



NEBRASKA GAME AND PARKS COMMISSION

# NEBRASKA POND GUIDE

Private Waters Program



Management Assistance for Lakes, Ponds, Pits & Streams

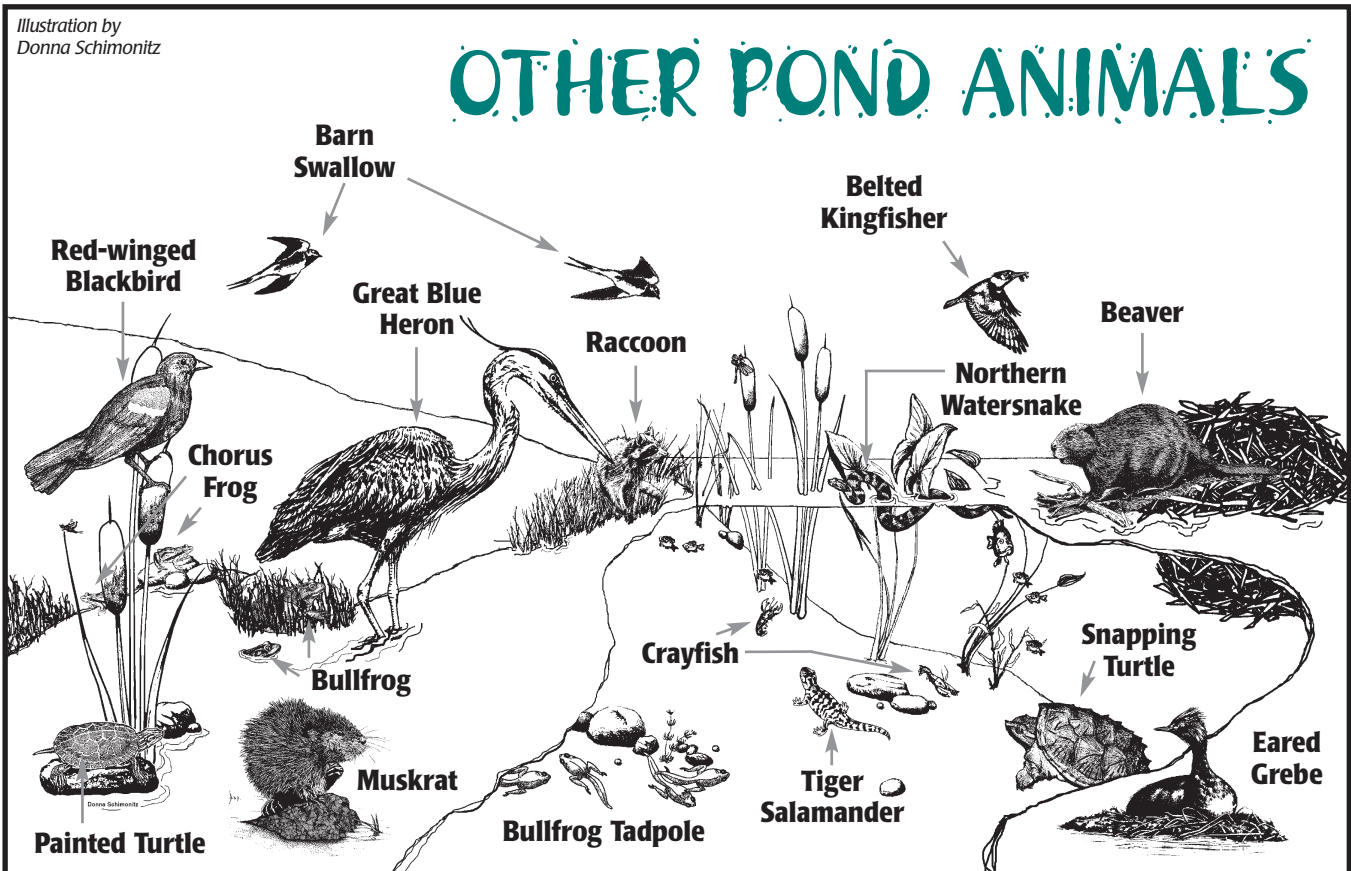


## RESOLVING COMMON MAINTENANCE PROBLEMS OTHER POND ANIMALS

A pond will attract various kinds of animals throughout the year. If the pond is properly designed and maintained, most wildlife will cause little harm. Those that do become a nuisance may have to be controlled. The following information can be used to determine if control is necessary.

