

# Developing Visitor Center Bird Feeding Stations: Tips and Techniques

Distance Learning Broadcast  
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## Presented By:

Jim Carpenter, President and CEO, Wild Birds Unlimited  
John Schaust, Chief Naturalist, Wild Birds Unlimited  
schaustj@wbu.com

Maggie O'Connell, Birding Initiative Coordinator, NWRS  
maggie\_o'connell@fws.gov  
(703) 358-1938

## **Background:**

Bird feeding, with an estimated 40 million participants in the U.S. according to the USFWS, is a primary way that the public interacts with wildlife on a regular basis. The sights and sounds of wild birds at feeding stations often foster an awareness and appreciation for birds that result in a desire to learn more about all wildlife. As awareness and appreciation increase, the desire to participate in programs and activities that benefit wildlife also increases.

Initiating a National Wildlife Refuge Visitor Center Birding Station (VCBS) could play a vital role in introducing visitors, new to the world of birds, to the exciting and entertaining pursuit of bird watching and feeding.

Feeding and watching stations offer visitors of all ages an introduction to the natural world. They bring birds up close to be seen in all their beauty and also offer a wonderful opportunity to begin learning how to identify birds. Observing birds at feeders can be a rewarding family activity and a great way to introduce children to nature and the joy of connecting with the natural world.



Experienced birders also appreciate the benefits provided by the diversity of species that can be attracted to a bird feeding area. If they are new to an area, they are drawn to study this concentration of unfamiliar birds, as well as to seek out information about the other birding opportunities the Refuge System has to offer.

Bird feeding and watching areas can be highly effective to introduce and educate visitors about the world of birds and the hobby of bird watching. This is an opportunity to inform the curious public about the role that birds play ecologically and economically and as potential indicators of environmental and global change.

Bird feeders, moreover, are often the most visited displays at effective Visitor Centers, while also being the least expensive to develop and maintain. In fact, in most cases, bird feeders are best justified in or near a HQ, Visitor Center, or refuge residences, and not in "natural areas", along trails, back country, etc.

These stations, as presented here, are compatible with the suite of standard conceptual designs for Visitor Centers currently being promoted for the Refuge System.

## Birding Station Design

### Indoors:

- Birding Stations should be located in an area of the visitor center that is easy to find and accessible to all visitors, including the disabled.
- Comfortable, accessible seating should be provided for visitors who wish to spend an extended period of time observing birds attracted to the feeder.
- Binoculars and/or spotting scope – along with interpretive materials - should be available to assist children and beginning birders to obtain good views of the birds visiting the feeding stations and surrounding plantings. (Note: the establishment of *native*, wildlife-friendly plants around the feeding area has added benefits.)

### Outdoors:

- Avoid placing feeders in high traffic areas, near sidewalks or entrances that may deter birds from visiting the Birding Station.
- If possible, feeders should be placed in settings where the public can observe the area from a discrete, yet easily accessible, location.
- The scope of a Birding Station should be localized around the Visitor Center and provide a diversity of foods, feeders, and natural landscaping to attract a variety of birds.
- Window strikes are responsible for the death of millions of birds each year. Window strikes can be reduced by placing feeders within 3 feet of a window or greater than 30 feet away. Make sure the windows are safe by using the architectural design and mitigation techniques found at: <http://www.birdsandbuildings.org/info.html>



## Interpretive Components

At a minimum, a bird feeding observation area should be furnished with the following interpretive items:

- A quality field guide(s) available for visitors to use for bird identification.
- Some form of daily log or informational board that notes recent bird sightings recorded by staff and/or visitors.
- Posters or some other form of easy visual identification for the most common birds regularly seen at the feeding station, such as the “Common Feeder Birds of Eastern [and Western] North America” posters by the Cornell Lab of Ornithology.
- Explanation that visiting birds might also include hunting raptors – e.g., Sharp-shinned Hawks or Cooper’s Hawks - a natural part of the feeding scene today.
- Information promoting any Refuge programs and special events relating to birds, birding and national “citizen science” activities such as International Migratory Bird Day, Project FeederWatch, PROJECT WILDBIRD, and Great Backyard Bird Count.
- A checklist of the refuge birds, birdfinding guide, and a map/brochure featuring the birding areas within the refuge.
- Information on native plants, vital to the make-up of the birding station.
- Information on how to safety and properly feed birds at home. (see Resources section)



Note: these field guides, posters, fine optics, and signage cannot replace a knowledgeable volunteer or helpful staff person available to answer station-related questions at the Visitor Center.

## Components of a Birding Station

A vibrant and active Birding Station is based on providing wild birds with four basic habitat elements: food, water, shelter, and a place to raise young. To attract the greatest number of birds a variety of these elements must be provided.

### Food

Food for birds is provided by a combination of natural plantings and bird feeding stations. Native plants that provide seeds, nectar, and berries favored by local and migrant bird species are important elements of any feeding area.

Bird feeders are designed to provide an easily accessible source of food for birds. The placement of the feeders and the type of foods offered in them determines what variety of birds will use a feeding station.

