SPIZAETUS

NEOTROPICAL RAPTOR NETWORK NEWSLETTER

ISSUE 9
JUNE 2010

RELEASES OF RIDGWAY'S HAWK IN THE DOMINICAN REPUBLIC

KING VULTURE MORTALITY

SHORT-TAILED HAWK SURVEYS IN PERU

ELECTROCUTION OF BLACK-CHESTED BUZZARD EAGLES IN CHILE

Dear NRN Members,

Several changes have been made to the latest issue of the NRN Newsletter. Most notably, we have given it an official name, one which we hoped would be meaningful in any of the languages spoken throughout the Neotropics. Thus, the scientific name of a raptor seemed an obvious choice. We decided on **Spizaetus** for several reasons. First, this genus of raptors is found from southern Mexico to northern Argentina, so an excellent representative of the entire Neotropical region. Second, despite its presence in most countries within Latin America, we still lack some of the most basic knowledge about the species within the *Spizaetus* genus. So this title also represents the need to continue our efforts in scientific research and environmental education, key tools in the conservation of all raptor species and their habitats.

Today, there is an overwhelming amount of information available through the internet on every possible subject. I hope that the NRN Newsletter will provide raptor researchers with quick and easy access to relevant information. Our goal is to continue to produce the newsletter in Spanish, English and Portuguese. Editing the newsletter in these different languages takes a huge amount of effort and collaboration, but we believe it is worthwhile, as it will facilitate access to this information to a wide variety of individuals interested in raptor conservation.

As always, I thank the contributors and guest editors who have assisted in creating this edition of **Spizaetus**. I look forward to continuing to receive articles and photos from you, the NRN members. Your contributions are what make this newsletter possible. Thank you.

Marta Curti - NRN Coordinator

Neotropical Raptor Network

www.neotropicalraptors.org

TABLE OF CONTENTS:

A Symbol of our Natural Heritage (Releases of Ridgway's Hawk *Buteo ridgwayi* in the Dominican Republic)..... 1

Mortality in King Vultures *Sarcoramphus papa* **in the Southern Yucatan Peninsula, Mexico**.....6

Short-tailed Hawk *Buteo brachyurus* **in Lambayeque: An Extension of this Species' Distribution Range West of the Peruvian Andes**.....10

Electrocution of Black-chested Buzzard Eagles *Geranoaetus melanoleucus* **on Power Lines in Calera de Tango, Chile**.....13

Important Literature.....16

Upcoming Conferences.....17

NRN Coordinator:

Marta Curti - mcurti@peregrinefund.org

Articles in this issue were edited and/or translated by Yeray Seminario, Angel Muela, and Marta Curti

Cover Photo: Ridgway's Hawk *Buteo ridgwayi* released on Grupo Punta Cana property in the Dominican Republic © Dario Fernández

Back Cover Photo: Snail Kite *Rostrhamus sociabilis*, Guija Lake, El Salvador © Nestor Geovanni García

A Symbol of Our Natural Heritage

Jorge Brocca[1] and Russell Thorstrom[2]
[1]Executive Director of the Sociedad Ornitologica de la Hispaniola, jbrocca@soh.org.do/Tel. 809-753-1399
[2]The Peregrine Fund, rthorstrom@peregrinefund.org

Ridgway's Hawk Photo © Pedro Genaro Rodriguez

The Species

The Ridgway's Hawk *Buteo ridgwayi* is a medium-sized raptor endemic to the island of Hispaniola, as well as a few satellite islands. However, due to loss of habitat and human persecution, this species is now only found within the Los Haitises National Park in the province of Hato Mayor in the Dominican Republic. There are only 313 known Ridgway's Hawks in existence and it is recognized as a Critically Endangered species by the International Union for the Conservation of Nature (IUCN) as well as the Dominican Republic Ministry of the Environment and Natural Resources. Having disappeared from most of its former range and extinct in Haiti, we could be very close to losing this species forever.

But thanks to the work carried out by the Hispaniola Ornithological Society (Sociedad Ornitologica de la Hispaniola), The Peregrine Fund, the Dominican Republic Secretary of the Environment and Natural Resources, and with the help of the Punta Cana Ecological Foundation and Central Romana Inc., the future of the Ridgway's Hawk is not so grim.

Environmental Education

One of the key factors in ensuring the survival of this species is a strong conservation education campaign in communities surrounding Ridgway's Hawk habitat. Currently, the main threat facing them is human persecution. They are being shot, in large part, due to a case of mistaken identify. They are being confused with the much more common Red-tailed Hawk *B. jamaicensis*, which occasionally does prey on free-ranging domestic poultry. However, during our studies which documented nearly 150 prey items (personal observation by Lance Woolaver), we did not see one case of a Ridgway's Hawk feeding on chickens. They prefer, instead, to feed on lizards, snakes, frogs and small rodents – and are, in actuality, important in helping to limit the rodent population on the island.

In 2005 we began an educational campaign which continues to this day. Our work includes giving presentations in local communities that focus on the benefits of having this raptor on the island and providing identification information to help distinguish it from other raptors. Our campaign also focuses on national pride, emphasizing that this hawk is found only in the Dominican Republic and no where else on earth. Other strategies include distributing posters and other educational materials, and last year we used funds to put together a theater production dramatizing the plight of the Ridway's Hawk. We put on this show in 10 communities around Los Haitises National Park and it was a big hit.

