

# Get to Know the Faces of Bat Week

October 3, 2019

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# BATWEEK







# BAT WEEK

- October 24-31, 2019
- North America—and beyond
- Celebrate, Educate and take actions to Protect





## Today's webinar:

- You'll get resources for YOUR Bat Week event
  - Updated website: [batweek.org](https://batweek.org) 
  - Why Bats Matter 
- You'll get to know the Faces of Bat Week
  - Spotlight on threatened species
  - Work that's being done to help bats
  - How you can help



# Northern Long-Eared Bat

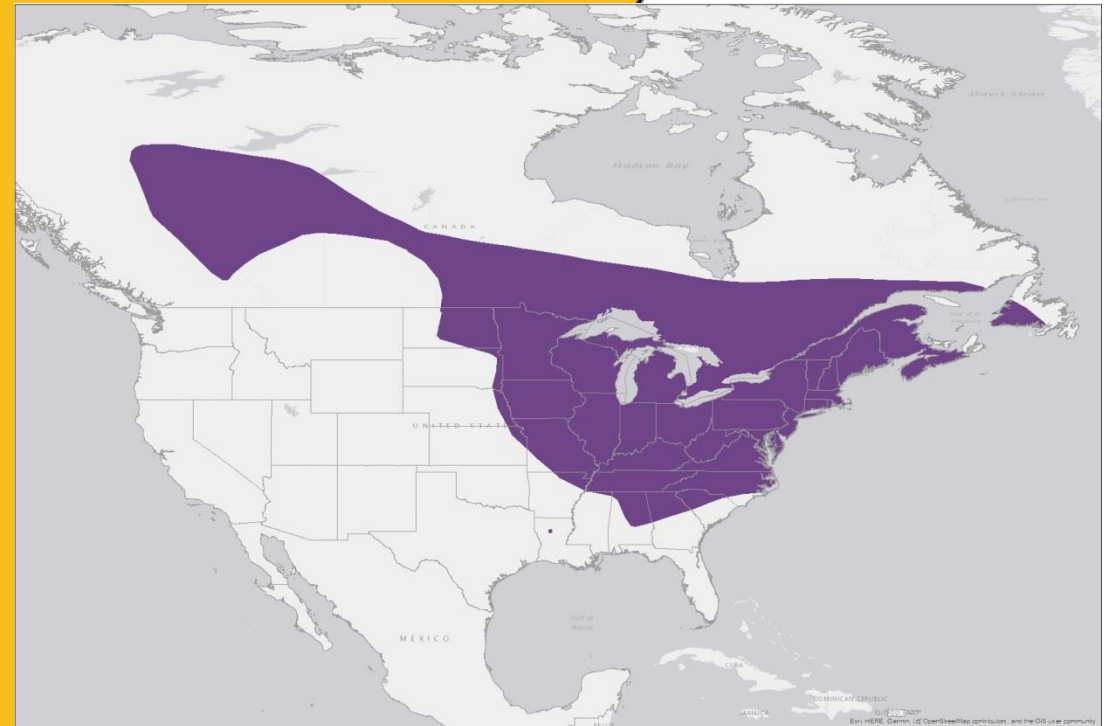
- Catch insects both in flight and by picking them off plants
- Nicknamed “whispering bats”
- Wing shape allows them to navigate easily through dense forests
- For hibernation, they increase their body weight by 45%





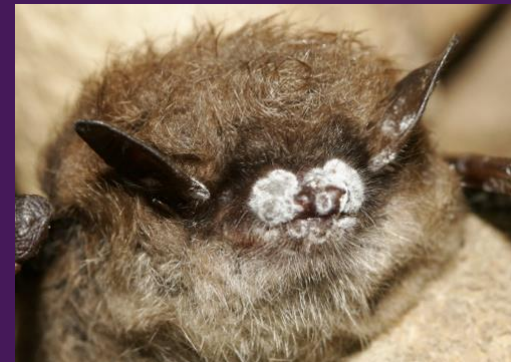
# Northern Long-Eared Bat

- Found throughout most of eastern US and southern Canada
- Listed as threatened in US and endangered in Canada
- Threats include white-nose syndrome, hibernacula disturbance, loss of summer roosting habitat, and wind farms








