

Nidos Adoptivos of “Blue Beard” Macaws 2009-2010



Chicks that fledged from “adopted nest” **WR** sponsored by Wayne Rankin.

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 2009). 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 measuring 12 x 25 cm. On one side of the box there is a small inspection door to facilitate the monitoring of the reproductive process.



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. The data is collected in a predetermined schedule.

Results

Thanks to the effort of Bird Endowment with its “Nido Adoptivo™” project, 28 nest boxes were funded by different persons who want to help the conservation of the Blue-throated Macaw. Next is a brief summary of the usage activities of all the “Nidos Adoptivos” sponsored by the various participants in the project.

Table 1. Initials, sponsor and species that used the nests in the 2009-2010 breeding year.

Nest ID	EI Beni-Factor™	Location	Activity
#1	Katy Secor	S 15° 19' 22" W 064° 37' 40,5"	Blue-and-Yellow Macaw, laid five eggs, hatched two chicks, both fledged in very good health.
JW	Jennifer White	S 15° 19' 11,07" W 064° 37' 05,03"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged in very good health.
RW	Wayne Rankin	S 15° 18' 43,1" W 064° 37' 06,2"	Barn Owl produced five offspring. Later Blue-and-Yellow Macaw laid three eggs. One chick hatched and fledged successfully. Most recently Barn Owl is incubating five eggs.
WR	Wayne Rankin	S 15° 13' 00,19" W 064° 40' 18,2"	Blue-throated Macaw, laid three eggs, hatched three chicks. All three fledged successfully. This nest box monitored with infrared camera.
BB	Beamer Blues	S 15° 18' 02,2" W 064° 37' 58,2"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged in very good health.
LJ	Lisa Johnson	S 15° 17' 19,2" W 064° 38' 46,6"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged in very good health.
VZ	In Memory of Mr. Van Zandt of Cincinnati Zoo	S 15° 18' 16,2" W 064° 38' 09,2"	This nest was occupied primarily by Blue-throated Macaw, but there was no activity. Later, Blue-and-Yellow

			Macaw laid two eggs, hatched two chicks, both fledged successfully.
CD	Claire Dicker	S 15° 13' 26,9" W 064° 40' 40,6"	First, Laughing Falcon reproduced there. Laid two eggs, raised two chicks, both fledged successfully. After that, nest box was used by White-eyed Parakeet. Laid four eggs, hatched three chicks that fledged successfully.
RS	In Memory of Robert Stonebreaker, DVM	S 15° 16' 09,4" W 064° 46' 04,6"	Blue-and-Yellow Macaw, laid two eggs, hatched two chicks, both fledged successfully.
GL	Gamini and Lisa Ratnavira	S 15° 16' 30,8" W 064° 46' 00,7"	Blue-and-Yellow Macaw, laid three eggs, hatched one chick which fledged successfully.
CB	Cage Bird Club of Charlotte County	S 15° 12' 48,6" W 064° 40' 42,9"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged successfully.
CC	Cage Bird Club of Charlotte County	S 15° 15' 16,5" W 064° 43' 48,8"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged in very good health.
RG	Rigoletto Kayla Grasso, BTM	S 15° 12' 48,2" W 064° 40' 41,8"	Blue-throated Macaw, laid three eggs but they were not viable. Nest was cleaned for a new clutch, but Barn Owl occupied nest box.
SB	South Bay Bird Society	S 15° 15' 32,5" W 064° 45' 28,7"	Black-bellied Whistling Duck laid more than 50 eggs. All the ducklings died.
FA	France Archambault and Calvin Embry	S 15° 14' 53,8" W 064° 42' 06,4"	Blue-and-Yellow Macaw, laid three eggs, hatched three chicks, all fledged in very good health.
AF	Arthur Field	S 15° 11' 31,7" W 064° 43' 10,4"	White-eyed Parakeet, laid four eggs, hatched three chicks that fledged in very good health.
AL	Tomi Takemoto, Animal Lovers	S 15° 15' 17,7" W 064° 46' 00,2"	White-eyed Parakeet, laid four eggs, hatched three chicks which fledged in good health. Later the nest box was occupied by Black-

