

Laney Rickman Reserve

Blue-throated Macaw Nestbox Report – July 2021



Blue-throated Macaw: Teodoro Camacho

For Blue-throated Macaw conservation, 2021 is an unforgettable year. Armonía's nestbox program in the Laney Rickman Reserve produced for the third year in a row **12 successfully fledged Blue-throated Macaw chicks** and **surpassed the 100th-chick benchmark**. An astounding 105 Blue-throated Macaws have entered the wild population since the nestbox program started in 2005 by simply increasing the number of breeding options. The 2020-2021 breeding season was highlighted with a **record of 13 Blue-throated Macaw breeding attempts**. At least 9 breeding macaws were observed having leg bands, indicating the return of previously fledged chicks to breed themselves in the nestboxes. With estimates of the Blue-throated Macaw wild population to be around **450 individuals**, nestboxes have proven to be a highly productive conservation strategy. The next goal is the 200th-chick benchmark!

Please watch our 2020-2021 nestbox video [HERE](#)

Laney Rickman Reserve 2020-2021 conservation program was supported by:



A grant from the
Neotropical
Migratory Bird
Conservation
Act



**Pat Palmer
Foundation**



Project photos can be downloaded from:

<https://www.flickr.com/photos/128583429@N05/sets/72157691397221540>

Laney Rickman Blue-throated Macaw Reserve

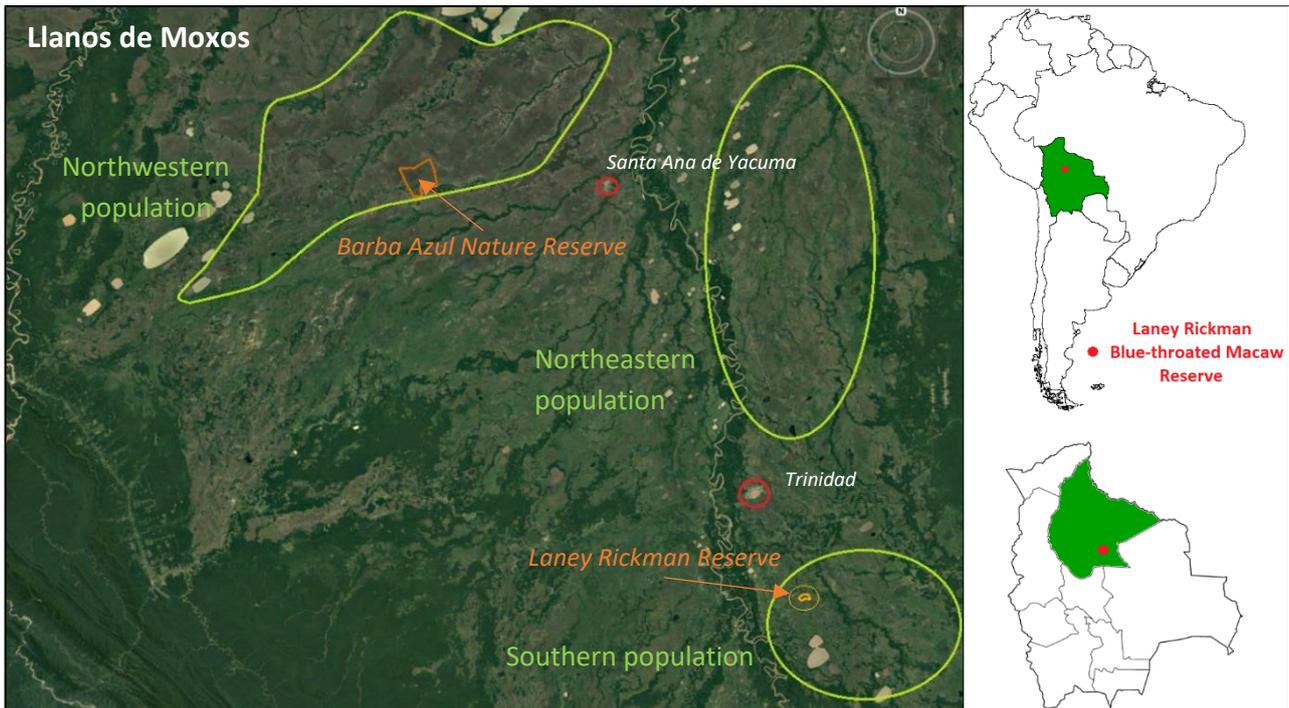
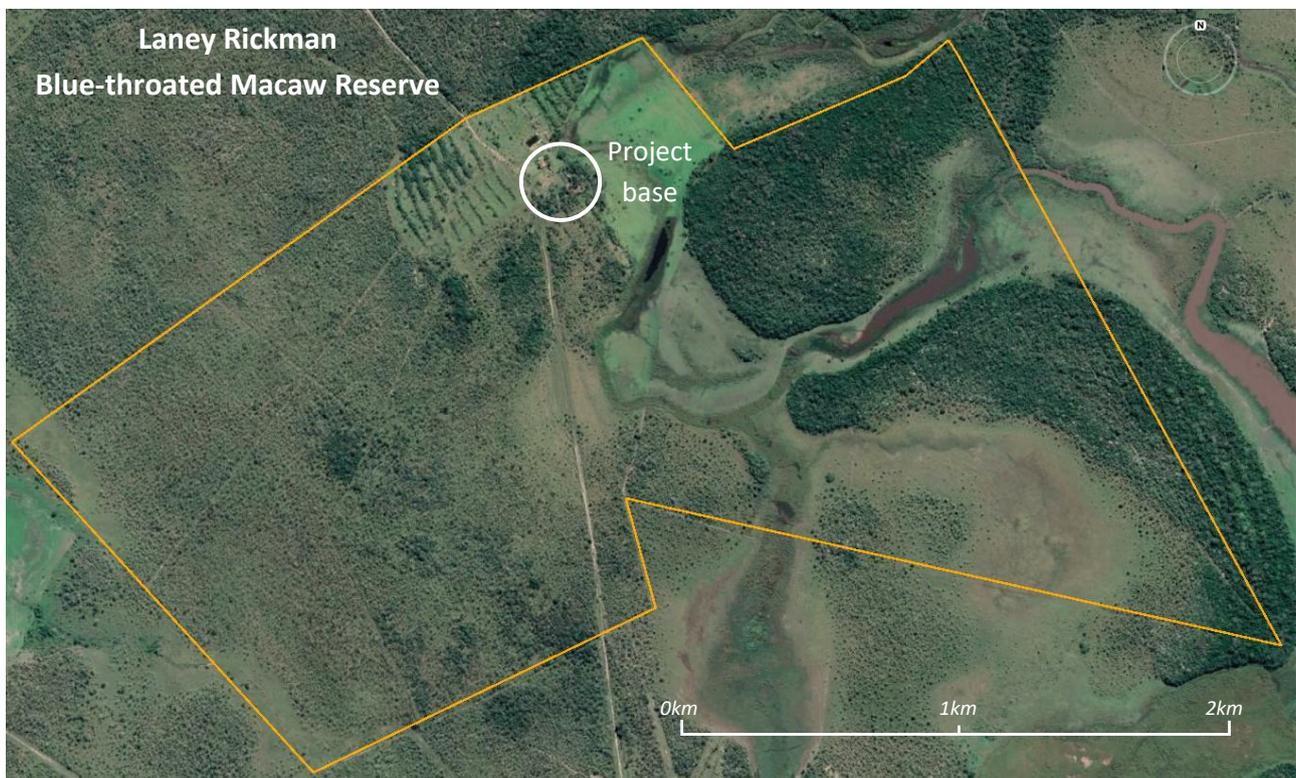


