

## SHORT COMMUNICATIONS

ORNITOLOGIA NEOTROPICAL 23: 133–135, 2012  
© The Neotropical Ornithological Society

### ANDEAN CONDOR (*VULTUR GRYPHUS*) FORAGES IN NON-NATIVE *EUCALYPTUS* TREES IN LIMA DEPARTMENT, PERU

Paul van Els<sup>1</sup> & Alejandro Tello<sup>2</sup>

<sup>1</sup>School of Life Sciences, University of Nevada Las Vegas, Box 4009, 4505 S. Maryland Parkway, Las Vegas, Nevada 89154-4004. *E-mail*: paulvanel@yahoo.com

<sup>2</sup>Kolibri Expeditions, Calle Arias Schreiber 192 Of. 300, Miraflores, Lima, Perú.

**El Condor Andino (*Vultur gryphus*) forrajea en árboles no nativos (*Eucalyptus*) en el departamento de Lima, Perú.**

**Key words:** Andean Condor, Cathartidae, *Eucalyptus*, frugivory, Andes.

New World vultures commonly use trees for roosting, nesting, and resting. Even though this behavior is common in the smaller, forest-based species (*Cathartes*, *Coragyps*, *Sarcoramphus*), the larger condors (*Gymnogyps*, *Vultur*) are more restricted to rocky habitats. The California Condor (*Gymnogyps californianus*) has occasionally been observed making use of tall trees such as giant sequoia (*Sequoiadendron giganteum*) for nesting (Snyder *et al.* 1986). Fossil evidence indicates that this species occurred widely over forested eastern and sub-boreal North America during the Pleistocene (Steadman & Miller 1987). However, the Andean Condor (*Vultur gryphus*) has, to our knowledge, never been observed in trees. Here, we describe the use of an exotic tree species (*Eucalyptus* sp.) by Andean Condors in the department of Lima in central Peru. On 7 November 2011 around 14:00 h, we observed three condors, two adults and a

subadult, taking turns landing in a tall *Eucalyptus* sp. (Fig. 1) in a chacra in the vicinity of Upica, close to the Autisha bridge in the Cañón de Santa Eulalia, Province of Huarochiri, Department of Lima, Perú (11°44'30.93"S, 76°36'34.74"W). Each of the birds spent a few minutes in the tree, to be replaced by a different individual. Individuals returned to the tree for a second or third visit after another left. The birds were seen from a distance of approximately 100 m using both 8 x 42 binoculars and a 50 x telescope. Several pictures were taken using a 300 mm telephoto lens. We observed the birds taking fruits and swallowing them. Birds were also seen taking inflorescences and leaves off branches, but we could not verify whether these were also swallowed or accidentally stripped off in search of fruit. A second tall tree in the vicinity was used less frequently. This lasted for at least an hour before the birds left. After the birds left,



FIG. 1. Adult male Andean Condor (*Vultur gryphus*) foraging in non-native *Eucalyptus* near Upica, Cañón de Santa Eulalia, Department of Lima, Perú, 7 November 2011. Photo by Paul van Els.

we searched underneath the tree for evidence of foraging such as damaged fruits, discarded plant parts or guano. We only found a number of old fruits and broken off inflorescences. On 27 November 2011, an adult male was observed in the trees from at least 08:00 h until 14:00 h. After this, a group of five condors arrived and three of these, an adult male, an adult female and a subadult, remained to forage in the trees for approximately an hour. Even though AT frequently visited the region, prior to 7 November he never observed condors in trees. Turkey (*Cathartes aura*) and Black (*Coragyps atratus*) Vultures are known to occasionally consume fruit, including juniper (*Juniperus*) conelets (Hiraldo *et al.* 1991) and grapes (*Vitis*, Brown & Amadon 1968). Turkey Vultures in Brazil occasionally take fruits of the

non-native oil palm (*Elaeis guineensis*, Pinto 1965). Frugivory in the two condor species has not been reported and no New World vultures are known to forage in *Eucalyptus* trees. *Eucalyptus* is mostly wind-dispersed and has hard, woody fruits ('gumnuts') that are generally not consumed and digested by birds. Geophagy to promote digestion of coarse food material in the gizzard is common in many birds (Brightsmith *et al.* 2006, Gionfriddo & Best 1996), and although mostly found in granivores (Gionfriddo & Best 1996), it is not unthinkable that condors use *Eucalyptus* fruits as a digestive aid. Furthermore, the fruits of *Eucalyptus globulus*, one of the most widely planted species in the Andes, contain a great amount of monoterpenes (Pereira *et al.* 2004), a substance hypothesized

