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TEXAS WILDLIFE ASSOCIATION







## Duakweed



Have you ever been near a small water source like a pond and noticed that it is covered with a carpet-like layer of plants? Those plants are called duckweeds, and they are the smallest known species of flowering plants. Each cluster of 1-3 leaves is a single plant, so when you see them covering the surface of a body of water, that is actually a colony of thousands of plants. They are small, only 1/16 - 1/4 of an inch long with a floating leaf and a root that lies underwater. To give you an idea of how small that it, take a look at a ruler. The individual marks on most rulers measure 1/16 of an inch.

The flowers are so tiny that you would need a microscope to see them. Even though they are very small, they can be pollinated by tiny insects and bumping into another plant will cause the pollen to transfer. They can grow and spread very quickly which may have a negative effect on plants and wildlife. If duckweed completely covers the





surface of a pond it can lead to less available oxygen for living things that are underwater and can block sunlight for plants.

Even though duckweed can cause problems if it grows too quickly, it is also beneficial in many ways. Duckweed can absorb pollution and chemicals from fertilizer runoff such as nitrogen, which negatively affects an aquatic ecosystem. Animals such as ducks, tadpoles and fish will eat or consume duckweed, and it can be eaten by humans. Another benefit, more for humans, is that it will reduce mosquitoes in areas where it grows densely because the larvae cannot reach the surface of the water to receive oxygen.

Source: U.S. Forest Service and AgriLife Photos: Ekko, Lamiot, Michal Klajban

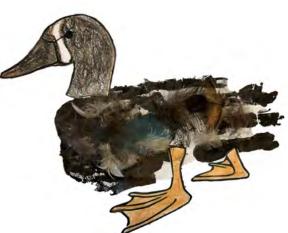


#### **Materials:**

Paper Scissors Coloring materials Paint Glue Feathers (optional)

#### **Craft Instructions:**

- Download template here: bit.ly/CC\_Ducks
  Print and cut out the head and feet from the template or draw your own.
- 2. Paint the palm of your hand the color you want to represent the body of the duck. Hold your painted hand sideways, with your fingers together and thumb on the bottom, then place your painted hand in the middle of a clean sheet of paper to create the duck's body.
- 3. Color the head and feet of the duck.
- 4. Glue the head and feet on the handprint body of the duck.
- 5. Add feathers to the body if desired and behold your masterpiece.



## Did you know...



... that ducks can walk, swim and fly?

... that ducks live in fresh and saltwater on all continents except Antarctica?

- ... that ducks have waterproof feathers?
- ... that Wood Ducks nest in trees and once they hatch, the ducklings must jump down into the water?
- ... that ducks have specially adapted feet so they do not feel cold underwater?
- ... that ducklings swim in a group to avoid attacks from predators?
- ... that male and female ducks of the same species have different color and feather patterns?
- ... that ducks are social animals and spend time in groups?
- ... that ducks fly in a V formation to conserve energy?

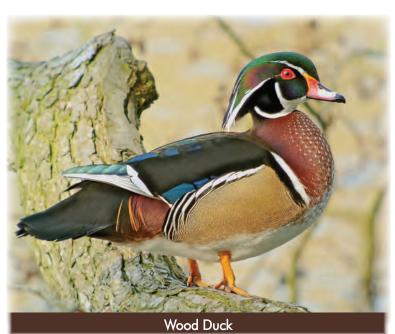
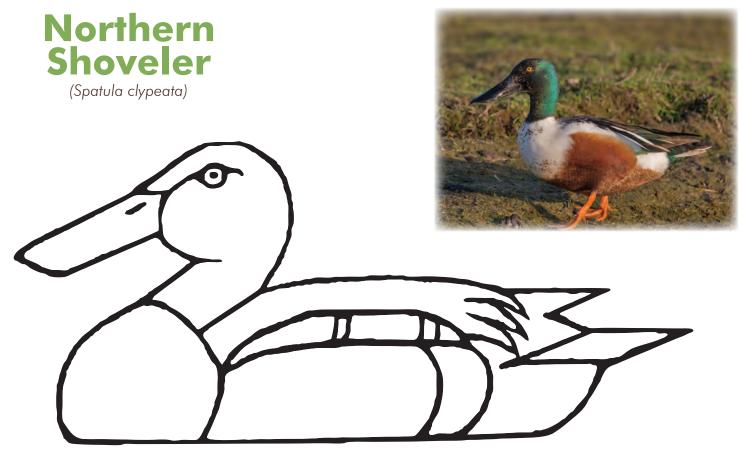


Photo source: Frank Vassen









by Elanor Dean

If you have ever been near a still water source such as a pond, wetland or lake, then you have probably seen ducks, but did you know that there are over 20 species or types of duck in Texas?

Most ducks are **dimorphic** which means that the males (drakes) and females (hens) look different. This is common in birds, with the males displaying bright and colorful feathers to



stand out and attract the females. The hen's feathers are plain colors like brown which allows them to camouflage or blend in with their environment. Young ducks, called ducklings are also camouflaged to protect them from predators.