Figure 1 & 2. The Laney Rickman Blue-throated Macaw Reserve (681 ha/1,683 ac) was established in 2018 and is located in the Southern Llanos de Moxos ecoregion, 42 kilometers south of Trinidad and 213 kilometers south of the Barba Azul Nature Reserve (11,000 ha/27,181 ac and established in 2008). Armonía protects vital Blue-throated Macaw habitat in 2 isolated subpopulations (estimated Blue-throated Macaw subpopulation range indicated in light green circles).



Laney Rickman Reserve Program Summary

Twice a year, Armonía presents reports of conservation, protection and development achievements for the Laney Rickman Blue-throated Macaw Reserve including:

- 1) “Blue-throated Macaw Nestbox Report” in July right after the breeding season (this report)
- 2) “Laney Rickman Annual Report” in December evaluating the achieved program goals.

Our main goals for 2021-2022, to ensure a continuous development and protection of the Laney Rickman Blue-throated Macaw Reserve, are:

- 1. Increase the size of the protected Laney Rickman Blue-throated Macaw Reserve**
Through the support from Rainforest Trust, Armonía is in the process of extending the Laney Rickman Blue-throated Macaw Reserve to protect breeding and foraging habitat for the southern Blue-throated Macaw subpopulation
- 2. Improve the Laney Rickman Reserve nestbox program**
Through the long-term support from Bird Endowment’s Nidos Adoptivos program, we will continue monitoring the nestboxes within the protected Laney Rickman Reserve and improving the nestboxes based on 16 years of data. See video of potential Blue-throated Macaw predator [HERE](#).
- 3. Extend the area of Blue-throated Macaw breeding sites**
Through the support from Rainforest Trust, the Rickman Fund and the Pat Palmer Foundation, Armonía will extend the nestbox program beyond the borders of the current Laney Rickman Reserve.
- 4. Declare the Laney Rickman Reserve a Private Natural Heritage Reserve (RPPN)**
To secure national recognition for Blue-throated Macaw breeding habitat protection, Armonía aims to have at least 50% of the reserve declared as RPPN. A Laney Rickman Reserve management plan will be developed zoning the different management areas.



5. Restore native breeding habitat

Tall hardwood trees like Mahogany have been harvested throughout the Blue-throated Macaw breeding range for ranching infrastructure. We aim to restore native habitat in the reserve by planting Mahogany trees grown in our own nursery. We are seeking financial support for this project (US\$ 25,000).

6. Maintain and increase impenetrable firebreaks throughout the reserve

In August we will maintain and increase the firebreaks throughout the reserve. Through the support from the World Land Trust's "Keepers of the Wild" program, Laney Rickman Reserve Park Ranger Cesar Flores Jr. was trained to combat fires during a four-day workshop at Barba Azul Nature Reserve in July.

7. Establish Visitor/Research Centre

With the support from the Rainforest Trust we will develop a multifunctional visitor/research station. We are in the process of designing the building. We are still seeking additional support of US\$ 10,000 to include an educational lobby area.

8. Create wildlife friendly fencing around the reserve's perimeter

Armonía purchased 3,300 fencing posts in June 2021 to maintain and replace perimeter fencing around the reserve border. The fencing consists of non-barbed wire at the top and bottom of the fence to prevent harming passing wildlife.

9. Sustainably manage tallgrass palm savanna through ecofriendly ranching

In the Laney Rickman Reserve, Armonía currently manages 135 head of cattle utilizing best practices ranching techniques. By August, we will buy an additional 60 heads of cattle through the support of the March Conservation Fund and American Bird Conservancy.

10. Study southern subpopulation Blue-throated Macaw local movement

We know little about the extent / range of the southern Blue-throated Macaw subpopulation. In order to better understand the local macaw movement, we aim to track 4 Blue-throated Macaws from the Laney Rickman Reserve (US\$ 30,000).