			bellied Whistling Ducks.
AZ	Arizona Seed Crackers Society	S 15° 11' 25,3" W 064° 43' 11,2"	Blue-throated Macaw, laid three eggs, hatched three chicks. All three fledged successfully. This nest box monitored with infrared camera.
PU	Parrot University	S 15° 15' 07,1" W 064° 38' 44,2"	Blue-and-Yellow Macaw, laid three eggs, hatched one chick which fledged successfully.
ED	Eva Dicker	S 15° 15' 32,1" W 064° 45' 29,6"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged successfully.
SL	Bolivar the BTM	S 15° 16' 04,3" W 064° 46' 02,2"	Blue-throated Macaw, laid three eggs, hatched three chicks. All three fledged successfully.
BH	Brenton Head	S 15° 15' 29,4" W 064° 45' 26,9"	Blue-and-Yellow Macaw, laid three eggs, hatched one chick which fledged successfully. Most recently Barn Owl has five eggs.
CE	France Archambault and Calvin Embry	S 15° 16' 09,4" W 064° 46' 04,6"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged successfully.
KJ	Karen C. Justice In Memory of Cheeko	S 15° 15' 32,7" W 064° 45' 29,6"	Blue-and-Yellow Macaw, laid three eggs, hatched two chicks, both fledged successfully.
IF	Ian Fisher	S 15° 15' 08,8" W 064° 41' 31,3"	Blue-and-Yellow Macaw, laid two eggs, hatched two chicks, both fledged in good health.
GF	Gavin Fisher	S 15° 12' 34,01" W 064° 43' 41,0"	Blue-and-Yellow Macaw, laid three eggs, hatched three chicks, all fledged in good health.
BS	South Bay Bird Society	S 15° 16' 30,5" W 064° 40' 41,9"	Blue-and-Yellow Macaw, laid three eggs, hatched three chicks, all fledged successfully.
SC	Susanne Cochran	S 15° 12' 48,4" W 064° 46' 00,7"	White-eyed Parakeet, laid three eggs, hatched three chicks, all fledged successfully.

All of these 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, La Asunta and La Cantina.

Of the 28 nest boxes monitored, five were occupied by Blue-throated Macaw (*Ara glaucogularis*) and 19 by Blue-and-Yellow Macaw (*Ara ararauna*); the nest boxes were also used by White-eyed Parakeet (*Aratinga leucophthalmus*), Black-bellied Whistling Duck (*Dendrocygna autumnalis*), Barn Owl (*Tyto alba*) and Laughing Falcon (*Herpetotheres cachinnans*) etc. (table 2). Some nest boxes were occupied by three species of birds.

Table 2. Number of artificial nests occupied by different bird species in 2009-2010

Species	Common name	Number of nest boxes occupied
<i>Ara ararauna</i>	Blue-and-Yellow Macaw	19
<i>Ara glaucogularis</i>	Blue-throated Macaw	5
<i>Aratinga leucophthalmus</i>	White-eyed Parakeet	4
<i>Tyto alba</i>	Barn Owl	3
<i>Dendrocygna autumnalis</i>	Black-bellied Whistling Duck	2
<i>Herpetotheres cachinnans</i>	Laughing Falcon	1

Five nest boxes were occupied by Blue-throated Macaws, but only three were successful: Nest box **AZ** adopted by **Arizona Seed Crackers Society**; **SL** adopted by **Bolivar the BTM** and **WR** sponsored by **Wayne Rankin**. All three pairs in these nest boxes successfully fledged three chicks each, and did not need – in any instance – supplemental feedings by our team. We believe that the parents are able to raise three chicks regardless of their hatch dates.

We deeply thank Bird Endowment for the great willingness to assist in the conservation of this beautiful species. Its contribution this year made it possible for two students to complete their thesis with the program in order to obtain degrees at their respective universities.

Activities for 2010 - 2011

Aside from the 58 nest boxes located in the southern area of distribution, we intend to install 50 more nest boxes in the Barba Azul Nature Reserve.

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