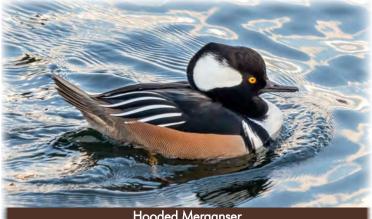
The life cycle of a duck begins with an egg. Hens will build a nest in a sheltered area on dry land close to the water. Then she will lay 3-12 eggs, one each day until they are all laid and then she will incubate them. She will sit on her eggs, providing heat from her body which allows the eggs to develop. She spends most of her time on the nest, sometimes turning the eggs over to make sure they are evenly heated. After



about a month the ducklings will hatch. They have a special structure called an egg tooth on the tip of their beak which they use to peck out of the hard eggshell. After hatching, the ducks will stay in the nest for a day to allow their feathers to dry and then they are able to walk to the water to feed. For Wood Ducks this is a very scary time because they build their nests inside trees. Just one day after hatching, they must jump out of the safety of the tree, far down onto the ground or water below. The ducklings will stay with their mother for a couple of months before going out on their own.



Ducks are classified into two groups based on their feeding habits, diving and **dabbling**. Dabbling refers to the way they eat by stretching out their neck and dipping their beak or bill along the surface of the water to skim for food. Dabbling ducks will also tip their bodies headfirst into the water with their tail end sticking up. This allows them to eat small aquatic plants and insects. Dabbling ducks, also known as puddle ducks, are found in habitats with shallow waters such as ponds, flooded fields and wetlands like swamps and marshes. Some examples of dabbling ducks in Texas are teals, mallards, shovelers, pintails and wigeons.



Hooded Merganser

Diving ducks will dive completely underwater for 10-30 seconds to find food. They have special adaptations which help them to slow down oxygen use to last the entire dive. Diving ducks will also eat aquatic insects and plants, making ducks omnivores. Diving ducks, also called sea ducks spend most of their time in the water and are found in habitats



with deeper water like lakes and seas. They are able to walk on land, but not as well as dabbling ducks. Some examples of diving ducks in Texas are buffleheads, mergansers, ringnecked and scaups.



Another difference between dabbling and diving ducks is how they take off from the water and into the air to fly. Dabbling ducks are able to spring right up in the air to take off. Diving ducks must run along the surface of the water to get enough speed to take off.

While some ducks are found in Texas year-round, most migrate through Texas in the winter. The year-round ducks are usually **domesticated** species like mallards and Muscovy ducks that are comfortable around humans. Migrating birds travel along known paths called **flyways**. Texas is in the central flyway which connects from Canada, south through the Great Plains states in the middle of the United States, through Texas and down into Mexico. Ducks migrate to make sure they can find open water and food. Ducks will migrate in groups and will fly in a V formation with one duck at the front and two lines of ducks behind forming a V shape. This is important for migration because it allows them to conserve energy over the long flight. When birds (and even planes)



fly, they create an upward trail in the air behind them which the next bird can use to get free upward lift. By forming this V shape each duck can using the lift created from the bird in front which reduces the amount of energy they have to use to create their own lift.

Ducks are known as game birds which means they can be hunted by humans, but they can only be hunted during duck hunting season which is usually November through January. Migratory birds are protected under many laws, such as the Migratory Bird Act and ducks are also protected under the Federal Duck Stamp. Both of these programs help support ducks by providing money to build and preserve wetland habitats. Hunters must be 16 or older and obtain a hunting license and a duck stamp to be able to hunt ducks in Texas.

Ducks need water to live and find food, so it is very important that there are wetlands across Texas and the United States, especially along their migration route. Landowners can be excellent stewards for ducks by providing permanent wetlands on their property or temporary wetlands during migration. Wetlands are important for ducks and many other kinds of wildlife too. Next time you are near a habitat with ducks, take some binoculars and see if you can identify any of the ducks you see in this issue of Critter Connections, but do not feed them bread. Bread does not have good nutrients and it can pollute the water, instead take greens like lettuce.



#### WORD BANK

**Dimorphic** – when male and female animals of the same type look different

**Dabbling** – when ducks reach their bill into shallow water to find food

**Domesticated** – animals that live in close relation to humans

**Flyway** – a flight path that birds take during migration

Sources: Ducks Unlimited and AgriLife Extension

Photos from Wikimedia Commons: Alan Schmierer, Cephas, USFWS, Mykola Swarnyk, Rhododendrites, Andy Reago & Chrissy McClarren, Alan Schmierer

Black-bellied Whistling Ducks





- 1. Check your calendar ducks are most common in Texas in the winter.
- 2. Locate a still water source such as a pond, wetland, or lake.
- 3. Bring binoculars sometimes the ducks will be on the other side of the water.
- 4. Bring a field guide or this magazine to help ID the birds.
- 5. Look for the more colorful male ducks they are easier to identify.
- 6. Observe their movements are they diving underwater or are they moving their beak along the surface?
- 7. List your observations below or bring a journal and track your bird sightings for the year.



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- \* Hands-on, inquiry-based learning
  - \* TEKS aligned for Grades K-8



#### On-domand Wobiners

- \* 13-25 minute programs
  - \* Available anytime
- \* Interactive questions and worksheets
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All education programs are made possible through memberships, grants and donations. Learn more about the levels of membership as well as the educational programs TWA offers on our website.

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Please consider making a tax-deductible investment to TWAF, and help us as we continue to change minds and lives, through natural resource education. Together, we can make sure that Texans understand the importance of wild things, wild places, and the stewards who care for them.



#### www.twafoundation.org