Nestbox Program (2020-2021 breeding season)

Summary

This year is already highlighted with a tremendous Blue-throated Macaw success story that we must celebrate: more than 100 Blue-throated Macaws have fledged from Armonía's nestboxes. During the 2020-2021 breeding season 12 chicks successfully fledged from our nestboxes. This addition brings the total to 105 Blue-throated Macaw chicks that have fledged from the nestboxes and joined the wild population since this in-situ program started in 2005. With a population of around 450 individuals, this is an incredible success story where around 25% of the Blue-throated Macaw wild population came from our nestboxes. Clearly, we have overcome the limitation of cavity availability through the introduction of wooden nestboxes.

We also registered a record number of 13 Blue-throated Macaw breeding attempts (previous record was 9 attempts during the 2019-2020 breeding season) with a total of 29 eggs laid, 15 chicks hatched, and 12 chicks fledged. A total of 9 breeding individuals were identified with leg bands, indicating that these individuals fledged from Armonía's nestboxes in the past.

Though the results are exciting, the circumstances have been extremely difficult for the Laney Rickman Reserve rangers as Covid-19 hit the Flores family twice. We were very happy that everyone fully recovered, and they were able to continue the conservation efforts. This year, it really has been a team effort, and we would like to especially thank Cesar Flores (Head Park Ranger), Cesar Flores Jr. (Assistant Park Ranger), Miguel Ortega (Reserve Assistant Coordinator), and Teodoro Camacho (Researcher) for their continuous hard work. We would like to welcome Luz Natalia Mercado, Armonía's new Laney Rickman Reserve coordinator and Abdon Vargas, our local Laney Rickman Reserve Cowboy, to our Blue-throated Macaw conservation team.

Watch the 2019 interview with our Laney Rickman Head Park Guard [HERE](#)



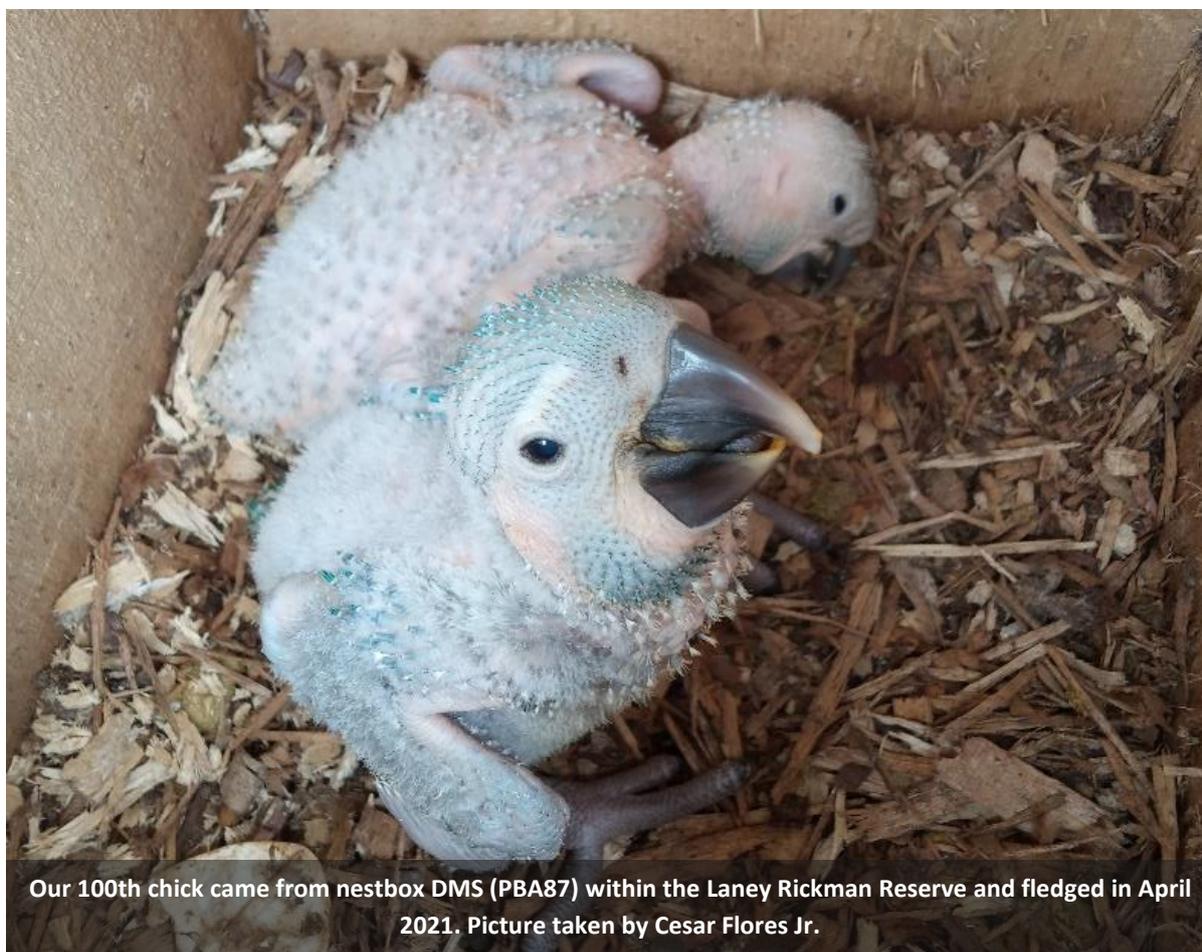
Cesar Flores Jr. monitoring Blue-throated Macaw nestboxes during the Covid-19 pandemic. Teodoro Camacho

Results 2020-2021 breeding season

A total of 75 Blue-throated Macaw nestboxes (53 in the Laney Rickman Reserve, 12 in La Cantina ranch and 10 in the Nuevo Berlin ranch) were placed or replaced in October-November 2020. Of those, 10 nestboxes were occupied by BTMs with a total of 13 breeding attempts (3 nestboxes were re-occupied by Blue-throated Macaws after clutch failure). Eight occupied nest boxes were located within the Laney Rickman Reserve, and the remaining two were located in Nuevo Berlin ranch and La Cantina ranch (fig. 3). A total of 29 eggs were laid, 15 chicks hatched and 12 chicks successfully fledged (table 1 & 2; annex 1; annex 2).