**Turtles**, while common in ponds, are not detrimental to fish populations, and should not be killed

without good reason. Common pond residents are the snapping, painted, and occasionally, softshell turtles. Turtles are scavengers that feed primarily on aquatic plants, along with insects, frogs, crayfish, and dying or dead fish. Fish on a stringer are an easy meal. Snapping turtles may also capture small ducklings. When turtles are in the water, they are shy by nature and will avoid larger animals, including anglers and swimmers.





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Snapping turtles are good to eat and can be caught by rod and reel, or even harvested with archery equipment. For the adventurous, they can also be caught by hand. During early winter, snapping turtles can often be spotted in shallow water under the ice. Because of the cold water temperature, they are very lethargic so you can chop or drill a hole in the ice and grab them by the tail.

If turtles overpopulate and become a nuisance for anglers, or are eliminating numerous young waterfowl, authorization can be obtained from the Commission for their removal. They can then be captured with homemade traps that allow entrance only from above the water surface. Traps should be set in shallow weedy areas and baited with fish heads, watermelon rind, or fresh meat.

**Snakes** do eat fish, but do not pose a threat to fish populations. Water snakes are harmless to humans and should not be killed. Clearing debris and mowing the pond edges in areas used frequently by the pond owner and invited guests reduces hiding places for snakes and will reduce their numbers.

**Crayfish** are not harmful to fish populations. Some crayfish species build burrows that may cause leaks in a small dam that has limited free-board. Crayfish overwinter in their burrows in the bottom mud or pond banks and become active when water temperatures are above 40 degrees. Crayfish are good to eat and they can be used for bait. They are most active at night and traps can be set in late afternoon and left out overnight. Regulations require crayfish traps be made with 1/4 inch square mesh material with a length of 24 inches or less, a diameter of 16 inches or less, and a throat opening of 1 inch or less in diameter. Traps can be baited with fish heads, meat scraps, dog food, or soybean cakes. Crayfish are readily eaten by trout, bass, and catfish. Maintaining a balanced fish population is the best way to control crayfish numbers.

**Beavers** are rodents that build lodges in open water or on land near water. The lodge is usually dome-shaped and is built of sticks and mud. Lodges have one or two underwater entrances. The den inside the lodge is above water and is used to raise young, for sleeping, and some food storage. If the water level rises and remains high, these rodents will burrow upward and construct a new dry den close to the soil surface. It may even break the surface or be close enough that the den caves in easily. This damage to the den encourages them to dig further. If a beaver den is located in the dam, burrowing can then weaken it and cause dam failure during major storm runoff events. Placing rock rip-rap 2 feet above and 3 feet below the water surface on the dam will discourage beaver burrowing. Or, woven wire can be utilized instead of rip-rap.

Most damage caused by beavers is a result of dam building and tree cutting. They often plug drain-pipes in ponds, resulting in loss of water level control and damage to the emergency spillway. Hog-panel or electric fencing can be used to keep beavers away from outlet tubes. Although beavers prefer trees such as poplar, green ash, willow, and pine, they will eat the bark, twigs, and leaves of most woody plants growing near water. The best way to prevent beaver damage to trees is to wrap chicken wire around the base of the tree. Beavers also eat corn, soybeans, and other crops.

