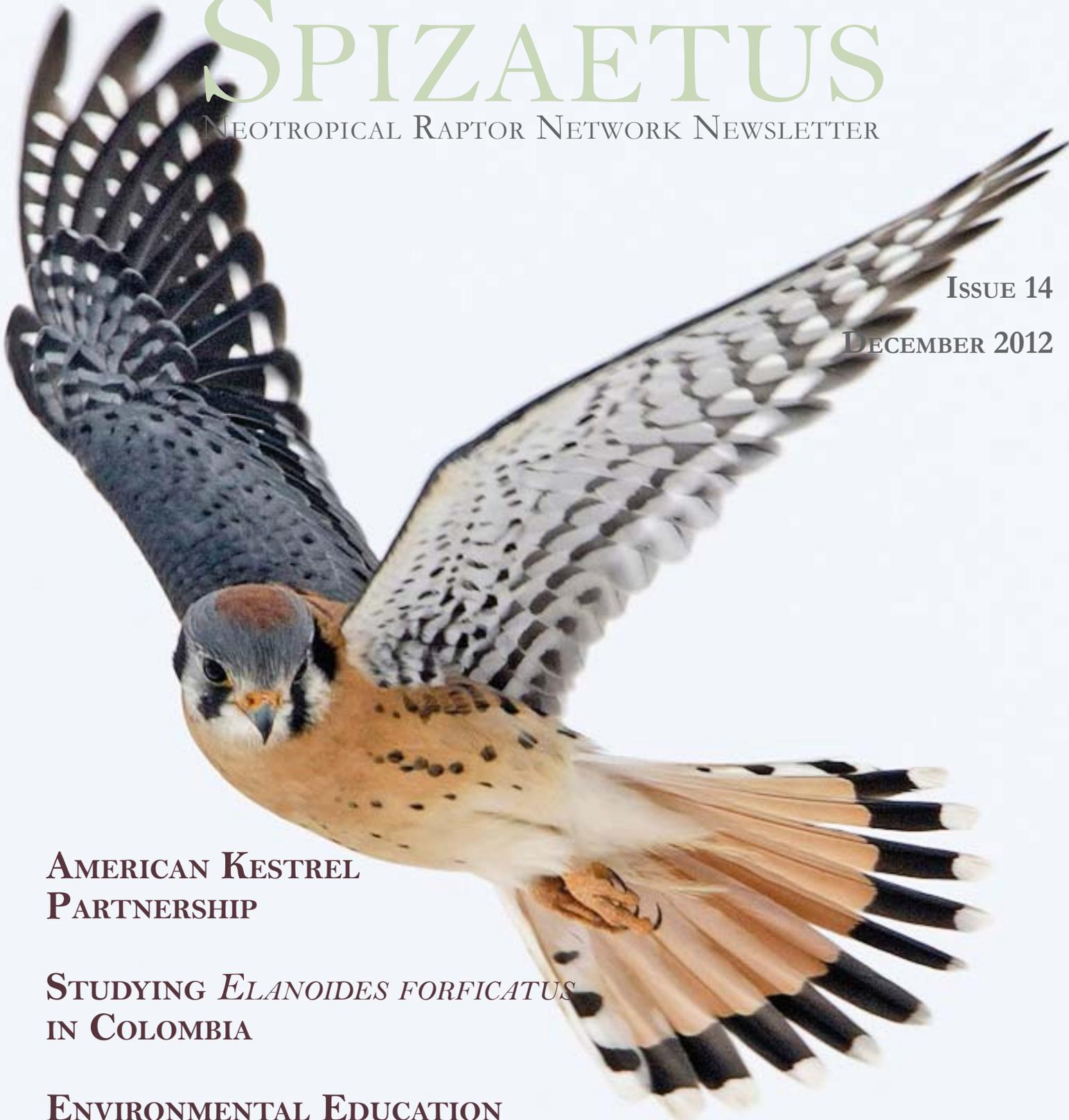


SPIZAETUS

NEOTROPICAL RAPTOR NETWORK NEWSLETTER

ISSUE 14

DECEMBER 2012



**AMERICAN KESTREL
PARTNERSHIP**

**STUDYING *ELANOIDES FORFICATUS*
IN COLOMBIA**

**ENVIRONMENTAL EDUCATION
IN BELIZE**

**FIRST WORLDWIDE RAPTOR CONFERENCE
TO BE HELD IN ARGENTINA**

SPIZAETUS

NRN NEWSLETTER

Issue 14 © December 2012

English Edition, ISSN 2157-8958

Cover Photo: *Falco sparverius* in flight. © Rob Palmer, www.falconphotos.com

Translations: Marta Curti
Graphic Design: Marta Curti

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The NRN is a membership-based organization. Its goal is to aid the research and conservation of Neotropical raptors by promoting communication and collaboration among biologists, raptor enthusiasts, and other conservationists working in the Neotropics. To join please e-mail the NRN coordinator, Marta Curti, at mcurti@peregrinefund.org, stating your interest in Neotropical raptor research and conservation.

