Glossary, Acronyms and Abbreviations, and Species Scientific Names

- Glossary
- Acronyms and Abbreviations
- Species Scientific Names
Glossary

**adaptive management**

A process in which projects are implemented within a framework of scientifically driven experiments to test predictions and assumptions outlined within the comprehensive conservation plan. The analysis of the outcome of project implementation helps managers determine whether current management should continue as is or whether it should be modified to achieve desired conditions.

**abiotic**

Nonliving; a physical feature of the environment such as climate, temperature, geology, soils.

**avullium**

An unconsolidated accumulation of stream-deposited sediments, often including sands, silts, clays, or gravels.

**alternative**

A set of objectives and strategies needed to achieve refuge goals and the desired future condition.

**ambient**

Of the surrounding area or outside environment.

**anadromous fish**

Fish that spend a large portion of their life cycle in the ocean and return to freshwater to breed.

**appropriate use**

A proposed or existing use on a refuge that meets at least one of the following three conditions:

1. The use is a wildlife-dependent one;
2. The use contributes to fulfilling the refuge purpose(s), the System mission, or goals or objectives described in a refuge management plan approved after October 9, 1997, the date the National Wildlife Refuge System Improvement Act was signed into law; or
3. The use has been determined appropriate as specified in section 1.11 of that act.

**approved acquisition boundary**

A project boundary that the Director of the U.S. Fish and Wildlife Service approves upon completion of the planning and environmental compliance process. An approved acquisition boundary only designates those lands that the Service has authority to acquire or manage through various agreements. The approval of an acquisition boundary does not grant the Service jurisdiction or control over lands within the boundary, and it does not make lands within the refuge boundary part of the National Wildlife Refuge System. Lands do not become part of the Refuge System until the Service buys them or they are placed under an agreement that provides for their management as part of the Refuge System.

**avian**

Of or having to do with birds.

**basin**

The surrounding land that drains into a water body.

**best management practice**

Land management practices that produce desired results (usually describing forestry or agricultural practices effective in reducing non-point source pollution).

**biological diversity**

The variety of life forms and its processes, including the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.
### Glossary

**biological integrity**  
biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historic conditions, including natural biological processes that shape genomes, organisms, and communities.

**bird conservation region**  
ecologically distinct regions in North America with similar bird communities, habitats, and resource management issues.

**brackish**  
brackish water is water that is more salty than freshwater, but less salty than seawater. It is generally defined as water with a salinity of 0.5 to 30 dissolved salts parts per thousand.

**buffer**  
lands bordering water bodies that reduce runoff and nonpoint source pollution.

**canopy**  
the layer of foliage formed by the crowns of trees in a stand. For stands with trees of different heights, foresters often distinguish among the upper, middle and lower canopy layers. These represent foliage on tall, medium, and short trees. The uppermost layers are called the overstory.

**categorical exclusion**  
a category of Federal agency actions that do not individually or cumulatively have a significant effect on the human environment.

**compatible use**  
a wildlife-dependent recreational use, or any other use on a refuge that will not materially interfere with or detract from the fulfillment of the mission of the Service or the purposes of the refuge.

**compatibility determinations**  
a required determination for wildlife-dependent recreational uses or any public uses of a refuge.

**Comprehensive Conservation Plan**  
a document that describes the desired future conditions of the refuge, and specifies management direction to achieve refuge goals and the mission of the National Wildlife Refuge System.

**community**  
a distinct assemblage of plants that develops on sites characterized by particular climates and soils, and the species and populations of wild animals that depend on the plants for food, cover and/or nesting.

**cover type**  
the current vegetation of an area.

**cultural resource**  
those parts of the physical environment—natural and built—that have cultural values to some sociocultural group or institution. Cultural resources include historic sites, archaeological sites and associated artifacts, sacred sites, buildings, and structures.

**diameter at breast height**  
(dbh)—the diameter of the stem of tree measure at breast height (usually 4.5 feet above the ground). The term is commonly used by foresters to describe tree size.

**disturbance**  
a disruption in the natural plant succession of a community or ecosystem resulting in a new community.
**early successional habitat**

Succession is the gradual replacement of one plant community by another. In a forested ecosystem, tree cover can be temporarily displaced by natural or human disturbance (e.g., flooding by beaver, or logging). The open environments created by removal of tree cover are referred to as “early-successional” habitats because as time passes, trees will return. The open conditions occur “early” in the sequence of plant communities that follow disturbance. We define *early successional forest* in this CCP as: the shrub-sapling stage; 0 to 20 years old.

