



Marine Corps Base Camp Lejeune



Land and Wildlife Resources Bird Projects

**Edge Kornegay
Wildlife Biologist**



***Marine Corps
Base
Camp Lejeune***

LWRS Bird Projects



- ❖ MAPS Station
- ❖ Point Counts
- ❖ North Carolina Bird Atlas
- ❖ Christmas Bird Count
- ❖ Nightjar Survey Network
- ❖ Human Wildlife Interactions
- ❖ Nest Boxes
- ❖ World Migratory Bird Day Events



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About MAPS



- ❖ Monitoring Avian Productivity and Survivorship
- ❖ Continent-wide collaborative effort among public agencies, non-governmental groups, and individuals to assist the conservation of birds and their habitats through bird banding.
- ❖ Since 1989, more than 1,200 MAPS stations spread across nearly every state and Canadian province have collected more than 2.5 million bird capture records.
- ❖ MAPS data can be used to estimate vital rates- like productivity, recruitment, and survival of individual bird species.



The INSTITUTE for
BIRD POPULATIONS



- ❖ Standardization – year to year comparisons
- ❖ Continuity:
 - Minimum of 5 consecutive years to produce reliable estimates of vital rates
 - Minimum of 10-20 consecutive years to detect trends in these vital rates
- ❖ 2022 – Camp Lejeune’s pilot year for first MAPS station





❖ Type

- 12 m long
- 30mm mesh size

❖ Number

- Optimal: 10

❖ Density

- 1.25-1.5 nets per hectare

❖ Placement

- Permanent locations
- Opportunistic placement
 - Interior habitat
 - Edge and scrub habitat
 - Near water

Traps Bay MAPS Station





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Operating a MAPS Station



- ❖ Dates of operation
 - Breeding season is split into ten 10-day periods
 - Breeding Season: May-Aug for North America
- ❖ Frequency of effort: One day in each 10-day period
- ❖ Operating times
 - Open at sunrise
 - Keep nets open for 6 hours



Species Captured at Station:

- ❖ Northern Cardinal
- ❖ Carolina Wren
- ❖ Summer Tanager
- ❖ White-eyed Vireo
- ❖ Great-crested Flycatcher
- ❖ Blue-gray Gnatcatcher
- ❖ Blue Grosbeak
- ❖ Carolina Chickadee
- ❖ Pine Warbler
- ❖ Tufted Titmouse
- ❖ Prothonotary Warbler
- ❖ Blue Jay
- ❖ Gray Catbird
- ❖ Indigo Bunting
- ❖ Painted Bunting
- ❖ Red-headed Woodpecker

