

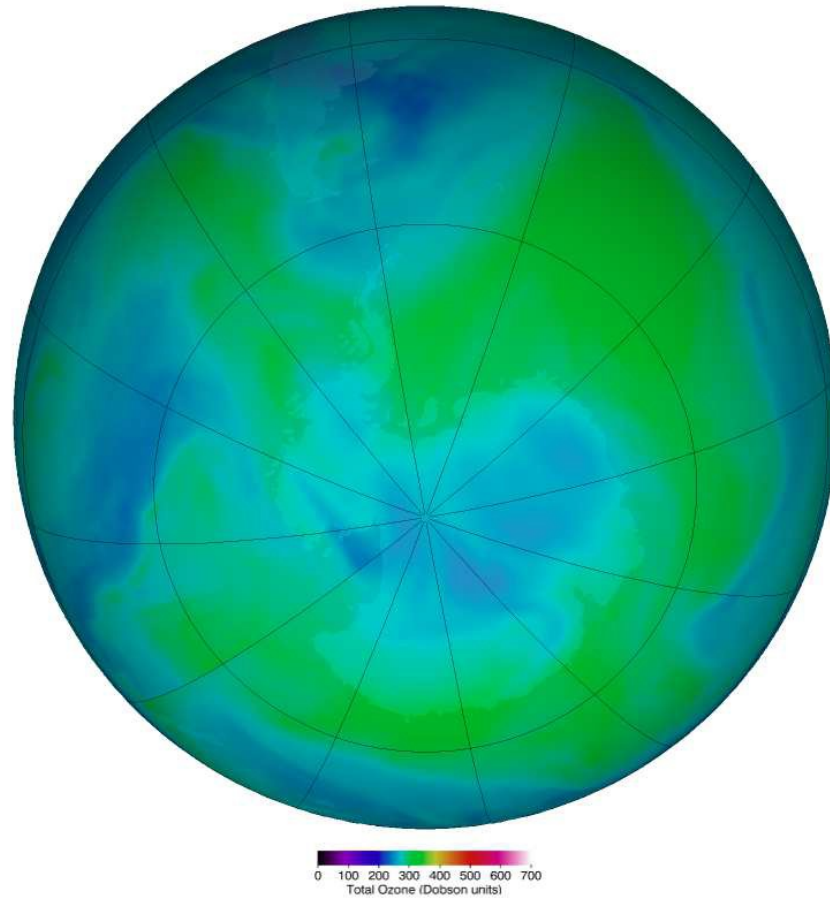
**SpaceX**  
**Expansion**  
**Approval**

**June 2023**

**Unexamined  
impacts**



- Ozone depletion**
- Environmental  
damage**



Rockets destroy ozone

1.

Rockets create local ozone holes.

Their radical emissions cause immediate, almost total ozone destruction for up to hundreds of square miles and lasting days

2.

Rocket exhaust and pollutants  
react with and destroy ozone over  
the long term.

3.


Rocket pollutants and water vapor  
block the sun from replenishing  
ozone in the stratosphere

4.

The shockwave of de-orbiting debris, satellites, and rockets creates nitric oxide which destroys ozone.

An ozone hole over Santa Barbara  
and Ventura Counties?



A satellite-style map of the SpaceX Starbase area in Boca Raton, Florida. The map shows the coastline, roads, and various landmarks. A white rectangular box is overlaid on the map, containing a quote. Several red location pins are visible on the map, with one labeled 'SpaceX Starbase Tracking Station' and another labeled 'Starbase'. The text 'Las Palomas Wildlife Management Area Boca' is also visible on the map.

“

We've got a lot of land with nobody around, so if it blows up, it's cool.