to have anti-parasitic properties for nestling raptors (Ontiveros *et al.* 2007). In the Neotropics, there is generally a reduction in avian species richness in *Eucalyptus*-dominated forests relative to native forests (Barlow *et al.* 2007, Hjarsen 1997, Machado & Lamas 1996, Marsden *et al.* 2001, Motta Jr. 1990, Willis 2003). The use of this ecologically harmful exotic tree by such rare and large-bodied scavengers as the Andean Condor is remarkable and attests to the condor's ecological flexibility.

#### ACKNOWLEDGMENTS

PVE would like to thank John Klicka of the Marjorie Barrick Museum, University of Nevada, Las Vegas, NV, for providing funding for travel to Perú. We also owe our gratitude to Gunnar Engblom for providing logistical support and helpful recommendations for the manuscript.

#### REFERENCES

- Barlow, J., L. A. M. Mestre, T. A. Gardner, & C. A. Peres. 2007. The value of primary, secondary, and plantation forests for Amazonian birds. *Biol. Conserv.* 136: 212–231.
- Brightsmith, D. J., & R. A. Muñoz-Najar. 2006. Avian geophagy and soil characteristics in southeastern Peru. *Biotropica* 36: 534–543.
- Brown, L., & D. Amadon. 1968. Eagles, hawks, and falcons of the world. Country Life, London, UK.
- Gionfriddo, J. P., & L. B. Best. 1996. Grit-use patterns in North American birds: the influence of body size, diet, and gender. *Wilson Bull.* 108: 685–696.
- Hiraldo, F., M. Delibes, & J. A. Donazar. 1991. Comparison of diets of Turkey Vultures of three regions of northern Mexico. *J. Field Ornithol.* 62: 319–324.
- Hjarsen, T. 1997. Bird, fauna and vegetation in natural woodlands and *Eucalyptus* plantations in the High Andes in Bolivia - implications for development of sustainable agroforestry techniques. Pp 89–93 in Henderson, L., & G. Waugh (eds). Proceedings of the IUFRO Conference on Silviculture and Improvement of Eucalypts, Embrapa, Colombo, Brazil.
- Machado, R. B., & I. R. Lamas. 1996. Avifauna associada a um reflorestamento de eucalipto no município de Antônio Dias, Minas Gerais. *Ararajuba* 4: 15–22.
- Marsden, S. J., M. Whiffin, & M. Galetti. 2001. Bird diversity and abundance in forest fragments and *Eucalyptus* plantations around an Atlantic forest reserve, Brazil. *Biodiv. Conserv.* 101: 731–751.
- Motta Jr., J. C. 1990. Estrutura trófica e composição das avifaunas de três habitats terrestres na região central do estado de São Paulo. *Ararajuba* 1: 65–71.
- Ontiveros, D., J. Caro, & J. M. Pleguezuelos. 2007. Green plant material versus ectoparasites in nests of Bonelli's Eagle. *J. Zool.* 274: 99–104.
- Pereira, S. I., C. S. R. Freire, C. P. Neto, A. J. D. Silvestre, & A. M. S. Silva. 2005. Chemical composition of the essential oil distilled from the fruits of *Eucalyptus globulus* grown in Portugal. *Flavour Fragr. J.* 20: 407–409.
- Pinto, O. M. O. 1965. Dos frutos da palmeira *Elaeis guineensis* na dieta da *Cathartes aura ruficollis*. *Hornero* 8: 276–277.
- Snyder, N. F. R., R. R. Ramey, & F. C. Sibley. 1986. Nest-site biology of the California Condor. *Condor* 88: 228–241.
- Steadman, D. W., & N. G. Miller. 1987. California Condor associated with spruce-jack pine woodland in the late Pleistocene of New York. *Quat. Res.* 28: 415–426.
- Willis, E. O. 2003. Birds of a *Eucalyptus* woodlot in interior São Paulo. *Braz. J. Biol.* 63: 141–158.

Accepted 25 February 2012.