**ecological integrity**

native species populations in their historic variety and numbers naturally interacting in naturally structured biotic communities. For communities, integrity is governed by demographics of component species, intactness of landscape-level ecological processes (e.g., natural fire regime), and intactness of internal community processes (e.g., pollination).

**ecological succession**

the orderly progression of an area through time in the absence of disturbance from one vegetative community to another.

**ecoregion**

a territory defined by a combination of biological, social, and geographic criteria, rather than geopolitical considerations; generally, a system of related, interconnected ecosystems.

**ecosystem**

a dynamic and interrelated complex of plant and animal communities and their associated non-living environment.

**emergent marsh**

wetlands dominated by erect, rooted, herbaceous plants.

**endangered species**

any species of plant or animal defined through the Endangered Species Act as being in danger of extinction throughout all or a significant portion of its range, and published in the *Federal Register*.

**Environmental Assessment**

a systematic analysis to determine if proposed actions would result in a significant effect on the quality of the environment.

**environmental health**

the composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historic conditions, including the natural abiotic processes that shape the environment.

**exotic species**

a species that is not native to an area and has been introduced intentionally or unintentionally by humans.

**extinction**

the termination of existence of a lineage of organisms (e.g., a subspecies or species).

**federally-listed species**

a species listed either as endangered, threatened, or species at risk (formerly a “candidate” species) under the Endangered Species Act of 1973, as amended.

**fragmentation**

the process of reducing the size and connectivity of habitat patches; the disruption of extensive habitats into isolated and small patches.

**geographic information system**

a computer system capable of storing and manipulating spatial mapping data; more commonly referred to by the acronym GIS.
| **goals** | descriptive statements of desired future conditions. |
| **habitat** | the sum of environmental factors — food, water, cover, and space — that each species needs to survive and reproduce in an area. |
| **hectare** | equal to 2.47 acres. |
| **historic conditions** | the composition, structure, and functioning of ecosystems resulting from natural processes that we believe, based on sound professional judgment, were present prior to substantial human-related changes to the landscape. |
| **impoundment** | a body of water, such as a pond, confined by a dam, dike, floodgate, or other barrier, that is used to collect and hold water. |
| **interjurisdictional fish** | populations of fish that are managed by two or more State or national or tribal governments because of the scope of their geographic distributions or migrations. |
| **invasive species** | a non-native species whose introduction causes or is likely to cause economic or environmental harm or harm to human health. |
| **issue** | any unsettled matter that requires a management decision. For example, a resource management problem, concern, a threat to natural resources, a conflict in uses, or in the presence of an undesirable resource condition. |
| **marl** | An unconsolidated sedimentary rock or soil consisting of clay and lime. |
| **migratory bird** | a bird species that migrates between wintering and breeding grounds. |
| **National Wildlife Refuge System** | all lands, waters, and interests therein administered by the U.S. Fish and Wildlife Service as wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, and other areas for the protection and conservation of fish, wildlife and plant resources. |
| **nonpoint source pollution** | a diffuse form of water quality degradation in which wastes are not released at one specific, identifiable point but from a number of points that are spread out and difficult to identify and control. |
| **objectives** | actions to be accomplished to achieve a desired outcome or goal. Objectives are more specific, and generally more measurable, than goals. |
| **oligohaline** | brackish water with between 0.5 and 3.0 parts per million salinity. |
| **physiographic area** | a bird conservation planning unit with relatively uniform vegetative communities, bird populations, and species assemblages, as well as land use and conservation issues, developed by Partners in Flight. |
| **point source pollution** | a source of pollution that involves discharge of waste from an identifiable point, such as a smokestack or sewage-treatment plant. |
| **preferred alternative** | the Service's selected alternative identified in the Draft Comprehensive Conservation Plan. |
prescribed burning/fire  the application of fire to wildland fuels, either by natural or intentional ignition, to achieve identified land use objectives.

priority public use  a compatible wildlife-dependent recreational use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation.

range  the geographic area within which a particular species is found.

restoration  management of a disturbed or degraded habitat that results in the recovery of its original state (e.g., restoration may involve planting native species, removing invasive shrubs, prescribed burning).

riparian  relating the floodplains, banks, and terraces that line rivers.

riparian area  habitat along the banks of a stream, river, or wetland.

scoping  a process for determining the scope of issues to be addressed by a comprehensive conservation plan and for identifying the significant issues. Involved in the scoping process are Federal, state, and local agencies; private organizations; and individuals.

