

Study Materials

Knowledge Area No. 1: Food Habits of Wildlife Species in the Region

For the contest, wildlife foods are classified into categories. The name of a specific wildlife food does not need to be identified in this activity. For example, the contestant does not need to identify a pile of seeds as wheat seed, but rather contestants need to know that wheat seed falls under the broader category of “grain.”

Participants should be prepared to indicate which foods are eaten by specific wildlife species and be familiar with the food group definitions. Study the foods table of the announced region, which lists the food categories for each wildlife species. For each contest, use the one table corresponding to the announced region.

These tables have been developed to assist with studying the relationship between wildlife species in the announced region and their food habits. Contestants should be able to answer multiple-choice, true/false or matching questions about which wildlife species eat a particular food category. For example, contestants may be shown a pile of acorns. They need to know that acorns represent a nut and identify which wildlife species in the announced region consume nuts.

Note that in reality, the list is not entirely complete since a wildlife species may occasionally eat unusual things if they happen upon them by chance. Likewise, a wildlife species may not eat all plant or animal species in a certain food group. For example, white-tailed deer do not eat tender twigs and leaves from all trees and shrubs—only from certain species of trees and shrubs. However, for purposes of judging this event, if a particular wildlife species eats the food, then all foods in that category are considered a correct answer. Definitions of “somewhat confusing” food categories are described below.

Definitions of Somewhat Confusing Food Categories

Grains: These are cereal grains and include wheat, oats, rye, barley, rice and corn for human consumption. Anything else should be considered for the category of seeds, fruits and berries, or nuts.

Mammals: Any mammal, regardless of size, fits into this category. A photograph, live animal, museum mount specimen, or any part thereof represents an animal in this category.

Carrion: Should not be confused with the category mammal, bird, etc. This is defined as stinking, rotten flesh. For example, if a bird bone (hollow) is present, then it represents the bird category, not carrion. When judging carrion, if the item has maggots (insect larvae) in it, it is still considered as carrion.

Eggs: Vertebrate eggs (mammals, birds, reptiles, amphibians, fish) are considered in this category. Invertebrate eggs (spiders, insects, etc.) represent the category of animal and the adult invertebrate.

Soft Mast: Fruits and berries which include soft, fleshy, pulp-covered seed (see nut and seed category definition).

Hard Mast: This category includes nuts such as walnuts, hickory nuts, acorns, beechnuts, pecan, hazelnuts, almonds, etc.

Tuber: Includes chufa, potato.

Nectar: Will be represented by flowers presented by themselves (no other plant parts) or honey (processed nectar).

Forbs: Can be shown with a flower part as part of the plant.

Aquatic Plants include the following genera:

algae – various genera

American lotus – *Nelumbo lutea*

arrowhead/duck potato – *Sagittaria* spp.

big duckweed – *Spirodela* spp.

bladderworts – *Utricularia* spp.

bulrushes – *Scirpus* spp.

birreeds – *Sparganium* spp.

cattails – *Typha* spp.

coontail – *Ceratophyllum* spp.

cordgrass – *Spartina* spp.

duckweed – *Lemna* spp.

floating hearts – *Nymphoides* spp.

naiads – *Najas* spp.

pond weed – *Potamogeton* spp.

rushes – *Juncus* spp.

sedges – *Carex* spp.

smartweed – *Polygonum* spp.

spikerush – *Eleocharis* spp.

waterlily – *Nymphaea* spp.

watermeals – *Wolffia* spp.

watermilfoil – *Myriophyllum* spp.

water primrose – *Ludwigia* spp.

waterweed – *Elodea* spp.

Wildlife Food Categories	Eastern Deciduous Forest Wildlife Species																		
	Black bear	Bluejill	Bobcat	Box turtle	Brown thrasher	Eastern bluebird	Eastern cottontail	Eastern gray squirrel	Eastern towhee	Elk	Great-horned owl	Largemouth bass	Mourning dove	Northern bobwhite	Ovenbird	Ruffed grouse	White-tailed deer	Wild turkey	Wood duck
Aquatic Plants																	X		X
Bark						X	X		X										
Birds			X								X	X							
Buds	X					X	X		X				X			X	X	X	
Carrion	X																		
Crayfish	X	X										X							X
Earthworms		X		X	X	X			X			X		X	X			X	
Eggs		X						X											
Fish	X	X										X							
Forbs	X			X		X			X				X		X	X	X		
Frogs & Salamanders		X			X						X	X							X
Fungi				X				X		X							X	X	
Grain	X				X		X	X					X	X		X	X	X	X
Grass	X					X			X					X			X	X	
Hard Mast	X				X		X	X	X					X		X	X	X	X
Insects and spiders	X	X		X	X	X		X	X		X	X		X	X	X		X	X
Leaves & Twigs	X						X			X				X		X	X	X	
Lizards					X						X								X
Mammals	X		X								X	X							
Seeds	X				X	X		X	X				X	X	X	X		X	X
Snails					X	X			X					X	X	X		X	X
Snakes			X		X						X	X							X
Soft Mast	X			X	X	X	X	X	X	X				X	X	X	X	X	X

