmacéutica Smith-Kline Beecham en Cidra, en el centro de Puerto Rico. Los pájaros a ser liberados fueron criados en parte con alimento natural. Radiotransmisores falsos (11 gramos) le fueron colocados a las aves para examinar si se producían cambios en el comportamiento por los transmisores una vez colocados. El alimento natural provisto consiste de *Miconia* sp., *Solanum eriantum*, *Cordia sulcata*, *Guapira fragans*, *Cestrum diurnum*, *Cecropia peltata*, *Eugenia jambos*, *Roystonea borinquena* y otros. Comida disponible comercialmente les fué provista como suplemento alimenticio.

BIRD CONSERVATION IN TRINIDAD AND TOBAGO: A MANAGEMENT PERSPECTIVE
(LA CONSERVACION DE LAS AVES EN TRINIDAD Y TOBAGO: UNA PERSPECTIVA DE MANEJO)

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This presentation examines some of the major bird conservation issues of the islands of Trinidad and Tobago. The management options currently being pursued by the Wildlife section, and present constraints to management, are also evaluated. Finally, an assessment is made of the current trends in habitat change observed in these islands, and the effects of these changes on resident and migrant bird populations.

Esta presentación examina algunos de los principales problemas de la conservación en las islas de Trinidad y Tobago. También son evaluadas las opciones de manejo presentandose actualmente por la sección de Vida Silvestre y las actuales dificultades de manejo. Finalmente, se hace una evaluación de las tendencias actuales en torno a los cambios observados en el hábitat de estas islas y las consecuencias que dichos cambios puedan tener sobre las poblaciones de aves residentes y migratorias.

CONSERVATION OF THE RED-TAILED AMAZON (*AMAZONA BRASILIENSIS*) IN SOUTHEASTERN BRAZIL
(CONSERVACION DE LA COTORRA DE COLA ROJA (*AMAZONA BRASILIENSIS*) EN EL SUDESTE DE BRASIL)

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The Red-tailed Amazon, *Amazona brasiliensis*, is considered one of the South American amazons in greatest danger of extinction. It is endemic to eastern Brazil and is now confined to a narrow strip of forest along the states of São Paulo and Paraná, from sea level to 200 m altitude in the estuarine lagoon system. The parrot's habitat is characterized by a mosaic of mangroves, sand-plain vegetation ("Restinga"), coastal plain rain forest, "Caixetal" forest (*Tabebuia* spp. woodland) and coastal montane rain forest (Atlantic rain forest), and is particularly associated with dominance of the "Guanandi" tree, *Calophyllum brasiliensis* (Guttifera). Observed flock sizes have ranged from 2 to 100 birds. They feed on fruits, seeds, leaves, and flowers (59 plant species). The nests are predominantly in flood-plains. We studied 36 nests in 9 species of trees. Mean nest entrance height was 6.20 m., internal diameters ranged from 0.17-0.42 m. Nesting occurs in October and November, with 2 to 4 eggs laid; incubation lasts 28 days. Scherer Neto (1989) estimated a population of no more than 4,000 birds. Illegal collection for the pet trade, habitat destruction, and hunting for human consumption has reduced this estimate in 1991-1992 to ≤ 2,000 in the wild. Our recommendations include the continuation of research in the field, an end to illegal trafficking, re-introduction to the wild of parrots apprehended in the illegal trade, conservation education, and effective protection of the habitat.

La Cotorra de Cola Roja, *Amazona brasiliensis*, está considerada como una de las cotorras en mayor peligro de extinción en Sur America. Es endémica de la región este del Brasil y ahora está confinada a una franja angosta de bosque en los estados de São Paulo y Paraná, del nivel del mar hasta los 200 m. de altitud, en el sistema de laguna estuarino. El hábitat de la cotorra está caracterizado por un mosaico de mangles, vegetación de llanos arenosos ("Restinga"), bosque pluvial del llano costero, bosque "Caixetal" (bosque de *Tababuia* spp.) y bosque pluvial montano costero (Bosque Pluvial Atlántico) y asociada particularmente con dominancia al árbol "Guanandi" *Calophyllum brasiliensis* (Guttifera). El tamaño de la bandada es de 2 a 100 individuos. Se alimentan de frutas, semillas, y flores, (59 especies). Los nidos estan localizados primordialmente en llanos inundables. Estudiamos un total de 36 nidos encontrados en 9 especies de árboles con entrada al nido a una altura promedio de 6.20 m., diámetros internos de 0.17 m. a 0.42 m. Los nidos son puestos de octubre a noviembre, con 2 a 4 huevos; con una incubación de 28 días. Scherer Neto (1989) estimo la población en no más de 4000. La recolección ilegal para el mercado de mascotas, la destrucción del hábitat y la cacería ilegal para consumo humano há reducido este estimado en 1991/1992 en 2000, o menos, individuos silvestres. Nuestras recomendaciones incluyen la continuación de la investigación de campo, un alto al tráfico ilegal, reintroducción al habitat natural de las cotorras confiscadas en el tráfico ilegal, educación sobre conservación y una protección efectiva del hábitat.

