Wildlife species

This chapter contains information on species featured in each of the ecoregions. Species are grouped by Birds, Mammals, Reptiles, Amphibians, Fish, and Invertebrates. Species are listed alphabetically within each group. A general description, habitat requirements, and possible wildlife management practices are provided for each species. Wildlife management practices for a particular species may vary among ecoregions, so not all of the wildlife management practices listed for a species may be applicable for that species in all ecoregions. Refer to the WMP charts within a particular ecoregion to determine which practices are appropriate for species included in that ecoregion.

The species descriptions contain all the information needed about a particular species for the WHEP contest. However, additional reading should be encouraged for participants that want more detailed information. Field guides to North American wildlife and fish are good sources for information and pictures of the species listed. There also are many Web sites available for wildlife species identification by sight and sound.

Information from this section will be used in the Wildlife Challenge at the National Invitational. Participants should be familiar with the information presented within the species accounts for those species included within the ecoregion identified for an Invitational.

It is important to understand that when assessing habitat for a particular wildlife species and considering various WMPs for recommendation, current conditions should be evaluated. That is, WMPs should be recommended based on the current habitat conditions. Also, it is important to realize the benefit of a WMP may not be realized soon. For example, trees or shrubs planted for mast may not provide cover or bear fruit for several years.

Index to wildlife species

Note: Refer to this list for the correct spelling and capitalization of species for Activity I (Wildlife Challenge).

Birds (86)

American bittern
American black duck
American kestrel
American robin
American wigeon
American woodcock
barred owl
black-backed woodpecker
black-bellied whistling duck
black-capped chickadee
black-throated sparrow
blue-winged teal
Brewer's sparrow
broad-winged hawk
brown thrasher
California quail
California thrasher
Canada goose
common nighthawk
crested caracara
crissal thrasher
dickcissel
dusky grouse
eastern bluebird
eastern meadowlark
European starling
ferruginous hawk
Gambel's quail
golden eagle
golden-cheeked warbler
golden-fronted woodpecker
golden-winged warbler
grasshopper sparrow
great horned owl
greater prairie-chicken
greater roadrunner
greater sage-grouse
hairy woodpecker
house finch
house sparrow
house wren
ladder-backed woodpecker
lark bunting
Lawrence's goldfinch
loggerhead shrike
long-billed thrasher
mallard
marbled murrelet
mountain bluebird
mourning dove
northern bobwhite
northern flicker
northern goshawk
northern harrier
northern pintail
Nuttall's woodpecker
ovenbird
peregrine falcon
prairie falcon
prothonotary warbler
pyrrhuloxia
red-cockaded woodpecker
red-eyed vireo
red-tailed hawk
redhead
ring-necked pheasant
rock pigeon
ruby-throated hummingbird
ruffed grouse
sage thrasher
scaled quail
sharp-tailed grouse
song sparrow
sooty grouse
southwest willow flycatcher
spotted sandpiper
spotted towhee
Virginia rail
western bluebird
western kingbird
white-tailed ptarmigan
white-winged dove
wild turkey
Wilson's snipe
wood duck
yellow-rumped warbler

Mammals (34)

American beaver
American marten
big brown bat
black bear
black-tailed jackrabbit
black-tailed prairie dog
bobcat
Brazilian free-tailed bat
collared peccary
Columbian black-tailed deer
common muskrat
coyote
desert cottontail
eastern cottontail
eastern fox squirrel
eastern gray squirrel
elk
fisher
gray fox
Indiana bat
mink
moose
mountain cottontail
mountain lion
New England cottontail
pronghorn
raccoon
red fox
red squirrel
river otter
Rocky Mountain mule deer
snowshoe hare
white-tailed deer
wild pig

Reptiles (10)

American alligator
eastern box turtle
eastern indigo snake
eastern snapping turtle
Gila monster
gopher tortoise
plains hog-nosed snake
Texas horned lizard
timber rattlesnake
western diamond-backed rattlesnake

Amphibians (7)

American bullfrog
crawfish frog
Monterey salamander
northern red-legged frog
rough-skinned newt
tiger salamander
wood frog

Fish (6)

bluegill
channel catfish
Coho salmon
cutthroat trout
largemouth bass
rainbow trout

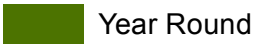
Invertebrates (2)

American bumble bee
monarch butterfly

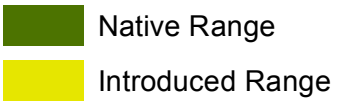
Range map keys for wildlife species

Range map key for birds:

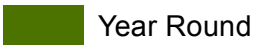
Range map key for mammals, reptiles, and amphibians:



Range map key for fish:



Range map key for invertebrates:



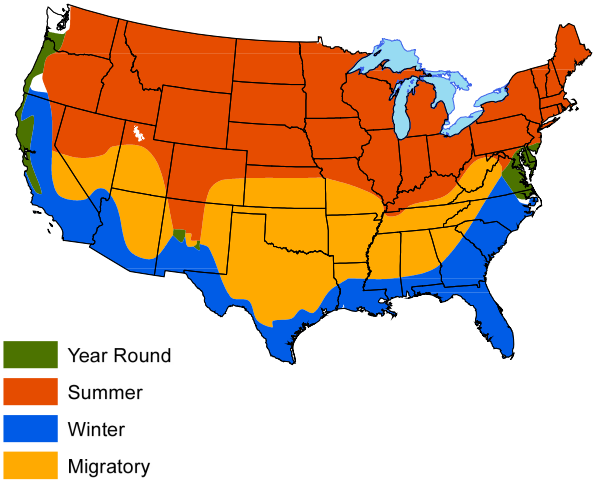
Birds

American bittern


Sallie Gentry

General information

The American bittern is a medium-sized heron typically found in dense emergent vegetation in moderately shallow freshwater wetlands. This migratory bird may be found near the coasts during winter. It is rarely seen except when flying. It moves slowly through vegetation stalking food and is well camouflaged with brown and white streaks. American bitterns occasionally use adjacent upland grasslands for nesting and foraging. Larger semi-permanent wetland complexes are favored over small, isolated wetlands.



Habitat requirements

Diet: fish, amphibians, snakes, insects, and crustaceans
Water: obtained from food
Cover: dense emergent wetland vegetation, such as reeds, cattails, or sedges; nest is built in dense cover a few inches above shallow water; water depth should be maintained at less than 2 inches throughout the year

Wildlife management practices

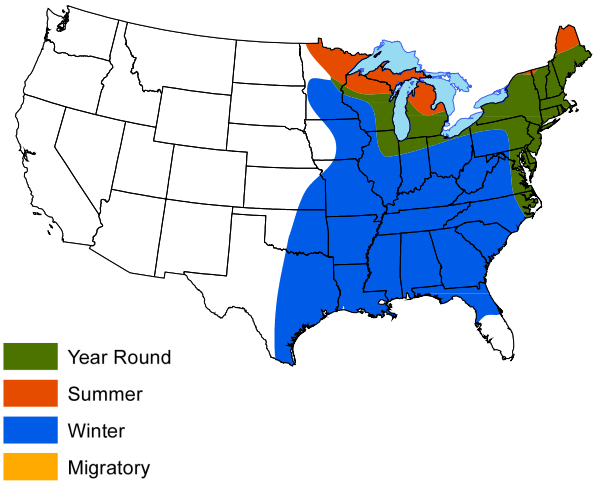
Control Nonnative Invasive Vegetation: is necessary when nonnative invasive vegetation begins to outcompete native vegetation, limit food abundance, or alter the hydrology of a wetland favoring dryer land.
Livestock Management: livestock should be excluded from wetlands managed for bitterns
Repair Spillway/Levee: if not functioning properly
Set-back Succession: *Periodic Prescribed Fire*, *Disking*, and *Herbicides* may be used to maintain appropriate vegetation structure. However, disturbance should be infrequent (2-5 years) because bitterns prefer dense cover.
Water Control Structures: should be installed when wetlands do not have control structures to maintain appropriate water depths. Drawdowns can be conducted to favor appropriate vegetation. Drawdowns should be conducted slowly and after the breeding season (mid-August or later).
Water Developments for Wildlife: shallow wetlands can be constructed if habitat is not present
Wildlife or Fish Survey: bitterns are typically surveyed by listening for calls. Also, ropes can be dragged across the vegetation between two or more observers to flush the birds.

American black duck

General information

The American black duck is a large dabbling duck similar in size to mallards, ranging from 19 to 25 inches in length. They resemble the female mallard in color, though their plumage appears darker. The male and female black duck are similar in appearance. They have orange legs and feet and violet wing patches. The male black duck has a yellow to green bill, whereas hens have olive bills. Black ducks interbreed regularly and extensively with mallards. American black ducks frequent forested wetlands, tidewater areas, and coastal marshes of the eastern United States. They feed in a variety of shallow wetlands and agricultural fields. Their nests are built of vegetation and lined with down, found most often on the ground along edges of heavy cover, and generally close to water.