Species Study and Assisted Dispersal

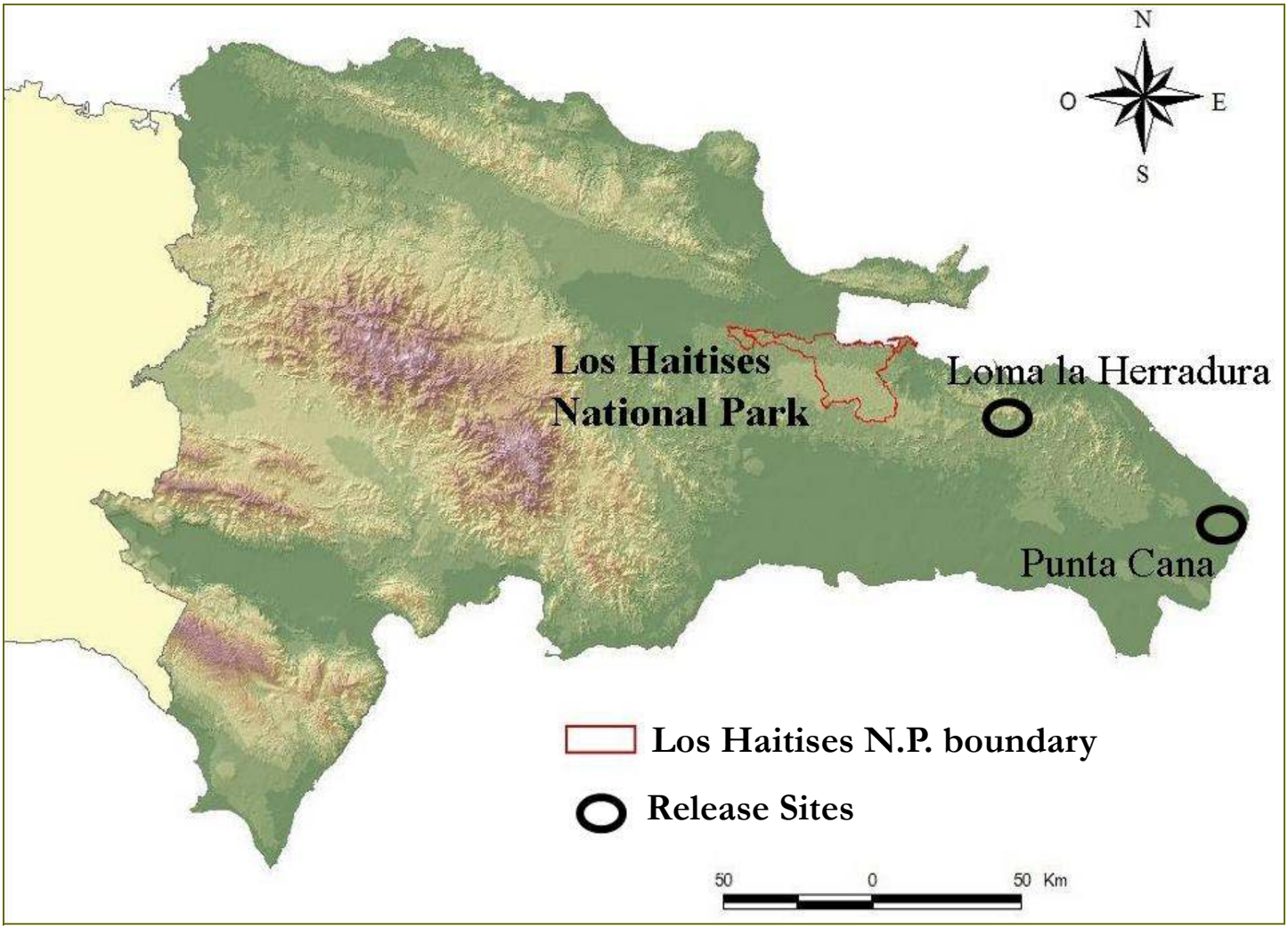
Hack box in La Herradura placed in a Yagrumo tree. Photo © Jorge Brocca

In 2004 we began studying the basic ecology of the species and in 2008 began an experimental assisted dispersal release. This is a technique that is used to increase distribution of critically endangered species that are confined to a small area of their former range, and for the Ridgway's Hawk it may take 10 years or more to complete.

Personnel from Central Romana, Inc. assigned to protect the release area. Photo © Jorge Brocca

The idea is to take one young each from up to five nests (Ridgway's Hawks normally produce up to three chicks so removing one chick per nest won't affect productivity of the breeding pairs in Los Haitises and may even increase the odds of the survival of the remaining two chicks as more food resources will be available to them) and re-release them through a method known as "hacking" into protected private lands within their former range where the species currently does not exist. Hacking has been used by The Peregrine Fund to successfully release other raptors including the Peregrine Falcon *Falco peregrinus* and the Aplomado Falcon *Falco femoralis*. It involves placing the young birds in a specially designed hack box and holding them for about one week or so until they are ready to fledge. This allows them to adjust to their new surroundings and associate the release box with food. Once they are released they will continue to return to the hack box to feed until they become independent and are hunting on their own.

Our first step was to locate a suitable release site – one that was once inhabited by this species and that still



Map showing Los Haitises National Park and the release sites

contains suitable habitat and prey, with little or no human presence. The site chosen was the Loma la Herradura, a 3,000 hectare tract of tropical forest owned by Centro Romana, Inc., one of the largest private companies in the country. There are many advantages to releasing birds on private lands - namely the fact that no one is allowed to enter without authorization and hunting is prohibited.

The first year, we released four young hawks. They did so well that the following year we released six more birds – three in Loma la Herradura and three in the Ecological Reserve of Punta Cana. All birds were fitted with transmitters prior to their release so that we are able to track their movements and make sure they are doing well.