shifting mosaic  an interconnected patchwork of distinct vegetation types that may shift across the land surface as a result of dynamic ecosystem processes, such as periodic wildfire or flooding.

spawn  the act of reproduction of fishes—the mixing of the sperm from the male fish and the eggs of a female fish.

special use permit  a permit authorized by the refuge manager for an activity that is not usually available to the general public.

species  a distinctive kind of plant or animal having distinguishable characteristics, and that can interbreed and produce young. In taxonomy, a category of biological classification that refers to one or more populations of similar organisms that can reproduce with each other but is reproductively isolated from—that is, incapable of interbreeding with—all other kinds of organisms.

species richness  a simple measure of species diversity calculated as the total number of species in a habitat or community.

stand  an easily defined area of the forest that is relatively uniform in species composition or age and can be managed as a single unit.

stopover habitat  habitat where birds rest and feed during migration. Also called staging area.

strategies  a general approach or specific actions to achieve objectives.

structure  the horizontal and vertical arrangement of trees and other vegetation having different sizes, resulting in different degrees of canopy layering, tree heights, and diameters within a stand.
### Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>succession</td>
<td>the natural, sequential change of species composition of a community in a given area.</td>
</tr>
<tr>
<td>terrestrial</td>
<td>living on land.</td>
</tr>
<tr>
<td>threatened species</td>
<td>those plant or animal species likely to become endangered species throughout all of or a significant portion of their range within the foreseeable future. A plant or animal identified and defined in accordance with the 1973 Endangered Species Act and published in the Federal Register.</td>
</tr>
<tr>
<td>torpor</td>
<td>a state of decreased activity in an animal, usually short-term, often characterized by a reduced body temperature and rate of metabolism.</td>
</tr>
<tr>
<td>trust resources</td>
<td>national resources entrusted by Congress to the U.S. Fish and Wildlife Service for conservation and protection. These “trust resources” include migratory birds, federally listed endangered and threatened species, inter-jurisdictional fishes, wetlands, and certain marine mammals.</td>
</tr>
<tr>
<td>understory</td>
<td>the lower layer of vegetation in a stand, which may include short trees, shrubs, and herbaceous plants.</td>
</tr>
<tr>
<td>vernal pool</td>
<td>depressions holding water for a temporary period in spring and other high water periods, and in which several species of amphibians lay eggs.</td>
</tr>
<tr>
<td>water rights</td>
<td>the right of a user to use water from a source such as a river, stream, pond, or groundwater source.</td>
</tr>
<tr>
<td>watershed</td>
<td>the geographic area within which water drains into a particular river, stream, or body of water. A watershed includes both the land and the body of water into which the land drains.</td>
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<tr>
<td>Wilderness Area</td>
<td>An area designated by Congress as part of the National Wilderness Preservation System.</td>
</tr>
<tr>
<td>wilderness study area</td>
<td>Lands and waters identified by inventory as meeting the definition of wilderness and being evaluated for a recommendation that they be included in the Wilderness System.</td>
</tr>
<tr>
<td>wildfire</td>
<td>an unplanned, unwanted wildland fires including unauthorized human-caused fires, escaped wildland fires, escaped prescribed fires, and all other wildland fires where the objective is to put the fire out.</td>
</tr>
<tr>
<td>wildland fire</td>
<td>any non-structure fire that occurs in the wildland. Three distinct types of wildlife fire have been defined and include wildfire, wildland fire use, and prescribed fire.</td>