If beaver activity is jeopardizing the stability of the dam, outlet tube, or emergency spillway, they should be controlled. The use of traps is the most effective, practical, and environmentally safe method of controlling them. Contact the Commission for information regarding trapping regulations, depredation permits, and a list of depredation trappers in your area.

**Muskrats** construct lodges in open water or dig tunnels to their dens in the bank or dam. The tunnels are dug both above and below the water surface



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and can threaten the integrity of a dam. Rising and falling water levels could eventually cause a dam containing muskrat tunnels and dens to leak or fail.

Placing rock rip-rap on the face of the dam will also discourage muskrats from digging. One-inch mesh wire screening is also effective in deterring burrowing along the dam. Cattails, arrowhead, and other vegetation form much of this rodent's food. Removing the food source will discourage muskrats. Keeping the pond banks mowed also limits their activities. Muskrats can be driven from the dam by placing a half-cup of mothballs in holes drilled at 3-foot intervals along the face of the dam near the water's edge. The holes should be sealed shut with soil after the mothballs have been added. Nuisance muskrats can also be controlled by trapping, either during the trapping season or after obtaining a depredation permit.

**Frogs** need water to reproduce and thus are common in ponds. Gelatinous masses of frog eggs can be found attached to vegetation along shallow shoreline areas during the spawning season from spring through early summer. Maintaining good shoreline vegetation cover is important for all life stages of frogs. It also provides them protection from terrestrial and aquatic predators.

Frogs do not have a negative or positive affect on a fish community. Some frog species are quite mobile and adults may not stay at a pond, but bullfrogs usually make a pond their permanent home. The bullfrog is the only species that has a tadpole stage lasting longer than a year. Bass and other predators will feed on frogs and keep their numbers in check. Consult fishing regulations regarding possession or harvest of bullfrogs.

**Salamanders** also need water to reproduce. They normally are not common in ponds containing fish, especially if predators, such as largemouth

bass and catfish, are present. High numbers of salamanders in a pond normally indicates the pond is too shallow to sustain a viable fishery or that no fish have been introduced yet. If a pond contains a high number of salamanders and has adequate depth to support sport fish, they should be eliminated before fingerling fish are stocked; otherwise, the salamanders will eat them. Adult fish should be stocked if removal of salamanders isn't feasible.

**Waterbirds**, such as terns, gulls, herons, kingfishers, cormorants, pelicans, and grebes, are attracted to ponds. While many will eat fish, they rarely consume enough to affect fish populations. However, a high concentration of pelicans and cormorants on a small pond could result in elimination of a substantial portion of fish populations and should be discouraged. A single cormorant or pelican can consume 3 to 5 pounds of fish per day. Contact the Commission to determine what can be legally done to deter high concentrations of cormorants and pelicans from small ponds.

Some species of waterbirds are often thought to carry fish or fish eggs from one pond to another; however, it has never been documented. These birds, like snakes and turtles, are normally beneficial predators that remove weak or diseased fish from a pond. Some of these birds can also help control nuisance pests such as leeches and snails. Some species of waterbirds are intermediate hosts for the black and yellow grubs (fish parasites). See **PG08-11** for additional information about fish parasites.

Other birds that frequent ponds, such as swallows, purple martins, and kingbirds, are effective in controlling pesky insects, such as mosquitos and biting flies. Nearly all birds are protected by state and federal laws and should not be killed or discouraged from feeding or nesting around ponds. Although a pond will also attract migrating waterfowl, pond owners near metropolitan areas across the state and all



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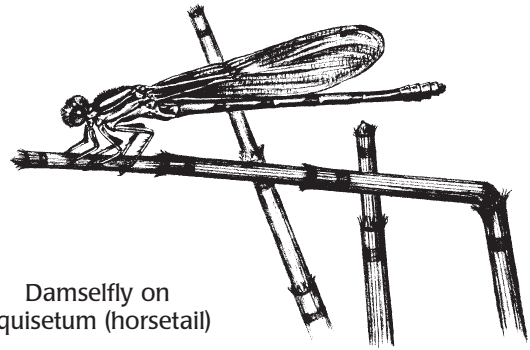
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pond owners in eastern Nebraska should not feed or encourage them to nest. This is especially true for Canada geese. They can become overabundant and cause health and water quality problems. See **PG08-7** for additional information regarding waterfowl.