Gene Nieminen



Habitat requirements

Diet: aquatic plants, invertebrates, waste corn, and grain are primary diet items
Water: obtains water through diet
Cover: forested and emergent wetlands for loafing; they also will feed in flooded grain fields

Wildlife management practices

Control Nonnative Invasive Vegetation: when nonnative invasive vegetation begins to degrade loafing or foraging cover in wetlands or nesting cover in uplands
Leave Crop Unharvested: to provide a winter food source
Livestock Management: livestock should be excluded from wetlands managed for waterfowl
Plant Food Plots: shallowly flooded grain plots can provide a beneficial food source for migrating and wintering black ducks
Plant Native Grasses and Forbs: where nesting cover is lacking
Repair Spillway/Levee: if not functioning properly
Set-back Succession: *Prescribed Fire* to rejuvenate vegetation in nesting areas and to maintain proper water and vegetation interspersion in wetlands
Soil Conservation Agriculture: eliminating fall tillage can provide waste grain in the winter
Water Control Structure: control water level in wetlands managed for waterfowl
Water Developments for Wildlife: shallow impoundments can be important for migrating and wintering waterfowl; flooding grain fields and planting food plots in winter makes food more available

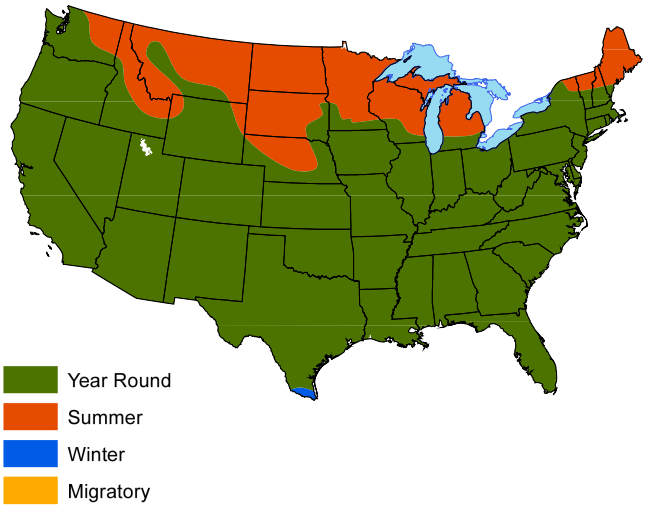
Wildlife or Fish Survey: black ducks are secretive and are often in woody emergent wetlands where accurate surveys are difficult. Nonetheless, flush counts and aerial surveys are most often used to estimate black duck populations.

American kestrel


Robert Burton

General information

The American kestrel is a common, widespread, small raptor resembling the size and shape of a mourning dove. The males are a colorful slate-blue on the top of the head and on the wings, with a reddish colored back and tail. Females have reddish brown wings, but both sexes have characteristic black slashes on the sides of their face. They can be found in a variety of open environments, including deserts and grasslands. Often spotted perching on power lines or other tall structures searching for prey, they swiftly move their tail to keep balanced in the wind. Because of their small size, American kestrels are predated by larger raptors, such as northern goshawks and red-tailed hawks, and even snakes. They nest in cavities (often old woodpecker cavities or natural tree hollows) with loose material on the floor and have been noted to readily use man-made nesting boxes. Males search out and sometimes even defend a cavity, and later present it to a potential mate. Clutches usually contain 4 to 5 eggs. Chicks are altricial, meaning they are helpless for a couple weeks after hatching and must be fed and cared for. The American kestrel is declining in some areas of North America, including the Pacific Coast and Florida, where it is listed as threatened. The decline in these areas can be attributed to poor habitat quality with a lack of nesting cavities, early successional cover, and food resources.