# White-nose syndrome

- Fungal disease affecting hibernating bats in North America
- Confirmed in 12 North American bat species
- Confirmed in 33 states and 7 Canadian provinces
- 6.7 million bats dead in 2011, more recent estimates are pending
  
- Research and management:  
treatment & mitigating other threats



# Information on Threats to Bats

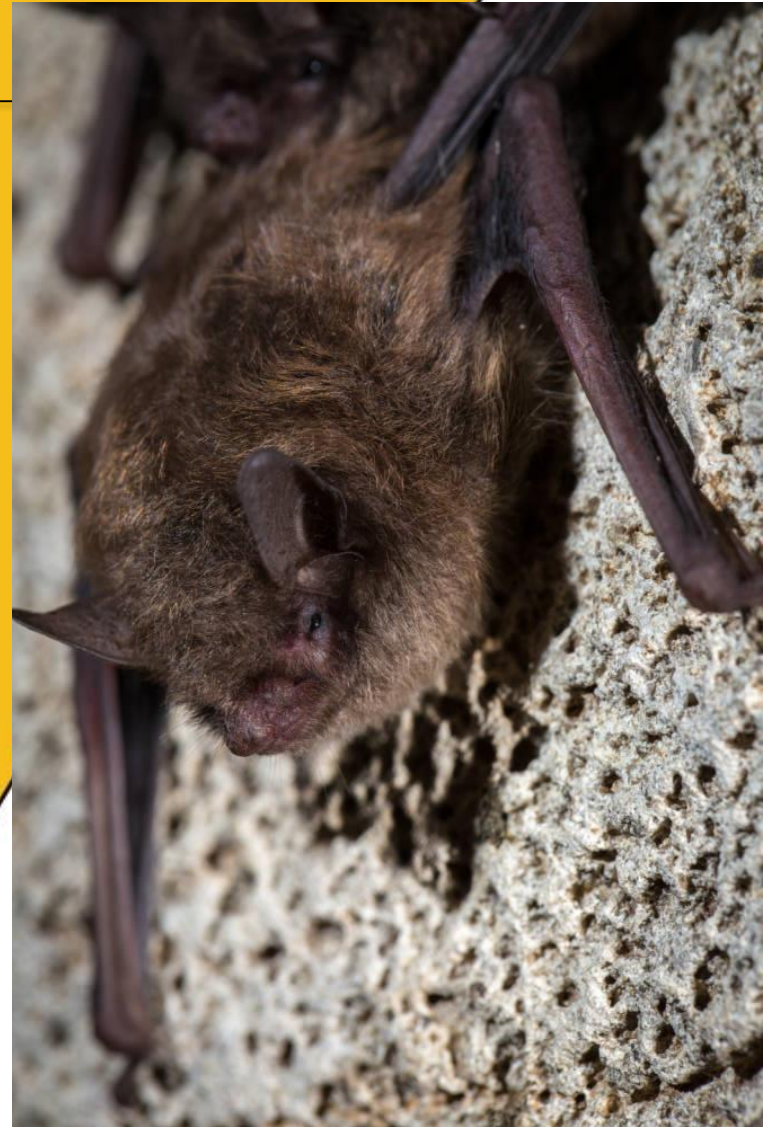
- [White Nose Syndrome Response Team](#) 
- [U.S. Forest Service- threats to bats](#) 
- [Bat Conservation International: threats to bats](#) 
- [The Canadian Wildlife Health Cooperative: bats](#) 
- [Fight White Nose Syndrome](#) 