Summary of Captures

- ❖ New: 81
- ❖ Recaptures: 20
- ❖ Total: 101

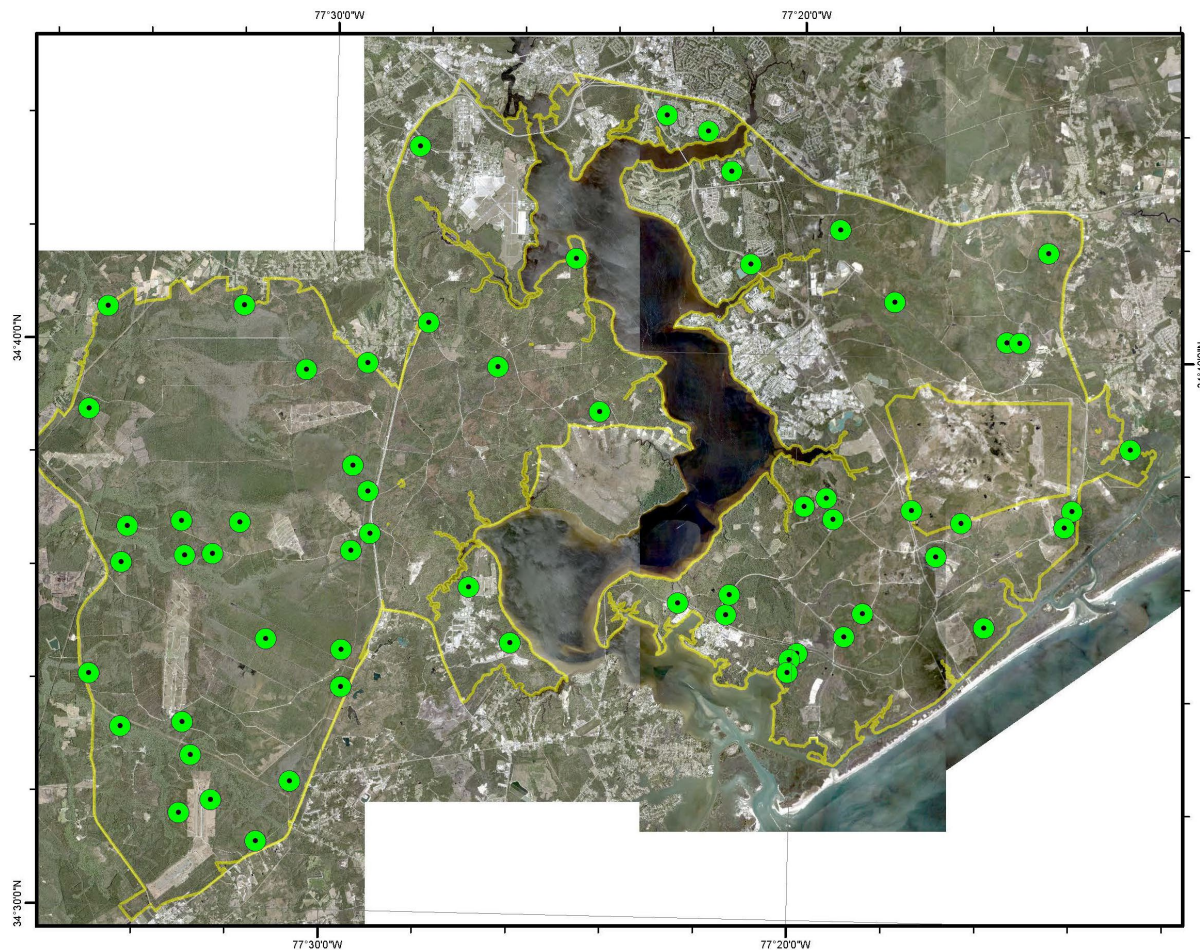




Point Counts



- ❖ Sixty random points greater than 300 meters apart were assigned on Camp Lejeune property.
- ❖ Counts are conducted in the morning (before 10:00 a.m.) and during the peak of the breeding season (May-mid July).
- ❖ Surveys should be conducted under acceptable weather conditions with winds less than 12 mi/h and no rain.





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Camp Lejeune Point Count Protocol



0_to_4m25_50_100M+ protocol

❖ Time Bins:

- 0: 0 – 1 minute
- 1: 1 – 2 minutes
- 2: 2 – 3 minutes
- 3: 3 – 4 minutes
- 4: 4 – 5 minutes

❖ Distance Bins:

- 25: 0 – 25 meters
- 50: 25 – 50 meters
- 100: 50 – 100 meters
- >100: 100 – 1000 meters
- FLY: Flyovers (0 – 1000 meters)

❖ Detection Cues:

- A: Auditory (any)
- V: Visual
- B: Both (visual/auditory)



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North Carolina Bird Atlas



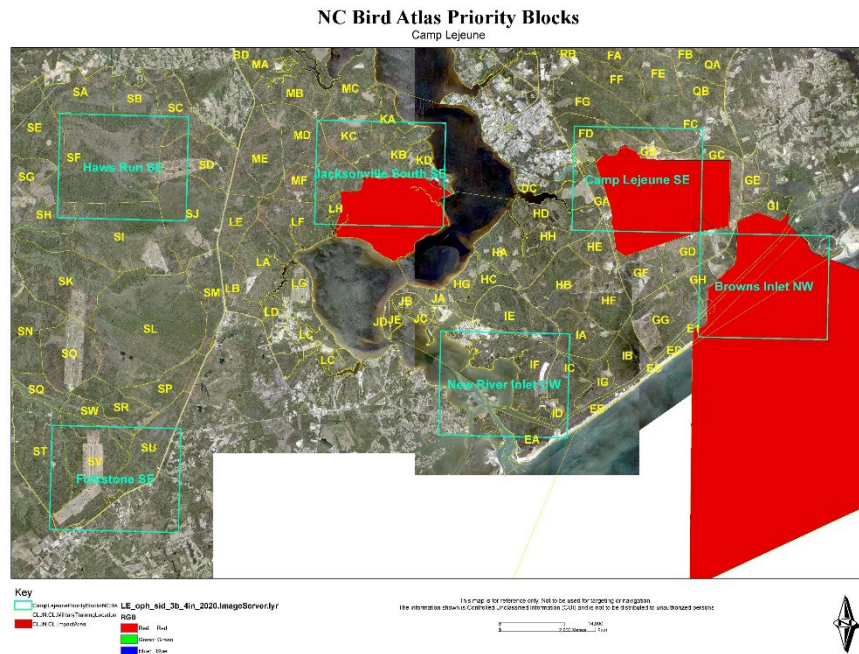
- ❖ 5-year statewide community science project to map distribution and abundance of birds in NC
- ❖ Priority blocks (10 mi²) have been established across the state using a grid system to focus survey effort.
- ❖ Breeding codes are recorded for observations
- ❖ Data is submitted through the NC Bird Atlas portal in eBird