CONDUCTAS REPRODUCTIVAS Y DESARROLLO MORFOLOGICO EN CAUTIVERIO DE LA COTORRA DE LA HISPANIOLA (*AMAZONA VENTRALIS*)

(REPRODUCTIVE BEHAVIOR AND MORPHOLOGIC DEVELOPMENT ON CAPTIVE HISPANIOLAN PARROTS *AMAZONA VENTRALIS*)

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Se presentan datos sobre el desarrollo morfológico de *Amazona ventralis* durante las primeras siete semanas de vida. Los datos incluyen aumento de peso, aparición y desarrollo de las plumas primarias y caudales, apertura de los ojos y caída del diente embrionario. Se describen, además, conductas reproductivas tales como cortejo, cópula, incubación y alimentación de los polluelos.

Morphological development data on *Amazona ventralis* during the first seven weeks of life are presented. These data include weight gain, growth and development of tail and primary feathers, opening of the eyes, and loss of the eggtooth. Reproductive behavior is described, including courtship, copulation, incubation, and feeding of chicks.

IMPROVED CAPTURE TECHNIQUES FOR PSITTACINES

(TECNICAS MEJORADAS DE CAPTURA DE PSITACIDOS)

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I created and evaluated several techniques for efficient and safe capture of psittacines in Puerto Rico. Elevated mist nets reduced ($P = 0.09$) capture rates of incidental birds and may have increased capture rates of parakeets (0.06-0.52 captures/net-hr). Playing recordings of parakeet vocalizations enabled me to reduce the number of nets from 12 to 6, which reduced the number of incidental birds captured ($P = 0.0002$) and may have increased the capture of parakeets. Compared to other methods, elevated mist nets (7.3 m high), operated with recordings of parrot foraging calls and live decoys nearby, increased ($P = 0.05$) capture rates for *Amazona* sp. When the parrots were in position, they were frightened into the nets that encircled the tree. This method was only effective in the morning. I captured 46 *Aratinga* sp. in 91 net-hr and 8 *Amazona* sp. in 505 net-hr with these methods. I will also present methods to safely remove parrots from mist nets.

Creé y evalué varias técnicas para la captura de Psitacidos de forma segura y eficiente en Puerto Rico. Redes ornitológicas elevadas redujeron ($P = 0.09$) la captura de aves incidentales y pudo haber incrementado la captura de perícos (0.06-0.52 capturas/red-hora). La repruducción grabada de vocalizaciones de perícos me permitió reducir el número de redes de 12 a 6, lo cual redujo el número de aves incidentales capturadas ($P = 0.0002$) y pudo haber aumentado la captura de perícos. Comparado con otros métodos, las redes ornitológicas elevadas (7.3 m) operadas con grabaciones del llamado de cotorras alimentándose y señuelos vivos en la proximidad, aumento ($P = 0.05$) la captura de *Amazona* sp. Cuando las cotorras se encontraban en posición, se les espantaba hacia las redes que circulaban un árbol. Este método solo fué efectivo en la mañana. Capturé 46 *Aratinga* sp. en 91 redes/horas y 8 *Amazona* sp. en 505 redes/horas con este método. Tambien expongo métodos para remover con seguridad las cotorras de las redes.

COMMUNITY INVOLVEMENT IN THE CONSERVATION OF THE RED-TAILED AMAZON IN SOUTHEASTERN BRAZIL

(PARICIPACION COMUNAL EN LA CONSERVACION DE COTORRAS COLIROJAS EN EL SURESTE DE BRAZIL)

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The Red-tailed Amazon (*Amazona brasiliensis*) is endemic to the local coastal rain forest of southeastern Brazil. The habitat of this Amazon is diminishing as a result of large-scale deforestation. In addition, with only limited populations remaining, their numbers are decreasing because of local people collecting nestlings for the pet trade. As a part of the *Amazona brasiliensis* project, the Community Education Program was initiated in the Cananéia estuarine region in 1991. It is important to have the human population living within the range of the endangered species help the animal. The major aim of this environmental education proposal is to encourage the government and the local people (residents) and tourists to develop conservation activities related to this amazon species. First, 420 persons (from every community) answered a questionnaire and a survey about knowledge, feeling, and behavior related to this bird and its habitat. The results showed that less than 5% of the respondents knew the Red-tailed Amazon to be an endemic bird, and less than 10% knew its endangered status and reasons for its decline. Through slide shows in schools and churches, school programs, forest reserve visits, posters, and lectures, local people have been exposed to the amazon and its current status. Educational material is being prepared. Only after the next breeding season will it be possible to evaluate if local attitudes are changing in relation to this amazon.