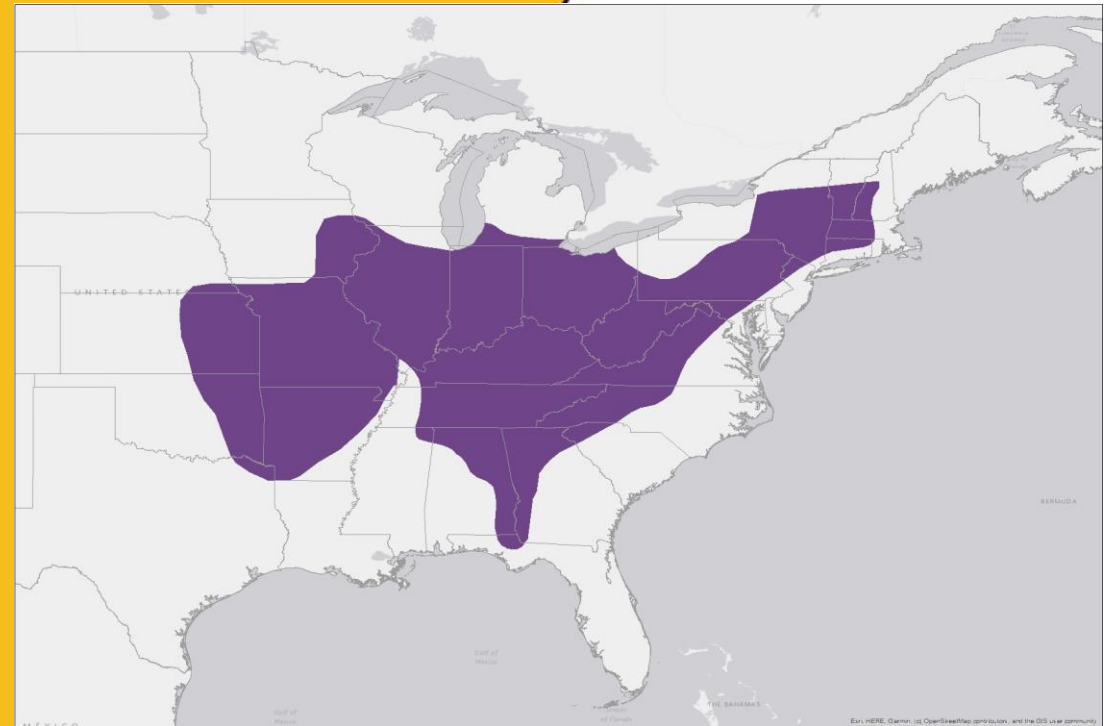
# Indiana Bat

- Small, highly social, insectivorous bat – weigh about the same as 3 pennies
- In winter, hibernate in caves and abandoned mines and form clusters of up to 500 bats/sq. foot!
- Covia's Magazine Mine, an abandoned silica mine, in IL, is home to nearly 70,000 Indiana bats.
- Largest known hibernaculum, an abandoned limestone mine in Hannibal, MO, has over 180,000 Indiana bats!
- In summer, roost under loose bark of dead trees (snags) and live shagbark hickories
- Females form groups of 50 to >400 individuals called maternity colonies and give birth to just 1 pup each year






# Indiana Bat

- Found throughout much of eastern US
- Called “Indiana” bat because specimens collected at Wyandotte Cave in Indiana lead to its discovery as a new species in 1928
- Among the first species listed under the Endangered Species Act and remains endangered today
- Threats include WNS, hibernacula disturbance, loss of summer roosting habitat, pesticide exposure, wind farms and climate change



# Indiana Bat

- USFWS' **mission** is, working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.
- We help recover federally listed bats by funding research, protecting important habitats (e.g., caves and mines), developing protective species-specific guidelines, reviewing federal projects, and tracking bat populations

- [Indiana Page \(USFWS\)](#) 
- [USFWS Index of Endangered Mammals](#) 
- [USFWS IBat web page](#) 

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Hibernating Indiana bats; one with a wing band. Photo by Andrew King/USFWS



# Get active for bats!

From batweek.org

- [Checklist to Host a Bat Week Event](#) ↗
- [Take an Urban Bat Walk](#) ↗
- [Building Bat Houses](#) ↗
- [Hosting a Bat Rehabilitation Workshop](#) ↗
- [Become a Bat Advocate](#) ↗
- [North American Bat Tracker](#) ↗