ONCE COMMON, NOW OF CONCERN: DEVELOPING LARGE-SCALE RESEARCH AND CONSERVATION INITIATIVES WITH THE PEREGRINE FUND'S AMERICAN KESTREL PARTNERSHIP

By **Allyson Woodard** and **Matt Giovanni**, The Peregrine Fund. e-mail: mgiovanni@peregrinefund.org



A male American Kestrel © Kate Davis

As the Western Hemisphere's only kestrel species, the American Kestrel (*Falco sparverius*) is easily recognizable from Canada to Argentina. Obligated to nesting in cavities, and hunting everywhere from prairies to croplands to city streets, it is widely considered the most common raptor

in North America. Unfortunately, this status appears to be changing. In the New England region of North America, for example, US Geological Survey Breeding Bird Survey data indicate that abundance of breeding kestrels has declined 88% over the past 44 years. Indeed, long-term, sustained declines of breeding kestrel populations have occurred

across much of North America (<http://kestrel.peregrinefund.org/kestrel-decline>), and researchers do not have sufficient data to confidently explain the causes and reverse the trends. How could recently endangered raptor species, like the Bald Eagle (*Haliaeetus leucocephalus*) and Peregrine Falcon (*Falco peregrinus*), now be more common

than the American Kestrel in some regions?

Hypotheses to explain kestrel population declines include diminished availability of nesting habitat because of cultivation of grasslands (e.g., pastures and hayfields) to row crops, loss of snags (dead/dying trees) and nesting cavities, and competition with other cavity nesting obligates, such as the European/Common Starling (*Sturnis vulgaris*) and Northern Flicker (*Colaptes auratus*). Eggs, nestlings, fledglings, and adults may be suffering lethal or physiologically sublethal effects from exposure to environmental toxins, such as rodenticides, lead, and PBDEs.

Finally, mortality of fledglings and adults may be increasing from depredation and habitat displacement by a growing and expanding Cooper's Hawk (*Accipiter cooperi*) population. What's worse, these hypotheses are not exclusive of one another, such that any given kestrel population could be subject to several or all of these processes at once, resulting in relatively rapid population declines and local extirpations.

Count data for kestrels in North American is readily available, thanks to long-term, large-scale, and well-organized monitoring programs like the USGS Breeding Bird Survey, National Audubon

A female American Kestrel © Raymond Barlow





**A nest box in use. The Peregrine Fund, Boise, Idaho, USA.
© The Peregrine Fund**

citizen and professional scientists monitoring thousands of kestrel nestboxes across the Western Hemisphere. The Peregrine Fund recognized this void and in April 2012 launched the American Kestrel Partnership to provide this organizational mechanism and a comprehensive website with resources and tools for nestbox monitoring, networking, and standardizing and managing nestbox monitoring data.

Thus hatched the American Kestrel Partnership; a long-term, large-scale, ambitious project relying on the tremendous data-generating capacity of citizen scientists unified with the data-analysis and research expertise of professional scientists. And the response from kestrel enthusiasts has been remarkable: since only April 2012, the Partnership has grown to > 250 registered partners who have generated > 1500 nestbox observations representing nearly 700 kestrel nestboxes- that's more than 1500 peeks into kestrel

nestboxes in one nesting season!

The majority of current partners and nestboxes are in North America, but the American Kestrel Partnership was designed as a Western Hemispheric project because kestrel populations are

Society's Christmas Bird Count, and the Raptor Population Index (migration counts). Data on nesting parameters (e.g., phenology, occupancy, survival, and productivity), however, is geographically fragmented and localized, with no mechanism to network and organize the hundreds of

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A pair of American Kestrels and their eggs, photographed with nest box camera in Boise, Idaho, USA. © The Peregrine Fund

probably subject to similar ecological processes throughout their expansive range. We are therefore actively recruiting partners in Central and South America, both citizen and professional scientists. Are you interested in contributing to kestrel research and conservation? Do you have an active kestrel research program? Please contact us to get involved and contribute to this historic initiative! For this extraordinary little falcon, every effort and every nestbox counts.

<http://kestrel.peregrinefund.org/>

* * *



SWALLOW-TAILED KITE STUDY (*ELANOIDES FORFICATUS*) IN COLOMBIA

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The Swallow-tailed Kite (*Elanoides forficatus*) is a monotypic species, with two recognized subspecies in the Americas: *E. f. forficatus*, a migrant from North America, and *E. f. yetapa*, a resident found from southern Mexico down through much of South America (Ferguson-Lees y Christie 2001). In Colombia this species is fairly common in rainforest regions up to 2600 m in the upper Dagua, upper Patia, upper and middle Cauca, and upper and middle Magdalena (Hilty & Brown 1986). Recently, it has been documented in the departments of Caquetá (Velásquez-Valencia et al. 2004), Cauca (Ayerbe-Quiñones et al. 2008), Magdalena (Strewe & Navarro 2003, 2004), Chocó (Franco & Bravo 2005), Caldas (Botero et al. 2005), Risaralda, Antioquia, Meta, Nariño, Amazonas, and Orinoco (BirdLife International 2006).