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**Contacts:** Jeff Blaser, Private Waters Specialist  
Nebraska Game and Parks Commission  
2200 North 33<sup>rd</sup> Street, Lincoln, NE 68503  
402-471-5435  
or area Commission fisheries biologist.



Damselfly on  
Equisetum (horsetail)



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## TECHNICAL ASSISTANCE CONTACTS

### Nebraska Game and Parks Commission (Commission)

2200 N 33rd Street PO Box 30370  
Lincoln, NE 68503  
Private Waters Specialist 402-471-5435  
Natural Heritage Program 402-471-5419

#### Northwest (NW) District - Alliance

Game and Parks Commission  
299 Husker Road PO Box 725  
Alliance, NE 69301  
308-763-2940  
Fisheries Division or  
Wildlife Habitat Partners Section

#### Northwest (NW) Field Office - Valentine

Valentine State Fish Hatchery  
HC 13 Box 15B  
Valentine, NE 69201  
402-376-8080 or 402-376-2244

#### Southwest (SW) District - North Platte

Game and Parks Commission  
301 East State Farm Road  
North Platte, NE 69101  
308-535-8025  
Fisheries Division or  
Wildlife Habitat Partners Section

#### Northeast (NE) Field Office - Bassett

Game and Parks Commission  
524 Panzer Street PO Box 508  
Bassett, NE 68714  
402-684-2921  
Fisheries Division or  
Wildlife Habitat Partners Section

#### Northeast (NE) District - Norfolk

Game and Parks Commission  
2201 N 13th Street  
Norfolk, NE 68701  
402-370-3374  
Fisheries Division or  
Wildlife Habitat Partners Section

#### South-central (SC) District - Kearney

Game and Parks Commission  
1617 First Avenue  
Kearney, NE 68847  
308-865-5310  
Fisheries Division or  
Wildlife Habitat Partners Section

#### Southeast (SE) District - Lincoln

Game and Parks Commission  
2200 N 33rd Street PO Box 30370  
Lincoln, NE 68503  
402-471-7651 or 402-471-5561  
Fisheries Division or  
Wildlife Habitat Partners Section



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## **United States Department of Agriculture - Natural Resources Conservation Service (NRCS)**

Federal Building, Room 152  
100 Centennial Mall North  
Lincoln, NE 68508  
Statewide Wildlife Biologist  
402-437-4100  
or contact Local County Office

## **University of Nebraska - Lincoln, Cooperative Extension**

211 Agricultural Hall - UNL East Campus  
Lincoln, NE 68583  
Main Office 402-472-2966  
or contact Local County Office;  
Water Quality Questions 402-472-7783

## **Nebraska Department of Natural Resources (DNR)**

301 Centennial Mall South, PO Box 94676  
Lincoln, NE 68509  
Water Storage Permits 402-471-2363 or  
Dam Safety Guidelines 402-471-1222

## **U.S. Army Corps of Engineers (ACOE)**

8901 S. 154th Street, Suite 1  
Omaha, NE 68138 402-896-0723  
or contact the Kearney office at:  
1430 Central Avenue  
Kearney, NE 68847  
308-234-1403

## **Nebraska Department of Environmental Quality (NDEQ)**

1200 N Street, PO Box 98922  
The Atrium, Suite 400  
Lincoln, NE 68509  
402-471-0096

## **Nebraska Association of Resources Districts (NARD)**

601 S. 12th Street, Suite 201  
Lincoln, NE 68508  
402-471-7670  
or contact your local Natural Resources District (NRD)  
listed in White Pages of the phone book