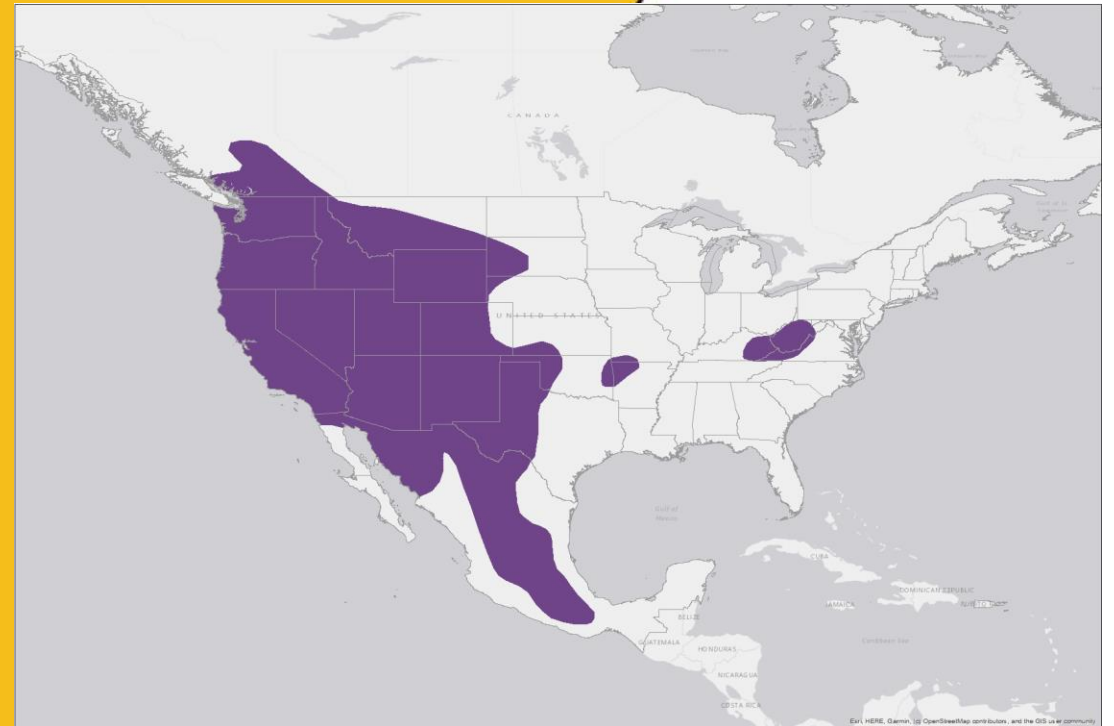
# Townsend's Big-Eared Bat

- Charismatic species with marvelously large ears and prominent nose lumps
- Nicknamed “ram-eared bats”
- Use “stealth echolocation” like sonar jamming, low-intensity echolocation calls, and evasive maneuvers to outsmart their prey



# Townsend's Big-Eared Bat

- Primarily found in western North America with 2 isolated subspecies populations
- Two subspecies are listed as endangered in the US:
  - Virginia big-eared bat in central Appalachia
  - Ozark big-eared bat in Ozark region
- Threats include ecosystem conversion and degradation, and disturbance/destruction of roost sites

