

- Joyner, K.L. Psittacine incubation and Pediatrics. In Fowler, M. E. ed. *Zoo and wild animal medicine current therapy* 3: 247-260. W.B.Saunders, Philadelphia, USA.
- Olsen G.H. and Duvall, F. (1994). Commonly encountered hatching problems. *Proceedings of the American Association of Avian Veterinarians*: pp. 379-384.
- Osborne, L. (1985). Progress towards the captive rearing of Great Bustards. *Bustard Studies* 2:123-130.
- Sleigh, I. and Samour, J.H. (1996). Bird Care Manual: management techniques for a collection of bustards. *External Report No. 13*. National Avian Research Center, Abu Dhabi, UAF.
- Sukhanov, O.V. (1992). Ontogenesis of great bustard chicks reared in captivity. *Bustard Studies* 5:150-163.
- Tarr, B., Anderson, S., Clarkson, G., Simpson, N. and Warren, S. (1996). Avian incubation, a review of major factors involved in the successful incubation of bird eggs. *Internal Research Report No. 42*. National Avian Research Center, Abu Dhabi, UAE.
- White, D.M. (1985). A report on the captive breeding of Australian Bustards at Serendip Wildlife Research Station. *Bustard Studies* 3:195-212.
- Zubko, V. N. (1992). Experience from incubating eggs and rearing chicks of great bustards in Askania-Nova. *Bustard Studies* 5:139-149.

Dr Tom Bailey and Susan Anderson are with the Environmental Research and Wildlife Development Agency, PO Box 45553, Abu Dhabi, United Arab Emirates.

* * *

A REQUEST FOR HELP FROM FLYCATCHER KEEPERS

Martin Vince is surveying flycatcher keepers on behalf of the Flycatcher Interest Group of the AZA (American Association of Zoological Parks and Aquariums) Passerine TAG. It wants to collect as much husbandry information as possible from public and private collections. The information will be used to compile a husbandry manual and establish a model population of the Verditer Flycatcher *Muscicapa thalassina*. It is hoped that the model population will help refine husbandry and breeding techniques for this species and, in turn, help establish guidelines for keeping and breeding similar species.

If you have experience of keeping flycatchers (including niltavas), you are asked to contact Martin Vince, Assistant Bird Curator, Riverbanks Zoo & Botanical Garden, PO. Box 1060, Columbia, South Carolina 29202-1060, USA. E-mail: martin@riverbanks.org.

ECUADORIAN BIRDS: SOME NESTING RECORDS AND EGG DESCRIPTIONS

by Harold F. Greeney

While visiting Ecuador, one cannot help but be amazed at the diversity and beauty of the avifauna. Of the over 1,600 species of birds recorded from Ecuador, many are among the most flashy and beautiful in the world. At a time when tropical forests are disappearing at an ever increasing rate, the need for detailed ecological and behavioural studies is urgent. Only with a good understanding of species' behaviour and ecological needs can we hope to develop effective methods of conservation. Simple observations of seemingly trivial details such as nest construction and breeding dates, provide enormously valuable data that can be used by conservationists and ornithologists alike. The following nest records represent fairly common species, that are nevertheless threatened by the destruction of their habitat. All observations were made during field work on the natural history of tropical butterflies and other insects, but the excitement of exploring the behaviour of these beautiful birds could not be ignored.

White-sided Flower Piercer *Diglossa albilatera*

San Isidro Ranch, Napo Providence, near Cosanga, elevation 1,700 m (approx. 5,600ft).

On December 18th 1996 a male and female were observed visiting a nest located approximately 10m (approx. 32ft) from the forest edge in a grassy field. The nest was an open grassy cup, about 50cm (almost 1ft 8in) above the ground, built in thick *Paspalum* sp. (Poaceae) grass shaded by ferns (Thelypteridaceae) and blackberries (Rosaceae: *Rubus* sp.). One nestling was found in the nest.

Rufous-collared Sparrow *Zonotrichia capensis*

San Isidro Ranch, Napo Providence, elevation 1,700m (approx. 5,600ft).

On December 10th 1996, a nest, similar to those described by Stiles and Skutch (1989), was discovered in low vegetation in the middle of a cattle pasture. Three eggs were in the nest. When the nest was visited on December 18th 1996, all of the eggs had hatched.

Lemon-rumped Tanager *Ramphocelus icteronotus*

Mindo, Pichincha Providence, elevation 1,400m (approx. 4,600ft).

