

# Instructions for Conducting the Nightjar Survey Network

2021 Season

[www.nightjars.org](http://www.nightjars.org)

Thank you for participating in the Nightjar Survey Network. The primary objective of this program is to determine the population distribution and trends of Nightjar species across the United States. There is a general sense that populations of these species are declining. Information on the precise scale and magnitude of population changes are necessary if we are to plot a course for conservation. This effort is coordinated by **The Center for Conservation Biology at William & Mary**. But success of this monitoring program can only be achieved with dedicated volunteers willing to conduct Nightjar surveys.

Nightjar Surveys are standardized population counts conducted along roadside census routes at night. A route only needs surveyed **one time per year** but during a very specific time window (see specific dates below). Surveys will not take much longer than one hour to complete. The only experience necessary is a familiarity with each Nightjar's characteristic song.

Please read all of the instructions carefully. Your commitment to following these instructions will ensure that data is collected in a standardized format so it may be comparable between all routes in the Nightjar Survey Network.

**Visit the Nightjar Survey Network website at [www.nightjars.org](http://www.nightjars.org) for more details**

## **Conducting Surveys**

### **Seasonal and Daily Timing:**

- 1) Begin each survey at least 30 minutes after sunset and end no later than 15 minutes before sunrise.
- 2) Surveys must only be conducted during these **2021 survey dates**:  
**Window 1:** FL, TX, and low elevation AZ\* and NM: 20 April - 03 May  
**Window 2:** Any location in the country: 19 May – 02 June  
**Window 3:** North of AZ\*, FL, NM, TX, and high elevation areas in the northern U.S.: 17 June – 1 July  
**Window 4:** WA, OR, ID, WY, Dakotas, MN: 17-31 July.

*\*For AZ-specific dates: <http://www.nightjars.org/participate/arizona-specific-survey-dates/>*

Contact [nightjars@nightjars.org](mailto:nightjars@nightjars.org) to see if you have a question about how these dates apply to your route. These dates are specifically chosen to coincide with the nights of brightest moonlight and greatest Nightjar calling frequency. These are important dates to use so survey conditions are standardized across all regions of the Nightjar Survey Network.

- 3) Surveys must only be conducted when the moon is above the horizon and not obscured by clouds. It is a little known fact that Nightjars call less frequently when the moon is still below the horizon or hidden by dense cloud cover. Check your local times for moonrise at the US Naval Observatory Website (<http://aa.usno.navy.mil>), local newspaper, or [www.nightjars.org](http://www.nightjars.org). Please note that the moon rises later each successive date. The moon may not rise on later dates of each cycle until after 11:00pm so consider the date you choose to be completed when the moon is above the horizon.

**\*\*THE SURVEY ROUTE ONLY NEEDS SURVEYED ONE TIME PER YEAR\*\***

### **Route Logistics:**

Each survey route consists of 10 stopping points. The starting point of your route will be named stop # 1. All other stops are sequentially numbered and spaced 1 mile apart along the route. You may vary the exact distance up to 2 tenths of a mile between stopping points to find a safe place to park. It is better to add space between points rather than shortening this distance to avoid counting the same birds twice. Not all of your stopping points need to be on the same road. Turning onto different roads may be expected. We recommend scouting your route during daylight to become familiar with the stops.

## Completing the Nightjar Survey Data Sheet:

**Route Name and Number** – All pre-existing routes are named and numbered. See Nightjar Survey Network website at [www.nightjars.org](http://www.nightjars.org) for more details. If you are creating your own route, use the county where the route begins as the name, and the last 4 digits of your phone number of the number (e.g., Henrico1649). Add an extra number (-1, -2) if multiple routes in same county.

**Observer:** Record your name here.

**Date:** Indicate the date of the survey.

**Time Start:** Indicate the time at which you begin listening at stop 1.

**Time End:** Indicate the time at which you stop listening at stop 10.

### Survey Conditions at each Stop:

**Wind:** Do not conduct surveys during strong winds. High winds diminish your ability to hear Nightjars.

Code	Wind Speed	Description
0	Calm (<1 mph)	smoke rises vertically
1	Light (1-7 mph)	smoke drifts, weather vane inactive, leaves rustle, can feel wind on face
2	Moderate (8-18 mph)	leaves, twigs, and thin branches move around, small flags extend, raises loose papers.
3	Strong (19 mph or greater)	small trees begin to sway. <b>Should not conduct survey.</b>

**Sky Condition:** Do not begin a survey if the sky is completely overcast, during heavy fog, or persistent rain. All of these conditions will diminish calling rates of Nightjars and hamper your survey.

Code	Sky	Description
0	Clear	Cloudless sky, can see stars and moon clearly
1	Mostly Clear	Few clouds, less than 25% cloud cover
2	Mostly Cloudy	Many clouds, 25-50% cloud cover
3	Overcast	Dense cloud cover, entire sky covered. <b>Should not conduct survey.</b>

**Background Noise:** Codes indicate the level that background noise impairs your ability to hear Nightjars.

Code		Description
0	None	There is no effect of background noise on your ability to hear nightjars
1	Slight	Noise slightly affects your ability to hear nightjars (e.g. distant traffic, 1-2 car passing during a stop's counting period).
2	Medium	Noise moderately affects your ability to hear nightjars (e.g. nearby traffic, 3-6 cars passing during survey period, airplane flying overhead).
3	Excessive	Noise seriously affects your ability to hear nightjars (e.g. continuous traffic nearby, construction noise, frog chorus)

**Moon Visible (Y or N):** Enter Y for YES or N for NO to indicate if the moon can be seen above the horizon while counting nightjars at the stop. This is particularly important to register when in deep valleys because the moon may be obstructed by mountain ridges.