This year, nestbox PBA6 sponsored by EARTH Ltd @Southwick's Zoo became the second most successful nestbox since the project started in 2005 as it has been occupied 5 times and successfully produced Blue-throated Macaw chicks. The newly placed nestbox PBA 87 sponsored by The Paterson Family produced the 100th chick that fledged Armonía's nestbox in April 2021.

We have observed 9 breeding adults with leg bands, two more than the previous record during the 2019-2020 breeding season. Also, the 2020-2021 breeding season was second longest breeding season, lasting 191 days from December 15 until June 23 (207 days during the 2019-2020 breeding season). We are not fully aware of the factors determining the breeding period length, but it could be related to Motacu fruit availability.



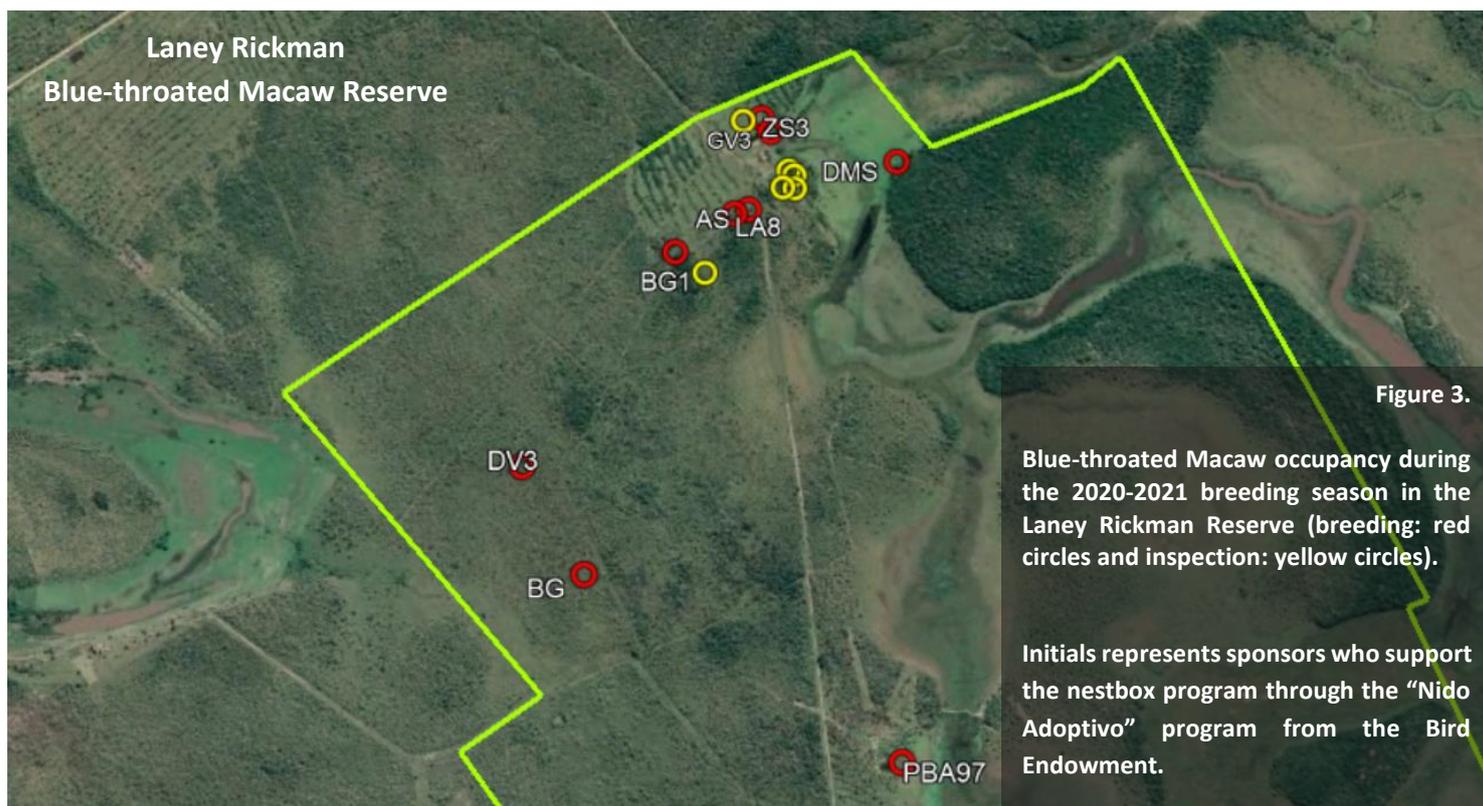
Our 100th chick came from nestbox DMS (PBA87) within the Laney Rickman Reserve and fledged in April 2021. Picture taken by Cesar Flores Jr.

Table 1. Summary of nestbox usage by different species in the reproductive period of 2020-2021. A total of 14 nestboxes were used at three different locations (11 in Laney Rickman, 1 in the Nuevo Berlin ranch, 1 in the La Cantina ranch). A total of 3 nestboxes were used for a second breeding attempt by Blue-throated Macaws of which 2 were successful in the second attempt.

Nestbox usage 2020-2021		
Species	Scientific name	# Occupied nest boxes
Blue-throated Macaw	<i>Ara glaucogularis</i>	10*
Blue-and-yellow Macaw	<i>Ara ararauna</i>	1
Chestnut-fronted Macaw	<i>Ara severus</i>	2
Black-bellied Whistling Duck	<i>Dendrocygna autumnalis</i>	1
*3 nestboxes with two attempts		

Table 2. Summary of nestboxes used by the Blue-throated Macaw during the 2020-2021 breeding season. A total of 10 nest boxes were occupied, 29 eggs produced, 15 chicks hatched and 12 chicks fledged. The 2020-2021 breeding season is the third year in a row with 12 successfully fledged chicks. LR stands for Laney Rickman Reserve; LC stands for La Cantina; NB stands for Nuevo Berlin. For more detailed information see annex 1 & 2.