It is categorized as a species of Least Concern by BirdLife International (2012), and recently its numbers have been increasing. However, learning about the interactions that occur between the two subspecies - one of the lesser known and more complex phenomena in their biology (Márquez et al. 2005) - is of great importance for a better understanding of the species overall. Therefore, it is important to identify resident groups of this species, as well as their wintering sites in South America. This will help to fill in important information gaps. Prior to this study, no roost sites had been documented for this kite in Colombia and therefore no information existed about their behavior at these sites. This paper documents the first record of a roosting site for a group of



Elanoides forficatus © Santiago Zuluaga Castañeda



The author atop an observation point overlooking San José del Palmar, Chocó. © Santiago Zuluaga

Swallow-tailed Kites in Colombia and describes some behavioral observations.

Materials and Methods

Observations were made of *Elanoides forficatus* in Colombia, mainly by researchers from the National Network of Colombia Bird Watchers [Red Nacional de Observadores de Aves de Colombia] (RNOACOL). Data collected for each species account included: date, time, location, coordinates, weather, habitat type, and local community members' views about the species, along with other

ecological data. The information was supplemented with data obtained by the author in Antioquia, Caldas, and Chocó. It is important to note that more effort was invested in the area of San José del Palmar, Department of Chocó, where it was possible to observe the species, as well as to conduct interviews to explore the perception of the local human community towards raptors in general, and the Swallow-tailed Kite in particular.

Field observations were conducted during two

months in order to include a migration period (November 2009) and a non-migratory period (July 2011). Using binoculars (10 x 50) and cameras, I conducted systematic observations from high vantage points with wide vistas and along pre-determined transect lines or roads (Márquez & Rau 2003). We used the date of the observations to determine taxonomic level, since during the breeding season (May-July) it is expected that only the subspecies *E. f. yetapa* would be found in South America (Zimmerman 2004).

Field observations were conducted in the municipality of San José del Palmar, Department of Chocó (Colombia), at 1000m altitude, be-

tween latitudes 4 ° 54 '20 "N and 76 ° 16' 21" W. The area has an annual average rainfall exceeding 6000 mm and the landscape is represented by a matrix of pasture, crops, and forest patches. The first set of surveys took place between 07:00-10:00 h and 16:00 to 18:30 h, and the second between 10:00-12:00 h and 13:00 to 16:00 h. I recorded the presence of kites, quantified the groups, and recorded behavioral observations. For four days during each month I covered about 5 km each day over terrain ranging between 800 and 1000 m altitude.

Results and Discussion

Behavioral observations of this species in Colombia were made principally by Hilty & Brown

Palm tree (*Bactris gasipaes*) crop © Santiago Zuluaga Castañeda



(1986) and Márquez et al. (2005) who documented how the species, gregarious by nature, has been observed in pairs, as well as in groups of 10 to 12, or even 30 or more individuals. In the case of groups of 10-12 individuals, they have been seen occasionally flying above the canopy, possibly following a foraging pattern or migrating (Márquez et al. 2005).

For this study, we compiled a total of 310 records from the last 20 years on the Swallow-tailed Kite in Colombia. Most of the records (n = 264) only documented occurrence of the species, while others (n = 56) documented not only its presence, but also included observations on behavior, number of individuals, feeding, inter- and intra-specific interactions, social perceptions of the species, and some threats that may possibly impact their populations.

Review of the collected records for this species, revealed it has been found in new departments including: Bolívar, Boyacá, Cundinamarca, Guainía, Guaviare, Guajira, Norte de Santander, Putumayo, San Andrés, Providencia and Santa Catalina, Tólima and Vichada. These records significantly expand our knowledge of this species' range in Colombia, taking into account the departments in which it had been previously documented (Hilty & Brown 1986; Velásquez-Vallencia et al. 2004; Ayerbe-Quiñones et al. 2008; Strewé & Navarro 2003, 2004; Franco & Bravo

2005; Botero et al. 2005; Márquez et al. 2005; BirdLife International 2006).

In Colombia, observations of this species have been mainly of solitary individuals and groups of two, three and four individuals flying over the forest canopy, pastures, croplands, rivers, and lakes. This is similar to observations made by Hilty & Brown (1986) and Márquez et al. (2005). Additionally, observations made in San Jose del Palmar suggest that this species was also observed in large groups at different times of the day, most often in the afternoon and evening. The number of individuals recorded in these clusters is often 10 or 12 individuals. Less often groups of 20 to 26 individuals can be seen. Only once (July 2011) was a large group of possibly more than 80 individuals observed. This large clustering was possibly related to breeding season activities (Zimmerman 2004; Márquez et al. 2005).