Though there have been a few setbacks – such as one of the released birds being shot and killed and only its transmitter found – most of the released birds are doing well and continue to hunt and survive on their own. This coming year we plan to do more releases to help increase the number of birds in the two areas and eventually, create several breeding populations.

* * *

Mortality in King Vultures (*Sarcoramphus papa*) in the southern Yucatan Peninsula, Mexico

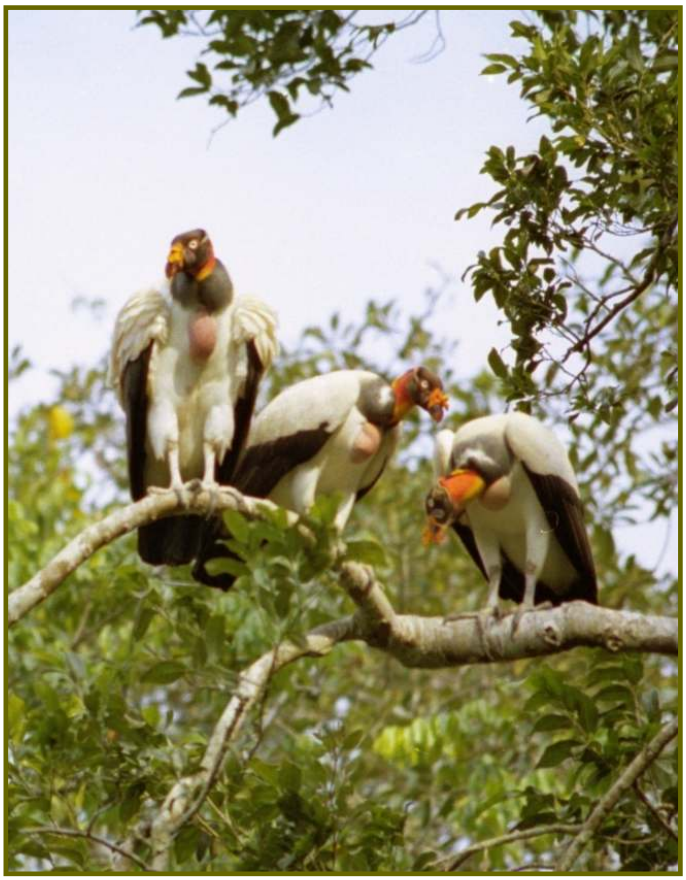
Mauro Sanvicente López[1], Sophie Calmé Ph.D[2], Mathieu Charette[3], and Jonathan Pérez Flores[4]

[1]Servicios y Beneficios Ambientales SC de RL. msanvicente67@yahoo.com.mx;

[2]El Colegio de la Frontera Sur/Faculté de Biologie, de l´Université de Sherbrooke, Canadá. sophie.calme@gmail.com;

[3]Doctoral Student, Faculté de Biologie, l´Université de Sherbrooke, Canadá. macharette@gmail.com;

[4]Zoológico Africam Safari, Puebla. johnspf77@yahoo.com.mx



King Vultures in the Calakmul Biosphere Reserve, Campeche, Mexico. Photo © U. Nesser

The King Vulture *Sarcoramphus papa* is a spectacular bird that plays an important ecological role. However, this fact has not been enough to attract the necessary attention for its conservation. As a result, *S. papa* is not protected at the global level. The International Union for the Conservation of Nature (IUCN) Red List categorizes this species as Least Concern due to its wide range of distribution, although the IUCN does recognize that their population is in decline (Birdlife International 2009). In Mexico, the King Vulture, according to legislation (NOM-059-ECOL-2001), is categorized as endangered, while the National Commission of Protected Natural Areas (CONAP) considers it to be a species of conservation priority.

In 2007 we initiated one of the first research projects on the ecology, behavior and habitat use of the King Vulture in Mexico. Specifically, our objective was to find and characterize large roost sites, such as the one that was described by Berlanga and Gutiérrez (2000). Our study took place in southern Campeche, and included the Calakmul Biosphere Reserve. The southern part of this reserve is adjacent to Guatemala's Maya Biosphere Reserve. In total we found five roost sites with between 20 to 25 King Vultures at each one, including adults, sub-adults and juveniles. A few of these roosts have been known locally for a little over 30 years.

All of these roosts are located in forested areas of well-conserved medium semi deciduous forests in

which such tree species as *Bucida burseras, Manilkara zapota,* and *Lysiloma latilisiquum* dominate. They are all found close to running water and far from human settlements (Martínez, 2008).

Records of Mortality in King Vultures and Possible Causes

Parallel with the project's activities, we began to keep a record of all the dead King Vultures found in the study area. During our visits to conduct field work in the region, we began to collect King Vulture remains. From February 2007 until February 2010 we collected nine individual dead King Vultures. In three of these cases, we collected the complete, intact remains; on three other occasions we collected only skeletal remains and feathers; and in the remaining three cases we collected the skull, skeletal remains of their wings, and feathers.

Eight of these were adults, determined by the well-defined coloration pattern of the feathers and the coloration of the head and neck. One was a juvenile, easily identified by its entirely black feathers.

In six individuals we determined that the cause of death was associated with man (Table 1). In four cases we suspected the cause of death to be consumption of bait laced with methyl parathion. In two cases birds died from gunshot wounds and in three cases, we could not determine the cause of death.

All of the collected remains were sent to the Zoological Museum (Museo de Zoología de El Colegio de la Frontera Sur) in Chetumal, Mexico.