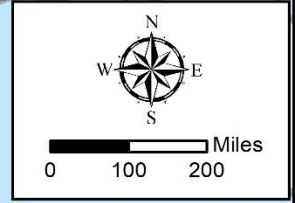
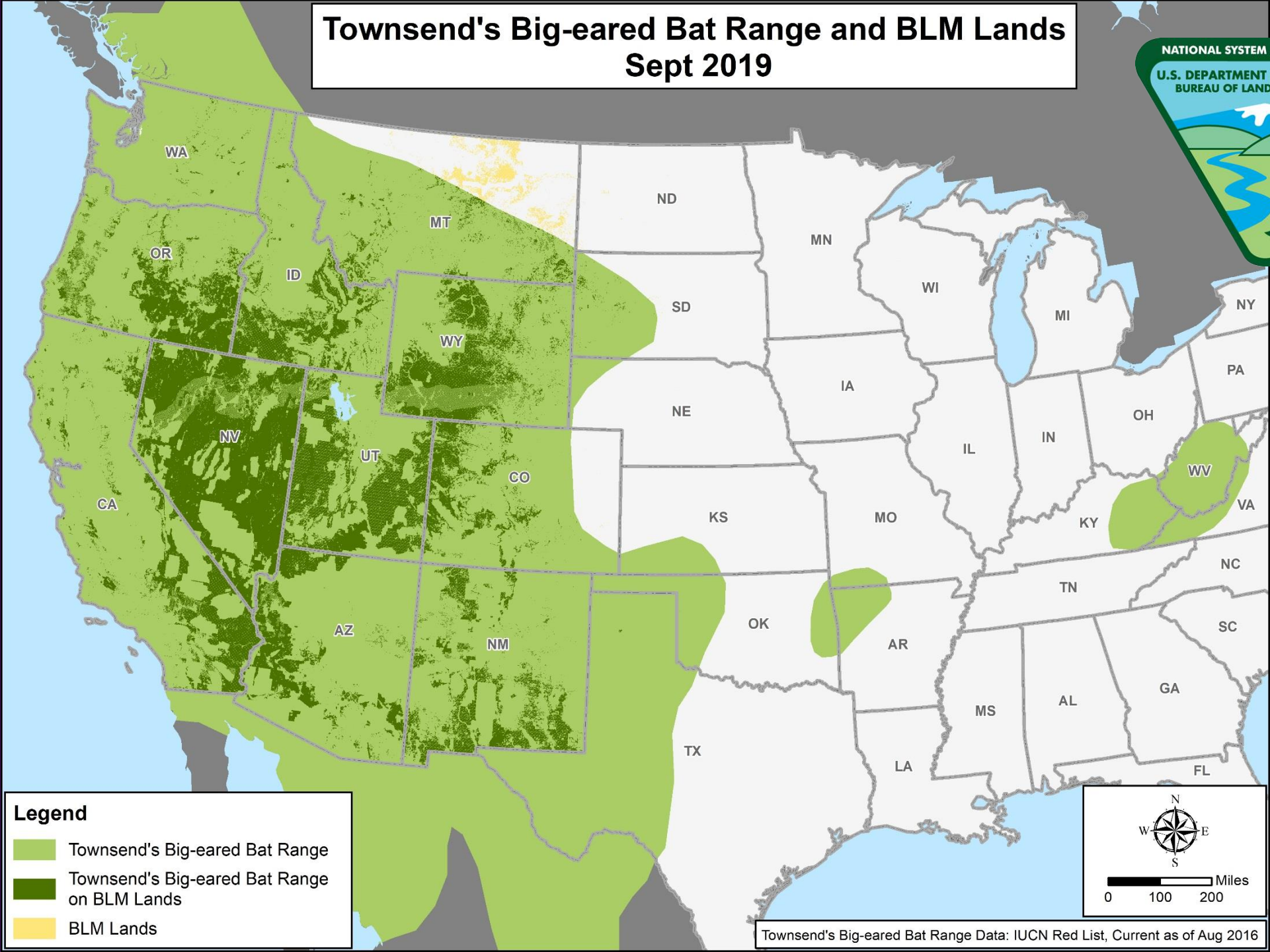




# Townsend's Big-Eared Bat

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## Townsend's Big-eared Bat Range and BLM Lands Sept 2019



Townsend's Big-eared Bat Range Data: IUCN Red List, Current as of Aug 2016



# Townsend's Big-Eared Bat







- Townsend's Big-Eared Bat range covers most of the BLM-managed public lands in the lower 48 states.
- BLM public lands are home to a variety of Townsend's Big-Eared Bat habitat from rocky crevices and caves, to tree cavities, and abandoned mine lands.
- The BLM works with state wildlife agencies, state natural heritage programs, other federal agencies, tribes, and organizations like Bat Conservation International on conserving bat habitat on our public lands.
- The BLM inventories and monitors Townsend's Big-Eared Bats and other bat populations on public lands in U.S., and is a partner in the North American Bat Monitoring Program (NABat).



Photo by Bat Conservation International



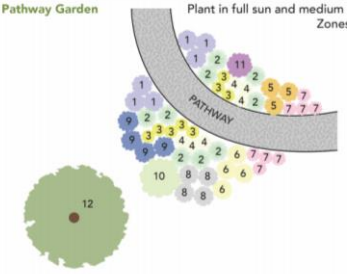
# Bat Education for all ages...

- Project Edubat Trunk 
- Project Edubat Webinar 
- Bat Hero Coloring Page 
- Gardening for Bats 
- Natural History of Bats 
- Bat Week Cook Book 

## Garden Plans

A bat garden is a long-term investment in your landscape and requires careful planning. This example of a starter garden plan is comprised of perennials native to prairie, woodland edge and wet meadow ecosystems and will attract an abundance of moths and other insects—one of North American bats' favorite foods. Once established, a garden such as this will bloom through the growing season with minimal maintenance.