We have observed groups of Swallow-tailed Kites sharing updrafts with Black Vultures (*Coragyps atratus*) and White-collared Swifts (*Streptoprocne zonaris*), though no interaction between these species has been observed. However, we have documented aggression by *Tyrannus* and *Myiozetetes* flycatchers toward the kites, possibly due to agonistic encounters in defense of their nests and/or young. We have also observed intra-specific interactions in which some indi-

viduals flying in a flock along the edges of hills participated in short aerial dog-fights in which the “persecuted” kite apparently slows down, allowing itself to be “caught,” suffering a slight knock on its back by the “aggressor” as a result. This behavior, as well as behavior we observed at roost which revealed that some kites remained vigilant, while others were sleeping, could relate to hierarchical behavior whereby individuals entrench their position and play a specific role in the group.

In the mid-basin of the Palomino River, Sierra Nevada de Santa Marta, this species has been recorded feeding on chicks from nests of *Tyrannus* and *Myiozetetes* flycatchers. They also eat chicks of domestic poultry (FK Florez in lit. 2011). In this same area, individuals have also been observed feeding on flying ants, of which only the abdomen is eaten; the head and thorax are dropped to the ground (LF Caceres in lit. 2008).

Several farmers in the rural area of the municipality of San José del Palmar, Chocó, state that the species feeds on fruits of a palm tree (*Bactris gasipaes*); they mention being able to observe large groups of these kites (during the harvest seasons between the months of January and March, and July and September), composed of hundreds of individuals, that come in to feed at local palm plantations. In Colombia, this fruit-eating behavior had already been reported for this species.

Lemke (1979) documented the species may eat the fruit of the Black Rubber Tree (*Castilla elastica*) in the department of Meta.

The only known roost site for the species in Colombia has been located in the municipality of San José del Palmar, Choco, at 1000 m elevation between latitudes 4 ° 54 '20 “and 76 ° 16' 21” . On this occasion, for a group of 32 kites (November 2009), the roost site was a large tree, known locally as “carra.” The tree measured about 50 m high with 4 m² diameter of foliage. It was located on the slope of a hill, which had some patches of vegetation. The kites used two types of perches for roost: some utilized branches located near the very top of the tree while others used interior branches. Thus, roosts were divided within the tree, showing two preferred sectors. It is interesting to note that the kites do not frequent the roost area during the day. Rather, they leave in the morning, usually flying around the tree for a few hours before departing, then return in the afternoon.

Though, we generally did not uncover any myths or cultural significance surrounding the species, for some human populations, such as the Arhuacos - an indigenous people inhabiting the middle basin of Palomino River in the Sierra Nevada de Santa Marta - the species is considered a threat because it feeds on young domestic poultry (FK Florez in lit. 2011). In the rural municipality of

San José del Palmar, this kite, like the Blue-headed Parrot (*Pionus menstruus*) is considered a pest species in palm tree plantations. Additionally, we learned that some years ago, a local family group of indigenous origin hunted the species, and they were able to kill three or four individuals for consumption.

Apparently, this species does not seem to have been affected by habitat loss, since it is common to observe them in human-altered landscapes and artificial settings such as dams, reservoirs, and lakes. It does not seem that hunting of this species is a threat to their populations in Colombia, because so far the only records of this activity are

from the rural area of San José del Palmar, Chocó, where the species is abundant. Furthermore it is argued that the species is possibly being affected by chemicals such as glyphosate, used to control weeds in palm tree plantations. This assumption emerges from interviews with local community members and testimonies from farmers, who stated that individuals of the species *E. forficatus* were occasionally found dead at times which coincided with periods of fumigation. Numbers for this species have also decreased in that area in recent years.

Márquez et al. (2005) argues that “most individuals of this species observed in Colombia are pre-

Harvested fruits from *Bactris gasipaes* Palm Trees © Santiago Zuluaga Castañeda



sumably partial migrants of the subspecies *E. f. forficatus*". However, this should be reconsidered since many of the observations documented in this paper were made of a population of the subspecies *E. f. yetapa*, a resident in the municipality of San José del Palmar, Chocó (Zuluaga pers. obs.).

Finally a study conducted with satellite telemetry by Zimmerman (2004) for the subspecies *E. f. forficatus* shows the Andes in Colombia as one of the major constriction points along their entire flyway. This suggests a need to give high priority to studies that allow for conservation planning and that generate management actions, based on better knowledge of this species' behavior at roosting sites and their diet. With this in mind, it can be argued that the town of San José del Palmar, in the department of Chocó, is one of the most important places in which to carry out studies that will help us understand these still unknown aspects about the biology of this species, which will have important implications for their conservation in the future.