Sponsor (code)	Location	# Eggs	# Chicks	# Fledglings	Birds with bands
EARTH Ltd @Southwick's Zoo (SZ 3)	LR	5*	2	2	2
Facebook Group 3 (GV3)	LR	3	2	2	1
Avian Suites (AS)	LR	3	0	0	0
Kansas City Zoo (KC3)	LR	2	1	0	0
Damon Slator (DTS)	LR	4**	0	0	0
Karen Justice (MJ)	LC	4***	3	2	2
Bob Gitomer (BG)	LR	3	3	2	0
Ray Varella (RV3)	LR	2	2	2	2
Dorothy Paterson (DMS)	LR	2	2	2	2
Judy Waskey (JW)	NB	1	0	0	0
Total		29	15	12	9
*First attempt 3 eggs (predated); second attempt 2 eggs					
** First attempt 3 eggs (predated); second attempt 1 eggs (predated)					
*** First attempt 1 chick (predated or removed by parents); second attempt 3 eggs					



Long-term results Armonía’s nest box program

This is the 16th year since Armonía started its nestbox program for the Blue-throated Macaw, a successful long-term, annual conservation measure that secures the recovery of this Critically Endangered parrot. Since 2005, the nestbox program has successfully fledged 105 Blue-throated Macaw chicks. While it is still a learning process, this in-situ conservation strategy has shown to be an effective conservation tool for a species with only around 450 individuals in the wild. Including this year, 72 Blue-throated Macaw breeding attempts have been recorded, resulting in 200 eggs of which 128 hatched and 105 fledged.

Every year, we collect highly valuable information that helps us evaluate our efforts in order to improve the assisted breeding strategy based on evidence. Our 16-year program has shown on average a 35% egg loss (infertile and/or predated) and a 12% mortality of chicks that have hatched. These data provide key information on which to change and modify measures, aiming for higher success rates. Also, as only a fraction of the placed nestboxes is used by the macaws, we have to evaluate which environmental factors play an important role in nestbox selection.

We will develop a thesis project to study these environmental factors that explain the favorable nesting conditions of successful nestboxes. Also, the camera trap videos that were gathered during the 2019-2020 and 2020-2021 breeding season will provide valuable data on Blue-throated Macaw breeding behavior previously unknown. Armonía aims to publish the nestbox results in a scientific paper.

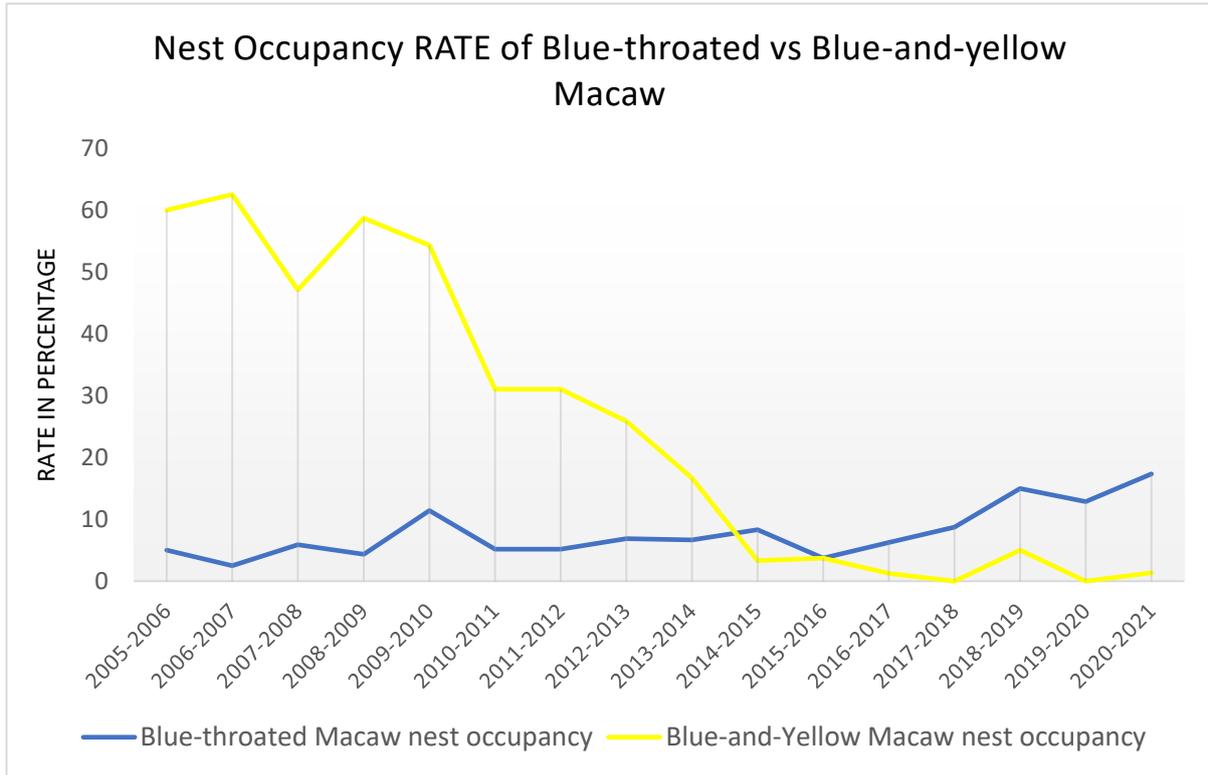


Figure 4. Nestbox occupancy of Blue-throated Macaw vs Blue-and-yellow Macaw presented over the 16 years of Armonía’s nest box program. Changes in entrance size between 2013 and 2015, have impacted favorably to the competition between these large macaws.