**Pathway Garden** Plant in full sun and medium soils Zones 3-8




**Pathway Garden Planting Key**

Code	Common Name	Latin Name	Amf	Spacing	Ht.
1	Bergamot	Monarda fistulosa	6	1.5'	4'
2	Pink Sedge	Carex muskingumensis	9	1.5'	3'
3	Prairie Sundrop	Oenothera pilosella	6	1'	2'
4	Smooth Penstemon	Penstemon digitalis	6	1'	2'
5	Stiff Galliwort	Solidago rigida	3	1.5'	4'
6	Orange Coneflower	Rudbeckia fulgida	4	1.5'	3'
7	Prairie Phlox	Phlox pilosa	8	1'	1'
8	Virginia Mountain Mint	Pycnanthemum virginianum	4	1.5'	3'
9	Sky Blue Aster	Aster coliclingensis	4	1.5'	3'
10	New Jersey Tea	Ceanothus americana	1	3'	3'
11	Sweet Joe Pye	Eupatorium purpureum	1	2'	7'
12	Choke Cherry	Prunus virginiana	1	8-10'	25'

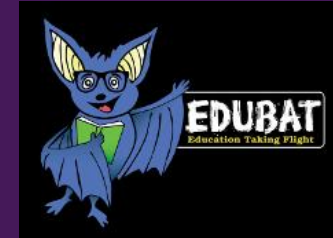
For more information about bats, visit [batweek.org](http://batweek.org) and [batlife.pbnet.org](http://batlife.pbnet.org)

## Celebrating Bats!

A Cookbook of Goodies & Treats  
Made with Bat-Dependent Ingredients



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# Mexican Long-nosed Bat

- Largest nectar-eating bat species in the Americas
- Feeds on nectar, pollen, and fruits of flowering desert species, primarily *Agave*
- Has a long tongue about the same length as its entire body, used to access nectar deep within desert flowers
- Can hover like a hummingbird to feed on nectar



# Mexican Long-nosed Bat

- Migratory - primarily live in Mexico and are only found north of the border from June - August
- Listed as endangered in both the US and Mexico
- Threats include loss of food resources like agave, loss and disturbance of roosting sites, and climate change







# Bats: A World-wide Treasure



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# Speak up for the Bats

- Use [#BatWeek](#) on all your posts on Facebook, Twitter, and Instagram
- Follow [@Bat\\_Week](#) on Twitter and [@BatWeek](#) on Facebook
- Join the Tweet storm Wednesday, 10/30/19, at 1PM ET
- Get more ideas at [batweek.org](#)



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# Florida Bonneted Bat

- Roost in pine and palm tree cavities, beneath barrel tile roofs, and in bat houses
- Largest bat species in Florida, about the size of a chipmunk
- Like many bats they feed on pest insects, protecting our crops and reducing need for pesticide use
- Usually give birth to only 1 pup each year



# Florida Bonneted Bat

- Found only in south Florida
- Listed as endangered in the US
- Threatened primarily by habitat loss and degradation, especially destruction of natural roost sites and hurricane damage





# How Can You Help Bats?

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- Plant native vegetation that supports food resources
- Plant native roost trees
- Leave dead/dying trees standing where safe
- Protect roosting sites and hibernacula
- Take part in citizen science to document bats
- Reduce pesticide use
- Participate in and spread the word  
about Bat Week!



# Get the Bat Stories

Bat Week spotlight species may be downloaded through the **handouts** feature in the control box to the right.

### Faces of Bat Week: Indiana Bat

*Myotis sodalis*



**Background**  
Indiana bats are small, insect-eating bats that live in North America. In the winter, they hibernate in caves and abandoned mines, and in the summer they roost under loose bark or in tree hollows. They are currently listed as an endangered species in the United States.

**Current Threats**

- White-nose syndrome
- Colony disturbance & harassment
- Pesticide exposure
- Loss of summer roosting habitat
- Climate change

**How You Can Help**

- Plant/protect trees used by Indiana bats
- Reduce/eliminate pesticide use
- Spread the word about Bat Week!

**Range**



**Fun Facts**  
The Covia Holdings Corporation Magazine Mine, a closed underground mine in Illinois, is home to nearly 70,000 Indiana bats!  
Female Indiana bats usually give birth to only one pup each year.  
Indiana bats are tiny, measuring just a few inches long and weighing about the same as just 3 pennies.