The four individuals who died of suspected poisoning were all found at the same roost site - one that has been in use for at least the last ten years.

Our suspicion that these birds had died of poisoning was supported by interviews conducted with local authorities and with some ranchers from the community where the dead vultures were found. They told us that a jaguar had killed a calf and a sheep and, a month later, had also killed two dogs owned by the ranchers.

Table 1. King Vulture mortality and possible causes

Date	Number of Individuals	Ages	Cause of Death
May 2007	1	Adult	Undetermined
December 2008	1	Adult	Gun shot (.16 caliber shotgun)
February 2009	2	Adult & sub-adult	Consumption of poisoned bait
June 2009	2	Adults	Consumption of poisoned bait
February 2010	1	Adult	Gun shot (.16 caliber shotgun)
February 2010	2	Adults	Undetermined

The two King Vultures killed by gunshot wounds. Photo © M. Sanvicente.

In retaliation, the ranchers injected the remains of the dead animals with high doses of the insecticide Foley (methyl parathion). We hypothesize that the King Vultures consumed these poisoned carcasses, as the finding of their remains coincided with the deaths of the livestock and dogs and the jaguar poisoning.

Methyl parathion is an organophosphate and is widely used in agricultural areas in Calakmul. It is used without control or regulation by the local environmental authorities and is widely available for sale in establishments that provide agricultural and farming products. Its toxicity is known in raptors and other wildlife species, such as small carnivores. At a high dosage it affects the nervous system, causing loss of coordination, paralysis and death (Sánchez-Barbudo, *et al.*, 2008; Tarralluela *et al.*, 2008).

In another two cases we confirmed the cause of death to be due to gunshot wounds caused by a .16 caliber shotgun. After examining the vultures' corpses we found impact points and perforations caused by the bullets in the sternum and head, as well as fractures in the wings and in other parts of their bodies. We also found the bullet shells in close proximity to the dead birds.

In all of those cases attributable to man, the death of these vultures has been a product of a lack of knowledge about this species' importance and ignorance of the consequences of the improper use of toxic products.

King Vulture Conservation

Their feeding habits and role as "trash collectors" has not helped to call attention to this species on a local level. However, the role of the King Vulture and all scavengers in general is, without a doubt, invaluable for mankind. The service that they carry out by eliminating carrion from the environment is essential. Without them, the risks that certain enteropathogenic bacterial diseases, such as *E. Coli*, anthrax, and salmonella would spread to other species of wildlife and to humans would be higher.

In those areas in which King Vulture habitat (namely tropical forests) is being lost to ever-growing agricultural activities, there is a two-fold danger. On one hand, the loss of habitat - especially large trees which are used in the logging industry - reduces the number of available perches or nests. At the same time this loss of forest habitat to cattle pastures, logically, equals an increase in livestock, which has implications for the conservation of the King Vulture. When these vultures consume livestock that die in the field, whether by snake bite, disease, or predation, the risks are high because of the common practice of treating cattle with pharmaceuticals and toxic chemicals, which may have negative health effects for scavengers. Sadly, one example of this is the use of an anti-inflammatory drug, diclofenac, and other agro-chemicals which have caused the decline of scavenging raptors in Spain, France, and India (Gil *et al*., 2008; Green *et al.* 2004).

For a rare species like the King Vulture, with slow development and a low reproductive rate, the death of even a few individuals can have negative repercussions for maintaining a genetically and ecologically healthy population in the long run.

The use of poison to control "harmful" fauna should be discouraged by the local environmental authorities and, at the same time, they should do an analysis of the use of these agro-chemicals in Calakmul.

References

Berlanga, M. & R. Gutiérrez. 2000. Aves de Calakmul, el zopilote rey (*Sarcoramphus papa*), observaciones en un sitio de descanso comunal. Informe final. Pronatura Península de Yucatán AC. México. 40 p.

BirdLife International. 2004. *Sarcoramphus papa*. In: IUCN 2007. Red List of Threatened Species. <www.iucnredlist.org>. Revisado 18 de abril de 2010.

Convenio Internacional Sobre el Tráfico de Especies de Flora y Fauna Silvestre. 2010. <www. Cites.org>. Revisado 15 de abril de 2010.

Gil, J. A., & de Frutos, A. 2008. Revisión de los envenenamientos de quebrantahuesos (*Gypaetus barbatus*) en los pirineos (España-Francia) 1994-2007. In: Actas del seminario Mortalidad por intoxicación en aves necrófagas. Problemática y soluciones. Aínsa, Huesca.

Green, R., I., Newton, S. Shultz., A. Cunningham., M. Gilbert, D. Pain & V. Prakash. 2004. Diclofenac poisoning as a cause of vulture population declines across the Indian subcontinent. Journal of applied ecology. 41 (5):793-800.

Martínez, M. 2008. Caracterización a múltiples escalas espaciales de dormideros de zopilote rey (Sarcoramphus papa) en el sur de la Península de Yucatán. Tesis de Maestría. El Colegio de la Frontera Sur. 76 p.

Norma Oficial Mexicana NOM-059-SEMARNAT 2001-Protección Ambiental. Especies de Flora y Fauna Nativa Silvestres. Categorías de Riesgo. www.semarnat.gob.mx. Revisado 15 de abril de 2010.

Tarralluela, A., G. Gallus & A. De la Fuente. 2008. Presencia de plaguicidas tóxicos y peligrosos en las cooperativas agroganaderas dos comarcas de la Provincia de Huesca y su impacto en el quebrantahuesos (*Gypaetus barbatus*). In: Actas del seminario Mortalidad por intoxicación en aves necrófagas. Problemática y soluciones. Aínsa, Huesca.