La Cotorra Coliroja es endémica del bosque pluvial costanero del sureste del Brasil. El hábitat de esta cotorra está disminuyendo como resultado de la deforestación. Además, quedando solo una población limitada, sus números siguen

disminuyendo debido a la cacería furtiva dirigida al mercado de mascotas. Como parte del proyecto *Amazona brasiliensis*, el Programa de Educación Comunitaria fue empezado en 1991 en la región estuarina de Cananéia. Es muy importante que la poplaciόm humana que comparte el área vital con una especie animal, pueda ayudar a la misma, especialmente si ésta está amenazada. La principal meta de este programa es estimular al gobierno y a los lugareños a participar en actividades conservacionistas relacionadas a esta cotorra. Se les pidió a 420 personas de toda la comunidad llenar un cuestionario relacionado a su conocimiento y opinión en cuanto a ésta ave y su hábitat. Los resultados mostraron que menos del 5% sabían que la Cotorra Coliroja era endémica, y menos del 10% sabían que estaba amenazada ni cuáles eran las razones para su disminución. A través de diapositivas en escuelas e iglesias, programas escolares, visitas al bosque, cartelones y conferencias, la cotorra y su estado actual se está exponiendo al público. Material educacional adicional se está preparando. Solo luego de la próxima temporada de anidaje sera posible evaluar el cambio de actitudes hacia esta cotorra en la comunidad.

PROMOTING PROTECTION THROUGH PRIDE
(PROMOVIENDO LA PROTECCION A TRAVES DEL ORGULLO)

MONIQUE CLARKE
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After intensive scientific research on the Bahama Parrot (*Amazona leucocephala bahamensis*), it was agreed that a comprehensive education program was needed in order to sensitize the Bahamian people to the plight of this bird. RARE's innovative education program was introduced to the relevant agencies by Paul Butler. The Bahama Parrot Conservation Committee was formed. This committee is composed of representatives from the Department of Agriculture, The Bahamas National Trust, The Department of Lands and Surveys, Friends of the Abaco Parrot, and Friends of the Environment; all working together to implement the Bahama Parrot Project. I will highlight some of the conservation efforts in the Bahamas to save our indigenous Bahama Parrot from possible extinction.

Luego de intensiva investigación científica en la Cotorra de Bahamas (*Amazona leucocephala bahamensis*), se acordó de que un programa de educación intensiva era necesario para poder sensibilizar al público de las Bahamas de la situación de esta ave. El programa educacional innovador de RARE fué presentado a las agencias pertinentes por el Sr. Paul Butler. El Comité de Conservación de la Cotorra de Bahamas fué creado. El mismo comprende representantes del Departamento de Agricultura, el Fideicomiso Nacional de las Bahamas, el Departamento de Tierras, Amigos de la Cotorra de Abaco y Amigos del Ambiente; todos trabajando juntos para implementar el proyecto Cotorra de las Bahamas. Voy a resaltar algunos de los esfuerzos de conservación en las islas para librar de una posible extinción la nativa Cotorra de Bahamas.

AN INTRODUCTION TO AVIAN MEDICINE AND EMERGENCY CARE WITH EMPHASIS ON THE GENUS *AMAZONA*
(INTRODUCCION A LA MEDICINA AVICOLA Y CUIDADO EN EMERGENCIAS CON ENFASIS EN EL GENERO *AMAZONA*)

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There are more than 10 threatened species and subspecies of amazon parrots within the Caribbean Basin. Most of them had their numbers reduced because of habitat loss. Puerto Rico is one of the few islands in the Antilles to have a captive propagation project. This presentation will focus on psittacine preventive medicine, captive management, infectious diseases, and emergencies during breeding and non-breeding season.

