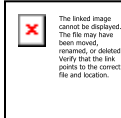


Nidos Adoptivos of “Blue Beard” Macaws 2007-2008



Introduction

The Blue-throated Macaw (*Ara glaucogularis*) is a restricted range species endemic to the department of Beni in Bolivia. It is one of the most threatened bird species in the world (Birdlife International 2007). It is believed that one of the principal factors affecting the population size of this species is the lack of available nest sites and the inter-species competition with the more common and abundant Blue and Gold Macaw (*Ara ararauna*) that shares the same ecological niche.

In 2005 the Asociación Armonía/Loro Parque Fundación Blue-throated Macaw Conservation Program experimented and placed 20 artificial nests in the southern zone of the species distribution. Beginning the following year, Bird Endowment formed a part of the initiative for conservation of the Blue-throated Macaw and created the "Nido Adoptivo™" project for adoption of artificial nests, which entails searching for donors to sponsor the nest boxes annually. Each participant is honored as an "El Beni-Factor™" for a year.

<http://www.birdendowment.org/inBolivia/nidoAdoptivo.shtml>

These studies have demonstrated that the lack of cavities in trees and palms in the Llanos de Moxos habitat could be a limiting factor in the reproduction of many species of birds including the Critically Endangered Blue-throated Macaw.

Design of the nests

The design of the model for the nests was taken from information obtained in the field of a successful natural nest found in a hollow of a palm where two chicks were hatched and raised. Several aspects were taken into consideration such as latitudinal location, suitable depth -- both vertical and horizontal -- entrance shape and diameter, etc.

The artificial nest consists of a rectangular box 1m. long x 30 cm. (fig.1), with an entrance hole 12 cm. in diameter or 12 x 25 cm. in other cases. On one side of the box there is a small inspection door to facilitate the monitoring of the reproductive process. This year we experimented with new measurements and designs of the nest entrance. With an initiative by Michel Chevalier, Junco Technologies produced a *laboratory birdhouse* specifically for this program.

<http://www.bird-houses-junco.com/blue-throated-macaw/the-blue-throated-macaw.html>

We tried his company's designs to test their acceptance by the macaws.



Figure 1. Artificial nest occupied by Blue-throated Macaws.

The nests are constructed with the wood of Palo Maria (*Calophyllum brasiliense*) and Ochoó (*Hura crepitans*) and are placed at a height of 5 m above ground. The majority of them have been situated in Totaí palm trees (*Acrocomia aculeata*) in areas where Blue-throated Macaws have been seen frequently. The Palo Maria wood is more difficult for them to destroy and for that reason we have chosen to use this material.

Monitoring the artificial nests occurs along with that of natural nests. Nest box inspections occur every 15 days, provided that it takes 10 days to check 51 placed nest boxes. The data is collected in a predetermined schedule.

Results

Thanks to the effort of Bird Endowment with its “Nido Adoptivo™” project, 34 nest boxes were funded by different persons who want to help the conservation of the Blue-throated Macaw. These 34 were part of the 51 artificial nests placed in the 2007 - 2008

breeding season by the Asociación Armonía/Loro Parque Fundación Blue-throated Macaw Conservation Program (table 1).

Table 1. Initials, sponsor and species that used the nests in the 2007-2008 breeding year .

Nest	Name	Location	Activity
G.N 1		S 15° 19' 00" W 064° 37' 30"	No activity
G.N.2		S 15° 19' 10" W 064° 37' 00"	No activity
G.H	Hayden Greer	S 15° 18' 30" W 064° 37' 00"	<i>Cairina moschata</i>
M.R	Margo Rose	S 15° 18' 20" W 064° 37' 55"	<i>Aratinga leucophthalmus</i>
J.A.4		S 15° 18' 00" W 064° 37' 50"	<i>Ara ararauna</i>
J.N.5		S 15° 18' 15" W 064° 37' 48"	<i>Aratinga leucophthalmus</i>
E.G	Emma Greer	S 15° 18' 10" W 064° 38' 10"	<i>Ara ararauna</i>
BE.1		S 15° 18' 40" W 064° 38' 00"	<i>Ara ararauna</i>
E.D	Eva Dicker	S 15° 17' 50" W 064° 38' 52"	<i>Ara ararauna</i>
M.A.H		S 15° 17' 40" W 064° 38' 50"	<i>Ara ararauna</i>
R.S	Dr. & Mrs. Robert Stonebreaker	S 15° 17' 30" W 064° 38' 51"	<i>Ara ararauna</i>
J.A.9		S 15° 17' 20" W 064° 38' 40"	No activity
G.E	Evan Greer	S 15° 17' 10" W 064° 38' 15"	<i>Ara ararauna</i>
B.E.3		S 15° 17' 15" W 064° 39' 40"	<i>Ara ararauna</i>
B.E.2		S 15° 17' 20" W 064° 38' 45"	<i>Ara ararauna</i>
B.E.4		S 15° 17' 52" W 064° 39' 00"	<i>Ara glaucogularis</i>
H.H	Barbara Heidenreich	S 15° 17' 20" W 064° 38' 50"	<i>Ara ararauna</i>
#1	Katy Secor	S 15° 17' 19" W 064° 39' 51"	<i>Aratinga leucophthalmus</i>
D.V.	Companion Bird Club of Delaware Valley	S 15° 17' 10" W 064° 39' 40"	<i>Ara ararauna</i>
B.E.5		S 15° 17' 20" W 064° 39' 30"	<i>Ara ararauna</i>
B.G	Wendy's Parrots	S 15° 17' 10" W 064° 39' 20"	<i>Ara ararauna</i>
R.K	Kathryne Thorpe	S 15° 17' 37" W 064° 40' 40"	<i>Ara ararauna</i>
K.J	Parrot University	S 15° 16' 03" W 064° 41' 04"	<i>Polistes fuscatus</i>