Acknowledgements

Thanks to the local community, especially the Pineda family of the La Alcancía Farm, the Zuluaga family of La Divisa Farm, and Mr. Jorge Norvei Arenas; to SERRANIAGUA Corporation for their kindness and collaboration, especially their director Cesar A. Franco; to environmental advo-

cates Milton O. Pineda, Johnnier A. Arango and Zeneyda López; to Mateo Barco and Diego Soler Tovar for their support during certain phases of the work; to Marta Curti for her help and comments on this manuscript; and especially to Lloyd Kiff for his comments and contributions to this article.

References

- Ayerbe-Q., F., López-O., J. P., González-R., M. F., Estela., F. A., Ramírez-B., M. B. Sandoval-Sierra., J. V. & L.G. Gómez-B. 2008. Aves del departamento del Cauca – Colombia. *Biota Colombiana* 9:77–132.
- BirdLife International. 2006. Fichas de especies para migratorias neotropicales en las IBAs: *Elanoides forficatus*. Downloaded from <http://www.birdlife.org> on 23/6/2010
- BirdLife International. 2012. Species factsheet: *Elanoides forficatus*. Downloaded from <http://www.birdlife.org> on 03/12/2012
- Botero, J. E., Lentijo, G. M., López, A. M., Castellanos, O., Aristizábal, C., Franco, N. & D. Arbeláez. 2005. Adiciones a la lista de aves del municipio de Manizales. *Boletín SAO* 15(2):69-88.
- Ferguson-Lees, J. and D. Christie. 2001. *Raptors of the world*. Houghton Mifflin, Boston, USA
- Franco, A. M., & G. Bravo. 2005. Áreas Impor-

- tantes para la Conservación de las Aves en Colombia. Pp. 117-182 en BirdLife International & Conservation International. Áreas Importantes para la Conservación de las Aves en los Andes Tropicales: sitios prioritarios para la conservación de la biodiversidad. BirdLife International (Serie de Conservación de BirdLife No. 14), Quito, Ecuador.
- Hilty S. L., & W. L. Brown 1986. A Guide to the Birds of Colombia. Princeton University Press. Princeton, New Jersey, USA.
- Lemke, T.A. 1979. Fruit-eating behavior of Swallow-tailed Kites (*Elanoides forficatus*) in Colombia. Condor 81:207-208.
- Márquez, C., Bechard, M., Gast, F. & V.H. Vane-gas. 2005. Aves rapaces diurnas de Colombia. Instituto de Investigación de Recursos Biológicos “Alexander von Humboldt”. Bogotá, Colombia.
- Márquez, C. & J. Rau. 2003. Técnicas de detección, observación y censo de aves rapaces diurnas en Costa Rica. Gestión Ambiental 9: 67-77.
- Meyer, K. D. 1995. Swallow-tailed Kite (*Elanoides forficatus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America. <http://bna.birds.cornell.edu/bna/species/138doi:10.2173/bna.138>
- Strewe, R. & C. Navarro. 2003. New distributional records and conservation importance of the San Salvador valley, Sierra Nevada de Santa Marta, northern Colombia. Ornitología Colombiana. 1:29-41.
- Strewe, R. & C. Navarro. 2004. New and noteworthy records of birds from the Sierra Nevada de Santa Marta region, north-eastern Colombia, Bull. B.O.C. 124:38-51.
- Velásquez-Valencia, A., Ricaurte, L.F., Lara, F., Cruz, E.J. Tenorio, G.A. & M. Correa. 2004. Lista anotada de las aves de los humedales de la parte alta del Departamento de Caquetá. VI Congreso Internacional sobre Manejo de Fauna Silvestre en la Amazonia y Latinoamérica, Iquitos, Perú.
- Zimmerman, G.M. 2004. Studies of the annual cycle of the swallow-tailed kite (*Elanoides forficatus*): migration, habitat use, and parasites. Georgia Southern University.

* * *

RAPTOR EDUCATION TAKES OFF IN TOLEDO DISTRICT OF BELIZE

By **Celeshia Guy**, Education Officer, The Belize Zoo & Tropical Education Center.
e-mail:education@belizezoo.org

Move over, Big Bird! There's a new guy in town. Larger than life-sized Harpy Eagle mascot, "Hope" made his debut appearance at a community school in the Toledo District, Belize. This was the result of a partnership between The Belize Zoo (TBZ) and the Belize Foundation for Research and Environmental Education (BFREE), to continue their vital Harpy Eagle education campaign. This campaign targets the communities in the buffer zone of the Bladen Nature Reserve, which is probably the last stronghold for Harpy Eagles in northern Central America.

The largest and most powerful raptor in the Americas was thought to be locally extinct in Belize, with the last official sighting in the year 2000. This prompted TBZ to collaborate with The Peregrine Fund in Panama, to see the release of 15 captive bred eagles into our Belizean forests, from 2003-2009, through the Belize Harpy Eagle Restoration Program (BHERP). After the raptor releases stopped, TBZ still continued its education component, to help ensure these magnificent birds had a fighting chance.