Hay más de 10 especies y subespecies de cotorras amazonas amenazadas a lo largo de la Cuenca del Caribe. La mayoría de ellas han reducido sus números a trevez de los años debido a la deforestación y a la pérdida del hábitat. Puerto Rico es una de las pocas islas del Caribe que lleva a cabo un proyecto de propagación en cautiverio. Esta presentación estará enfocada en la medicina preventiva de Psitácidos, manejo en cautiverio, enfermedades infecciosas y emergencias durante todas las épocas del año.

ESTADO DE LAS POBLACIONES CUBANAS DE COTORRA (*AMAZONA LEUCOCEPHALA*) Y CRIA EN CAUTIVERIO
(STATUS OF THE CUBAN PARROT (*AMAZONA LEUCOCEPHALA*) POPULATION AND CAPTIVE BREEDING)

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Las poblaciónes de Cotorra (*Amazona leucocephala*) en Cuba estan restringidas a las áreas boscosas y más protegidas. Poséen un amplio espectro alimentario al consumir flores, frutos y semillas de al menos treinta especies de plantas. Su período reproductivo es de febrero a junio, poniendo un promedio de 2.9 huevos/nido y logran 1.86 pichones/nido en las poblaciones estudiadas. Se detectaron doce tipos de vocalizaciones asociadas a diferentes conductas. El estado de sus poblaciones puede clasificarse como Vulnerable. En condiciones de cautiverio se logró la cría de dos pichones, los

cuales abandonaron el nido a los 53 y 55 días.

The populations of the Cuban Parrot (*Amazona leucocephala*) in Cuba are restricted to the forested, most protected areas. They have a wide range of foods, foraging on flowers, fruits, and seeds of at least 30 plant species. Their breeding season is from February to June. Pairs lay an average of 2.9 eggs per nest and hatch 1.86 chicks per nest. We detected 12 vocalization types associated with different behaviors. The status of the populations may be classified as Vulnerable. Two chicks were raised in captivity, one of which left the nest at 53 days, whereas the other left at 55 days of age.

RESULTADOS PRELIMINARES DEL PROYECTO NACIONAL PARA LA CONSERVACION DE LA COTORRA CUBANA (*AMAZONA LEUCOCEPHALA LEUCOCEPHALA*)

(PRELIMINARY RESULTS OF THE NATIONAL PROJECT FOR THE CUBAN PARROT *AMAZONA LEUCOCEPHALA LEUCOCEPHALA*)

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En el presente trabajo se exponen los primeros resultados del Proyecto Nacional para la Conservación de la Cotorra Cubana (*Amazona leucocephala leucocephala*) que comenzó a desarrollarse en 1988 y que abarca el estudio en 11 localidades del país, manejo y cría en cautiverio de la misma. Se presentan en detalle el resultado del trabajo entre 1988 y 1991 en el refugio de fauna Los Indios, en la Isla de la Juventud, que es un área formada por sabanas arenosas con palmas barrigonas (*Capothrinax wrighti*), único sustrato que utiliza la cotorra para anidar en esta localidad.Se detallan las investigaciones para el manejo, así como los métodos que han permitido el incremento de la población nidificante en Los Indios, de menos de 100 nidos en 1979 hasta 437 en 1991.Se exponen ademas los datos preliminares relativos a abundancia y datos reproductivos de las localidades de Mil Cumbres, Cayo Potreros, Hato Milián y Loma de Cunaga. Por último, se presentan datos relativos a la cría en cautiverio de 12 pichones y el diseño elaborado para el establecimiento de criaderos artificiales.

This work presents the first results of the National Project for the Conservation of the Cuban Parrot (*Amazona leucocephala leucocephala*), which began in 1988. Eleven localities throughout the country were involved in management and captive breeding of the parrot. Detailed results of work conducted from 1988 to 1991 in Los Indios wildlife refuge, Isla de la Juventud (a sandy savannah area with Bellied Palms, *Capothrinax wrighti*, the only nesting substrate the parrot used in this locality) are presented. Management research is presented, as well as methodology that has allowed an increase in the nesting population from 100 nests in 1979 to 437 nests in 1991. Preliminary data are presented regarding relative abundance and breeding biology in Mil Cumbres, Cayo Potreros, Hato Milián, and Loma de Cunaga. Finally, data on the captive breeding of 12 chicks are presented, and the design developed for the establishment of aviaries.