Sánchez-Barbudo, S., P. Camarero, L., Monsalve, M. Taggart & R. Mateo. Casos de envenenamiento en fauna silvestre en Aragón. 2006-2007: Tóxicos detectados en el área de distribución del quebrantahuesos (*Gypaetus barbatus*). In: Actas del seminario Mortalidad por intoxicación en aves necrófagas. Problemática y soluciones. Aínsa, Huesca.

* * *

Short-tailed Hawk *Buteo brachyurus* in Lambayeque: An Extension of this Species' Distribution Range West of the Peruvian Andes

Fernando Angulo Pratolongo, BirdLife International, fernando.angulo@birdlife.org

Light morph Short-tailed Hawk, Lambayeque, Peru - 26 June 2009 (right); 25 August 2009 (left). Photos © Fernando Angulo

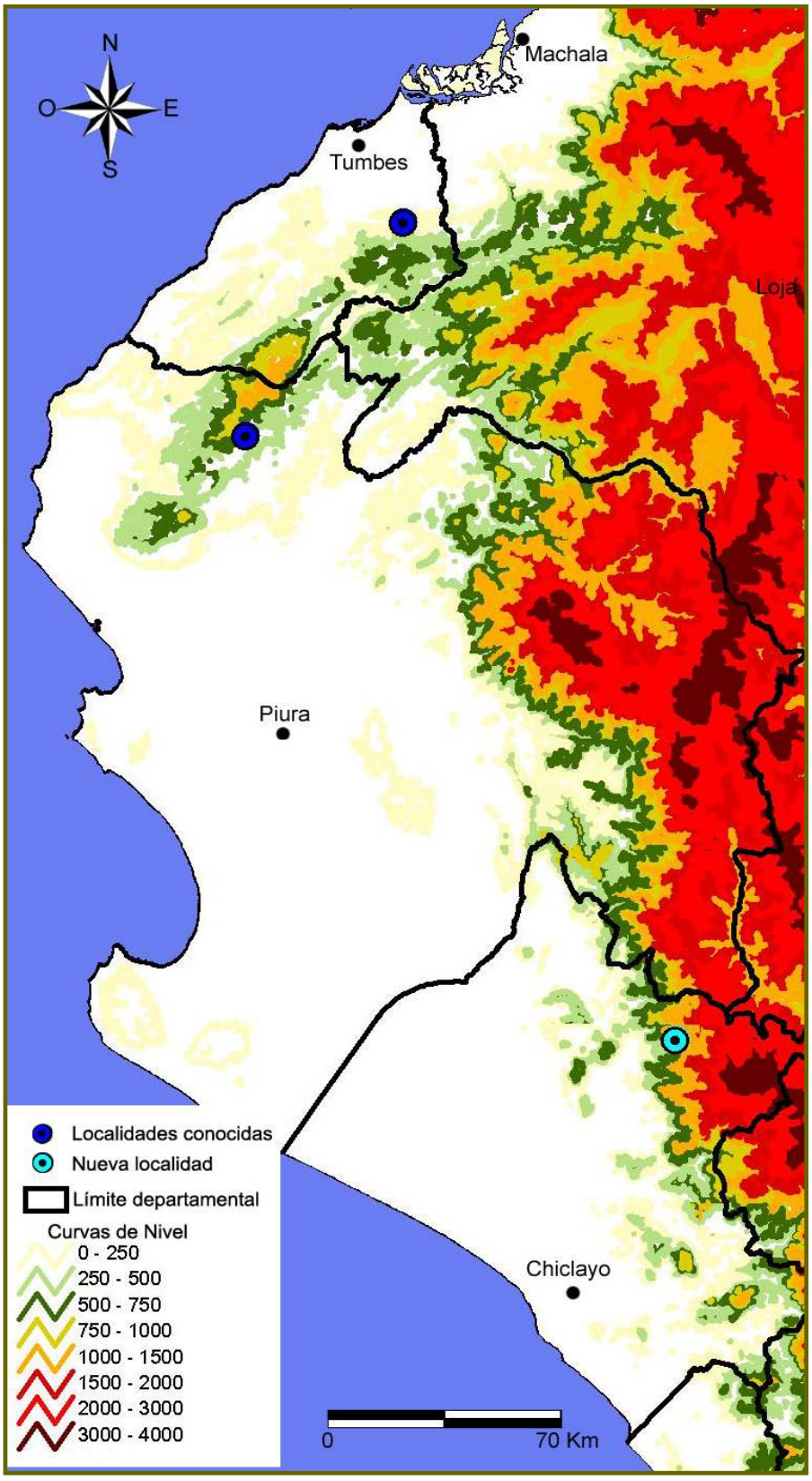
The Short-tailed Hawk *Buteo brachyurus* has been documented in the western slope of the South American Andes within Colombia, Ecuador and the extreme north of Peru in the Piura and Tumbes Departments (Hilty & Brown 1986, Schulenberg *et al.* 2007, Ridgely & Greenfield 2001, Vásquez & Justo 2009).

In Peru, the species is found only in the Amotapes Range (Walker 2002, Vásquez & Justo 2009), a branch of the Andes which heads northeast and southwest paralleling the coast and which separates from the main branch at 79º 30' degrees south latitude. Here, the species is uncommon in semi deciduous forests from 0 to 750 m above sea level (Schulenberg *et al.* 2007).