Habitat requirements

Diet: primarily insects and small mammals associated with open areas
Water: obtain necessary water from diet and do not need water for drinking
Cover: nest in tree cavities and other sites including holes in cliffs, canyon walls, and artificial nest boxes

Wildlife management practices

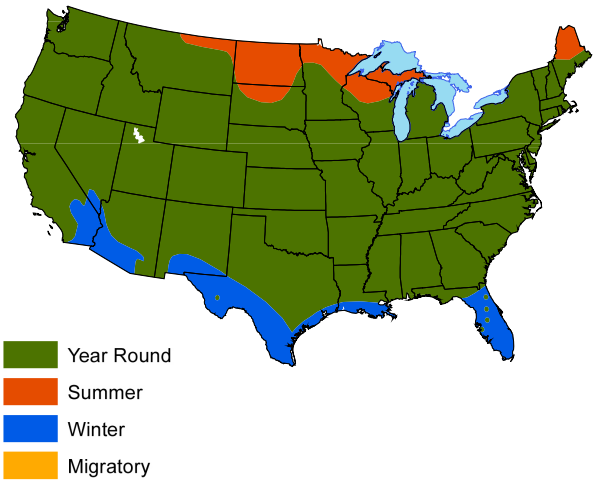
Control Nonnative Invasive Vegetation: when nonnative invasive vegetation competes with native plant species and reduces habitat quality for kestrels or their prey
Create Snags: where needed for perches and increase potential nest cavities
Field Borders: to increase cover for prey around row crop fields
Livestock Management: to prevent overgrazing and maintain sufficient cover for prey and maintain early succession vegetation with scattered shrub cover
Nesting Structures: can be used where a lack of natural nesting cavities is limiting the population; nest boxes can be placed on fence posts in open areas, and even on the back of road-side signs in open landscapes
Plant Native Grasses and Forbs: where necessary to provide desirable cover for prey
Plant Shrubs: in large open areas where shrub cover is limiting
Plant Trees: where trees are lacking for future perching sites and cavities for nesting
Set-back Succession: *Prescribed Fire*, *Chaining*, *Drum-chopping*, and *Herbicide Applications* can maintain shrub cover and stimulate herbaceous cover; *Dozer-clearing* and *Root-plowing* can be used to convert forest to early succession
Soil Conservation Agriculture: will facilitate hunting prey when waste grain is available
Wildlife or Fish Survey: observation counts, point counts, and nest box usage rates may be used to estimate trends in populations

American robin

Lee Karney

General information

American robins use a wide assortment of vegetation types, from mowed grassy areas to forested areas. In urban areas, robins use large open areas and nearby trees and shrubs. Parks, golf courses, and lawns in residential areas are attractive to robins. They are found throughout North America, though they may migrate out of northern latitudes during winters with sustained cold and snow. Robins build a nest of grass and mud on a tree or shrub limb, but will occasionally nest on building ledges. Robins spend considerable time on the ground feeding on earthworms, but also will perch on branches to eat berries, fruit, and insects.



Habitat requirements

Diet: insects and worms during spring and summer; soft mast from shrubs and trees in winter; seldom use artificial feeders

Water: require water daily in warm seasons; obtain water from low-lying areas, ponds, and rain-filled gutters

Cover: shrubs, evergreen trees, and deciduous trees used for nesting and escape; evergreen trees often used for early nests

Wildlife management practices

Control Nonnative Invasive Vegetation: when nonnative invasive vegetation begins to reduce habitat quality for American robins

Plant Shrubs: where soft mast is lacking; examples might include dogwoods, hollies, golden currant, and winterberry

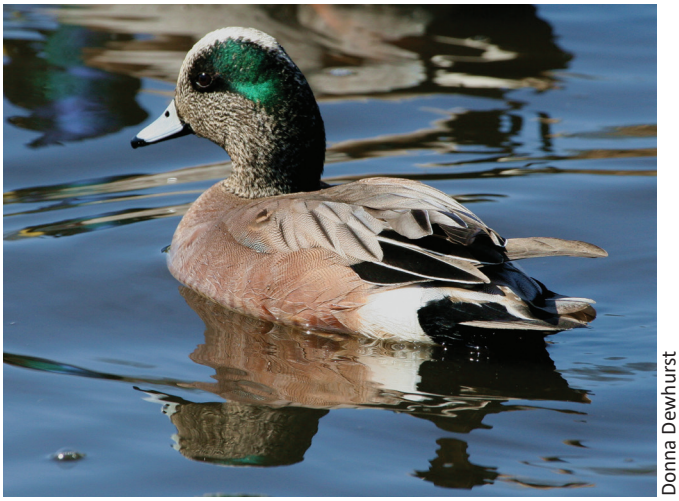
Plant Trees: both deciduous and evergreen; where nesting sites may be limiting

Set-back Succession: *Prescribed Fire*, *Disking*, and *Mowing* can be used to set-back succession and provide suitable structure for robins; *Mowing* may be used to maintain foraging and loafing cover for robins in ***Urban*** areas

