









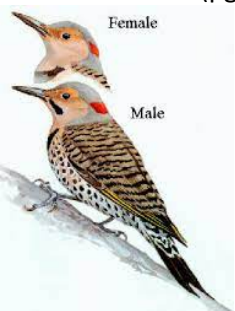






WHEP Lesson 2: Birds





Prairie Birds				
Bird	Diet	Water	Cover	Other
<p>Blue-winged teal (pg. 82)</p> 	<p>aquatic vegetation, seeds and aquatic insects; feeding primarily confined to wetlands</p>	<p>relatively shallow wetlands required for brood rearing, feeding, and loafing</p>	<p>dense native grass cover used for nesting; brooding cover consists of a mix of open water and emergent vegetation</p>	 <p>Wing detail</p>
<p>Dickcissel (pg. 92)</p> 	<p>insects and grass seeds are eaten year-round; agricultural crops are eaten more during migration and on wintering grounds</p>	<p>water obtained from food</p>	<p>early successional areas with a mixture of grasses and forbs and scattered shrubs; grain fields frequented during winter</p>	
<p>Grasshopper Sparrow (pg. 103)</p> 	<p>diet shifts dramatically through the year; in spring and summer (breeding season) insects comprise 60 percent of the diet; not surprisingly, given the bird's name, grasshoppers account for 30 to 40 percent of the diet during this time; during fall and winter, diet shifts to 70 percent seeds</p>	<p>water requirements are unknown but probably obtained through diet</p>	<p>Perennial grasses and forbs are used for escape and nesting cover; nest on the ground, usually in overhanging native warm-season grasses</p>	
<p>Greater Prairie Chicken (pg. 105)</p> 	<p>seeds, grains, insects and herbaceous greens; during the first few weeks after hatching, the young eat insects</p>	<p>water is obtained from diet</p>	<p>thick, tall grass cover is used for nesting and winter cover; if not periodically disturbed, grasses often become too thick and are less valuable for nesting cover</p>	

<p>Mourning Dove (pg. 120)</p> 	<p>a variety of grass and forb seeds, as well as several agricultural grains; small areas of bare ground are beneficial for obtaining grit (small gravel) to help digest food</p>	<p>freestanding water required daily</p>	<p>shrubs and trees are used for nesting and loafing; areas with open ground space required for foraging</p>	<p>Also found in deciduous forest</p>
<p>Northern Bobwhite (pg. 121-122)</p> 	<p>young quail eat insects and other invertebrates (such as spiders); adult quail eat a variety of seeds (especially legumes, ragweed, crotons, lespedeza, etc.), green vegetation (mostly forbs), invertebrates, various crops (corn, soybeans, wheat, grain sorghum), and mast (such as acorns and blackberries)</p>	<p>Obtained through diet</p>	<p>shrub cover for escape and thermoregulation throughout the year; forbs and grasses for nesting; native forbs for brood rearing</p>	<p>Also found in deciduous forest</p>
<p>Northern Harrier (pg. 125)</p> 	<p>small mammals, especially rodents, but also rabbits, songbirds, and sometimes ducks</p>	<p>Obtained through diet</p>	<p>large, undisturbed grasslands and emergent wetlands</p>	
<p>Ring-necked Pheasant (pg. 137)</p> 	<p>various seeds, grains, grasses, leaves, fruits, and nuts; grains are used heavily in agricultural areas; insects constitute an important food item for females during the breeding season and young pheasants during the first several weeks after hatching</p>	<p>Obtained through diet</p>	<p>dense residual grass and forb cover for nesting and escape; shrubs and trees may be used for roosting; dense cattails adjacent to and within wetlands</p>	