On December 13th 1996 a lone female was observed building a nest about 4m (approx. 13ft) up in a citrus tree (Rutaceae) in an area of disturbed forest.

Long-billed Gnatwren *Ramphocaenus melanurus*

La Selva Lodge, Sucumbios Providence, 75km (approx. 46 miles) e.s.e. of Coca, elevation 250m (approx. 800ft).

On January 7th 1998 a nest was encountered beside a heavily travelled trail inside primary rainforest. The nest was similar to that described in Stiles and Skutch (1989) and was located approximately 30cm (1ft) above the ground, wedged in between the leaf axils of a small Cyclanthaceae palm. The small, cup-like nest was constructed of tightly woven palm fibres and small twigs. Two eggs were found. Both were white with a pale reddish tinge and red-brown speckling, heaviest at the broad end. When disturbed from the nest, the adult would fly only a short distance away and remain, just out of sight until I left at which time it would return immediately to the nest.

Ruddy Quail Dove *Geotrygon montana*

La Selva Lodge, Sucumbios Providence, 75 km (approx. 46 miles) e.s.e. of Coca, elevation 250m (approx. 800ft).

In early January 1998 two separate nests were located within primary forest habitat. While other authors have indicated that these birds likely nest on the ground (Howell and Webb, 1995), both of these were located approximately 1m (3ft 3in) above the ground and consisted of a loosely arranged platform of leaves and sticks. One was located in the crotch of a small tree, and the other was in on a tangle of branches and vines that formed at rough 'Y' shape. Each nest contained two buff-coloured eggs. The nest and eggs were similar to those described for this species from other areas (Stiles and Skutch, 1989). Adults would remain on the nest until the observer was closer than 2m (approx 6ft).

Wedge-billed Woodcreeper *Glyphorynchus spirurus*

La Selva Lodge, Sucumbios Providence, 75km (approx. 46 miles) e.s.e. of Coca, elevation 250m (approx. 800ft).

On January 31st 1998 a single nest was located about 2m (approx. 6ft) up inside a small cavity in the side of a tree. This is similar to the nesting situations described from other locations (Stiles and Skutch, 1989; Wetmore, 1972). The tree was located inside primary forest habitat, but was immediately adjacent to the trail. It was difficult to see the nest itself, as the hole was only 8cm (approx. 3¼ in) diameter and the hole was 15cm (6in) deep. The hole was located on the side of the tree but the cavity was oriented vertically. Two pale coloured eggs were present but were not removed for fear of damaging them. The adult woodcreeper would remain quietly on the nest until the observer's face was only centimetres from the opening and then burst out, at which point it would fly out of sight.

The importance of observing and publishing all aspects of bird behaviour, biology, reproduction, and distribution has never been so crucial. The destruction of our world's forests and other habitats is increasing at an alarming rate. It is the hope of the author that more ornithologists and amateur birdwatchers alike will make known even the smallest observations of species in the field. One never knows when they may be adding a crucial link to the understanding of a species' biology, and aiding in its conservation.

Acknowledgments

As always, I am greatly indebted to Carmen Bustamante for allowing me to stay at the beautiful Hacienda San Isidro. Thank you to M. Lysinger for help in identifying birds and to the La Selva Lodge staff for their help and support. I would like to express special thanks to Bob and Katt Azar for their support and interest in my field studies of all kinds.

References

- Howell, S.N.G. & Webb, S. (1995). *A guide to the birds of Mexico and Northern Central America*. Oxford University Press Inc., New York.
- Stiles, F.G. & Skutch, A.F. (1989). *A guide to the birds of Costa Rica*. Cornell University Press, Ithaca, New York.
- Wetmore, A. (1972). *The birds of the Republic of Panama*. Part 3. Passeriformes: Dendroclaptidae (Woodcreepers) to Oxyruncidae (Sharpbills). Smithsonian Misc. Coll. Vol. 150, Part 3. Smithsonian Institution Press, Washington D.C.

Harold F. Greeney is with the Department of Entomology, The University of Arizona, Tucson, Arizona 85721, USA.

AVICULTURAL MAGAZINE BACK ISSUES

A large stock is available including some early issues. Sales are by post only. Further details are available from:- Hon. Secretary, Avicultural Society, c/o Bristol Zoological Gardens, Clifton, Bristol BS8 3HA, England.