Water Developments for Wildlife: birdbaths and pans of water can be provided in urban areas; do not place water in areas where cats can catch the birds; cats should be removed

Wildlife or Fish Survey: observation counts and point counts are used to estimate trends in populations

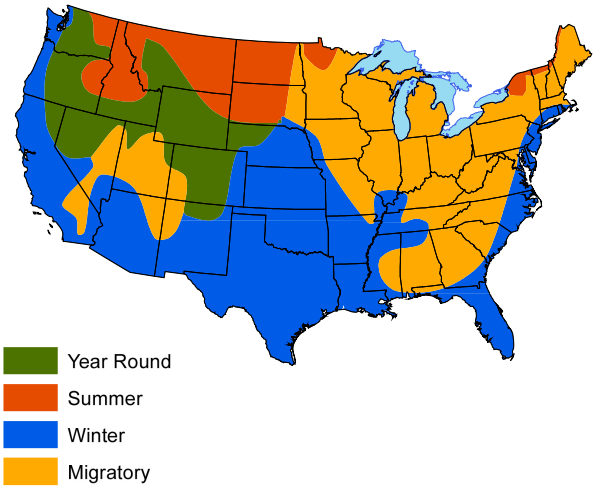
American wigeon



Donna Dewhurst

General information

The American wigeon is a medium-sized dabbling duck. It is easily distinguished from other dabbling ducks by its round head, short neck, and small bill. The American wigeon's body ranges from 17 to 23 inches long. The male (drake) has a mask of green feathers around its eyes and a cream-colored cap that runs from its bill to the crown of its head. This cap gives this bird its other common name, baldpate, which means bald head. Drakes also can be identified in flight by a large white shoulder patch on each wing. Hens have primarily gray and brown plumage. Both sexes have bluish-gray black tipped bills and gray legs and feet. The American wigeon has a very distinctive call with the drake producing a three-note whistle and the hens a low growl quack. They nest in areas of tall grass or shrubs, often far from water. The nest is constructed on the ground in a depression lined with grasses and down.



Habitat requirements

Diet: mostly aquatic plants and a few insects, and mollusks
Water: obtains water through diet
Cover: shallow freshwater wetlands, ponds, marshes, and rivers

Wildlife management practices

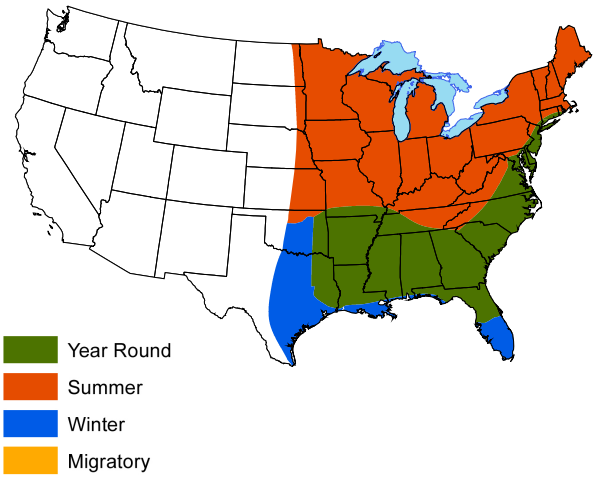
Control Nonnative Invasive Vegetation: when nonnative invasive vegetation begins to reduce habitat quality for American wigeon
Livestock Management: livestock should be excluded from wetlands managed for waterfowl
Plant Native Grasses and Forbs: where nesting cover is limited
Plant Shrubs: where nesting cover is limited
Repair Spillway/Levee: if not functioning properly
Set-back Succession: *Prescribed Fire* can be used to rejuvenate vegetation in nesting areas and to maintain proper water and vegetation interspersion in wetlands
Soil Conservation Agriculture: eliminate fall tillage to encourage vegetation in agricultural fields for grazing opportunities
Water Control Structures: to control water level in wetlands managed for waterfowl
Water Developments for Wildlife: shallow impoundments can be important for migrating and wintering waterfowl; flooding grain fields and planting food plots in winter makes food more available
Wildlife or Fish Survey: flush counts and aerial surveys are used to estimate populations in fall and winter

American woodcock

General information

The American woodcock is a ground-dwelling, migratory shorebird of the eastern United States and southeastern Canada that primarily inhabits moist, young forest and shrubland. They breed, nest, and raise their broods from March to June in their northern range. Nests are located in slight depressions among dead leaves on the forest floor. They migrate to their southern range in the fall through winter. This gamebird has declined steadily over the past 25 years as a result of land-use changes that have resulted in forest maturation, fire suppression, and increased human development. High-quality woodcock habitat has a diverse arrangement of dense, young forest (and must include some moist sites) on 80 percent of the area, interspersed with large fields and small openings in close proximity.