Urban Birds				
Bird	Diet	Water	Cover	Other
American Robin (pg. 74) 	insects and worms during spring and summer; soft mast from shrubs and trees in winter; seldom use artificial feeders	require water daily in warm seasons; obtain water from low-lying areas, ponds, and rain-filled gutters	shrubs, evergreen trees, and deciduous trees used for nesting and escape; evergreen trees often used for early nests	
Eastern Bluebird (pg. 94) 	insects, especially grasshoppers, crickets, adult beetles and larvae, as well as other invertebrates, such as spiders; various fruits, such as black cherry, sumac, blueberry, blackberry, blackgum, hollies, dogwoods, pokeweed, and hackberry	necessary water obtained from diet, but may use free-standing water when available	nest in cavities of trees and fence posts	
Common Nighthawk (pg. 89) 	flying insects, including flying ants, mosquitoes, moths, and June bugs	obtain ample water from diet, but water sources attract insects, which provide food for nighthawks	riparian areas, ridge tops, flat rooftops, and other places with numerous sand and gravel areas are favorite nesting locations	
European Starling (pg. 96) 	insects, soft mast, seeds, earthworms, grain, human garbage, and even dog and cat food	require freestanding water during warm seasons	nest in tree cavities, old buildings	

<p>House Finch (pg. 109)</p> 	<p>soft mast, buds, and weed seeds; in the warm season, house finches eat some insects</p>	<p>free-standing water is needed daily in the warm season</p>	<p>nest 5 feet to 7 feet aboveground on low branches of trees, branches of bushes, in natural cavities, old holes excavated by woodpeckers, and any projection or ledge they can find on houses and buildings</p>	
<p>House Sparrow (pg. 110)</p> 	<p>variety of insects, soft mast, buds, forbs, weed seeds, and waste grain</p>	<p>free-standing water is required daily in warm seasons</p>	<p>nest in natural cavities, low branches of trees, and bushes 5 feet to 7 feet aboveground, and on any projection or ledge they can find on buildings or other structures</p>	
<p>House Wren (pg. 111)</p> 	<p>spiders, grasshoppers, crickets, beetles, caterpillars, ants, bees, ticks, earthworms, and millipedes; artificial feeders are usually not used</p>	<p>necessary water is obtained from the diet</p>	<p>nest in natural cavities in trees old buildings and other structures</p>	
<p>Northern Flicker (pg. 123)</p> 	<p>ants are a favorite food and make up about 50 percent of the diet; seeds, soft mast, and earthworms are also eaten; flickers are partial to poison ivy fruit and may use artificial feeders</p>	<p>daily water requirements unknown; sufficient water is probably obtained from diet</p>	<p>tree cavities are used for nesting; old, mature trees that show signs of senescence (old age) or decay are often used; softwood trees, such as yellow poplar, cottonwood, and willow, are preferred; flickers will nest in posts, holes in banks, and holes in houses and structures where trees are unavailable</p>	

<p>Peregrine Falcon (pg. 129)</p> 	<p>mostly birds, but also bats, which falcons catch during flight</p>	<p>requirements largely unknown; likely obtain water needs from foods they consume</p>	<p>require tall cliffs, buildings, and other tall structures for nesting and perching</p>	
<p>Rock Pigeon (pg. 138)</p> 	<p>waste grain and weed seeds; in urban areas, rock pigeons commonly eat human handouts</p>	<p>free-standing water is required frequently during warm seasons</p>	<p>barn lofts, window ledges, rooftops, bridges, and a variety of other structures</p>	
<p>Ruby-throated Hummingbird (pg. 139)</p> 	<p>nectar from flowers and insects found on flowers</p>	<p>necessary water obtained from diet</p>	<p>trees and shrubs for nesting; flowers for feeding</p>	
<p>Song Sparrow (pg. 144)</p> 	<p>weed seeds, insects, soft mast</p>	<p>freestanding water is required frequently during the warm seasons</p>	<p>thick shrubs and herbaceous cover for nesting, loafing, and escape</p>	

Wetland Birds				
Bird	Diet	Water	Cover	Other
American Bittern (pg. 71) 	fish, amphibians, snakes, insects, and crustaceans	obtained from food	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	
Canada Goose (pg. 88) 	variety of forbs and grasses, grains, and some aquatic insects	relatively open water wetlands, ponds, and lakes are used for brood rearing, feeding, and loafing	nest in a variety of places, such as mats of bulrushes, tops of muskrat houses, and most of all, in relatively thick cover on islands, usually within 200 feet of the water's edge	
Mallard (pg. 117) 	aquatic plants, insects and other invertebrates, hard mast (especially acorns), grains and other seed are primary components in the diet; ducklings eat mostly aquatic insects	see cover requirements	nest in grass and forbs and sometimes in shrub cover, preferably within one-half mile of a wetland that provides open water with some emergent aquatic vegetation; brooding cover is open water with considerable emergent aquatic vegetation for protection from predators; ideally, wetlands have a minimum of 50 percent open water and 10 to 20 percent emergent vegetation; in wintering areas, mallards often loaf on more open water, such as warm-water sloughs, streams, rivers, and flooded fields	
Northern Pintail (pg. 126) 	aquatic plant seeds and rhizomes; grain and other seeds found in fields; aquatic insects, mollusks and crustaceans	water is obtained through diet	open freshwater wetlands and intertidal marshes	