Observations

On 24 June 2009, I observed an adult Short-tailed Hawk (Fig. 1, right) soaring at 1500 m.a.s.l., in the "Palacios" Ravine (6º 02' 18.2" S / 79º 32' 12.5"), approximately 20 km. northeast of Motupe, in the Lambayeque Department. Three days later I saw another individual, approximately 3 km. southwest from the first sighting, at 1100 m.a.s.l. (Angulo 2009). On this occasion, we were able to photograph and film the bird:

(http://www.youtube.com/watch? v=C5OEWxEaGr8).



Map 1. Previous sightings of Short-tailed Hawk (dark blue) and the sighting reported in this article (light blue).

On 25 August 2009, we observed another Short-tailed Hawk (presumably the same individual) very close to the location of the second sighting (1 km. to the north, Fig.1, left). We photographed this individual, as well. It is important to mention that all observed Short-tailed Hawks were light morph individuals.

We identified these raptors as Short-tailed Hawks due to the pure white color of their breasts and wings; their distinctive facial pattern (a black mask that covers the upper part and sides of the head); and their tail markings, which include thin dark bands that are conspicuous in flight. In the region, it could be possible to confuse Short-tailed Hawks with a light morph adult male Variable Hawk (*Buteo polyosoma*), however the latter is much larger and has an overall white tail with a thick black sub-terminal band.

When we observed these individuals, they were seen flying over hilly areas mostly covered with dry, semi-dense forest (Proyecto Algarrobo 1993) with some areas of degraded vegetation due to agricultural practices and some road construction.

Discussion

These records constitute the first for *Buteo brachyurus* in the Lambayeque Department in Peru and demonstrate an

extension of their range as described by Schulemberg *et al.* (2007) by 230 km. (linear) toward the southeast. Additionally, these observations represent the first record of this species within the main chain of the Peruvian Andes, outside of the Amotapes Range (see map 1). Equally, the altitudinal range of the species in Peru is between 750 and 1500 m.a.s.l., although in Ecuador it has been reported below 1600 m.a.s.l. and in Colombia up to 1800 m.a.s.l. (Hilty & Brown 1986, Ridgely & Greenfield 2001).

Acknowledgements

Thanks to Segundo Crespo and Pablo Venegas for their assistance in the field; to Renzo Piana and Marta Curti for their support duing the revision of the manuscript; to Alex More for the map, and to KfW for financing the trip.

References

Angulo, F. 2009. Informe Ornitología: Palacios: Diagnóstico y Elaboración de Expedientes Técnicos en las Áreas Prioritarias para la conservación en los Bosques Secos de Tumbes, Piura y Lambayeque. Informe de Consultoría PRFNP-C-CON-042-2008-PAN – PROFONANPE, KFW, SERNANP.

Hilty, S. L. & W. L. Brown. 1986. A Guide to the Birds of Colombia. Princeton University Press, Princeton, NJ.

Proyecto Algarrobo. 1993. Mapa e inventario forestal de los bosques secos de Lambayeque. Memoria explicativa. CEIMAD-Proyecto Algarrobo, Chiclayo, Perú.

Ridgely, R. S. & P. J. Greenfield. 2001. The Birds of Ecuador: Field Guide. Volume II. Cornell University Press. Ithaca, New York.

Schulenberg, T.S., D.F. Stotz, D.F. Lane, J.P. O´Neill, & T.A. Parker III. 2007. Birds of Peru. Princeton University Press. New Jersey.

Vásquez P. & M. Justo (Editores). 2009. La fauna Silvestre del Coto de caza El Angolo. Guía para la identificación de la aves. Centro de Datos para la Conservación – Universidad Nacional Agraria La Molina. La Molina, 202 p.

Walker, B. 2002. Observations from the Tumbes Reserved Zone, dpto. Tumbes, with notes on some new taxa for Peru and a checklist of the area. Cotinga 18: 37–43.

* * *

ELECTROCUTION OF BLACK-CHESTED BUZZARD EAGLES *GERANOAETUS MELANOLEUCUS* ON POWER LINES IN CALERA DE TANGO, CHILE

Sergio Alvarado Orellana[1] and Makarena Roa Cornejo[2]

[1]Académico, Escuela de Salud Pública, Universidad de Chile, salvarado@med.uchile.cl

[2]Programa de conservación de la biodiversidad, Municipalidad de Calera de Tango, mroa@calera-detango.cl.

Species Background

The Black-chested Buzzard Eagle *Geranoaetus melanoleucus* is the largest raptor of the Accipitridae family found in Chile (Brown & Amadon, 1968). It has a wingspan between 175 and 200 centimeters and weighs approximately 2,000 grams (del Hoyo *et al.*,1994). It is widely distributed in South America and is found from Colombia to Tierra del Fuego, along both slopes of the Andes Mountain Range (Alvarado, 2006). This species inhabits open areas of shrub and mountain ranges where it has easy access to prey, however it is also considered an accidental species in forests (Trejo *et al.*, 2006). For this reason, the Black-chested Buzzard Eagle is found in a variety of environments and is found nesting in sites highly impacted by humans. Their nests are usually built in cliff faces, on cactus, high tension towers or trees (Alvarado, *pers. obs.).*

In general, the Black-chested Buzzard Eagle has been described as an opportunistic species that consumes a wide variety of prey (Schlatter *et al.*, 1980; Pavez *et al.*, 1992; Hiraldo *et al.*, 1995), but concentrates on prey with a higher biomass, such as rabbits and large rodents (Jiménez & Kaksic, 1989). Its main diet includes: European Rabbit *Oryctolagus cuniculus*, Long-tailed Snake *Philodryas chamissonis*, the Degu, or Brush-tailed Rat *Octodon degu* and a wide range of other rodents and birds.