Richard Baetsen



Habitat requirements

Diet: invertebrates (earthworms represent 60 percent of diet)
Water: obtained through diet
Cover: openings with sparse herbaceous groundcover and scattered shrubs and/or young trees; for courtship and roosting; young hardwood forest 2- to 25-year-old, for foraging, nesting and brood rearing or shrub cover on moist sites

Wildlife management practices

Control Nonnative Invasive Vegetation: may be necessary if habitat quality is degrading and the native plant community is being outcompeted
Edge Feathering: will create a soft edge between openings or agricultural fields and the forest that will encourage shrub and/or young tree growth
Forest Management: *Forest Regeneration*, especially *Clearcut* and *Group Selection*, can provide dense structure in young stands that woodcock select for several years, especially when a mosaic of openings and young forest is well-interspersed; *Forest Stand Improvement* also may be used to reduce overstory tree density and increase stem density in the understory and midstory.
Livestock Management: exclude livestock from areas managed for American woodcock
Plant Shrubs: where there is a lack of interspersed shrubs for foraging, nesting, courtship, or roosting cover
Plant Trees: where there is a lack of forest cover
Set-back Succession: *Prescribed Fire*, *Chainsawing*, *Drum-chopping*, and *Herbicide Applications* can be used to maintain young tree/shrub cover; *Chainsawing*, *Root-plowing*, and *Dozer-clearing* can be used to create forest openings
Wildlife or Fish Survey: surveys on singing grounds can be used to estimate the relative size of the woodcock breeding population

Barred owl

Mark Musselman

General information

Barred owls are found in mature forests, often near water, throughout eastern North America and the Pacific Northwest. They roost on limbs and cavities during the day. They nest in cavities of large trees and snags, and will readily use man-made nesting structures for nesting and roosting. They also may nest on old platform nests built by other owls, hawks, crows, and squirrels. They hunt primarily at night, scanning for prey with keen vision and hearing and flying silently from tall perches. Their hooting call of *"Who cooks for you? Who cooks for you all?"* can be heard all year and is a common night sound where they occur. Barred owl populations have increased and spread since the mid-1960s.

Habitat requirements

Diet: primarily small mammals, birds, amphibians, reptiles, fish, and invertebrates.
Water: requirements largely unknown. They likely obtain their water needs from the foods they consume.
Cover: mature forests with an abundance of relatively large trees and cavities, often near water. They also may use artificial cavities (nest boxes) when placed in mature forests where these birds are found.

Wildlife management practices

Control Nonnative Invasive Vegetation: where nonnative invasive vegetation is competing with native vegetation and reducing habitat quality
Create Snags: where cavities are lacking for adequate reproduction
Forest Management: *Forest Regeneration (Shelterwood)* harvests can result in a more open, park-like forest resulting in a more open understory to favor prey
Livestock Management: livestock should be excluded from forests to maintain understory for prey
Nesting Structures: nest boxes may be installed in areas where nesting cavities are limiting barred owls. However, a lack of natural cavities is uncommon in mature forests that represent habitat for barred owls.
Plant Trees: in large open areas to create future habitat
Set-back Succession: low-intensity *Prescribed Fire* can be used in forests and woodlands to enhance cover for prey
Wildlife Damage Management: barred owls can prey upon small pets and domestic poultry. Exclusion practices should be used to discourage damage.
Wildlife or Fish Survey: call counts are used to monitor populations

