



## Tern Mating Grounds Action Plan: Baby Beach, San Nicolas



Fundacion Parke Nacional Aruba

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Roseate terns, pair bonding. Photo taken 18 April 2022.

## Background

This report presents a quick scan and solutions for mitigating current human impacts, such as people walking through the tern colonies and camping activities, at the San Nicolas Bay area, that are affecting pair bonding and mating area, and ultimately the breeding success of 10 species of tern. This report is endorsed by Aruba Birdlife Conservation (ABC) and is a call for conservation action.

FPNA is a professional conservation management organisation that focuses on ecosystem and biodiversity conservation within a sustainability framework. As a custodian of nature, FPNA promotes sustainable practices that integrate natural, environmental, social, cultural, and economic objectives, and that address long-term concerns, in a meaningful way to ensure that our natural resources remain relevant for present and future generations.

The Marine Protected Area (MPA) San Nicolas and the San Nicolas reef islands ('Important Bird and Biodiversity Area' status) therein are under FPNA management. The San Nicolas reef islands are the nesting grounds for 10 species of tern (see Table 1), two of which are protected under both local law (AB 1995 no.2 Art. 4/AB 2017 no. 48) and SPAW protocol, namely the Least Tern (*Sternula antillarum*) and Roseate Tern (*Sterna dougallii*).

Table 1. The 10 species of tern using the San Nicolas Bay and reef islands for nesting

<b>Least Tern</b> <i>Sternula antillarum</i>
<b>Roseate Tern</b> <i>Sterna dougallii</i>
<b>Cayenne tern</b> <i>Thalasseus acufavidus eurygnathus</i>
<b>Sandwich tern</b> <i>Thalasseus acufavidus acufavidus</i>
<b>Royal tern</b> <i>Thalasseus maxima</i>
<b>Common tern</b> <i>Sterna hirundo</i>
<b>Bridled tern</b> <i>Onychoprion anaethetus</i>
<b>Sooty tern</b> <i>Onychoprion fuscatus</i>
<b>Brown noddy</b> <i>Anous stolidus</i>
<b>Black noddy</b> <i>Anous minutus</i>

Besides using the San Nicolas reef islands for breeding, terns also use the coastal areas of Baby Beach (not under FPNA management) for pair bonding and mating prior to nesting on the reef islands, which is a crucial part of their nesting ecology. Pair bonding and mating occurs from March to June for the different tern species. Table 2 shows the estimated number of nesting pairs for laughing gulls and the 10 tern species at the San Nicolas Bay. The 1999 nesting season had the highest number of birds with 10,304 nesting pairs in San Nicolas Bay.

Table 2. Estimated Number of Nesting Pairs of Terns and Laughing Gulls within San Nicolas Bay, Aruba, 1999 – 2009 (Del Nevo 2009).

Species	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Laughing Gull	74	205	350	(219)+	98	(165)	205	268	234	247	315
Cayenne Tern	3,226	2,750	3,581	(1,803)	4,012	(1,600)	2,774	1,343	2,858	3,876	1,987
Sandwich Tern	5	3	3	?	0	(1)	3	10	4	2	2
Royal Tern	2	1	1	?	0	(1)	0	0	0	2	1
Roseate Tern	(25) <sup>1</sup>	5	52	(0)	75	(0)	0	0	0	0	0
Common Tern	39	40	24	(7)	4	(4)	4	24	29	23	24
Bridled Tern	122	108	51	52	58	(46)	33	36	46	51	53
Sooty Tern	6,650	1,580	2,434	(2,800)+	2,765	(4,000)	1,266	4,190	1,410	3,144	3,248
Least Tern	19	46	55	(3)	10	(3)	0	3	4	5	5
Brown Noddy	116	158	164	144	155	(132)	149	165	144	138	147
Black Noddy	26	32	48	?	?	?	?	?	?	?	?
<b>TOTAL</b>	<b>10,304</b>	<b>4,928</b>	<b>6,763</b>	<b>(5,028)+</b>	<b>7,177</b>	<b>(5,952)</b>	<b>4,434</b>	<b>6,039</b>	<b>4,729</b>	<b>7,486</b>	<b>5,782</b>

### The value of terns for humans and for nature

FPNA's encourages and facilitates 'Giving value for Nature' through protection, preservation and restoration of biodiversity and habitats, improvement of the condition and sustainability of ecosystem services, and the development and provisioning of sustainable, nature-based propositions and experiences. The following values apply to the terns at the San Nicolas Bay area:

- Aruba, and particularly the San Nicolas bays and islets are unique within the Caribbean and most probably the world.
- Every year, 25.000 terns return to the San Nicolas Bay Reef Islands. 10.000 pairs reproduce and secure their offspring on these very vulnerable islets.
- 16 species of terns are seen in North America every year, and 10 of the 16 species breed on Aruba's reef islands. Aruba is the only place in the world where 10 species of terns gather. While other places around the globe may have four or five species converging, nowhere else has 10 species.
- In 2009 San Nicolas Bay contained approximately 25% of the world's population of Cayenne terns, over 90% of the Caribbean population of common terns, and 25% of the Caribbean's black noddy.
- The tern populations around Baby Beach could become an additional attraction for ecotourism, birders, and photographers, if proper mitigation is put in place, such as barriers and signage for staying at a safe distance.

- By protecting the social and breeding areas mentioned below and educating the public (also on sustainable behaviours), the community will have an increase in knowledge and appreciation of local biodiversity and conservation efforts. This will create a positive and nature-inclusive image of Aruba and serve as an example of sustainability.

### Impacted area

Figure 1 (below) shows the three areas at Baby Beach where different species of tern congregate for social interaction and reproductive behaviour.

Tern pair bonding and mating areas: <https://goo.gl/maps/Bo4mrd1REvXAz2L9>



Figure 1: ROP 2019 image where the terns form pair bonds and mate (red squares).



## Survey of Impact



Figure 2: Photos of tern colony pair bonding and mating at Baby Beach. Photos taken 13 April 2022. Top row – Tern colony overview at social and mating site Baby Beach. Bottom row – Close-up of tern pair bonding (by offering fish) and tern mating.

During the quick scan, several groups of people were approaching the tern colony for pictures. There are also camping tents being set up in the tern mating areas. Both these activities as well as the beach cleaning vehicle that passes over these areas several times a week disrupts these social gatherings and disturbs the tern breeding process and can ultimately affect the season's breeding success.

### Urgent Call for Action

In order to ensure tern breeding success in 2022 and consecutive years, FPNA requests immediate mitigation and advises as follows:

- Have seasonal closing of the tern mating areas as indicated in Figure 3, from March to June. DOW barriers are ideal and should be placed to secure the areas. FPNA rope barriers are an alternative option (action: DOW/FPNA).
- Place signage informing people as not to pass the seasonal barriers to the tern social and mating areas (action: FPNA)
- Launch a public awareness campaign annually in the weeks leading up to the seasonal closing of the tern mating areas. (action: FPNA/ATA)



Figure 3: Seasonal barriers (red line) and seasonal signage locations (orange circle). Closing season is from March to June.

It is also crucial that during the closing season all dogs are held on a leash when in the area of Baby Beach and kept well away from the sectioned-off tern areas. Also, no Easter camping should be allowed in the vicinity and the beach cleaning vehicle should be prevented from entering the tern section.

#### [Reference List](#)

Del Nevo (2009), An Assessment of Nesting Seabirds within San Nicolas Bay, Aruba.

#### [Appendix](#)

See video taken on 13 April 2022 and included in email as an appendix to this report.