

ABERRANT PLUMAGE IN A BLACK-AND-WHITE TANAGER (*CONOTHAUPIS SPECULIGERA*)

Daniel J. Lebbin

Department of Ecology & Evolutionary Biology, Cornell University, E148 Corson
Hall, Ithaca, NY 14853.

djl42@cornell.edu

Abstract

An aberrant plumage pattern for a male *Conothraupis speculigera* is reported and illustrated. A male captured in Manu National Park, Peru, on 5 July 2004 had a semi-concealed white crown patch composed of feathers that were mostly white but tipped with black.

Key words: *Conothraupis speculigera*, plumage.

Resumen

En esta nota describo un patrón aberrante de plumaje en un macho de *Conothraupis speculigera*. El macho fue capturado en Parque Nacional Manu, Perú, el 5 de Julio de 2004, y tenía un parche semi cubierto en la corona, compuesto por plumas que en su mayor parte eran blancas con las puntas negras.

Palabras clave: *Conothraupis speculigera*, plumaje.

The distribution and breeding of the two species of *Conothraupis* tanagers has long been little understood. The Cone-billed Tanager (*C. mesoleuca*) was known only from the type specimen collected in 1938 in Mato Grosso, Brazil, until recently rediscovered and photographed in Goiás, Brazil during 2003-2004 (Buzzetti & Carlos 2005). From June to November, the Black-and-white Tanager (*C. speculigera*) leaves its breeding grounds in the western Andean slope and dry inter-Andean

valleys of northern Peru and southern Ecuador (Ridgely & Greenfield 2001, Witt 2005) and moves into lowland Amazonia where the species exhibits nomadic behavior in search of sporadic or seasonal resources (O'Neill 1966, Stotz 1990, Isler & Isler 1999, Witt 2005). *C. speculigera* breeds among breeding aggregations of the Black-and-white Seedeater (*Sporophila luctuosa*), indicating that interspecific interactions between these species may be responsible for the highly convergent plumage patterns exhibit-

ted by males of these two species (Witt 2005). Given that *C. speculigera* appears to mimic *S. luctuosa* plumage (Witt 2005), aberrant plumage patterns in *C. speculigera* should be rare. Here I report an aberrant plumage pattern for a male *C. speculigera*.

Two adult male and one adult female *C. speculigera* were captured in mistnets, banded, photographed with a Nikon Coolpix 4300 digital camera and released in July 2004 in a fruiting *Guadua* bamboo patch at Playa Bonita (11°50'18.9" S, 071°23'06.7" W, approximately 350 m elevation), ~ 6 km north of Cocha Cashu Biological

Station in Manu National Park, Depto. Madre de Dios, Perú.

A female was captured on 1 July 2004 (Fig. 1), a male was captured on 2 July 2004 (Fig. 2), and both displayed typical plumage. A second male was captured on 5 July 2004 and had a semi-concealed white crown patch (Fig. 3), composed of feathers that were mostly white but tipped with black (Fig. 4). This pattern differs from the typical male plumage pattern of entirely glossy black crowns (Isler & Isler 1999, Ridgely & Greenfield 2001). I am unaware of such a plumage abnormality or variation being previously reported for this enigmatic species.



Figure 1. A female *Conothraupis speculigera* captured on 1 July 2004.



Figure 2. A male *Conothraupis speculigera* captured on 2 July 2004 displayed typical plumage with entirely glossy black crown.



Figure 3. A second male *Conothraupis speculigera* captured on 5 July 2004 had a semi-concealed white crown patch.

This aberrant plumage is difficult to characterize and interpret.

This plumage aberration could be described as leucism (a widely

reported type of aberrant plumage often erroneously known as partial albinism), defined as an abnormality of feather coloration where some or all feathers lack some or all pigmentation (Buckley 1982). Classifying this plumage aberration as leucism is somewhat unsatisfying, however, as leucism seems to be more

frequently a property of an entire feather, whereas the individual crown feathers of the aberrant *C. speculigera* were pied. Furthermore, the semi-concealed nature of the aberrant crown patch, suggests this plumage pattern may be the result of different processes than are usually responsible for leucism.



Figure 4. The white crown patch of the bird in Figure 3 was composed of white feathers that were tipped with black, as in this electronic illustration.

Acknowledgements

I am grateful to El Instituto Nacional de Recursos Naturales (INRENA) for permission to conduct research in Manu National Park, to

Fulbright for research funding, and to Nadia Castro for assistance in the field at Playa Bonita. Diego Calderón-F., Jorge Velásquez-Tibatá, Viviana Ruiz-Gutierrez and an anonymous reviewer provided useful comments on this manuscript.

References

- Buckley, P. A. 1982. Avian Genetics. In: Petrak, M. (ed.). Diseases of cage and aviary birds, 2nd ed. Pp. 21-110. Lea and Febiger, Philadelphia.
- Buzzetti, D. & B. A. Carlos. 2005. A redescoberta do tiê-bicudo (*Conothraupis mesoleuca*) (Berlioz, 1939). *Atualidades Ornitológicas*. 127: 4-5.
- Isler, M. L. & P. R. Isler. 1999. The Tanagers: Natural History, Distribution, and Identification. Smithsonian Institution Press, Washington, DC.
- O'Neill, J. P. 1966. Notes on the distribution of *Conothraupis speculigera* (Gould). *Condor* 68: 598-600.
- Ridgely, R. S. & P. J. Greenfield. 2001. The birds of Ecuador: status, distribution, and taxonomy. Cornell University Press, Ithaca, New York.
- Stotz, D. F. 1990. Corrections and additions to the Brazilian avifauna. *Condor* 92(4): 1078-1079.
- Witt, C. C. 2005. Syntopic breeding suggests mimicry of the Black-and-white Seedeater (*Sporophila luctuosa*) by the Black-and-White Tanager (*Conothraupis speculigera*). *Ornitologia Neotropical* 16(3): 387-396.