- ❖ Priority blocks for atlasing identified using a grid system.
- ❖ Survey Protocol: Record all birds observed and heard in block, while keeping trips to <1 mile and <1 hour in length.
- ❖ Record breeding behavior codes
 - Confirmed, probable, or possible breeders
- ❖ Block Completion:
 - Roughly 20 hours of daytime birding during spring/summer
 - Roughly 5-10 hours of birding during winter
 - 50% of reported bird species marked as “Confirmed”.
 - All accessible habitats surveyed.

Camp Lejeune property overlaps with 6 priority blocks





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Christmas Bird Count



- ❖ Began by counting birds for conservation instead of hunting them on Christmas Day 1900
- ❖ The nation's longest running community science bird project
- ❖ Tool for assessing long-term trends in winter bird populations
- ❖ Conducted annually between December 14 - January 5

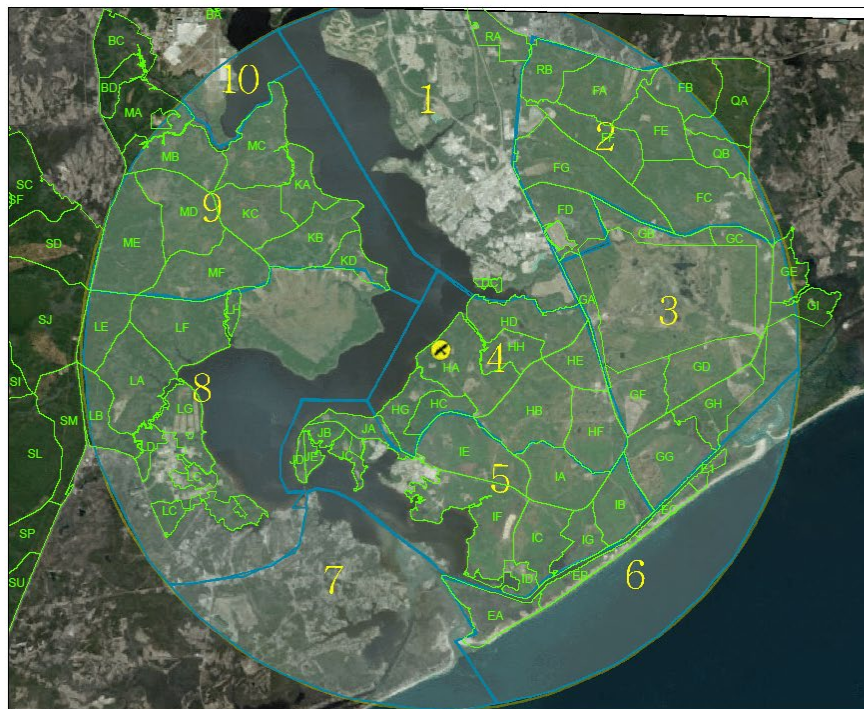


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Christmas Bird Count



2022 Camp Lejeune Circle
Count Summary:

- ❖ 48.25 party hours
- ❖ 298 miles
- ❖ Species reported: 120



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Nightjar Survey Network



- ❖ Standardized protocol for surveying calling nightjars coordinated by the Center for Conservation Biology.
- ❖ The purpose is to help determine the magnitude and scale of population changes to inform management decisions.
- ❖ The Nightjar Survey Network relies entirely on volunteer participation.
- ❖ Recently launched the Global Nightjar Network to expand survey efforts.