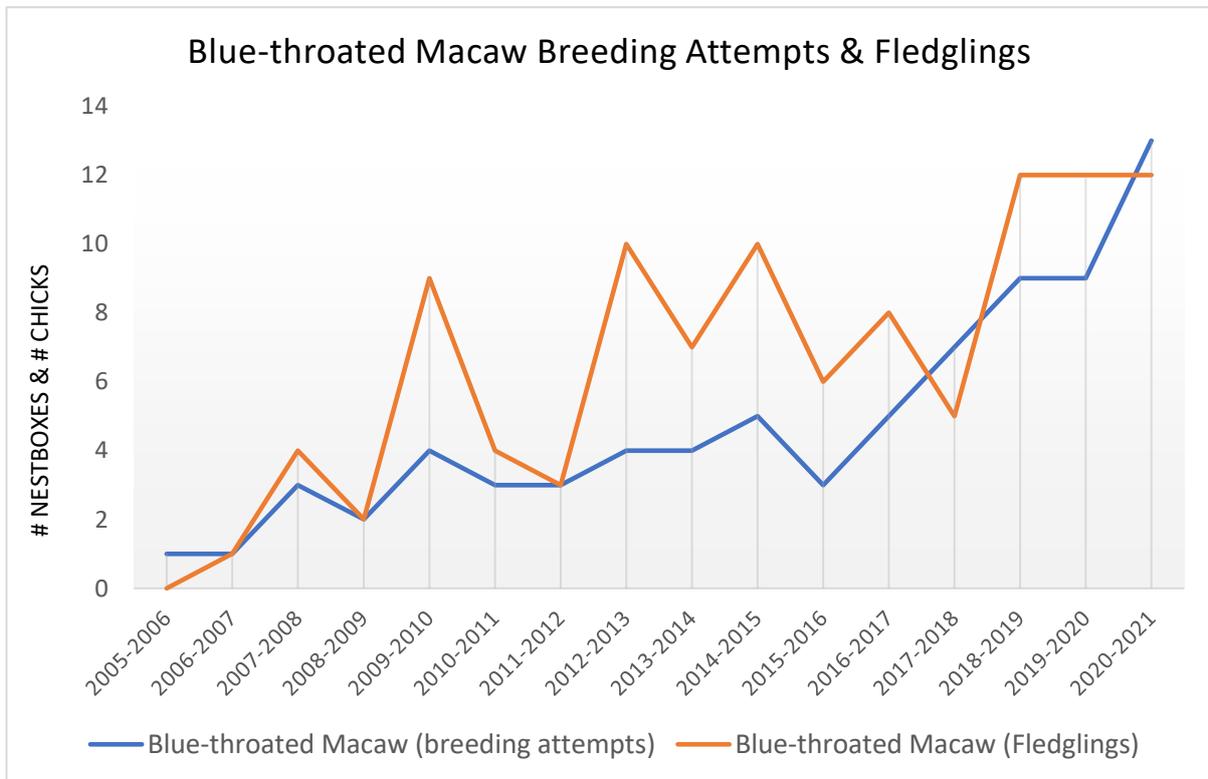


Figure 5. Nestbox breeding attempts of Blue-throated Macaw and number of fledglings presented over the 16 years of Armonía’s nest box program. For the past three years, a record tie of 12 Blue-throated Macaw chicks successfully fledged each year. The cumulative number of successful Blue-throated Macaw fledges from Armonía’s Nestbox Program reached 105 during the 2020 – 2021 breeding season.

Competition between the Blue-throated Macaw other macaw species is still one of the challenges that we are facing. We have almost fully halted the competition with the Blue-and Yellow Macaw simply by reducing the entrance hole from 25cm to 10X10 cm in 2013 (fig. 4). During this breeding season however, one pair of Blue-and-yellow Macaws were smart enough to chew the nestbox and significantly increase the entrance hole. Although it was only one breeding attempt for these macaws, the next season we are continuing to take measures to stop this competition through experimenting with different timber materials.

This year we have faced a new intruder. The even larger and more destructive Red-and-green Macaw (*Ara chloropterus*) discovered the nestboxes for the first time in December 2020. But the Red-and-green is not following the rules. Instead of using the entrance, it destroys the observation door in order to get into the boxes. A total of three pairs were observed stalking the nestboxes and chasing away Blue-throated Macaws intending to breed in these boxes. One of these boxes was PBA 33, a nestbox that successfully produced chicks 5 times during previous breeding seasons. Although the Red-and-green Macaws have not been breeding in our nest boxes, Park Ranger Cesar Flores will work on finding a new strategy to further control competition with this species.



A new intruder stealing nestboxes in the Laney Rickman Reserve - the large Red-and-green Macaw: Teodoro Camacho

**HELP SAVE
BLUE-THROATED MACAWS FROM EXTINCTION
Become a “Friend of Laney Rickman
Blue-throated Macaw Reserve”**

Blue-throated Macaw Conservation at Work

The Laney Rickman Blue-throated Macaw Reserve is a very important place for the conservation of the endemic and critically endangered Blue-throated Macaw and many of Bolivia’s Beni Savanna species. But making sure the area is well protected requires support from people like you who understand the value of nature and wild places.

Centuries of human disturbance in the area had removed the large trees that historically would have offered safe nest cavities. In 2005 Armonía started a Blue-throated Macaw nest box program. Up to 2020, more than 90 Blue-throated Macaws have successfully fledged from Armonía nest boxes. In 2018, Armonía was able to purchase the most important breeding site now called the Laney Rickman Blue-throated Macaw Reserve, in recognition of Laney's dedication to saving the Blue-throated Macaws. Over 1,680 acres (681 ha) of savanna and tropical forest in northern Bolivia is now protected.