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### Faces of Bat Week: Florida Bonneted Bat

*Eumops floridanus*



**Background**  
The Florida bonneted bat is found nowhere in the world but south Florida. At night they fly high in the sky, feeding on insects. During the day, they sleep in pine and palm tree cavities, beneath barrel tile roofs, and in bat houses. They are listed as endangered in the United States.

**Current Threats**  
Loss of habitat is their biggest threat, including the destruction of natural roost sites and hurricane damage.

**How You Can Help**

- Report sightings to aid researchers
- Attend a local Bat Walk to learn more about this species
- Plant native flowers to attract insects
- Spread the word about Bat Week!

**Range**



**Fun Facts**  
They are the largest bat species in Florida, about the size of a chipmunk.  
They feed on pest insects, protecting our crops and lowering pesticide use.  
Females typically only give birth to one pup each year.

Learn more by visiting [FloridaBonnetedBat.org](http://FloridaBonnetedBat.org)

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### Faces of Bat Week: Mexican long-nosed bat

*Leptonycteris nivalis*



**Background**  
The greater long-nosed bat is one of several nectar-eating bats found in North America, feeding on nectar, pollen, and fruits of flowering desert species like agave and cacti. These migratory bats primarily live in Mexico and are only found north of the border from June-August. They are currently listed as endangered in the United States and threatened in Mexico.

**Current Threats**

- Loss of food resources like agave
- Loss and disturbance of roosting sites
- Climate change

**How You Can Help**

- Plant agave (within their range)
- Protect slow-growing desert species
- Spread the word about Bat Week!

**Range**



**Fun Facts**  
This species has a long tongue about the same length as its entire body, which it uses to access nectar deep within desert flowers.  
These bats hover in front of plants just like hummingbirds do in order to feed on nectar.  
The greater long-nosed bat is the largest nectar-eating bat species in the Americas.

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### Faces of Bat Week: Townsend's Big-eared Bat

*Corynorhinus townsendii*



**Background**  
Townsend's big-eared bats are a charismatic species with marvelously large ears and prominent, bilateral nose lumps. Two subspecies are listed as endangered in the United States - the Virginia big-eared bat and the Ozark big-eared bat, which inhabit the central Appalachian and Ozark regions of the U.S.

**Current Threats**

- Ecosystem conversion and degradation
- Disturbance/destruction of roost sites (e.g., recreational caving, mining)

**How You Can Help**

- Do not disturb roosting bats
- Plant native flowers to attract insects
- Spread the word about bats and Bat Week!

**Range**



**Fun Facts**  
These bats are also known as "ram-eared bats" because when they are sleeping, the ears are often rolled down and back across the head, mimicking ram horns.  
These insectivorous bats use "stealth echolocation" to outsmart their prey's defenses, like sonar jamming and evasive maneuvers. Their low intensity echolocation calls allow them to detect prey before prey detect them!

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### Faces of Bat Week: Northern Long-eared Bat

*Myotis septentrionalis*



**Background**  
Northern long-eared bats are small and catch insects both in flight and by picking them off plants. They hibernate in caves and mines in winter and live in tree cavities in summer. Due to population declines primarily from white-nose syndrome, they are listed as threatened in the U.S. and endangered in Canada.

**Current Threats**

- White-nose syndrome
- Hibernacula disturbance
- Loss of summer roosting habitat
- Wind farms

**How You Can Help**

- Do not disturb hibernating bats
- Leave dead/dying trees standing
- Plant native flowers to attract insects
- Spread the word about Bat Week!

**Range**



**Fun Facts**  
They are called "whispering bats" because they can echolocate very quietly to sneak up on insects that can hear normal echolocation calls.  
For hibernation, northern long-eared bats increase their body weight by 45% to survive the winter months.  
These bats are especially good at navigating through forests and hovering to catch insects on plants due to their wing shape.

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## Meet The Faces of Bat Week/Q/A

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Mylea Bayless, Bat Conservation International  
Andrew King, US Fish and Wildlife Service  
Dennis Krusac, US Forest Service  
Frank Quamen, US Bureau of Land Management  
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Kim Winter, US Forest Service



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"The wildlife and its habitat  
cannot speak,  
so we must and we will" -  
*Theodore Roosevelt*



Use #BatWeek on all your posts on   

Follow @Bat\_Week on  and @BatWeek 

Join the Tweet storm Wednesday, 10/30/19, at 1PM ET

Get more ideas at [batweek.org](http://batweek.org)



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