BANANAQUIT VOCAL BEHAVIOR IN A HIGH DENSITY POPULATION

(COMPORTAMIENTO VOCAL DE LA REINITA COMUN EN UNA POBLACION DE ALTA DENSIDAD)

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A Puerto Rican population of Bananaquits (*Coereba flaveola*) with a high population density, small permanent territories, and numerous intraspecific interactions showed many of the song attributes predicted for species with such ecological traits. These song attributes include: high singing rates, large song repertoires, predominance of rare song types, and sequence of song types presented with a pattern approaching immediate variety. Different song types were produced primarily by the addition or deletion of notes at the end of a song, whereas the introductory notes were less variable. Males differed from each other in note usage and song types, but produced similar levels of song variation. Most note types, but few song types, were shared by neighbors. But, contrary to predictions, no consistent relationship was found between singing continuity and song versatility.

Una población de Reinitas Comunes en Puerto Rico (*Coereba flaveola*), con una alta densidad poblacional, pequeños territorios permanentes y numerosas interacciones intraespecíficas mostró muchos de los atributos para el canto predictos para especies con tales características. Estos atributos incluyen: razones de canto altas, largos repertorios de cantos, predominancia de tipos de cantos raros y secuencia de tipos de cantos presentados con un patrón de acercamiento de variedad inmediata. Diferentes tipos de cantos fueron producidos primordialmente mediante la cancelación o añadidura de notas al final del canto, en donde las notas de introducción fueron menos variables. Los machos se diferanciaban unos de otros mediante el uso de notas y el tipo de canciones, pero produjeron similares niveles de variación en el canto. La mayoría de los tipos de notas, pero pocos tipos de cantos, fueron compartidos por aves vecinas. Sin embargo, contrario a las predicciones, ninguna relación consistente se encontró entre cantos contínuos y la versatilidad del canto.

CONSERVATION NEEDS FOR THE AMAZON PARROTS OF JAMAICA
(NECESIDADES DE CONSERVACION DE LAS COTORRAS DE JAMAICA)

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Jamaica's two endemic species of amazon parrots, *Amazona agilis*, the Black-billed Parrot, and *A. collaria*, the Yellow-billed Parrot, are increasingly threatened by habitat destruction, hunting, and the pet trade. The Jamaican public (including the police) is largely ignorant of laws protecting wildlife, and parrots are openly offered for sale and kept as pets. Much remains unknown about their numbers, distribution, habitat requirements, behavior and, in particular, their breeding biology. Conservation needs include a comprehensive census and field studies of Jamaican parrots; the establishment of a viable captive population (preferably more than one) for research and educational purposes; and a public awareness program to educate Jamaicans about these beautiful, unique, and threatened birds.

Las dos especies endémicas de cotorras amazonas de Jamaica, *Amazona agilis*, la Cotorra de Pico Negro y *A. collaria*, la Cotorra de Pico Amarillo, estan siendo progresivamente amenazadas por la destrucción de su hábitat, la cacería y el mercado de mascotas. El público de Jamaica (incluyendo la policía) ignora en gran medida las leyes de protección de vida silvestre, y las cotorras son ofrecidas abiertamente para la venta y mantenidas como mascotas. Mucho ignoramos sobre su número, distribución, requisitos de hábitat, comportamiento, y en particular sobre su biología reproductiva. Las necesidades de conservación incluyen un censo abarcador y estudios de campo; el establecimiento de una población cautiva viable (preferiblemente más de una) para propósitos investigativos y educacionales; y un programa de concientización pública para educar a los Jamaiquinos sobre estas aves únicas, hermosas y amenazadas.

REPRODUCTIVE BIOLOGY OF THE BAHAMA PARROT AND IMPLICATIONS FOR ITS CONSERVATION
(BIOLOGIA REPRODUCTIVA DE LA COTORRA DE LAS BAHAMAS E IMPLICACIONES PARA SU CONSERVACION)

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Bahama Parrots (*Amazona leucocephala bahamensis*) nest in limestone-solution cavities beneath the ground, a habitat unique among New World parrots. Current population estimates range from 860 to 1300 parrots. From 1985 to 1988 we located 76 nests in 2 nesting areas on southern Abaco. We evaluated reproductive investment and loss using a fitness components model that corresponds to stages of the reproductive cycle. On average, a pair produced 3.6 eggs, but fledged 0.8 young, a 77% loss on their initial investment. While the losses accrued throughout the cycle, they were higher during the hatching and post-hatching stages. The implementation of a conservation management plan that would reduce total nest and brood failures is needed. The Abaco population is under stress from nest predation by feral cats, development of its habitats, and poaching. Conservation measures need to be implemented now while numbers are sufficiently large to maintain biological viability. The translocation of wild-caught individuals to other Bahamian islands would increase its probability of surviving catastrophes, such as hurricanes.