Black-backed woodpecker

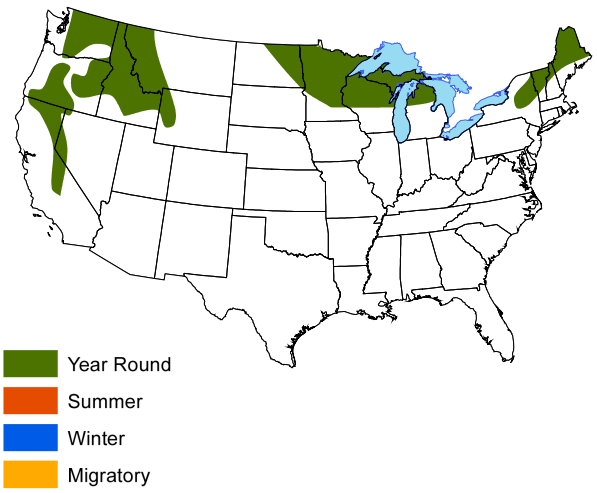

Glen Tepke

General information

Black-backed woodpeckers are primarily found in recently burned forests, specifically coniferous forests, where they eat bark beetles and other wood-boring beetles. Abundance of black-backed woodpeckers declines with time since fire. Habitat generally remains for 7-8 years post fire.

Habitat requirements

Diet: bark beetles and wood-boring beetles in recently burned, old-growth coniferous forests
Water: water is obtained from food
Cover: nest in the sapwood of relatively hard, dead trees with little decay that have been recently burned with high concentrations of beetle larvae.



Wildlife management practices

Control Nonnative Invasive Vegetation: when nonnative invasive species begin to reduce habitat quality for black-backed woodpeckers
Plant Trees: in areas where forest regeneration is not occurring, trees may be planted to provide future habitat for the black-backed woodpecker. However, it will be many decades before these trees are of sufficient size to provide habitat for this woodpecker.
Set-back Succession: relatively intense *Prescribed Fire* in old-growth coniferous forests is necessary for the occurrence of black-backed woodpeckers. However, logging post-fire significantly decreases their occurrence.
Wildlife or Fish Survey: point counts can be conducted to listen for the distinctive drumming of the black-backed woodpeckers during the mating season

Black-bellied whistling duck

Robert Burton

General information

The black-bellied whistling duck is a medium-sized duck that ranges in body length from 19 to 22 inches. The males and females look alike. They have a long red bill, long gray head with a gray face and long pink legs. The belly and tail are black, and the body, back of neck and cap are chestnut brown. The black-bellied whistling duck has a distinctive white wing bar that is unique among whistling ducks. Their call is a high-pitched, soft wheezy whistle of four to six notes, accented on the second or third syllable. Black-bellied whistling ducks are primarily cavity nesters and will use nesting boxes, but may nest on the ground if no cavities are present. The black-bellied whistling duck is unique among ducks in that they exhibit a strong bond between pairs, often staying together for many years. This duck is mainly non-migratory with only birds living in the extreme northern portion of their range moving south in winter.

Habitat requirements

Diet: aquatic plants, grass, grain, insects, and mollusks
Water: obtains water through diet
Cover: tree-lined bodies of water, prefer shallow freshwater ponds, lakes, marshes, cultivated fields, and reservoirs with plentiful vegetation; prefer to nest in tree cavities

Wildlife management practices

Control Nonnative Invasive Vegetation: where nonnative invasive vegetation is competing with native vegetation and reducing habitat quality
Create Snags: to provide potential cavity nesting sites
Leave Crop Unharvested: to provide grain food source
Livestock Management: livestock should be excluded from wetlands managed for waterfowl to maintain water quality and prevent sedimentation
Nesting Structures: nest boxes should be erected where there is a lack of nesting cavities
Plant Food Plots: grain plots can provide food source
Plant Trees: trees planted adjacent to wetlands can provide perching and nest cavity opportunities
Repair Spillway/Levee: if not functioning properly
Soil Conservation Agriculture: eliminate tillage in the fall to provide additional waste grain during winter, especially fields that can be shallowly flooded
Water Control Structures: should be installed if not present to control water level in wetlands managed for waterfowl
Water Developments for Wildlife: shallow impoundments can be important for migrating and wintering waterfowl; flooding grain fields and planting food plots in winter makes food more available
Decrease Harvest: although black-bellied whistling ducks are considered migratory waterfowl, many local populations do not migrate and thus, landowners can influence populations; harvest may be decreased when local populations is declining, habitat quality is good, and data suggest mortality rate from hunting is additive
Wildlife or Fish Survey: flush counts and aerial surveys are used in fall and winter to estimate populations; nest box usage in summer can provide an index to population

Black-capped chickadee

General information

Black-capped chickadees occur throughout the upper two-thirds of the U.S. They are found in shrublands and forests. They nest in cavities in dead or hollow trees. Black-capped chickadees eat insects and spiders from the branches and bark of trees and shrubs. They also will visit bird feeders. They are often seen on the edges of forested areas.