NIGHTJAR
SURVEY NETWORK



CENTER *for*
CONSERVATION
BIOLOGY

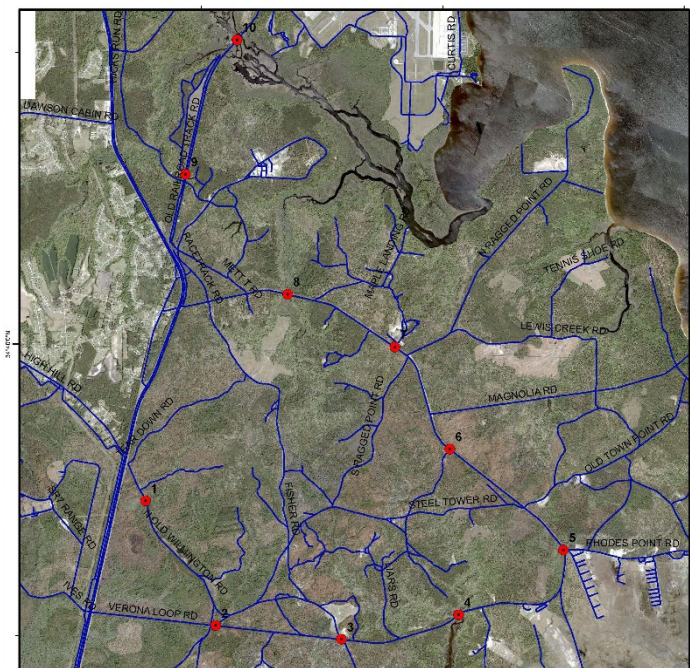


Nightjar Survey Network



- ❖ 2 routes established on MCB Camp Lejeune in 2021
- ❖ Each route consists of 10 stopping points
- ❖ Routes must only be surveyed once per year
- ❖ Stop at roadside survey points and listen for nightjars for 6 minutes

Nightjar Survey - Verona Route # 639398



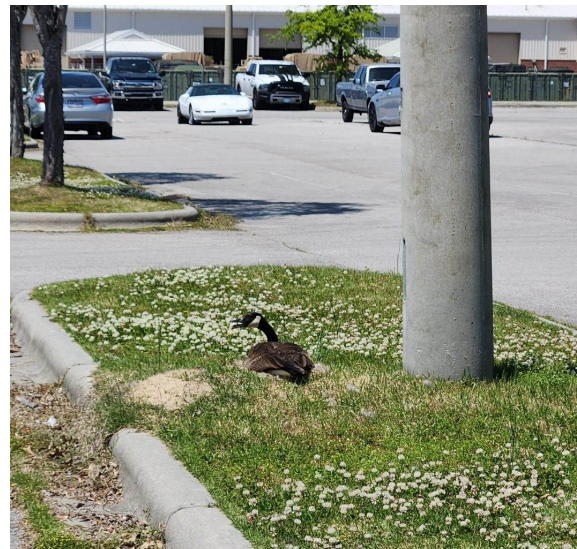
Nightjar Survey - Camp Lejeune Route # 639399





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Human Wildlife Interactions





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Nest Boxes



Eastern Bluebird Boxes



Patricia Pierce

Purple Martin Houses



Tammy Conklin



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World Migratory Bird Day



World Migratory Bird Day **WATER**
SUSTAINING BIRD LIFE

Onslow Beach Bird Walk

Join biologists from Camp Lejeune's Environmental Conservation branch for a bird walk through beach and maritime forest habitats in celebration of World Migratory Bird Day. The event will showcase this year's WMBD theme of the importance of water in the lives of migratory birds. Participants will learn about bird identification and conservation.

*Saturday, May 13 at 0830
Meet at Onslow Beach Turtle Pavilion*

This event is open to all authorized patrons, but requires pre-registration as it is capped at 20 participants. Please register by emailing CLJN_LWRS@usmc.mil.

World Migratory Bird Day in the Americas is coordinated by Environment for the Americas

World Migratory Bird Day Art by Augusto Silva