Many feeders, such as hopper, platform, tube, and window feeders are designed to attract a wide variety of birds. These are ideal for offering the major birdseed types: sunflower, safflower,

millet, and Nyjer® (thistle). These seeds attract the widest variety of the birds known to utilize feeders.

Specialty feeders such as nectar, suet, fruit and peanut feeders attract additional bird species that do not regularly use traditional seeds.

The placement of these feeders in proper relationship to adjacent protective cover and at a variety of elevations has a strong impact on the number and variety of birds that use a feeding station.

### Water

Birds need a dependable supply of water throughout the year for drinking and bathing. Many birds species that are not attracted the foods supplied at a feeding station are attracted to a reliable water source. These sources can include small pools and waterfalls, birdbaths, drippers, and misters.

### Shelter

Birds need protective cover as a place to escape predators and in which to rest. Without the sense of security that a good source of cover provides, many birds simply will not use a feeding station. Landscaping for cover should include native plants ranging in size and density from small evergreen shrubs to tall, full-grown trees or brush piles so that birds can choose the appropriate cover they need for feeding, hiding, courting, and nesting activities.



### Places to Raise Young

Good nesting habitat within a feeding area to attract numerous species of birds can be easily created with the installation of appropriate landscape materials and nesting boxes. This can be an added feature of the Birding Station. Artificial housing provides nesting sites for birds that require a cavity in which to nest. Primary cavity-nesting species (such as woodpeckers) excavate their own sites. Secondary cavity nesters rely on pre-existing cavities. Secondary nesters lack the ability to create their own nesting sites and will readily accept nesting boxes.

## **Visitor Center Birding Station (VCBS) - Basic Setup and Costs**

The following elements of a VCBS are recommended for maximum visitor impact and reasonable budget requirements:

### Birding Station Configuration and Wholesale Acquisition Cost

Station A: 1 – large hopper feeder (recycled materials) w/suet cage  
\$100 1 – 4x4 wood post w/mounting bracket  
1 – Brown raccoon can baffle

Station B: 1 – Nyjer® tube feeder

\$100            1 – 4x4 wood post w/mounting bracket w/3 hangers and mounting flange  
 1 – Brown raccoon can baffle

Station C:     1 – Peanut mesh feeder  
 \$100            1 – tube seed feeder  
                   1 – Hummingbird feeder\*  
                   1 – 4x4 wood post w/mounting bracket w/3 hangers and mounting flange  
                   1 – Brown raccoon can baffle

\*Convert Station C to 1-3 hummingbird feeders, fruit or meal worm feeders in season; move peanut and tube feeder to Station B.

Water Station D: 1 – plastic bird bath w/3 gallon capacity  
 \$50              1 – bird bath heater (winter regions)

Landscaping: several dense/leafy bushes or small trees about 8’  
 from feeding station  
 \$600

Tools:            1 – leaf rake to remove feeder debris  
 \$100              1 – bottle brush to clean tube feeders  
                      1 – Port brush to clean hummingbird feeders  
  
                      1 – Scrub brush to clean hopper feeder and bird bath  
                      1 – Extension cord for bath heater  
                      1 – Water hose or bucket  
                      3 – Metal seed storage cans  
                      6 - Cleaning kits to clean binocular lenses daily

Educational Aids:  
 \$300 - \$700

- \$5 - Cornell’s “Common Feeder Birds of Eastern/Western North America” poster
- \$50 - Field Guides
- \$100-\$300 - Binoculars: one to three 7x35
- \$30 - White Board and markers
- \$100 - Brochures: *6-Steps to Attract Birds*, local birding “hot spots”, birding trails and check-list
- \$20-\$100 - Comfortable viewing chairs

Total Birding Station Initial Setup Cost: \$1400 - \$1800

Projected Feeding Station Annual Maintenance Budget

150	lbs	Oil Sunflower	Per Month	\$60	Per Year	\$720
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50	lbs	Safflower	Per Month	\$25	Per Year	\$300
50	lbs	Nyjer®	Per Month	\$30	Per Year	\$360
12		Suet Cakes	Per Month	\$20	Per Year	\$240
25	lbs	Peanuts	Per Month	\$25	Per Year	\$300
		Nectar	Per Month	\$15	Per Year	\$180

Estimated Seed Costs:                      Per Month \$175                      Per Year \$2100

Note: All costs based on typical delivered wholesale prices and do not include donated items which may be subtracted from the above figures.

### Visitor Center Birding Station (VCBS) – Optional Components

- Computer - w/19” monitor and DVD player w/ interactive birding software or eBird Trail Tracker.
- Microphone/Sound System – to bring sounds from the Birding Station indoors to the visitor center’s bird observation area.
- Bird Song Identification System – such as an Identiflyer® or birdPod®

### Maintaining a Healthy Bird Feeding Area and Promoting Responsible Bird Feeding

It is always important to provide a safe feeding environment for the birds. Responsible bird feeding techniques play a crucial role in helping to prevent the spread of disease among bird populations. A bird feeding station with soiled and empty feeders sends a distinctly negative message to visitors.



One of the key interpretive messages of a Birding Station is to emphasize the importance of creating and maintaining good wild bird habitat. Through a well-designed and maintained feeding area, visitors will learn valuable lessons about creating a safe and responsible Birding Station program for the birds in their own yards.