P.C	PEAC Cleveland	S 15° 15' 56" W 064° 41' 01"	<i>Ara ararauna</i>
B.E.6		S 15° 15' 07" W 064° 44' 25"	<i>Ara ararauna</i>
J.W	Jennifer White	S 15° 15' 20" W 064° 41' 42"	<i>Ara ararauna</i>
G.P	Greg & Patty Muzic	S 15° 14' 30" W 064° 42' 00"	<i>Ara ararauna</i>
D.S	Deborah Stambul	S 15° 14' 55" W 064° 42' 09"	<i>Ara ararauna</i>
N.W	Northwest Exotic Bird Society	S 15° 14' 50" W 064° 42' 10"	<i>Dendrocygna autumnalis</i>
C.F	France Archambault	S 15° 13' 04" W 064° 42' 11"	<i>Ara ararauna</i>
K.W	Kelly Wheeler	S 15° 12' 30" W 064° 43' 13"	<i>Aratinga leucophthalmus</i>
L.J	Lisa Johnson	S 15° 11' 50" W 064° 43' 40"	<i>Dendrocygna autumnalis</i>
J.B	Janice Boyd	S 15° 11' 49" W 064° 43' 23"	<i>Aratinga leucophthalmus</i>
H.G	Hank Greer	S 15° 11' 32" W 064° 43' 10"	<i>Apis mellifera</i>
R.G	Ryan Greer	S 15° 11' 30" W 064° 43' 08"	<i>Ara ararauna</i>
G.R	Reid Greer	S 15° 11' 20" W 064° 43' 10"	<i>Ara glaucogularis</i>
B.E.7		S 15° 11' 10" W 064° 43' 00"	<i>Machetornis rixosus</i>
A.C.B.C	Ark-La-Tex Caged Bird Club	S 15° 16' 50" W 064° 45' 58"	<i>Apis mellifera</i>
A.M	Dr. Attila Molnar	S 15° 16' 10" W 064° 46' 10"	No activity
A.F	Aurelia Lynn Friedman	S 15° 16' 40" W 064° 45' 00"	<i>Ara ararauna</i>
H.V.S		S 15° 16' 00" W 064° 46' 00"	<i>Ara glaucogularis</i>
C.D	Claire Dicker	S 15° 15' 15" W 064° 45' 59"	<i>Ara ararauna</i>
B.E.8		S 15° 16' 04" W 064° 46' 10"	No activity
S.L	Bolivar BTM	S 15° 15' 57" W 064° 46' 05"	<i>Ara ararauna</i>
B.E.9		S 15° 15' 32" W 064° 45' 28"	No activity
B.B	Vicki Baiamonte	S 15° 15' 30" W 064° 45' 20"	<i>Ara glaucogularis</i> <i>Apis mellifera</i>
B.E.10		S 15° 15' 31" W 064° 45' 26"	<i>Polistes sp.</i>
L.G	Laurel Greer	S 15° 15' 30" W 064° 45' 27"	<i>Polistes dominulus</i>
R.M	Rocky Mountain Society of Aviculture	S 15° 15' 10" W 064° 45' 20"	<i>Apis mellifera</i>
P.G	Paige Greer	S 15° 15' 03" W 064° 45' 06"	<i>Polistes dominulus</i>

S.A	Rocky Mountain Society of Aviculture	S 15° 15' 17" W 064° 46' 00"	<i>Apis mellifera</i>
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All the nests were placed in trees on cattle ranches in the southern range of distribution. These are: Esperancita, Las Trancas, La Avenida, Santa Rosa de Justiniano, Getafe and La Asunta (fig. 2)