Las Cotorras de Bahamas (*Amazona leucocephala bahamensis*) anidan en cavidades de piedra caliza bajo tierra, un hábitat único entre las cotorras del Nuevo Mundo. Estimados actuales de la poblaciόm oscilan entre 860 a 1300 cotorras. Entre 1985 y 1988 localizamos 76 nidos en dos áreas de anidaje al sur de Abaco. Evaluamos la inversión y pérdida reproductiva usando un modelo de componentes de aptitud que correspondían a etapas del ciclo reproductivo. En promedio, un par producía 3.6 huevos, pero solo 0.8 pichones sobreviven, una perdida del 77% de la inversión inicial. Aún cuando las pérdidas ocurrían a través de todo el ciclo reprocductivo, eran mayores en la etapa de empollamiento y volanton. La implementación de un plan de manejo de conservación que pueda reducir el fracaso total de nidos y camadas es necesaria. La población de Abaco está bajo presión debido a la depredación causada por gatos ferales, el desarrollo de su habitat, y la caza furtiva. Es necesario implementar medidas de conservación ahora mientras los números sean suficientemente grandes para mentener la viabilidad biológica. La translocación de individuos atrapados en el estado silvestre hacia otras islas de las Bahamas aumentará las probabilidades de sobrevivir a eventuales catástrofes, tales como los huracánes.

CLASIFICACION NUMERICA DE ALGUNAS COMUNIDADES DE AVES DEL ARCHIPIELAGO CUBANO
(NUMERIC CLASSIFICATION OF SOME AVIAN COMMUNITIES IN THE CUBAN ARCHIPELAGO)

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Se discuten los resultados obtenidos de la clasificación numérica de 19 comunidades de aves pertenecientes a igual número de localidades que estan caracterizadas por diferentes tipos de formaciones vegetales y se hayan ubicadas en distintos puntos geográficos del Archipiélago Cubano. Para

este estudio se tomaron en cuenta un total de 162 especies de aves, el índice de similitud utilizado fué el de Sorensen y el método de agrupamiento considerado, el WPGMA. Al analizar las afinidades entre las localidades, mediante el dendrograma obtenido, se pudo conocer que existe una tendencia hacia el agrupamiento de tres gremios independientes; el primer grupo está formado por 9 localidades abarcando todos los tipos de bosque que se tuvieron en cuenta, así como algunos cayos que presentan zonas boscosas de tierra firme. El segundo agrupa a 6 cayos ubicados en las regiones occidental y central del país, donde la vegetación es más bien del tipo xeromorfo, y el tercero incluye 4 zonas antropizadas (dos zonas de cultivo y dos zonas de vegetación costera).

Results of the numerical classification of 19 bird communities belonging to an equal number of localities characterized by different types of vegetation formations and situated in different areas of the Cuban Archipelago, are discussed. We used 162 birds for the study, using the Sorensen similarity index and the WPGMA grouping method. When we analyzed the localities affinity, using the obtained dendrogram, we found a tendency towards grouping in three guilds. The first group is formed by 9 localities comprising all forest types used in the study, and some keys with characteristics similar to mainland forests. The second group comprises 6 keys on the western and central parts of Cuba, where vegetation is primarily xeromorphic. The third group includes 4 human-altered zones (two agricultural and 2 shore zones).

CHANGES IN LOCAL ABUNDANCE AND HABITAT USE BY THE WHITE-CHEEKED PINTAIL IN NEW PROVIDENCE ISLAND, BAHAMAS, 1985-1991

(CAMBIOS EN ABUNDANCIA LOCAL Y USO DEL HABITAT DEL QUIJADA COLORADA EN LA ISLA DE NEW PROVIDENCE, BAHAMAS, DE 1985 A 1991)

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The White-cheeked Pintail (*Anas bahamensis*) is distributed throughout the West Indies, and has experienced population declines on many islands. We have studied a marked populations of pintails on New Providence Island, Bahamas, since 1985. Results of this long-term study have revealed both a decline in local abundance and a change in the use of the islands and cays around New Providence. In addition, anecdotal evidence suggests that pintails may be more mobile than previously believed. This paper reviews the species' historic distribution and abundance, discusses causes of population decline, changes in local area use, potential for inter-island movement, and suggests directions for future research.

El pato Quijada Colorada (*Anas bahamensis*) está distribuido por todas las Antillas y ha experimentado un declive poblacional en varias islas. Estudiamos una población marcada de estas aves en la isla de New Providence, Bahamas, desde 1985. Los resultados de este estudio a largo plazo demuestran tanto una merma en la abundancia local, como un cambio en el uso de las islas y cayos alrededor de New Providence. Ademas, cierta avidencia anecdotal indica que estos patos pueden ser más movibles de lo que se creía anteriormente. Este trabajo revisa la distribución y abundancia actual e histórica, discute las causas de la merma poblacional, cambios en el uso del área local, potencial del movimiento interisleño, y sugiere direcciones para investigaciones futuras.