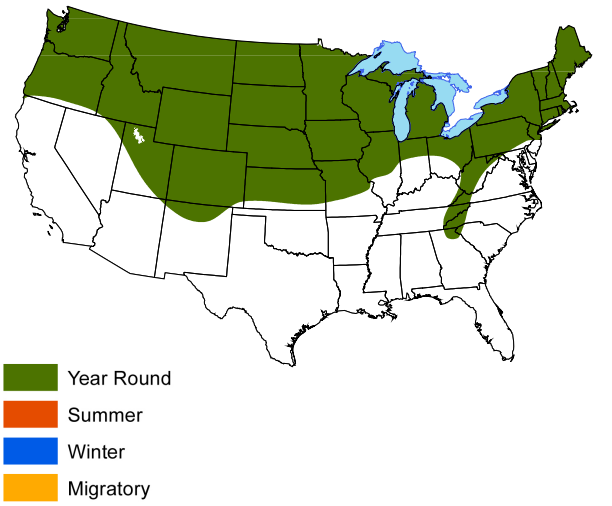
Donna Dewhurst

Habitat requirements

Diet: ants, caterpillars and spiders from branches, leaves and bark of trees and shrubs; also seeds from bird feeders and soft mast from shrubs

Water: obtain necessary water from snow and surface water

Cover: nest in cavities, usually in a dead or hollow tree; they can excavate a cavity only in soft wood or rotted wood and will use woodpecker holes, natural cavities, and man-made boxes; thick shrub and tree canopies provide necessary cover



Wildlife management practices

Control Nonnative Invasive Vegetation: when nonnative invasive vegetation begins to reduce habitat quality for black-capped chickadee

Create Snags: trees may be killed where nesting cavities are limited to stimulate creation of additional cavities

Forest Management: *Forest Stand Improvement* practices can improve understory structure by increasing shrub cover within a stand when canopy cover exceeds 80 percent

Livestock Management: should prevent livestock from degrading shrub cover

Nesting Structures: can be provided in areas where nesting cavities are limiting

Plant Shrubs: in large open areas to provide shrub cover

Plant Trees: where additional forest cover is needed

Set-back Succession: *Prescribed Fire* can maintain shrubby areas and thick understory cover in woods

Wildlife or Fish Survey: point counts are used to estimate population trends

Black-throated sparrow

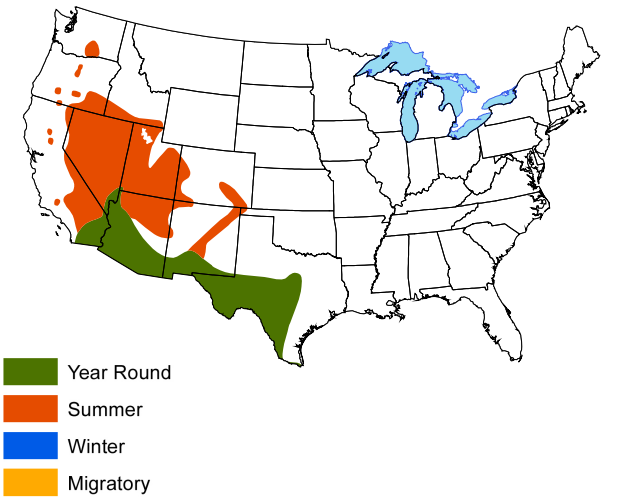
General information

Black-throated sparrows are associated with shrublands, specifically sparsely vegetated desert shrubland, including mesquite, cacti, chaparral, and juniper in the southwest U.S. Their diet is mainly seeds and insects. Black-throated sparrows nest near the ground in small shrubs.

James W. Arterburn

Habitat requirements

Diet: insects, seeds and green herbaceous vegetation
Water: require water frequently during dry and cool seasons, especially when green herbaceous vegetation and insects are not available
Cover: nests are made from small twigs, grass, and stems placed in small shrubs near the ground; shrubs and cacti are used for hiding cover



Wildlife management practices

Control Nonnative Invasive Vegetation: when nonnative invasive species begin to compete with native species and degrade habitat quality
Livestock Management: should prevent overgrazing within shrub cover
Set-back Succession: *Prescribed Fire*, *Chaining*, and *Drum-chopping* can be used to rejuvenate shrublands when they become overgrown and limit herbaceous groundcover
Water Developments for Wildlife: can be beneficial where water is limiting
Wildlife or Fish Survey: point counts are used to estimate population trends