Your impact as a Friend of Laney Rickman Blue-throated Macaw Reserve

The most important breeding site for the southern subpopulation is now protected forever. But conservation goals are not met by just buying land, as this emblematic species can suffer from threats like poaching, uncontrolled fires and invading cattle negatively affecting the habitat. Your support will go directly to protecting this species and its crucial habitat by restoring this endangered ecosystem through the nest box program, fire prevention, parkguard patrols, and habitat restoration.

How to become Friend of Laney Rickman Blue-throated Macaw Reserve

A “Friend of Laney Rickman Blue-throated Macaw Reserve” is a group of individuals who have committed to assisting our protection efforts. They receive two reports a year, including our financial report and next year’s management budget. Friends will be informed of the conservation details and encouraged to help with ideas, suggestions, contacts and references.

To become a “Friend of Laney Rickman Blue-throated Macaw Reserve”, ideally, we request a yearly donation of US\$10,000 with a minimum annual donation of US \$2000. For previous reports, questions and if you are interested in becoming a “Friend of Laney Rickman Blue-throated Macaw Reserve,” please contact Bennett Hennessey, director of development (abhennessey@armonia-bo.org).

Your donation can be made through Bird Endowment’s website:

www.BirdEndowment.org

Annex 1: Summary of nestboxes used

Table 3. Summary of the 14 occupied nestboxes out of 75 set this breeding season in the Laney Rickman Reserve, Nuevo Berlin and La Cantina ranch. The sponsor code column contains the initials of the sponsor (person or institution) that sponsored the nest during this breeding season. The nest code column is a fixed code that identifies each nest, and remains permanent across the breeding seasons. The column “historic BTM use” indicates the number of times the nest was occupied by Blue-throated Macaws (BTM) in the past. Nest type indicates the form of nestbox (square, hexagonal or octagonal), and tree species indicated to which type of tree the nestbox was located. A total of 10 nestboxes were used by Blue-throated Macaws of which nestbox PBA 6, PBA 32 and PBA 44 were occupied twice. BTM results: 29 eggs, 15 hatched and 12 chicks fledged.

#	Nest code	Sponsor	Historic BTM use	Species	Nest type	Tree species	# (egg, chick)	Dates (first egg, chick and fledging)
1	PBA 5	RV	0	<i>Ara severus</i>	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 2	Eggs: 18 JAN 21
1	PBA 5	RV	0	<i>Dendrocygna autumnalis</i>	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 10	Eggs: 26 FEB 21
2	PBA 6	SZ3	4 (2011-2012) (2017-2018) (2018-2019) (2019-2020)	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 3 (predated)	Eggs: 02 JAN 21
2	PBA 6	SZ3	4 (2011-2012) (2017-2018) (2018-2019) (2019-2020)	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 2 Chicks: 2 Fledged: 2	Egg 1: 26 FEB 21 Egg 2: 9 MAR 21 Chicks: 29 MAR 21 Fledged: 23 JUL 21
3	PBA 10	MUN	0	<i>Ara severus</i>	Square	Japunaqui	Eggs: 2	Eggs: 26 FEB 21
4	PBA 11	GV3	1 (2018-2019)	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 3 Chicks: 2 Fledged: 2	Egg 1: 15 DEC 20 Egg 2&3: 28 DEC 20 Chicks: 18 JAN 21 Fledged: 13 APR 21
5	PBA 20	AS	1 (2018-2019)	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 3 (predated)	Eggs: 30 JAN 21
6	PBA 21	KC3	3 (2016-2017) (2017-2018) (2019-2020)	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 2 Chicks: 1 (predated)	Eggs: 30 MAR 2021 Chick 1: 9 APR 2021
7	PBA 32	DTS	0	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 3 (predated)	Egg 1&2: 22 DEC 20 Egg 3: 02 JAN 21
7	PBA 32	DTS	0	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 1 (predated)	Egg 1: 14 FEB 21
8	PBA 44	MJ	2 (2012-2013) (2014-2015)	Blue-throated Macaw	Square	<i>Attalea princeps (palm)</i>	Eggs: 1 Chicks: 1	Chicks 1: 01 FEB 2021
8	PBA 44	MJ	2 (2012-2013) (2014-2015)	Blue-throated Macaw	Square	<i>Attalea princeps (palm)</i>	Eggs: 3 Chicks: 2 Fledged: 2	Eggs: 24 MAR 21 Chicks: 27 JAN 21 Fledged: 23 JUN 21
9	PBA 84	-	0	Blue-and-yellow Macaw	Square		Eggs: 2 (predated)	Eggs: 2 FEB 21
10	PBA 81	BG	0	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 3 Chicks: 3 Fledged: 2	Eggs: 2 JAN 21 Chicks: 18 JAN 21 Fledged: 12 APR 21

11	PBA 85	RV3	0	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 2 Chicks: 2 Fledged: 2	Eggs: NO DATA Chicks: 4 MAR 21 Fledged: 12 APR 21
13	PBA 87	DMS	0	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 2 Chicks: 2 Fledged: 2	Eggs: NO DATA Chicks: 15 FEB 21 Fledged: 9 APR 21
14	PBA 97	JW	0	Blue-throated Macaw	Square	<i>Acrocomia aculeata (palm)</i>	Eggs: 1 (predated)	Egg: 14 FEB



Luz Natalia Mercado, Tjalle Boorsma, Cesar Flores Jr. & Cesar Flores Sr. evaluating the nestbox program: Bennett Hennessey

Annex 2: Description of nestboxes used by Blue-throated Macaws

Sponsor (code): EARTH Ltd @Southwick's Zoo (SZ 3)
Nest code: PBA 6
Location: Laney Rickman Blue-throated Macaw Reserve

First breeding attempt: Being one of the closest nestboxes to the Laney Rickman Reserve housing, this one is also one of the most successful ones with 5 successful occupations. By January 2nd three eggs were found. By January 18 only one was left followed by the loss of the third egg a few days later. These eggs have potentially been predated.