DATOS SOBRE LA REPRODUCCION DE *MELANERPES S. SUPERCIALIARIS* Y *COLAPTES FERNANDINAE* (AVES: PICIDAE) EN LA CIENAGA DE ZAPATA

(REPRODUCTIVE DATA ON *MELANERPES S. SUPERCIALIARIS* AND *COLAPTES FERNANDINAE* (AVES: PICIDAE) IN THE ZAPATA SWAMP)

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Instituto de Ecología y Sistemática, A.C.C., Ciudad de La Habana, Cuba

El Carpintero Jabao (*Melanerpes s. supercialiaris*) es una subespecie muy común y se encuentra bien distribuida por la mayor isla del Archipiélago Cubano y Cayo Cantiles, mientras que el Carpintero Churroso (*Colaptes fernandinae*) es una especie endémica rara y tiene una distribución más restringida. El objetivo del presente trabajo consiste en aportar algunos datos sobre la biología reproductiva de estas dos aves en la Ciénaga de Zapata, Provincia de Matanzas. Se estudiaron un total de 23 nidos de Carpintero Jabado y 2 de Carpintero Churroso, durante los meses de julio, junio y abril de 1987, 1989 y 1990, respectivamente. Los árboles que más utilizan para nidificar son la Palma Cana (*Saval parviflora*) y la Palma Real (*Roystonea regia*). Ponen de tres a cinco huevos blancos y óvalos; ambos padres participan el el cuidado de los pichones y en la defensa del territorio.

The Cuban Red-bellied Woodpecker (*Melanerpes s. superciliaris*) is common and widespread throughout the main islands of the Cuban Archipelago and Cayo Cantiles, while the Fernandina's Flicker (*Colaptes fernandinae*) is a rare endemic with a more limited distribution. The objective of this work is to shed some light on the breeding biology of these two birds in the Zapata Swamp, Matanzas Province. A total of 23 Cuban Red-bellied Woodpecker nests and 2 Fernandina's Flicker nests were studied during the months of July 1987, June 1989, and April 1990. The most frequently used trees for building nests were Cana Palm (*Saval parviflora*) and Royal Palm (*Roystonea regia*). They lay 3 to 5 white, oval eggs; both parents participate in the breeding and territorial defense.

INTERNATIONAL MIGRATORY BIRD DAY

Saturday, 8 May 1993, will be the first annual International Migratory Bird Day. On the second Saturday in May each year, individuals and organizations throughout the Western Hemisphere will participate in activities dedicated to the conservation of all migratory birds — songbirds, shorebirds, raptors, and waterfowl. International Migratory Bird Day will provide a focal point for the numerous conservation efforts already underway through the Partners in Flight—Aves de las Americas Program, and will inspire others into action. The concern of scientists will be taken to the press, the public, and legislators. Grassroots organizers in North America will join forces with their counterparts in Latin America. Children will encourage adults to "see" a warbler for the very first time.

To obtain a workbook of ideas (U.S.$5.00) or to let others know what you are doing, contact Jamie Doyle, Bird Conservation Specialist, The Smithsonian Migratory Bird Center, National Zoological Park, Washington, D.C. 20008, U.S.A. (telephone: 202-673-4908). For more information on the Partners in Flight — Aves de las Americas Program, contact Peter Stangel, The National Fish and Wildlife Foundation, 1120 Connecticut Avenue, N.W., Washington, D.C. 20036, U.S.A.

ORNITHOLOGY JOURNALS AVAILABLE

Ms. Patricia Bradley, SCO Secretary, has recent issues of several ornithological journals (including *Ibis*, *Auk*, *Colonial Waterbirds*, *American Birds*, *Florida Naturalist*) which she would like to donate to an interested ornithologist, preferably in the West Indies. The recipient would need to provide postage charges. If interested, please contact Jim Wiley or Ms. Bradley:

Government House
Turks and Caicos Islands
B.W.I.
telephone: 809-946-2309
fax: 809-946-2903

NOTICES

Availability of Journal Issues Number 1 and 2

Many Society members have inquired about obtaining back issues of the journal, *Ornitología Caribeña*, to complete their sets. Issues number one and two were produced in limited quantities by the Society of Puerto Rican Ornithology (the precursor to the Society of Caribbean Ornithology). We have located a copy of number two from which we can make photocopies and mail to interested members. If anyone has a copy of issue number one, please send a copy to me and I will make additional copies available to members. A suggested contribution of U.S.$6.00 to the Society is requested to cover copying and mailing costs.

