



STINAPA BONAIRE / WASHINGTON SLAGBAAI NATIONAL PARK

**BROWN BOOBY MONITORING PROGRAM
YEAR REPORT 2009**



**Written by: Fernando Simal
Cover photo: Patrick Holian**

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Also, I would like to thank all the volunteers that have participated in the bird surveys this year. Esther Wolf, Rutsel Paula, George Saragoza and Elsmarie Beukenbom, regulars since last year and some new people: Patrick and Hettie Holian that have become regulars in 2009.

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1. Introduction

This report shows the results of the second year of monitoring the colony of Brown Boobies roosting at the North of Bonaire, between Malmok and South of Boka Katuna. A comparison of the results of both years is presented together with the ratio of mature and immature birds. The base line number for this monitoring program dates back to the 1950's and was taken from Dr. Voous book "Birds of The Netherlands Antilles". Dr. Voous reported 200 birds.

For information about methods, the study area and the background of this project refer to last year's report available from STINAPA Bonaire. "Brown Booby Monitoring Program. Year Report 2008".

2. Objectives

2.1 Main Objectives

- Estimate the total number of Brown Boobies roosting at Malmok throughout the year and their seasonal variability in numbers.
- Determine the ratio of immature and adults.
- Find indications of breeding or nesting activities.
- Compare numbers of Brown boobies from 2008 and 2009

2.2 Secondary objectives.

- Determine the presence/absence of rare sea birds for Bonaire, like Brown Noddies, Masked Boobies and Red-footed Boobies.
- Learn about bird behaviour and ecology by observations during the surveys.
- Find and identify ringed birds.
- Educate and directly involve local residents in bird related activities.

3. Results and Discussion

We can observe in figure 1 that the maximum number of birds counted this year exceeds that of last year by 30% and the baseline by 20%. Further, the total number of birds counted in the year is also higher than during 2008, about 11, 7 %. This corroborates our conclusion from last year regarding the good shape of the roost.

We can also observe that in general the numbers of birds present at the roost for both years are relatively close and no extraordinary differences exist between them, except for the month of July, when there is a significant larger amount of birds present in 2009.

Identical to 2008, the maximum number was obtained during the month of July and the minimum in January and the shape of the curves for both years is quite similar, so we can start talking about a possible yearly pattern in the abundance of birds at the roost.

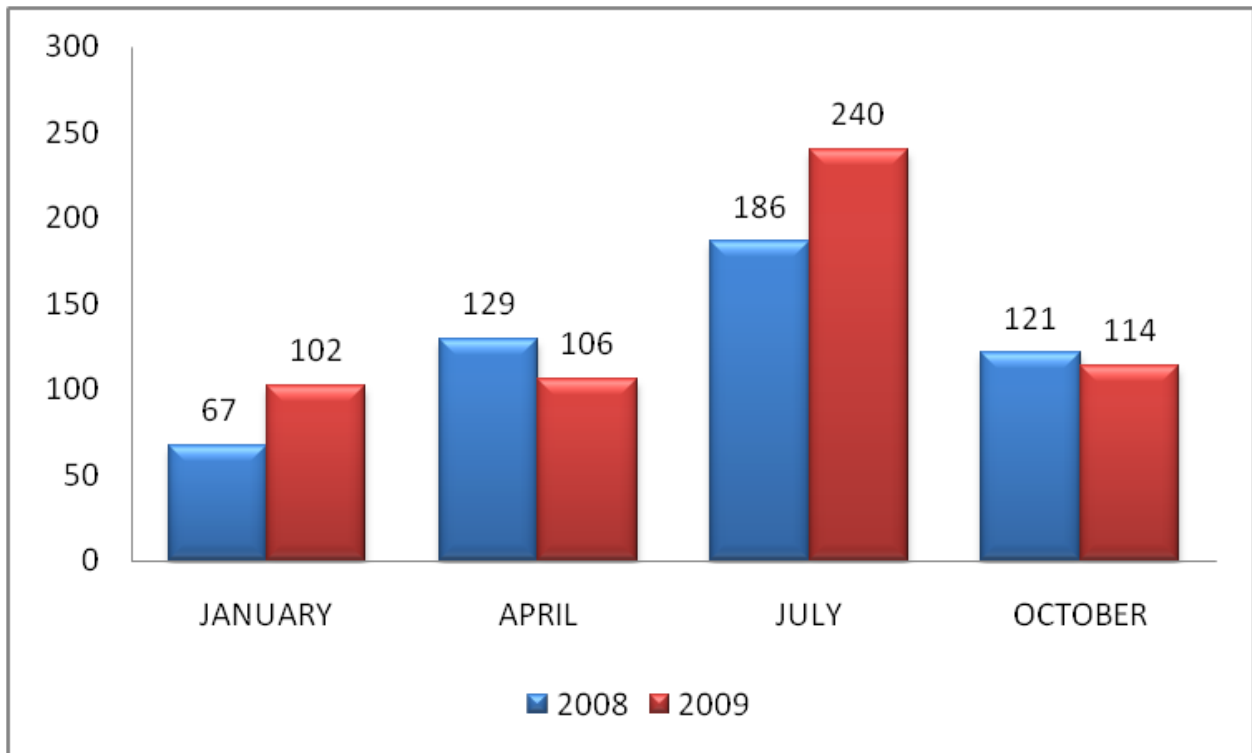


Figure 1. Number of Brown Boobies registered at Malmok during 2008 and 2009

This year we succeeded in collecting data regarding the maturity of the birds at the roost. The presence of immature birds in the colony indicates that it is productive, which is always a good indication of its health, however we only have a portion of the total population of this birds roosting here at Malmok and we do not have enough available information on the numbers of nesting birds and other roosts in this area, so we are not available to make definite conclusions on the complete population of Brown boobies.