#### Tools:

- Leaf rake to remove feeder debris
- Bottle brush to clean tube feeders
- Port brush to clean hummingbird feeders
- Scrub brush to clean hopper feeder and bird bath
- Extension cord for bath heater
- Water hose or bucket
- Metal seed storage cans
- Cleaning kits to clean binocular lenses daily

The following strategies will help maintain the health and safety of the birds visiting a feeding station:

## The National Wildlife Health Center

[http://www.nwhc.usgs.gov/publications/pamphlets/coping\\_with\\_birdfeeder\\_diseases\\_pamphlet.pdf](http://www.nwhc.usgs.gov/publications/pamphlets/coping_with_birdfeeder_diseases_pamphlet.pdf)

### Eight Steps to Prevent or Minimize Disease Problems at Feeders

**1. Give them space** - Avoid crowding by providing ample feeder space. Lots of birds using a single feeder looks wonderful, but crowding is a key factor in spreading disease. If birds have to jostle each other to reach the food, they are crowded. This crowding also creates stress which may make birds more vulnerable to disease.

**2. Clean up wastes** - Keep the feeder area clean of waste food and droppings. A broom and shovel can accomplish a lot of good, but a vacuum such as you might use in your garage or workshop will help even more.

- Periodically move feeders to new locations to avoid the build-up of waste materials and feces.

**3. Make feeders safe** - Provide safe feeders without sharp points or edges. Even small scratches and cuts will allow bacteria and viruses to enter otherwise healthy birds.

- Birdfeeders with cracks and crevices are difficult to sanitize and should not be used. Replace them with new feeders.
- Focus on using only feeders that can be easily cleaned.

**4. Keep feeders clean** - Clean and disinfect feeders regularly. Use one part of liquid chlorine household bleach in nine parts of tepid water (a 10 percent solution) to disinfect. Make enough solution to immerse an empty, cleaned feeder completely for two to three minutes. Allow to air dry. Once or twice a month should do, but weekly could help more if you notice sick birds at your feeders.

- Hummingbird feeders should be cleaned every 3 to 5 days or whenever nectar is re-filled or replaced.

**5. Use good food** - Discard any food that smells musty, is wet, looks moldy or has fungus growing on it. Disinfect any storage container that holds spoiled food and the scoop used to fill feeders from it.

- Limit the amount of seed provided in feeders to only the amount birds will consume in 1 or 2 days.

**6. Prevent contamination** - Keep rodents out of stored food. Mice can carry and spread some bird diseases without being affected themselves.

- Store all birdseed in rodent- and insect-proof containers to avoid contamination.



**7. Act early** - Don't wait to act until you see sick or dead birds. With good prevention you'll seldom find sick or dead birds at your feeders.

**8. Spread the word** - Encourage your neighbors who feed birds to follow the same precautions. Birds normally move among feeders and can spread diseases as they go. The safest birdfeeders will be those in communities where neighbors cooperate with equal concern for the birds.

### **Community Partnerships**

Volunteers from a local conservation organization, bird club, youth group and/or the refuge's own "Friends" group should be encouraged to assist in the operation and maintenance of the bird feeding station in the following ways:

- Cleaning and maintaining feeders and the feeding station area
- Planting and maintaining native plants within the feeding area that provide birds with food, shelter and a place to raise young.
- Seeking donations of seed, feeders, and optics from local businesses.
- Soliciting cash donations and volunteer support to maintain and operate Birding Stations.

Provide a regular schedule of staffing at the VCBS to provide visitors with assistance in bird identification, interpretive information about local birds, and logistical details about birding opportunities within the refuge.

### **Resources**

*Birds at Your Feeder* - Erica H. Dunn , Diane L. Tessaglia-Hymes  
*Wild about Birds: The DNR Bird Feeding Guide* by Carrol L. Henderson  
*Landscaping for Wildlife* by Carrol L. Henderson

Online information on feeding and maintenance:

<http://www.fws.gov/migratorybirds/pamphlet/pamphlets.html>

<http://www.wbfi.org/sixsteps.htm>

[http://www.fws.gov/southeast/ea/fun\\_index.html](http://www.fws.gov/southeast/ea/fun_index.html)

Cornell Laboratory of Ornithology materials

Project Feeder Watch: [www.birds.cornell.edu/pfw/](http://www.birds.cornell.edu/pfw/)

Project Feeder Watch posters only: <http://store.onlinenaturemall.com/clo51.html>

Birds and Birdfeeding: [www.birds.cornell.edu/pfw/AboutBirdsandFeeding/abtbirds\\_index.html](http://www.birds.cornell.edu/pfw/AboutBirdsandFeeding/abtbirds_index.html)

Great Backyard Bird Count: [www.birdsource.org/gbbc/](http://www.birdsource.org/gbbc/)

Issues:

<http://www.birdsandbuildings.org/info.html>

<http://www.abcbirds.org/abcprograms/policy/cats/index.html>

Contact expert birders in your area.

The NWRs Birding Initiative: [www.fws.gov/refuges/birding](http://www.fws.gov/refuges/birding)