Then, in 2005, Harpies were rediscovered in the

Bladen, proving that they weren't locally extinct, just restricted to isolated forest areas, out of sight of people. From there, Harpy Eagle conservation just kept building momentum, with the establishment of BFREE'S Harpy Eagle monitoring program, and stronger outreach education.

This campaign brought BFREE's Bird Program Coordinator, William Garcia, and TBZ's Environmental

Hope the "Harpy Eagle" poses with students © The Belize





Students greeting Hope in Toledo District © The Belize Zoo

Cinematographers Carol and Richard Foster were there to catch the wonder on film and photo, as jaws dropped and faces lit up when Mr. William cued Hope's entrance, and the 6 foot harpy eagle mascot shuffled into the room, showed off a harpy's massive wingspan, and practiced pouncing like a real raptor! Hope gave out posters and colouring books, and shook wings with the clever students who got

Educator, Jamal Andrewin, to the villages of San Isidro and Trio in Toledo, to wrap up yet another series of Harpy talks BFREE had been doing this year. After starting off with what raptors are, and why they are so cool, Mr. Jamal touched on their importance in population balance, pest and disease control, and tourism. He then switched to the "poster child" of the campaign, the Harpy Eagle, with a little harpy history, before handing the show over to Mr. William, and running out the door, promising to return with a very special guest. Mr. William stressed that harpies only hunt arboreal animals, are no threat to communities, and that the community should be proud to have such amazing neighbors in their "backyard," the Bladen.

the Q & A session right. Named "Hope" for the last Harpy that was released through BHERP, the mascot is the latest dynamic education tool devised by TBZ, with the idea that the message of harpy conservation has a greater impact coming from a real life "harpy." A huge thank you goes out to BFREE, San Isidro and Trio communities for being the first ones to test and prove this concept.

* * *

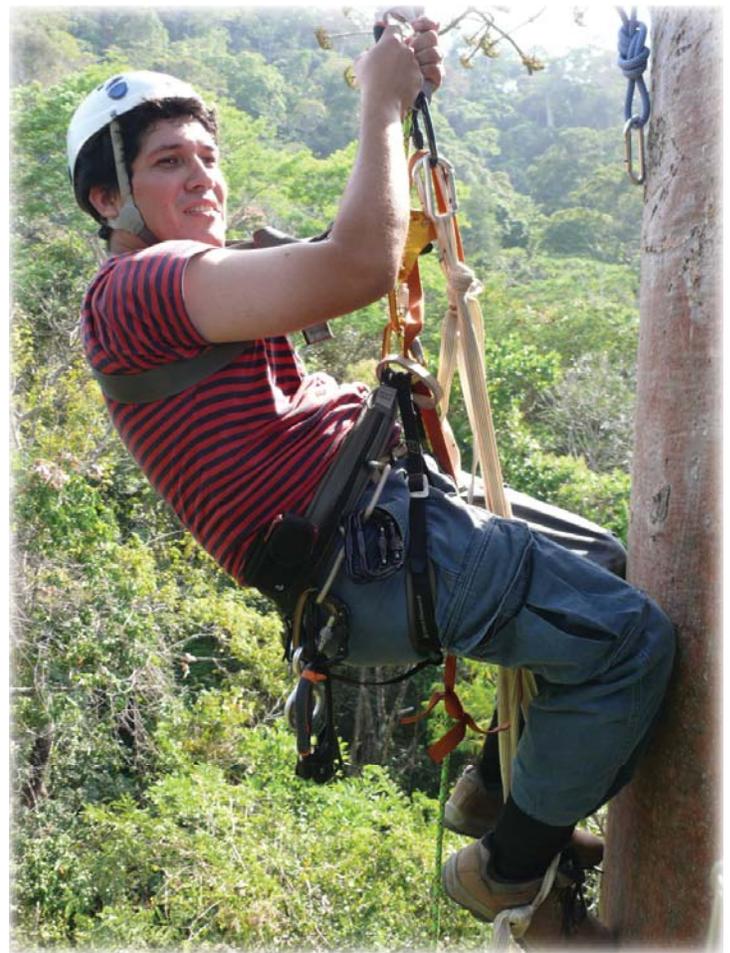
CONVERSATIONS FROM THE FIELD

By Markus Jais

— Markus Jais has been interested in nature since he was a kid. His main interests are the ecology and conservation of predators like big cats, wolves and large birds of prey, particularly eagles. He runs the www.europeanraptors.org website and is a contributor to www.africanraptors.org. He recently interviewed Harpy Eagle Biologist Jose Vargas, for the NRN. Here is an excerpt from that interview. —

Markus Jais: *What is the current situation of the Harpy Eagle in Panama and how has the population developed over the last decades?*