Looking at figure 2, we can observe that immature birds were observed throughout the entire year in relatively similar ratio. The year average is very close to 20%, with a maximum of 27% and a minimum of 16%.

Four Masked Boobies (*Sula dactylatra*) and only one Brown Noddy (*Anous stolidus*) were registered in 2009. We did not observe any ringed birds, neither breeding nor nesting activity. No Red-footed Boobies were registered.

A total of seventeen people participated in the counts including STINAPA Bonaire's staff, interns, local residents and island visitors. Some of them had little or no birding experience. Four of them participated in all counts and had previous experience from last year, which helped enormously to collect data regarding bird maturity, an objective pending since last year's surveys. Some of these volunteers are also seriously involved in the monitoring program for waterbirds inhabiting the salinas on the Northwest of the island and have become important players in the achievement of the bird conservation goals of STINAPA Bonaire.

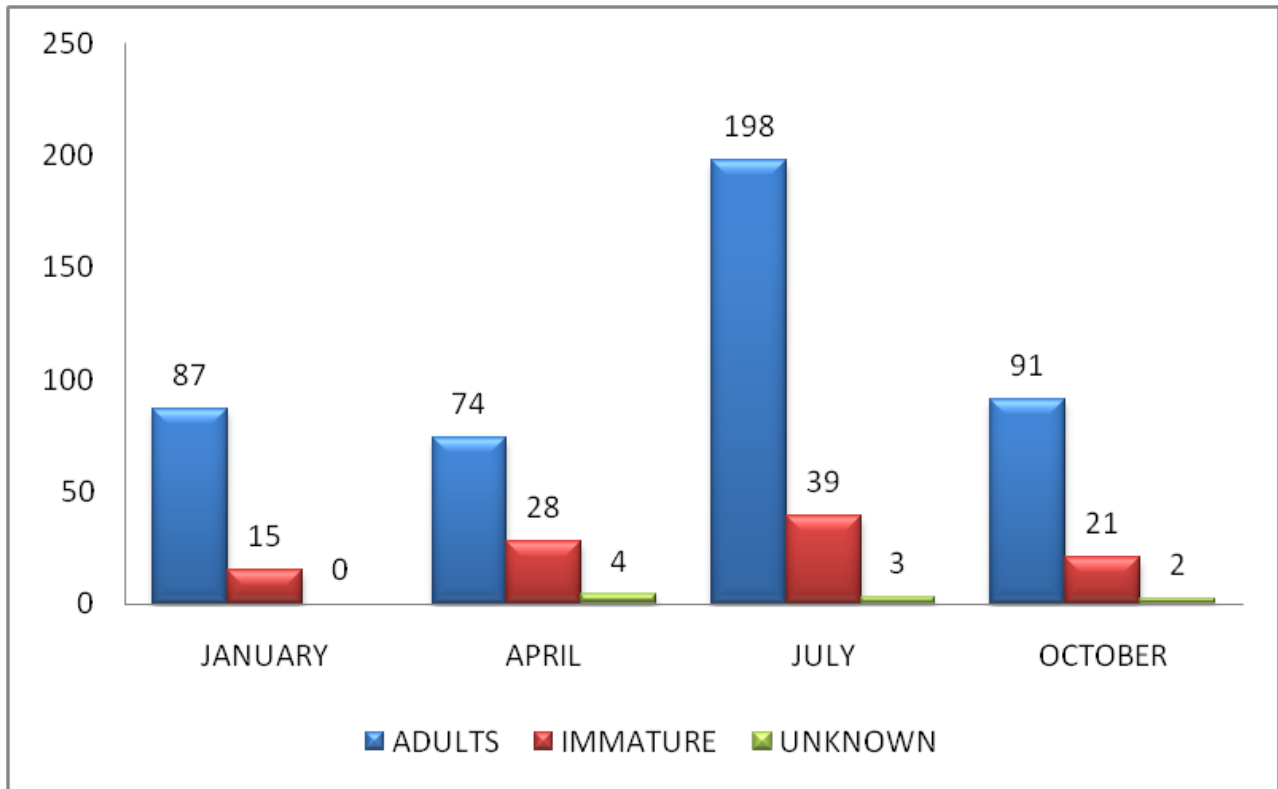


Figure 2. Number of mature and immature Brown Boobies at Malmok in 2009

Overall, this was a very successful year for the Brown Boobie monitoring program. We can say that the colony roosting at Malmok is stable in numbers and also productive, even though the nesting does not occur here on the island. This combined with a formal involvement of a large number of volunteers rounds off a very fruitful year.

4. Recommendations

- To keep collecting data for long term monitoring programs. It is fundamental for the proper management of our natural resources.
- Try to recruit regular local volunteers and provide them with training until financial resources to hire professional staff are available.
- Increase the number of bird surveys as resources and trained personnel become available.
- If a third year of surveys brings again positive results consider lowering the frequency of the surveys in order to cover other species that need attention.