<p>Redhead (pg. 136)</p> 	<p>chicks primarily eat aquatic invertebrates (mollusks, snails, crustaceans) during late spring and early summer; during the rest of the year, redheads eat aquatic plants, such as pondweeds, muskgrass, bulrush seeds, wild celery, water lily seeds, and coontail</p>	<p>obtained in diet</p>	<p>during spring and summer, dense emergent vegetation for nesting; open-water wetlands are used for loafing and foraging; wetlands with a mosaic of open water with submerged and emergent aquatic vegetation are used for foraging</p>	
<p>Spotted Sandpiper (pg. 147)</p> 	<p>flies and their aquatic larvae (midges), grasshoppers, beetles, worms, snails, small crustaceans</p>	<p>acquire necessary water while foraging and from diet</p>	<p>shallow, freshwater wetlands and mudflats; sometimes dense herbaceous vegetation for nesting</p>	
<p>Virginia Rail (pg. 149)</p> 	<p>insects, aquatic invertebrates, snails, small fish, and small amphibians; some seeds and plant material in fall and winter</p>	<p>obtained from food</p>	<p>moderately dense wetland vegetation, such as cattails, sedges, rushes, smartweeds, and other plants are used for cover; nests are woven into vegetation over shallow water and may have a canopy over them</p>	
<p>Wilson's Snipe (pg. 156)</p> 	<p>invertebrates (insects and larvae)</p>	<p>obtained through diet</p>	<p>bogs, fens, swamps, and marshy, vegetated edges of ponds, rivers, and streams are used for courtship and nesting; areas with moist soil or mud for insect probing (such as wet fields, marshy edges of water bodies, and exposed muddy banks or sandbars) are used for foraging</p>	

1. DUCKS
 - a. Generally nest _____
2. Need water source
3. How does bill shape affect feeding?

4. Diet: aquatic plants, seeds and sometimes grains or hard mast, insects
5. Webbed feet used for _____.

6. SONGBIRDS: pigeons, wrens, sparrows, robins, bluebirds, etc
 - a. Generally nest in trees, rooftops, hollows, birdhouses
 - b. Beak shape, size shows food source
 - i. Can songbirds eat squirrels?
 - c. Diet: Seeds, insects, soft mast
 - d. Water source: is it always needed?
 - e. Feet: grip on to _____

7. RAPTORS: hawks, owls, falcons, eagles
 - a. Generally nest in trees, ledges
 - b. Knifelike _____
 - i. Do they eat seeds?
 - ii.
 - c. Diet: Mammals, rodents, birds, insects, fish
 - d. Feet & talons: why are they important?

8. How are prairie birds alike?

9. How are urban birds alike?

10. How are wetland birds alike?

Prairie Birds

- o Blue-winged teal (pg. 82)
- o Dickcissel (pg. 92)
- o Grasshopper Sparrow (pg. 103)
- o Wild Turkey (pg. 154)
- o Greater Prairie Chicken (pg. 105)
- o Mourning Dove (pg. 120)
- o Northern Bobwhite (pg. 121-122)
- o Northern Harrier (pg. 125)
- o Ring-necked Pheasant (pg. 137)

Urban Birds

- o American Robin (pg. 74)
- o Bluebird (pg. 94)
- o Common Nighthawk (pg. 89)
- o European Starling (pg. 96)
- o House Finch (pg. 109)
- o House Sparrow (pg. 110)
- o House Wren (pg. 111)
- o Northern Flicker (pg. 123)
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- o Rock Pigeon (pg. 138)
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Wetland birds

- o American Bittern (pg. 71)
- o Canada Goose (pg. 88)
- o Mallard (pg. 117)
- o Northern Pintail (pg. 126)
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