Wildlife Food Categories	Grasslands – Tallgrass/Mixed Prairie Wildlife Species																			
	American kestrel	Bluegill	Blue-winged teal	Box turtle	Butterflies	Coyote	Dickcissel	Eastern cottontail	Eastern hognose snake	Grasshopper sparrow	Pine vole	Largemouth bass	Mourning dove	Northern bobwhite	Northern harrier	Red-tailed hawk	Spotted Skunk	White-tailed deer	Wild turkey	
Aquatic Plants			X	X																
Bark							X			X								X		
Birds	X					X		X			X			X	X		X			
Buds							X							X				X	X	
Carrion				X		X											X			
Crayfish						X					X									
Earthworms		X		X							X									
Eggs		X		X		X		X			X						X			
Fish		X		X							X									
Forbs					X		X			X			X					X	X	
Frogs & Salamanders				X		X		X			X			X						
Fungi				X														X		
Grain			X				X	X			X		X	X				X	X	X
Grass				X	X		X				X			X			X	X	X	
Hard Mast											X			X			X	X	X	
Insects & Spiders	X	X	X	X		X	X		X	X	X	X		X			X			X
Leaves & Twigs				X	X		X				X			X				X	X	
Lizards	X					X		X								X	X			
Mammals	X					X		X			X			X	X		X			
Nectar					X															
Seeds			X	X		X			X	X		X	X							X
Snails		X	X	X							X		X							X
Snakes	X					X		X						X	X		X			
Soft Mast				X	X	X	X		X		X		X				X	X	X	

Wildlife Food Categories	Southeast Mixed & Outer Coastal Plain Forest Wildlife Species																				
	American kestrel	Black bear	Bluegill	Brown thrasher	Coyote	Eastern bluebird	Eastern cottontail	Eastern gray squirrel	Great-horned owl	Hairy woodpecker	Largemouth bass	Mallard (winter)	Mourning dove	Northern bobwhite	Prothonotary warbler	Raccoon	Red-Eyed vireo	White-tailed deer	Wild turkey	Wood duck	
Aquatic Plants												X									X
Bark							X	X											X		
Birds	X				X				X		X						X				
Buds		X					X	X							X				X	X	
Carrion		X			X											X					
Crayfish		X			X						X	X				X					X
Earthworms			X	X		X					X	X				X					
Eggs			X		X			X			X					X					
Fish		X	X						X		X					X					
Forbs		X					X							X					X	X	
Frogs & Salamanders				X	X				X		X	X				X					
Fungi								X											X		
Grain		X		X			X	X				X	X	X		X		X	X	X	X
Grass		X					X							X				X	X		
Hard Mast		X		X				X		X				X		X		X	X	X	X
Insects & Spiders	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X			X	X
Leaves & Twigs		X					X							X					X	X	
Lizards	X			X	X				X							X					
Mammals	X	X			X				X		X					X					
Mussels																X					
Seeds		X	X	X				X		X		X	X	X		X			X	X	X
Snails				X							X	X		X	X	X			X	X	
Snakes	X	X		X	X				X		X					X					
Soft Mast				X	X	X	X	X		X		X		X		X	X	X	X	X	X

Wildlife Food Categories	Urban Wildlife Species																
	American robin	Big brown bat	Butterflies	Common or lesser nighthawk	Eastern bluebird	Eastern cottontail	Eastern fox squirrel	European starling	Frogs	House finch	House sparrow	House wren	Hummingbird	Northern flicker	Raccoon	Rock dove	Song sparrow
Bark						X	X										
Birds															X		
Buds						X	X			X	X						
Carrion															X		
Crayfish									X						X		
Earthworms	X				X			X	X		X	X		X	X		
Eggs							X		X						X		
Fish															X		
Forbs			X			X											
Frogs & Salamanders									X						X		
Fungi							X										
Grain						X	X	X			X				X	X	
Grass			X			X											
Hard Mast							X								X		
Insects & Spiders	X	X		X	X		X	X	X	X	X	X	X	X	X		X
Leaves & Twigs			X			X											
Lizards															X		
Mammals															X		
Mussels															X		
Nectar			X										X				
Seeds						X	X	X		X	X			X	X	X	X
Snails									X						X		
Snakes															X		
Soft Mast	X				X	X	X	X		X	X			X	X		X

Wildlife Food Categories	Wetlands Wildlife Species															
	American alligator	American beaver	Black bear	Bluegill	Bullfrog	Canada goose	Largemouth bass	Mallard (winter)	Mink	Muskrat	Northern harrier	Raccoon	Redhead	Red-winged blackbird	River otter	Wood duck
Aquatic Plants		X			X	X		X		X			X			X
Bark		X														
Birds	X				X		X		X		X	X			X	
Buds		X	X													
Carrion	X		X									X				
Crayfish	X		X		X	X	X	X	X	X		X			X	X
Earthworms				X	X		X	X				X				
Eggs				X	X		X		X			X				
Fish	X		X	X	X		X		X	X		X			X	
Forbs		X	X			X										
Frogs & Salamanders	X				X		X	X	X	X	X	X			X	
Fungi																
Grain			X			X		X				X		X		X
Grass			X			X										
Hard Mast			X									X				X
Insects & Spiders	X		X	X	X	X	X	X	X			X	X	X		X
Leaves & Twigs		X	X													
Lizards					X							X				
Mammals	X		X		X		X		X		X	X			X	
Mussels								X	X	X		X			X	
Seeds			X					X			X	X	X	X		X
Snails				X	X	X	X	X				X				X
Snakes	X				X							X			X	
Soft Mast			X					X				X		X		X