Instructions continue on next page

## Counting Nightjars (VERY IMPORTANT TO READ):

At each point, count all Nightjars seen or heard for a period of **SIX MINUTES**. Do not include Nightjars you see or hear anytime before or after the six minute counting period. Counting nightjars and recording data should be done from a stationary position outside of your automobile. Most importantly, be consistent. Use the same technique at each stop including how you focus your listening for nearby birds and distant birds.

The counting period is broken into six 1-minute listening periods on the data sheet. Record the detection history of each individual Nightjar seen or heard from the time of their first detection through their last detection in the appropriate 1-minute block of the Data Sheet. Use a value of 1 when an individual bird is detected in each respective one –minute column and leave a blank if that individual was not detected in that one-minute period. Birds will sometimes move during the counting period. Use your best judgment in determining new detections from those of birds that have simply moved during the count.

**DO NOT** use whistles, audio-calls, or any method of that coaxes birds to call or come closer to you. Also, **DO NOT** use a flashlight to search for reflections of Nightjars eyes. These practices will bias your survey and make it difficult to compare your data to other routes. Record birds as you hear them, rather than waiting for the end of the six minute period to avoid data omission errors.

Enter a Stop# in the appropriate column of your data sheet beginning with #1 for your first stop and sequentially numbering others as 2 through 10.

Using the following abbreviations for each species on the Data Sheet:

EWPW = Eastern Whip-poor-will	BCNI = Buff-collared Nightjar	COPO = Common Poorwill
CHUCK = Chuck-will's-widow	LENI = Lesser Nighthawk	COPA = Common Pauraque
CONI = Common Nighthawk	ANNI = Antillian Nighthawk	NONE = no birds detected
MWPW = Mexican Whip-poor-will		

Enter the values as follows; example description below table

Stop#	Species	Time blocks (minutes of survey)					
		1	2	3	4	5	6
1	EWPW	1	1	1			
1	CHUCK			1	1	1	1
2	NONE						
3	EWPW	1	1	1	1		
3	EWPW		1	1	1	1	1
4	NONE						

- At Stop #1, One Whip-poor will was heard in the first 3 minutes of the survey and not heard thereafter.
- Also a Chuck-will's-widow was heard at Stop #1 only during the 3<sup>rd</sup> through 6<sup>th</sup> minute of the count
- There were no Nightjars heard at Stop #2 so a value of NONE was entered
- At Stop #3, One Whip-poor-will was heard in the first 4 minutes of survey and not heard thereafter
- Also, another Whip-poor-will was heard at Stop #3 but only during the 2<sup>nd</sup> through 6<sup>th</sup> minute of survey.
- At Stop #4, no nightjars were detected so a value of NONE was entered for this Stop.

**\*\*Please remember that surveys should be conducted during the allotted survey dates and times (see page 1). Always remember the moon should be above the horizon. Surveys should not be conducted under overcast skies, during strong wind, or when there is persistent rain. If conditions deteriorate after a route is started for more than 3 stopping points, we advise you to abort the survey and attempt it on another night with better conditions. If you have questions contact [nightjars@nighjars.org](mailto:nightjars@nighjars.org).**

# Nightjar Survey Network Data Sheet

Visit survey website at [www.nightjars.org](http://www.nightjars.org)

State:											Observer Name:					
County:							Street Address:									
Route Name & Number:											City:					
Date:											State and Zip Code:					
Start time:					End time:						Observer email:					
Survey conditions at each stop: (fill below)											Wind Codes	Sky Codes		Noise Codes		
Stop#:	1	2	3	4	5	6	7	8	9	10	0 = none	0 = clear		0 = none		
Wind											1 = slight	1 = mostly clear		1 = slight		
Sky											2 = moderate	2 = mostly cloudy		2 = medium		
Noise											3 = strong	3 = overcast		3 = excessive		
Moon Visible (Y or N)																

**Begin filling down these columns**

Stop#	Species	Time Blocks (minutes of survey)					
		1	2	3	4	5	6

**Use these columns after others are full**

Stop#	Species	Time Blocks (minutes of survey)					
		1	2	3	4	5	6

**Enter this data online at [www.nightjars.org](http://www.nightjars.org) or mail this form to: Nightjar Survey Network, The Center for Conservation Biology, College of William and Mary, Williamsburg, VA 23187-8795 or email digitally completed version to: [nightjars@nightjars.org](mailto:nightjars@nightjars.org). Include *Nightjar Survey* on subject line of email.**



## Nightjar Stops Description Data

**(only needed if you did not submit in any previous year or you have not mapped stops online; go to [www.nightjars.org](http://www.nightjars.org) for the easiest and most preferred method by interactively mapping your points)**

Use this form if you are not able to provide a digital map of your stopping points at [www.nightjars.org](http://www.nightjars.org)

Observer Name	
State	
County	
Route Name and Number	
Year of Survey	

Stop#	Latitude e.g., dec degrees 38.43567 or deg, min, sec 38° 56' 07''	Longitude e.g., dec degrees 71.45465 or deg, min, sec 71° 25' 39''	or Location Description	Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

**If you do not enter these data online, mail this form to: Nightjar Survey Network, The Center for Conservation Biology, College of William and Mary, Williamsburg, VA 23187-8795 or email digitally completed version to: [nightjars@nightjars.org](mailto:nightjars@nightjars.org). Include *Nightjar Survey* on subject line of email. Thank you for all your help.**