Jose Vargas: In Panama, the Harpy Eagle (*Harpia harpyja*) is considered an endangered species, mainly because of the threats affecting the population (forest loss and poaching). Before 2000 there were only a few confirmed reports of Harpy Eagle pairs in Panama and it was believed that their population was very small. After we began our research in October 2000, new nests were found each year in the Pacific region of the province of Darien. We currently have 45 confirmed nests from probably 33 pairs of Harpy Eagles. Most of these nests are located outside protected areas or forest reserves, so habitat protection is not legally guaranteed. Furthermore, our study area is within the region that has the most human impact on forest cover, resulting in loss of habitat used by Harpy Eagles for nesting, hunting and as



José de J. Vargas Gonzalez climbing a cuipo tree (*Cavanillesia platanifolia*) in the province of Darien.
© Kike Arnal, National Geographic.

shelter. As the agricultural frontier advances, refuges for local wildlife (including prey species) are lost, and they thus become easy prey for human hunters. Based on the information provided above,

and the results of our research on their reproductive activity, we can determine that the status of this population of Harpy Eagles – the largest known population in Panama and Central America - may be at risk. We have estimated that over 50% of pairs with nests located in areas disturbed by humans have not engaged in reproductive activity in recent years, or have established other areas to breed (alternate nests that are located in forested areas). For these reasons the current population of Harpy Eagles in Panama is at risk due to the loss and / or conversion of forest cover in the short and medium term. The Harpy Eagle is a conservation dependent species (as other researchers have expressed).



José de J. Vargas Gonzalez measuring the beak of an adult female Harpy Eagle in Darien, Panama. © Darisnel Carpio, The Peregrine Fund

MJ: *How could an ecosystem like a rainforest in Panama change if Harpy Eagles were absent?*

JV: It's a difficult question to answer because no comparative studies have been conducted in this regard. However, the theory predicts that if predators go extinct in an ecosystem, a series of negative chain effects will occur, which will affect the environment as a whole. It starts with uncontrolled growth of prey species' populations, turning them into pests and increasing the spread of disease,

and concludes with the irreversible damage to vegetation. The same could be predicted for the rain-forest of Panama with the extinction of Harpy Eagles. This would upset the delicate balance of the food chain which is more susceptible when it has few links. These are consequences that cannot be measured in the short term, but when they occur are difficult to solve.

MJ: *Do you think that Panama's Harpy Eagle population could act as a source population for other parts of Central America, e.g. Costa Rica?*

JV: I think that the population in Panama could serve as a source population for other parts of Central America. The problem is connectivity between forest cover. Maybe we should think about the design of a biological corridor for the Harpy Eagle, as is being developed for the jaguar in Mesoamerica.

MJ: *What is known about the relationship, competition and interaction with other Neotropical eagle species?*

JV: This topic is poorly understood. However, there are opinions that say the Harpy Eagle is a territorial species, that excludes other large birds of prey, like the Crested Eagle, from its territory. However, no systematic scientific studies have been conducted on this subject. The intensive field activity in Darien has allowed us to get some records that illustrate to some extent the relationship, competition and interaction that Harpy Eagles have with other raptor species. The first relationship / interaction we documented was observed between an adult female Crested Eagle (*Morphnus guianensis*) with a young female Harpy Eagle. For about a year, the Crested Eagle was feeding the young Harpy Eagle, when the adult Harpy Eagles were absent. We also documented instances when other species of raptors, Crested Eagle (*Morphnus guianensis*) and Ornate Hawk-eagle (*Spizaetus ornatus*) used Harpy Eagle nests during those breeding seasons in which the Harpy Eagle pairs were not active. These same nests during the next reproductive cycle were again occupied by the Harpy Eagle pairs.

MJ: *Are Harpy Eagles illegally hunted in Panama?*

JV: Any Harpy Eagle hunted in Panama is hunted illegally, because in Panama it is illegal to hunt this species or other raptors. Unfortunately, incidents continue to occur where Harpy Eagles are hunted and / or killed by humans in Panama. Though cases of this have been reduced, they still occur. For example, this year we evaluated our conservation efforts, analyzing old data from community interviews and records of Harpy Eagles injured or killed by humans. We have seen that over the years with our presence in the study area, there have been fewer cases. Records from 1995-2003 show that 20 eagles were killed by humans, and between 2004-2011, only five records were reported. Between

October 2011 and September 2012 we have not recorded any cases of a Harpy Eagle being killed by humans.

MJ: *Are there any conservation programs for Harpy Eagles in Panama?*

JV: The only established program in Panama is the Harpy Eagle Conservation and Research Program, which is funded by The Peregrine Fund. This program began in the 1990s, but it was only in 2000 when stable relationships were formalized with local and government agencies in Darien



Province. There are other organizations in Panama engaged in intermittent activities geared toward disseminating information on the species.

MJ: *How do you see the future of the Harpy Eagle in Panama and beyond?*

JV: The future is always uncertain, but I think in Panama we are heading our conservation efforts in the right direction to ensure the future of the Harpy Eagle. Currently there is a national strategy for the conservation of the species, which was an initiative of the National Environ-

José de J. Vargas Gonzalez during an education activity with children in Cemaco community in the province of Darien.
© Calixto Conampia, The Peregrine Fund

mental Authority of Panama. However, it requires the implementation of actions that contribute to the development of local communities. The purpose of these actions is to provide economic alternatives and land use for crops, and thus alleviate or stop the current trend in land use, which brings about deforestation (the main threat to the species in Panama).

