

White-winged Guan (Penelope albipennis) photo by H. Plenge.

## Western South America: Ecuador, Peru and Bolivia

Fernando Angulo Pratolongo, Ross MacLeod, Olaf Jahn, Carlos Julián Idrobo-Medina, Eduardo Gallo-Cajiao, Víctor Raúl Díaz, Rob Williams, Laura Cancino, Rodrigo Soria, Melvin Gastañaga, Margarita M. Rios, Marcia C. Muñoz, Gustavo A. Londoño, Hugo Aranibar-Rojas, Javier Barrio, Rob P. Clay, David C. Oren and Daniel M. Brooks

The threatened species of cracids listed below are found in western South America. The White-winged Guan (*Penelope albipennis*) of northwest Peru is the only endemic species. Baudó Guan (*Penelope ortoni*), Horned Curassow (*Pauxi unicornis*) and Bearded Guan (*Penelope barbata*) are restricted to only two countries each (Colombia and Ecuador, Peru and Bolivia, Ecuador and Peru, respectively), where they inhabit highlands, as does the Rufous-headed Chachalaca (*Ortalis erythroptera*) which is restricted to three countries (Colombia, Ecuador and Peru). Species found in four or more countries include the higher dwelling Wattled Guan (*Aburria aburri*), as well as three species of *Crax* Curassows: Great Curassow (*C. rubra*), Bare-faced Curassow (*C. fasciolata*) and Wattled Curassow (*C. globulosa*), with the latter species restricted to Varzea.

Penelope albipennis	White-winged Guan	CR - C2a(1)
Penelope ortoni	Baudó Guan	EN - A2c,d; A3c,d
Pauxi unicornis	Horned Curassow	EN - A1a & d, A2d; B1+B2b,c,e
Crax globulosa	Wattled Curassow	EN - A2b,c,d; A3b,c,d; C2a(i)
Ortalis erythroptera	Rufous-headed Chachalaca	VU - A2c,d; A3c,d; B1a+b(i,ii,iii,v); C2a(i)
Penelope barbata	Bearded Guan	VU - B1a+b(i,ii,iii,v)
Aburria aburri	Wattled Guan	NT - C1; C2b
Crax rubra	Great Curassow	NT - A2c,d; A3c,d
Crax fasciolata	Bare-faced Curassow	NT - A2c,d; A3c,d

#### Reserves

It is imperative to implement and expand the number of protected areas for cracids. This is especially important for *Penelope albipennis* (implementing the Lambayeque Biological Corridor proposal, Peru), *P. barbata* (especially in the southern Ecuadorian Andes and montane areas of Dept. Lambayeque, Piura and Cajamarca, Peru, including the "Cerro Chinguela" area; and implementing the reserve at "Bosque de Cuyas", Ayabaca, Peru), *Crax globulosa* (concordant with Bolivian law), *Aburria aburri* and *Crax rubra*. Proposals need to be implemented to help communities establish private reserves in Ecuador and Peru.

Insuring protection and integral maintenance in existing reserves and their buffer zones is essential. For example, a population of *Penelope ortoni* occurs in the lower parts of the Cotacachi-Cayapas Ecological Reserve, Ecuador, but hunters are quickly immigrating due to the recent construction of a road in the northern part of this protected area, and through fluvial systems in the west (Jahn and Mena 2002). Other sites in Ecuador needing insured protection and maintenance include Mindo-Nambillo Protected Forest, the community of Playa de Oro, and the Jocotoco-Canandé Private Reserve for *P. ortoni*, as well as Angashcola, Huashapamba, and Podocarpus National Park (along with increased capacity and infrastructure for staff at the latter site) for *P. barbata*.

Developing and implementing a conservation management plan for *Pauxi unicornis* habitat is essential, though work with INRENA (Peru) and Carrasco and Amboro National Parks (Bolivia) and local communities. Similarly, effective protection should be enhanced throughout the ranges of species such as *Ortalis erythroptera* (especially in the Northwestern Peru Biosphere: Tumbes Reserved Zone, Amotapes National Park and El Angolo Hunting Reserve) and *Aburria aburri*. Increased capacity and infrastructure is needed for teams at Laquipampa, Peru, where *Penelope albipennis* and *P. barbata* occur.