Second breeding attempt: Two ringed adults were observed during the second attempt. Two eggs were laid by March 3. Chicks hatched around April 26 and looked healthy throughout the monitoring period. Both chicks successfully fledged around the 23rd of June. They were ringed with code number 2022-BO-003 and 2022-BO-004. (2021 rings were no longer available).



Sponsor code: Facebook Group 3 (GV 3)
Nest code: PBA 11
Location: Laney Rickman Blue-throated Macaw Reserve

The first egg of the 2020-2021 breeding season was found in this nestbox on the 15th of December and initiated the breeding season. One breeding individual was ringed. By December 28, 3 eggs were found and seemed in good shape. The first chick hatched by January 10 and the second by the 28th. The last egg turned out to be infertile. The two hatched chicks looked healthy and developed well throughout the monitoring period and fledged on April 13th. Only one individual was ringed with code number 2021-BO-005. Due to Covid-19 the second bird was not ringed during the short ringing period.



Sponsor code: Avian Suites (AS)
Nest code: PBA 20
Location: Laney Rickman Blue-throated Macaw Reserve

This nestbox had only one previous successful breeding occupation during the 2018-2019 breeding season. This year was not so successful since 3 eggs were laid by January 30 but were found predated by February 8



Sponsor code: Kansas City Zoo (KC 3)
Nest code: PBA 21
Location: Laney Rickman Blue-throated Macaw Reserve

This nest was occupied by two ringed adults during this breeding season. Two eggs were found on March 30. On April 12 a recently hatched chick was found looking healthy next to 1 non-hatched egg. During the following monitoring day carried out on April 19 the nest was found empty.



Sponsor code: Damon Slator (DTS)
Nest code: PBA 32
Location: Laney Rickman Blue-throated Macaw Reserve

First breeding attempt: On December 22nd 2020, two seemingly healthy eggs were found. The following monitoring confirmed 3 eggs by the 2nd of January. On January 18 all eggs were gone and no Blue-throated Macaw activity was recorded at the nest.

Second breeding attempt: On February 14 one single egg was found in a second breeding attempt by Blue-throated Macaws. On February 26 the egg was missing and potentially predated.



Sponsor code: Karen Justice (MJ)
Nest code: PBA 44
Location: Laney Rickman Blue-throated Macaw Reserve

First breeding attempt: Due to the Covid-19 situation, not all monitoring dates were met and therefore the egg laying date was not observed. On the 1st of February a single chick was found. On the following monitoring day, February 15th, no activity was recorded in the nest. The chick might have died and was removed by the parents or predated.

Second breeding attempt: Three eggs were laid by March 24. Both breeding individuals were ringed. Only two chicks hatched and developed well throughout the monitoring period. On April 2 both chicks were assigned rings with codes: 2022-BO-001 and 2022-BO-002 (rings for 2021 were no longer available). By June 7th the chicks were almost completely feathered and fledged around June 23.



February 1



March 24



April 6



April 19



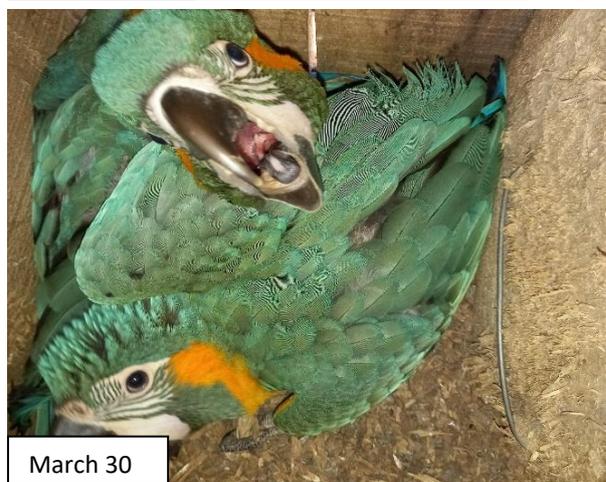
May 3rd



June 7

Sponsor code: Bob Gitomer (BG)
Nest code: PBA 81
Location: Laney Rickman Blue-throated Macaw Reserve

The first day of 2021 three eggs were found seemingly in a good state. By January 10th three chicks hatched, two of regular size and one particularly smaller. On January 30 monitoring confirmed only two chicks growing healthy with one of the parents near the nest. These two chicks developed normally until fledging around April 12. Sadly, these birds were not ringed as our staff was ill with Covid-19 and the birds can only be ringed in a short period in time.



Sponsor code: Ray Varella (RV 3)
Nest code: PBA 85
Location: Laney Rickman Blue-throated Macaw Reserve

Due to the Covid-19 situation, not all monitoring dates were met and therefore the egg laying date was not observed. The breeding pair of this nest consisted of two ringed individuals. Two healthy chicks were found in the nest on February 14 with one significantly smaller than the other. Both chicks were observed developing well throughout the breeding period and successfully fledged around April 20. Both chicks were ringed with the following codes: 2021-BO-008 and 2021-BO-009.



Sponsor code: The Paterson Family (DMS)
Nest code: PBA 87
Location: Laney Rickman Blue-throated Macaw Reserve

Due to the Covid-19 situation, not all monitoring dates were met and therefore the egg laying date was not observed. The breeding pair of this nest consisted of two ringed individuals. Two healthy chicks were observed in the nest on February 15. Their development was recorded with normality throughout the monitoring period until they fledging around April 9th. Both individuals were ringed with the following codes: 2021-BO-06 and 2021-BO-007. This nest produced the 100th chick that fledged from Armonía's nestbox program since it started in 2005.



Sponsor code: Judy Waskey (JW)
Nest code: PBA 97
Location: Laney Rickman Blue-throated Macaw Reserve

One egg was found on February 14. By February 26 the egg was potentially predated and no Blue-throated Macaws were recorded around the nest.