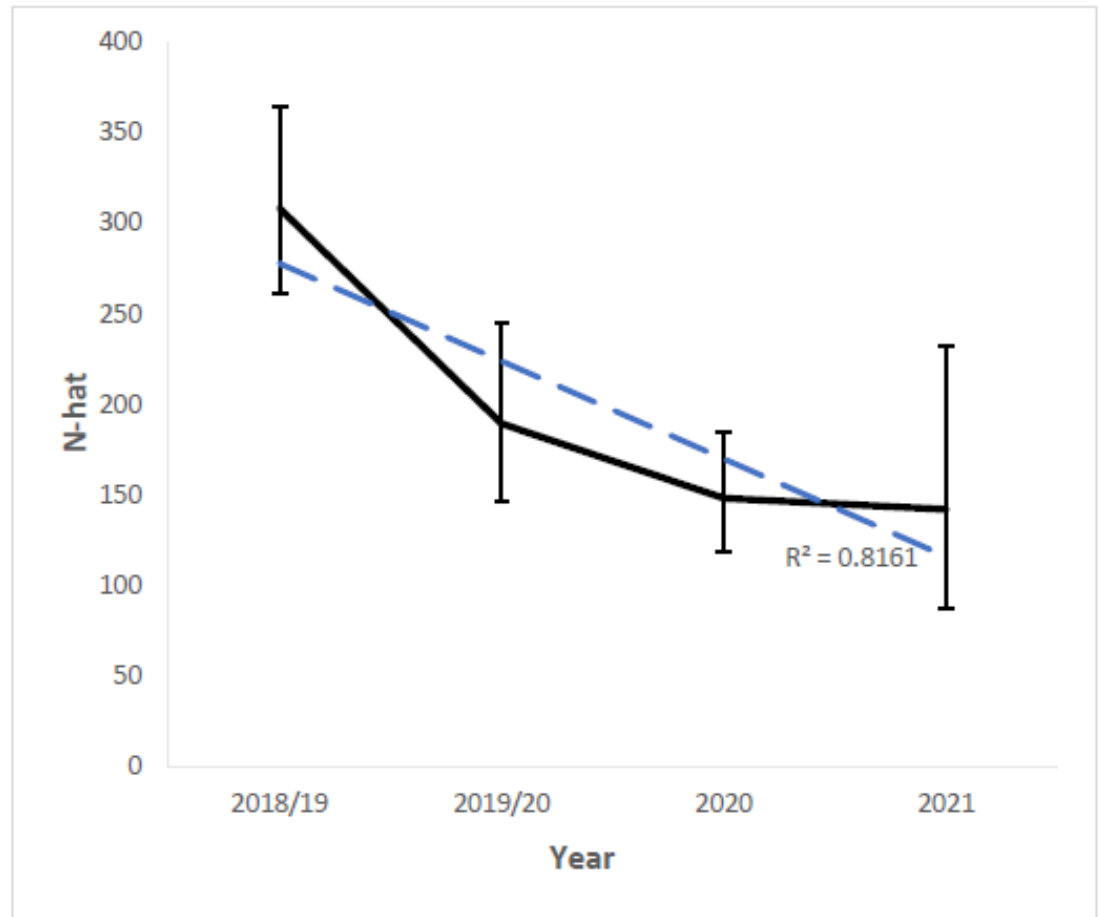
Las Palomas  
Wildlife  
Management  
Area Boca

- ELON MUSK

”

**Fig. 1. Population estimate (including 95% confidence intervals) and trend of Piping Plovers at Boca Chica, 2018-2021.**

The wintering Piping Plover population at the site declined from approximately 308 to 142 over the course of three years,







Runoff trenched onto the mud flats, June 2021

Credit: Coastal Bend Bays & Estuaries Program

A close-up, slightly blurred photograph of a tiger's face, showing its eyes and stripes. The image is dark and serves as the background for the text.

“

It's really been shocking to witness the way the federal government has allowed this to happen, Elon Musk is building a space complex in one of the most environmentally diverse, and inappropriate, places in the world.

”

**- Bryan Bird (Defenders of Wildlife)**



ULTRAFIRE XR6



# Snowy plover sits on nest, SpaceX SuperHeavy rocket launch, April 2023

*U.S. Fish and Wildlife Service*



# Boca Chica, April, 2023

## SpaceX Super Heavy Launch

Texas Public Radio, Michael Gonzalez



Texas Public Radio





And then SpaceX blew up the rocket  
*Credit: REUTERS/Joe Skipp*

# **SpaceX Blast Left Officials in Disbelief Over Environmental Damage**

Fish and Wildlife Service biologists expressed frustrations in emails obtained by Bloomberg.

**Left a 385-acre debris field that flung  
concrete chunks as far as 2,680 feet  
from the launchpad, sparked 3.5-  
acre state park fire**

**-- Bloomberg**

## Texas Public Radio –

The U.S. Fish and Wildlife Service (USFWS) documented that the debris cloud of **pulverized concrete** deposited material as far as  
as  
**six-and-a-half miles north**  
of the launch pad.

Wildlife officials questioned at the time if they were being blocked from the explosion site after they were unable to view the area for 48 hours had passed, according to communication records obtained by Bloomberg.

How many dead bodies of animals  
were removed  
during the 48 hours?



Burned quail eggs

## Other Events:

**Dec 9, 2020** - explosion of SN8 - Big debris (LE managed); Space-X still dragged/damaged flats

**February 28, 2020** - explosion - SN1 - Big debris north of Highway 4

**November 20, 2019** - MK 1 explosion; Nose cone north of HW 4; cable fence damaged (never fixed)



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Debris from SN11 explosion spread across Boca Chica State Park flats, March 30, 2021



March 30, 2021



September 2022

**Fire at SpaceX launch site burns 68  
acres at protected refuge killing  
wildlife**



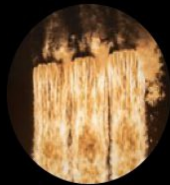
**Armani** ✓ @historyofarmani · 13h

You know what wasnt in the best interest of people? the U.S. government organizing a coup against Evo Morales in Bolivia so you could obtain the lithium there.

30

203

2,289



**Elon Musk** 🌹 ✓

@elonmusk

Replying to @historyofarmani

We will coup whoever we want!  
Deal with it.

11:32 PM · 7/24/20 · Twitter for iPhone



What about  
the wildlife  
at  
Vandenberg,  
far away  
from public  
monitoring?

What damage has SpaceX already  
done at Vandenberg and to the  
sky?