</tr>
<tr>
<td>wildlife-dependent recreation</td>
<td>A use of a Refuge involving hunting, fishing, wildlife observation, wildlife photography, environmental education, or interpretation. The National Wildlife Refuge System Improvement Act of 1997 specifies that these are the six priority general public uses of the National Wildlife Refuge System.</td>
</tr>
</tbody>
</table>
## Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
</tr>
<tr>
<td>Bay Act</td>
<td>Chesapeake Bay Preservation Act</td>
</tr>
<tr>
<td>BCR</td>
<td>Bird Conservation Region</td>
</tr>
<tr>
<td>C</td>
<td>Celsius</td>
</tr>
<tr>
<td>CBGN</td>
<td>Chesapeake Bay Gateways and Watertrails Network</td>
</tr>
<tr>
<td>CCP</td>
<td>Comprehensive Conservation Plan</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>cm</td>
<td>Centimeter</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>Ecology School</td>
<td>James River Ecology School</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>EO Strategy</td>
<td>Strategy for Protecting and Restoring the Chesapeake Bay</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>F</td>
<td>Fahrenheit</td>
</tr>
<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>HMP</td>
<td>Habitat Management Plan</td>
</tr>
<tr>
<td>HUC</td>
<td>Hydrologic Unit Code</td>
</tr>
<tr>
<td>IPCC</td>
<td>International Panel on Climate Change</td>
</tr>
<tr>
<td>JRA</td>
<td>James River Association</td>
</tr>
<tr>
<td>kg</td>
<td>Kilogram</td>
</tr>
<tr>
<td>km</td>
<td>Kilometer</td>
</tr>
<tr>
<td>kph</td>
<td>Kilometers per Hour</td>
</tr>
<tr>
<td>lb</td>
<td>Pound</td>
</tr>
<tr>
<td>LEED</td>
<td>Leadership in Energy and Environmental Design</td>
</tr>
<tr>
<td>LiDAR</td>
<td>Light Detection and Ranging</td>
</tr>
<tr>
<td>m</td>
<td>Meter</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>mph</td>
<td>Miles per Hour</td>
</tr>
<tr>
<td>MSA</td>
<td>Metropolitan Statistical Area</td>
</tr>
</tbody>
</table>
### Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>NASA</td>
<td>National Aeronautics and Space Administration</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<tr>
<td>NHT</td>
<td>National Historic Trail</td>
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<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
</tr>
<tr>
<td>NPS</td>
<td>National Park Service</td>
</tr>
<tr>
<td>NWR</td>
<td>National Wildlife Refuge</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per Million</td>
</tr>
<tr>
<td>Refuge</td>
<td>Presquile National Wildlife Refuge</td>
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<tr>
<td>Refuge System</td>
<td>National Wildlife Refuge System</td>
</tr>
<tr>
<td>RHPO</td>
<td>Regional Historic Preservation Officer</td>
</tr>
<tr>
<td>RONS</td>
<td>Refuge Operations Needs System</td>
</tr>
<tr>
<td>SAMMS</td>
<td>Service Asset Maintenance Management System</td>
</tr>
<tr>
<td>SAV</td>
<td>Submerged Aquatic Vegetation</td>
</tr>
<tr>
<td>Service</td>
<td>United States Fish and Wildlife Service</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Office</td>
</tr>
<tr>
<td>SLAMM</td>
<td>Sea-Level Affecting Marshes Model</td>
</tr>
<tr>
<td>TMDL</td>
<td>Total Maximum Daily Load</td>
</tr>
<tr>
<td>TNC</td>
<td>The Nature Conservancy</td>
</tr>
<tr>
<td>μm</td>
<td>Micron</td>
</tr>
<tr>
<td>U.S.</td>
<td>United States</td>
</tr>
<tr>
<td>USACE</td>
<td>United States Army Corps of Engineers</td>
</tr>
<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
</tr>
<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
</tr>
<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
</tr>
<tr>
<td>VCU</td>
<td>Virginia Commonwealth University</td>
</tr>
<tr>
<td>VDCR</td>
<td>Virginia Department of Conservation and Recreation</td>
</tr>
<tr>
<td>VDEQ</td>
<td>Virginia Department of Environmental Quality</td>
</tr>
<tr>
<td>VDGIF</td>
<td>Virginia Department of Game and Inland Fisheries</td>
</tr>
<tr>
<td>yr</td>
<td>Year</td>
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## List of Species and their Scientific Names