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NEOTROPICAL RAPTOR NETWORK WILL PARTICIPATE IN FIRST WORLDWIDE RAPTOR CONFERENCE HELD IN CONJUNCTION WITH RRF AND WWGBP

For the first time, a joint meeting between the Neotropical Raptor Network (The Peregrine Fund), the Raptor Research Foundation, and the World Working Group on Birds of Prey and Owls will take place. This international meeting, the I Worldwide Raptor Conference (I WRC), will be held 21-24 October 2013 in the heart of Nahuel Huapi National Park, Bariloche City, Rio Negro province, Argentina. The conference will be hosted by the Universidad Nacional del Comahue – INIBIOMA/CONICET, Bariloche, Argentina. Workshops, field trips, and other special events will be offered before, during, and after the conference.

The conference venue will be The Hotel Panamericano Bariloche. It is located a stone's throw away from the Nahuel Huapi lake and the foothills of the Andes Mountains and only a few miles (less than 10 minutes drive) from Bariloche International Airport and Bariloche Bus Station.

Bariloche is a picturesque town nestled on the shores of Nahuel Huapi Lake. It is surrounded by rugged mountains and lush forests. There are many opportunities for hiking, boating, and birdwatching. After an extensive public works and architectural buildup the city emerged in the 1930s and 1940s as a major tourism centre with ski, trekking and mountaineering facilities apart

Left: Volcan Puyehue, Right: Nahuel Huapi © María del Mar Contaldi





Bosque de Los Duendes © María del Mar Contaldi

from numerous restaurants, cafés and chocolate shops. It offers a cool Mediterranean climate with dry, windy summers and rainy winters. It is a starting point for visiting Western Patagonian National Parks including Los Arrayanes National Park, Los Alerces National Park, and Lanin National Park among several others.

Wildlife that can be seen in some of the parks and surrounding areas include river otters (*Lontra longicaudis*); southern Andean huemuls (*Hippocamelus bisulcus*); Pudu (*Pudu pudu*), the smallest

cervid of the world and formerly considered endangered; two species of foxes; cougars; guanacos; and maras. Avifauna reported include Magellanic Woodpeckers, Green Austral Parakeets, Choiques (*Pterocnemia pennata*), geese, ducks, swans, blue-eyed cormorants, raptors and many species of softbills such as the Austral Robin (*Turdus falcklandicus*).



Andean Condor in flight © María del Mar Contaldi

The I WRC invites submission of abstracts for the conference. Both oral presentations and/or posters are welcome. In addition to traditional oral presentations there will be an opportunity to share in-depth information on specific topics during the special symposia. This conference will be a wonderful chance to meet and collaborate with raptor researchers throughout the region. For more information on abstract submission, conference details, and registration, please visit: <http://www.raptorresearchfoundation.org/conferences/current-conference>

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OF INTEREST...

Grant Opportunities

Rainforest Biodiversity Group

<http://www.greatgreenmacaw.org/SmallGrant.htm>

Small grants up to \$2,000 US fund projects aimed at biodiversity conservation in the Neotropics. Grants are available to graduate students and 501c3 non-profit organizations or equivalent, and support scientific research, environmental education, sustainable economic development (eco-tourism, e.g.), and other conservation activities

Raptor Research Foundation - Stephen R. Tully Memorial Grant

<http://www.raptorresearchfoundation.org/grants-and-awards/grants/stephen-r-tully-memorial-grant>

Grants of up to \$500 US support research and conservation of raptors especially to students and amateurs with limited access to alternative funding

Association of American Veterinarians

<http://www.aav.org/resources/index.php?content=grants>

Funds research projects addressing clinical aspects of exotic and wild birds - diagnostic tests, drug pharmacokinetics/pharmacodynamics, practice management, and avian conservation. Grants are limited to \$10,000.00 US for individual projects.

Raptor Research Foundation - Dean Amadon Grant

<http://www.raptorresearchfoundation.org/grants-and-awards/grants/dean-amadon-grant>

Grants of up to \$1,400 US to assist those studying the distribution and systematics (taxonomy) of raptors.

Publications

Rapaces de Venezuela

By Alberto Espinosa & Gustavo A. Rodriguez

http://www.audubonvenezuela.org/index.php?option=com_content&view=article&id=116:rapaces-de-venezuela&catid=17:noticias&Itemid=84

A photographic guide to the 67 species of diurnal raptors found in Venezuela, this colorful book contains basic information on raptors in general, as well as species-specific details on breeding, diet, behavior, and other important characteristics.



Neotropical Raptor Network
www.neotropicalraptors.org

Issue 14, December 2012