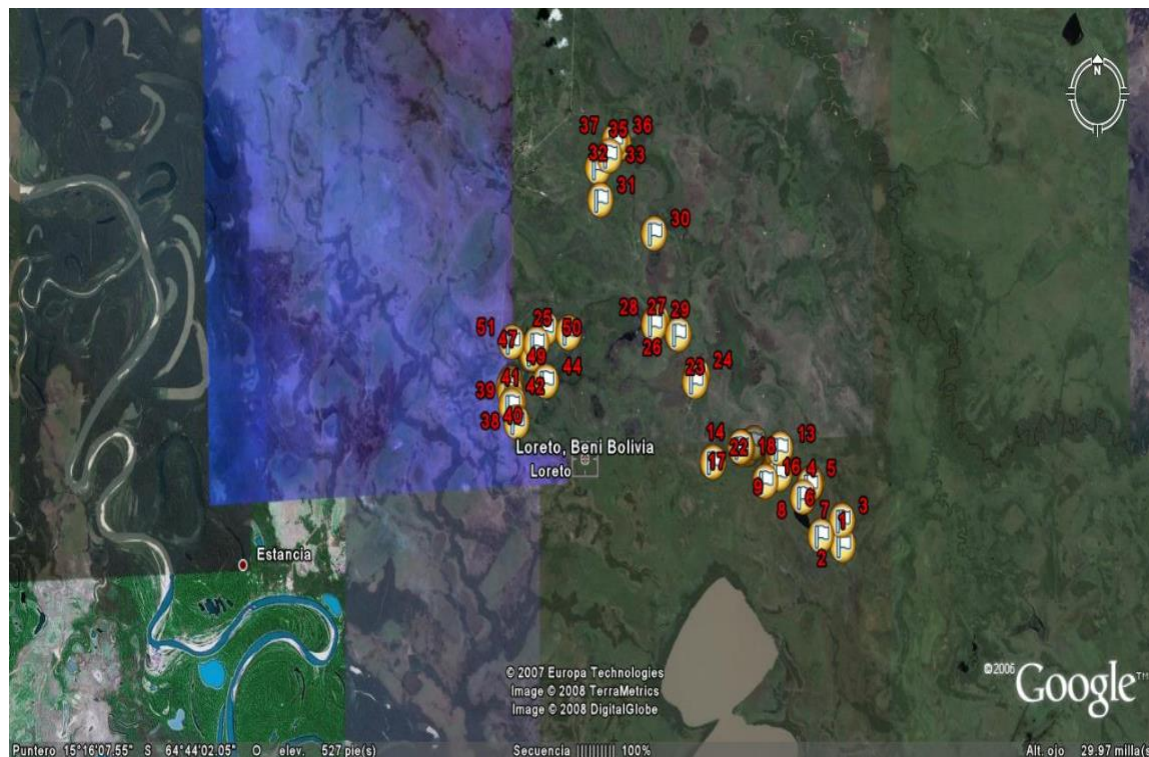


Figure 2. Location of artificial nests in the southern area -- Loreto, Beni, Bolivia

Of the 51 nest boxes placed, four were occupied by Blue-throated Macaws (*Ara glaucogularis*) and 24 by Blue and Gold Macaws (*Ara ararauna*); the nest boxes were also used by White-eyed Conures (*Aratinga leucophthalmus*), Black-bellied Whistling Ducks (*Dendrocygna autumnalis*), bees, etc. (table 2). Some nest boxes were occupied by two species during the breeding year.

Table 2. Number of artificial nests occupied by different bird species in 2007-2008 season

Species	Common name	Number of nest boxes occupied
<i>Ara ararauna</i>	Blue and Gold Macaw	24
<i>Aratinga leucophthalmus</i>	White-eyed Conure	6
<i>Ara glaucogularis</i>	Blue-throated Macaw	4

<i>Apis mellifera</i>	Honey Bee	4
<i>Dendrocygna autumnalis</i>	Black-bellied Whistling Duck	3
<i>Polistes dominulus</i>	European Paper Wasp	2
<i>Polistes sp.</i>	Paper Wasp	2
<i>Polistes fuscatus</i>	Black Paper Wasp	1
<i>Machetornis rixosus</i>	Cattle Tyrant	1
<i>Cairina moschata</i>	Muscovy Duck	1
No activity		11
	Total	59

Of the four nests registered for the Blue-throated Macaws, only two were successful. The nest **BB** adopted by **Vicki Baiamonte** was predated with three eggs, and nest **BE4** was abandoned without eggs laid. The successful nests correspond to initials **GR** of Reid Greer and **HVS** -- the first achieved success with three chicks, whereas the second yielded one chick. Each one of the chicks was banded and assigned a name; band 05 corresponds to **Cider**, 06 to **Abby** and 07 to **Sadie**, whereas band 09 corresponds to **Laney**. The chicks in nest GR left the nest on March 10, whereas the one from nest HVS fledged on March 31. The chicks Cider, Abby and Sadie were seen on April 14 flying overhead near the locality of Loreto.

The reproductive activities of the birds are still ongoing, given that Blue and Gold Macaws, White-eyed Conures and Black-bellied Whistling Ducks are now with chicks. We hope that at the end of July the 2007-2008 season finishes.

Activities for 2008 - 2009

Apart from 51 nest boxes in the southern range, our goal is to install 50 new nest boxes in the first-ever Blue-throated Macaw reserve located north of the city of Trinidad. Asociación Armonía is the new owner of Estancia San Lorenzo and is in charge of its management. In this new site, nest monitoring will be conducted in the same manner as in the south zone. Also, the existing nest boxes will be lined with plastic -- covering the top of the interior to prevent bees from taking possession of the nests.

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