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
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<tbody>
<tr>
<td>Alewife</td>
<td><em>Alosa pseudoharengus</em></td>
</tr>
<tr>
<td>Alewife floater mussel</td>
<td><em>Anodonta implicata</em></td>
</tr>
<tr>
<td>American beaver</td>
<td><em>Castor canadensis</em></td>
</tr>
<tr>
<td>American beech</td>
<td><em>Fagus grandifolia</em></td>
</tr>
<tr>
<td>American bittern</td>
<td><em>Botaurus lentiginosus</em></td>
</tr>
<tr>
<td>American black duck</td>
<td><em>Anas rubripes</em></td>
</tr>
<tr>
<td>American brook lamprey</td>
<td><em>Lampetra appendix</em></td>
</tr>
<tr>
<td>American coot</td>
<td><em>Fulica americana</em></td>
</tr>
<tr>
<td>American eel</td>
<td><em>Anquilla rostrata</em></td>
</tr>
<tr>
<td>American goldfinch</td>
<td><em>Spinus tristis</em></td>
</tr>
<tr>
<td>American robin</td>
<td><em>Turdus migratorius</em></td>
</tr>
<tr>
<td>American shad</td>
<td><em>Alosa sapidissima</em></td>
</tr>
<tr>
<td>American snout</td>
<td><em>Libytheana carinenta</em></td>
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<tr>
<td>American sycamore</td>
<td><em>Plantanus occidentalis</em></td>
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<tr>
<td>American wigeon</td>
<td><em>Anas americana</em></td>
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<tr>
<td>American woodcock</td>
<td><em>Scolopax minor</em></td>
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<tr>
<td>Arrow arum</td>
<td><em>Peltandra virginica</em></td>
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<tr>
<td>Asian longhorn beetle</td>
<td><em>Anoplophora glabripennis</em></td>
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<tr>
<td>Atlantic sturgeon</td>
<td><em>Acipenser oxyrinchus</em></td>
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<tr>
<td>Bald cypress</td>
<td><em>Taxodium distichum</em></td>
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<td>Bald eagle</td>
<td><em>Haliaeetus leucocephalus</em></td>
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<td>Banded sunfish</td>
<td><em>Enneacanthus obesus</em></td>
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<td>Barking treefrog</td>
<td><em>Hyla gratiosa</em></td>
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<tr>
<td>Barn owl</td>
<td><em>Tyto alba</em></td>
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<tr>
<td>Bay-breasted warbler</td>
<td><em>Setophaga castanea</em></td>
</tr>
<tr>
<td>Big bluet damselfly</td>
<td><em>Enallagma durum</em></td>
</tr>
<tr>
<td>Black and white warbler</td>
<td><em>Mniotilta varia</em></td>
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<tr>
<td>Black cherry</td>
<td><em>Prunus serotina</em></td>
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<tr>
<td>Black gum</td>
<td><em>Nyssa sylvatica</em></td>
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<tr>
<td>Black locust</td>
<td><em>Robinia pseudoacacia</em></td>
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<tr>
<td>Black racer</td>
<td><em>Coluber constrictor constrictor</em></td>
</tr>
<tr>
<td>Black swallowtail</td>
<td><em>Papilio polyxenes</em></td>
</tr>
<tr>
<td>Common Name</td>
<td>Scientific Name</td>
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<tr>
<td>-----------------------------------</td>
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<tr>
<td>Blackburnian warbler</td>
<td><em>Setophaga fusca</em></td>
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<tr>
<td>Black-crowned night heron</td>
<td><em>Nycticorax nycticorax</em></td>
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<td>Blister beetle</td>
<td><em>Meloidae spp.</em></td>
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<td>Blue goose</td>
<td><em>Chen caerulescens</em></td>
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<td>Blue jay</td>
<td><em>Cyanocitta cristata</em></td>
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<td>Bluegill</td>
<td><em>Lepomis macrochirus</em></td>
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<td>Blue-gray gnatcatcher</td>
<td><em>Polioptila caerulea</em></td>
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<tr>
<td>Blue-winged teal</td>
<td><em>Anas discors</em></td>
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<tr>
<td>Bonaparte's gull</td>
<td><em>Chroicocephalus philadelphia</em></td>
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<tr>
<td>Bridle shiner</td>
<td><em>Notropis bifrenatus</em></td>
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<tr>
<td>Brown thrasher</td>
<td><em>Toxostoma rufum</em></td>
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<tr>
<td>Brown water snake</td>
<td><em>Nerodia taxispilota</em></td>
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<tr>
<td>Brown-headed nuthatch</td>
<td><em>Sitta pusilla</em></td>
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<tr>
<td>Bufflehead</td>
<td><em>Bucephala albeola</em></td>
</tr>
<tr>
<td>Cabbage white</td>
<td><em>Pieris rapae</em></td>
</tr>
<tr>
<td>Cackling goose</td>
<td><em>Branta hutchinsii</em></td>
</tr>
<tr>
<td>Canada goose</td>
<td><em>Branta canadensis</em></td>
</tr>
<tr>
<td>Canada thistle</td>
<td><em>Cirsium arvense</em></td>
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<tr>
<td>Canvasback</td>
<td><em>Aythya valisineria</em></td>
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<td>Carolina wren</td>
<td><em>Thryothorus ludovicianus</em></td>
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<tr>
<td>Carpgrass</td>
<td><em>Arthraxon hispidus</em></td>
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<tr>
<td>Channel catfish</td>
<td><em>Ictalurus punctatus</em></td>
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<tr>
<td>Checkered white</td>
<td><em>Pontia protodice</em></td>
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<td>Chestnut-sided warbler</td>
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### List of Species and Their Scientific Names

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