#### Research

It is important to evaluate status with population assessments (e.g., density, minimal population size, distribution) for various species to identify conservation priorities. In Ecuador status needs to be assessed for *Penelope ortoni* (in the Awá Ethnic Reserve and the Awacachi Corridor), *Ortalis erythroptera* (Cordillera Chongon-Colonche and other parts of its range; DarwinNet 2005) and *Crax globulosa*. In Peru status needs to be assessed for *O. erythroptera* and *P. barbata*; it is also important to continue conducting local knowledge surveys to assess distribution of *Pauxi unicornis koepckeae* (with communities around Cerros del Sira) and *Crax globulosa*. In Bolivia monitoring needs to be continued for *Crax globulosa*, and status needs to be assessed for *P. unicornis* (especially to monitor populations in Carrasco and Amboro National Parks) and *C. fasciolata*. The presence of *Aburria aburri* in protected areas needs to be evaluated throughout its range.

The effects of "El Niño" on *Penelope albipennis* populations need thorough investigation. Basic ecology, including habitat use and requirements, population dynamics, seasonal movements and the impact of fragmentation on populations need to be assessed for *Aburria aburri*. Basic biological and ecological studies are also needed for *Crax globulosa* in Peru, and *Ortalis erythroptera* throughout its range.

Markets that sell game meat need to be monitored to record the time of year and rate that *Crax globulosa* is hunted in Peru. Field studies on the effectiveness of protected areas, determination of conservation requirements and vulnerability to human encroachment are needed for *Pauxi* 

*unicornis* and *Aburria aburri*. Habitat evaluation is needed in the Peruvian Andes for species such as *Ortalis erythroptera* to identify conservation areas that can serve as effective habitat corridors.

Finally, it is important to obtain sound recordings and behavioral observations to be used in combination with morphological and genetic assessment to determine if *Pauxi unicornis koepckeae* is a full species.

## **Legal Protection**

Hunting must be adequately controlled. Hunting of *Penelope ortoni*, *Aburria aburri* and *Crax rubra* is prohibited by law in Ecuador for example, but these laws must be adequately enforced. In Bolivia it is important to work with local communities to promote a community based hunting ban for *Pauxi unicornis*.

It is also important to work with local Bolivian communities to reduce human pressure on *Pauxi unicornis* habitat, and to jointly develop a *Crax globulosa* management plan for timber and non-timber forest resources with surrounding indigenous communities.

#### **Education and Outreach**

Multi-faceted educational programs need to be initiated, working towards implementation of habitat corridors. It is essential to produce participative conservation strategies and conduct educational campaigns highlighting the uniqueness of cracids to the regions they live in, as well as the importance of cracids to critical habitats (e.g., montane forest).

Creating public awareness and environmental education programs focusing on hunters is necessary. Coordinating sustainable use strategies (e.g., ecotourism, apiculture) to enhance community and conservation benefits is important in this regard.

### **Captive Breeding**

The successful captive breeding for *Penelope albipennis* must be continued, establishing at least two viable populations. A studbook must be established to coordinate among holders of captive guans, to insure that a long-term viable population is maintained in captivity, as well as to coordinate research on genetic status of both captive and wild populations. Reintroduction and supplementation programs should be continued to unite small isolated populations throughout the species range.

# Conserving Cracids: The most Threatened Family of Birds in the Americas



# Edited by Daniel M. Brooks, Laura Cancino and Sergio L. Pereira

Miscellaneous Publications of The Houston Museum of Natural Science, Number 6

# Conserving Cracids: The most Threatened Family of Birds in the Americas

## Edited by Daniel M. Brooks, Laura Cancino and Sergio L. Pereira

Miscellaneous Publications of The Houston Museum of Natural Science, Number 6





ISBN 0-9668278-2-1 Copyright © 2006

Main entry under title:		
Conserving Cracids		
Includes some text in Spanish and Portuguese.		
Original chapters on biology and conservation of the most Endangered family of birds in the New World.		
ISBN 0-9668278-2-1		
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or tranmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the Houston Museum of Natural Science.		
Printed in the USA		
Cover artwork of Alagoas Curassow (Mitu mitu) by Jose Merizio		
Published in the USA by the Houston Museum of Natural Science - 1 Hermann Circle Dr., Houston, Texas 77030-1799, USA dbrooks@hmns.org		
Contributions and views published do not necessarily reflect the opinion of the Editors or their affiliated institutions, the Houston Museum of Natural Science or the Cracid Specialist Group.		
Suggested citation for authored accounts: Authors(s). 2006. Name of Account. Pp. XXX-XXX In: Conserving Cracids: the most Threatened Family of Birds in the Americas (D.M. Brooks, Ed.). Misc. Publ. Houston Mus. Nat. Sci., No. 6, Houston, TX.		