Juvenile Black-chested Buzzard Eagle perhced on a power line post in Cerro Lonquén. Photo © Sergio Alvarado

The Eagles in Calera de Tango

Calera de Tango is a rural community located to the southwest of Santiago de Chile. Within its limits are the mountain islands of Chena and Longquen, which are considered priority sites for biodiversity conservation (CONAMA, 2004). Both sites serve as natural

Black-chested Buzzard Eagle perched on a mid-tension power line post. Photo © Makarena Roa

refuges for the wild flora and fauna, which are representatives of the Mediterranean eco-region of central Chile. The Black-chested Buzzard Eagle stands out among the wildlife here, and in fact, Cerro Calera, which is part of the Longquen Hills, is a nesting and breeding site for this species.

Electrocution of Raptors

In Cerro Calera, there are few high trees or cliffs that serve as observation perches for resident raptors. So instead, these birds use the power lines installed to provide energy to a cell phone tower owned by ENTEL PCS. This installation consists of a mid tension three-phase system of 12,000V, made out of 115 structures built on 11.5 m. high concrete poles, with wooden cross beams, ceramic insulators and 13.3mm2 bare copper conductors. This system corresponds to a distribution network which is in use throughout Chile, for electric company networks and cell phone antennas.

Sadly, between November 2009 and January 2010, 16 dead Black-chested Buzzard Eagles were found beneath electric posts owned by ENTEL PCS, of which 14 were juveniles and two were adults. The pathological studies carried out by Dr. Carlos González, Veterinarian and Pathologist from the school of Veterinary Medicine, Andrés Bello University, concluded that these animals died due to cardio-respiratory failure brought on by electrocution, with

Black-chested Buzzard Eagles electrocuted on mid-tension electrical lines owned by the ENTEL PCS company.
Photo © María José Esquivel

vascular pulmonary, cerebral and cardiac injuries, as well as non inflammatory edemas.

Due to the fact that electrocution was determined as the cause of death of 16 Black-chested Buzzard Eagles the local government of San Bernardo Community penalized ENTEL PCS, under the law against cruelty to animals, and as a prudential measure, they requested that this company present a project to modify their installations to avoid more deaths by electrocution. In the end, the company decided to completely remove the existing power line and install, within the telecommunications antenna enclosure, a system of hybrid energy which included the use of solar energy, obtained through photovoltaic panels, and a diesel generator.

In general terms, the electrocution of birds on power lines is a result of the rapid growth of the electrical infrastructure - a product of the expansion of real estate and telecommunications markets - along with the lack of regulations that take into account the protection of birds. One example of the impact that these power lines can have occured in Spain, where a

power line was installed in the middle of a park, which caused the deaths of some Spanish Imperial Eagles (*Aquila adalberti*). The company responsible was made to take down the power line, and as a result the survival rate of the eagle chicks increased from 17.6% to 80% within the first six months of their lives (Ferrer and Hidalgo, 1991).

One hopes that, as a consequence of what has occurred in Calera de Tango, the governmental authorities will regulate, in the near future, the telecommunication and electrical transmission companies. To achieve this, we will present the government with a strategy and request that regulations be put in place for the installation of electrical distribution networks, which will help mitigate electrocution of birds in natural areas throughout the country.

References

Alvarado, S. 2006. Inusual caza aérea de una gaviota capucho café *(Chroicocephalus maculipennis)* y posible muerte de un aguilucho común *(Buteo polyosoma)* por un águila mora *(Geranoaetus melanoleucus)*. ***Revista Nuestras Aves***, 53:14-15

Brown, L. & O. Amadon. 1968. Eagles, hawks and falcons of the World. Mcgraw-Hill Co., New York.

CONAMA. 2004. Estrategia para la conservación de la biodiversidad en la región Metropolitana de Santiago.

Del Hoyo J., A. Elliott, & J. Sargatal.. Eds. 1994. Handbook of the Birds of the World . Vol 2. New World Vultures to Guineafowl. Lynx Editions, Barcelona.

Ferrer, M. y F. Hiraldo 1991. Evaluation of management techniques for the Spain imperial eagle. Wildlife Society Bulletin 19(4):436-442.

González, C. 2009. Informe de necropsia n°8.461. Fac. de Ecología y Recursos Naturales, Escuela de Medicina Veterinaria. Universidad Andrés Bello.

Hiraldo F., J. Donazar, O. Ceballos, A. Travaini, J. Bustamante, & M. Funes. 1995. Breeding biology of a grey eagle-buzzard population in Patagonia. ***Wilson Bulletin***, 107: 675-685.

Jiménez, J. E. & F.M. Jaksic. 1989. Behavioral ecology of gray eagle-buzzards *Geranoaetus melanoleucus*, in central Chile. ***Condor***, 91: 913-921.

Pavez, E., C. González & J. Jiménez. 1992. Diet shits of black-chested eagles (*Geranoaetus melanoleucus*) from native prey to European rabbits in Chile. ***Journal of Raptor Research***, 26:27-32.

Schlatter, R., J. Yáñez, & F.M. Jaksic. 1980. Food niche Relationships between Chilean Eagles and Red-backed Buzzards in Central Chile. ***Auk***, 97: 897-898.

Soriano, M. & P. Martínez-García. 2000. Muerte por electrocución. Cuadernos de Medicina Forense 32:71-74.

Trejo A., R. Figueroa, & S. Alvarado. 2006. Forest-specialist raptors of the temperate forests of southern South America: a review. ***Revista Brasileira de Ornitologia*** 14 (4) 317-330.