Dr. Rosemarie S. Gnam
23 Mount Vernon Ave.
Alexandria, Virginia 22301, U.S.A.

REMINDER

1993 Membership Dues

Please check your address label to determine if membership dues have been paid for 1993. Members who have paid their 1993 dues will have an "M" on the label. Regular membership remains at U.S.$15.00.

MEETINGS OF INTEREST

26–29 March 1993 – **The Endangered Species Coalition** and associated groups will host "Celebrating the diversity of life: twenty years of the Endangered Species Act," Washington, D.C., U.S.A. (Randy Snodgrass; telephone 202-547-9009).

15-17 April 1993 – **Second conference on Orientation and Navigation—Birds, Humans and Other Animals**, Wadham College, Oxford University, England. (The Royal Institute of Navigation, 1 Kensington Gore, London SW7 2AT, England).

29 April–1 May 1993 – **The Wilson Ornithological Society**, University of Guelph, Guelph, Ontario, Canada. (Alex Middleton, Zoology Department, University of Guelph, Guelph, Ontario N1G 2W1, Canada).

7–9 May 1993 – **Association of Systematic Collections**, Pittsburgh, Pennsylvania, U.S.A. (ASC, 730 11th Street, N.W., Washington, D.C. 20001, U.S.A. Telephone: 202-347-2850, fax: 202-347-0072).

7–12 June 1993 – **The Society for the Preservation of Natural History Collections**, annual meeting, Royal British Columbia Museum, Victoria, British Columbia. (Grant Hughes, Royal British Columbia Museum, 675 Belleville St., Victoria, British Columbia, V8V 1X4, Canada. Telephone: 604-387-5706).

8-13 June 1993 – **The American Ornithologists' Union**, Fairbanks, Alaska, U.S.A. (Edward C. Murphy, Institute of Arctic Biology, University of Alaska, Fairbanks, Alaska 99775-0180, U.S.A.).

24-30 July 1993 – **Animal Behavior Society**, University of California, Davis, California, U.S.A. (Benjamin Hart, De-

partment of Physiology, School of Veterinary Medicine, University of California, Davis, California 95616, U.S.A.).

29 July–6 August 1992 – **The Society of Caribbean Ornithology**, Cienaga de Zapata, Cuba. (Catherine Levy, 2 Starlight Ave., Kingston 6, Jamaica).

15–21 August 1993 – **International Union of Game Biologists XXI Congress**, Halifax, Canada. Theme, "Forest/Wildlife and Biodiversity...Toward the 21st Century." (I.D. Thompson, Forestry Canada, Box 6028, St. John's, Newfoundland, Canada A1C 5X8. Telephone: 709-772-4903, fax: 709-772-2576 [Canada code=1]).

15-21 August 1993 – **Asia–Pacific Symposium on Mangrove Ecosystems**, Hong Kong. (Linda Yam, Conference Secretariat, Research Centre, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong).

21-26 June 1994 – **The American Ornithologists' Union, The Cooper Ornithological Society, and The Wilson Ornithological Society**, joint meeting, University of Montana, Missoula, Montana, U.S.A.

Early July [tentatively] 1994 – **Animal Behavior Society**, University of Washington, Seattle, Washington, U.S.A.

21-27 August 1994 – **XXI International Ornithological Congress**, Vienna, Austria. (Interconvention, A-1450 Vienna, Austria).

THE SOCIETY OF CARIBBEAN ORNITHOLOGY

President: Mrs. Catherine Levy, 2 Starlight Ave., Kingston 6, Jamaica

Vice President: Dr. Joseph Wunderle, Jr., Institute of Tropical Forestry, P.O. Box B, Palmer, Puerto Rico 00721

Secretary: Ms. Patricia F. Bradley, Government House, Turks and Caicos Islands, West Indies FAX: 809-946-2903

Treasurer: Dr. Rosemarie Gnam, 23 Mount Vernon Ave., Alexandria, Virginia 22301, U.S.A.

SOCIETY OFFICERS FOR 1993–1994

Because only one nomination for an officer (re-election) was received, the present Society officers will continue in their respective posts for the next two years.

Contents (continued)

From: Dr. James W. Wiley
2201 Ashland St.
Ruston, Louisiana 71279, U.S.A.

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