* * *

IMPORTANT CONTRIBUTIONS IN LITERATURE

Compiled by Lloyd Kiff, The Peregrine Fund, lkiff@peregrinefund.org

There has been a great surge in our knowledge of the flora and fauna of the Neotropical Region during the past two decades, thanks to the efforts of increasing numbers of capable field workers. At the same time, it has become more difficult for researchers to keep track of all of the useful publications that have appeared because so many people in so many countries are involved in their production. Two important accounts on the birds of Guatemala and Argentina, respectively, which may not have come to the attention of NRN participants are the following:

1) Eisermann, K., and C. Avendaño. 2006. Diversidad de aves en Guatemala, con una lista bibliográfica [Avian diversity in Guatemala, with a bibliography]. Pp. 525-624 in E.B. Cano (ed.), Biodiversidad de Guatemala, Volumen I [Biodiversity of Guatemala, Vol. 1]. Universidad del Valle de Guatemala, Guatemala City, Guatemala. 674 pp.

2) Di Giacomo, A. G. 2005. Aves de la Reserva El Bagual [Birds of El Bagual Reserve]. Pages 202-465 in A.G. Di Giacomo and S.F. Krapovickas (eds.), Historia natural y paisaje de la Reserva El Bagual, Provincia de Formosa, Argentina: inventario de la fauna de vertebrados y de la flora vascular de un area protegida del Chaco Humedo [Natural history and landscape of the El Bagual Reserve, Formosa Province, Argentina: inventory of the vertebrate fauna and vascular flora of a protected area of the humid chaco]. Aves Argentinas/Asociación del Plata, Buenos Aires, Argentina.

Both of these chapters are parts of larger books that treat many aspects of the flora and fauna of their areas of coverage in detail. Although these volumes are not confined to raptor topics, they will still be of great value to any naturalist working anywhere in the Neotropics. The chapter by Eisermann and Avendaño is the first comprehensive treatment of Guatemalan birds since the field guides of Land and Smithe, respectively, which were published more than 40 years ago. In addition to basic information on the abundance, status, and habitat preferences of each species, there are more detailed notes on rarer species, including 10 raptors. The chapter also includes an amazing 48-page bibliography of publications on Guatemalan birds. These authors also produced the useful "Lista Comentada de las aves de Guatemala" (2007), one of several Latin American country checklists published in the last decade by Lynx Edicions, and it contains additional notes on the status of the most scarce raptor species in Guatemala. Regrettably, the latter volume is now out of print, but perhaps an updated edition will appear in the future.

The Reserva El Bagual volume is particularly ambitious, with detailed chapters on the flora and

each of the vertebrate groups occurring in the reserve. The avian species accounts are among the most comprehensive found in any general publication on Neotropical birds, with details on seasonal status, habitat selection, diet, breeding biology (particularly extensive and useful!), and conservation. The accounts for raptors draw heavily upon the senior editor's earlier paper, Di Giacomo, A. G. 2000. Nidificación de algunas rapaces poco conocidas en el Chaco Oriental Argentino [Nesting of some little known raptors in the eastern Chaco of Argentina]. Hornero 15:135-139, which will be of interest to all Neotropical raptor biologists.

The great advantage of compilations of this type is that they provide good baselines for evaluating the significance of our own observations, and these authors are to be congratulated for providing us with such splendid building blocks at this stage in our knowledge of Neotropical birds.

* * *

UPCOMING CONFERENCES

VI INTERNATIONAL CONFERENCE ON ASIAN RAPTORS 23 -27 June 2010, Ulaanbaatar, Mongolia. **For more information visit:** http://www.mos.mn/index.php?option=com_content&view=article&id=6:arrcn-6th-conference&catid=1:latest-news

ASSOCIATION OF AVIAN VETERINARIANS CONFERENCE 31 July -5 August 2010, San Diego, California, USA. **For more information visit:** http://www.conferenceoffice.com/aav/

25th INTERNATIONAL ORNITHOLOGICAL CONGRESS 22-28 August 2010, Campos do Jordão, Sao Paolo, Brazil. **For more information visit:** http://www.ib.usp.br/25ioc/

CONSERVATION OF THE SAKER FALCON IN EUROPE 16-18 September 2010, Hungary **For more information visit:**
http://www.sakerlife.mme.hu/uploads/File/2nd_Call_for_Conf_Saker_Conf_in_Hungary_16_18_09_2010.pdf

COLOMBIAN CONGRESS ON ZOOLOGY 21-26 November, 2010, Medellín, Colombia.
For more information visit:
http://www.iiicongresocolombianozoologia.org/portada/index.php?option=com_content&view=article&id=49&Itemid=126

GYRFALCON AND PTARMIGAN IN A CHANGING WORLD 1-3 February 2011, Boise, Idaho, USA **For more information visit:** http://www.peregrinefund.org/Gyr_conference/

IX NEOTROPICAL ORNITHOLOGICAL CONGRESS 8-14 November 2011 Cusco, Peru.
For more information visit: http://www.neotropicalornithology.org/

About the Neotropical Raptor Network (NRN)

The NRN is a membership-based organization. Its goal is to aid in the research and conservation of Neotropical raptors by promoting communication and collaboration among biologists, ornithologists, raptor enthusiasts, and other conservationists working in the Neotropics.

To join the NRN please send an email to **mcurti@peregrinefund.org**, introducing yourself and stating your interest in Neotropical raptor research and conservation.

THE PEREGRINE FUND
Working to Conserve Birds of Prey in Nature

Neotropical Raptor Network