



# Wild TIMES

for kids!

## POND ECOLOGY

A pond is a small and shallow area of freshwater. It is different from a river or a stream because it does not have moving water, although there may be some water coming in or slowly moving out of it.

A pond is different from a lake because it is usually not very deep. Many ponds are so shallow that sunlight can penetrate the water and allow underwater plants to photosynthesize, which means they can grow by using energy from the sun.

Some ponds are formed naturally, filled by an underwater spring or by rainwater. Some ponds are artificially made to help slow water down by catching it in a dip in the ground. This prevents fast-flowing water from causing damage. Other hand-built ponds are created as a water source for farm animals or to encourage wildlife to stop and live there.

Ponds have many important roles in the ecosystem. They help filter water, serve as a storage place for extra water during floods, and provide homes for many plant and wildlife species.

# LIFE IN A POND



Let's explore some of the plant and wildlife species that live in a pond.

**1. PAINTED TURTLE:** A turtle's shell is made of living bone – it's part of the turtle's skeleton.

**2. MALLARD DUCK:** Male mallard ducks have a bright green head and neck with a white ring in the spring and summer to help attract a female.

**3. PICKERELWEED:** Pickerelweed can be found growing in shallow water. It has arrow-shaped leaves and a spike of purple flowers.

**4. NORTHERN LEOPARD FROG:** These frogs eat a variety of animals including insects, worms, and smaller frogs.

**5. BEAVER:** Beavers create ponds by damming up streams and can hold their breath underwater for up to 15 minutes.

**6. DAMSELFLY:** Damselflies have slender bodies and long, veined wings. They are found near shallow freshwater habitats.

**7. WHIRLIGIG BEETLE:** Whirligig beetles are often seen swimming on the water's surface, but they can swim underwater too. They also have wings and can fly.

**8. DAMSELFLY LARVA:** Damselfly larvae live in the water for up to two years before emerging as adults.

**9. PREDACEOUS DIVING BEETLE:** These beetles eat tadpoles, small fish, and other insects. Adults use their third pair of legs like oars.

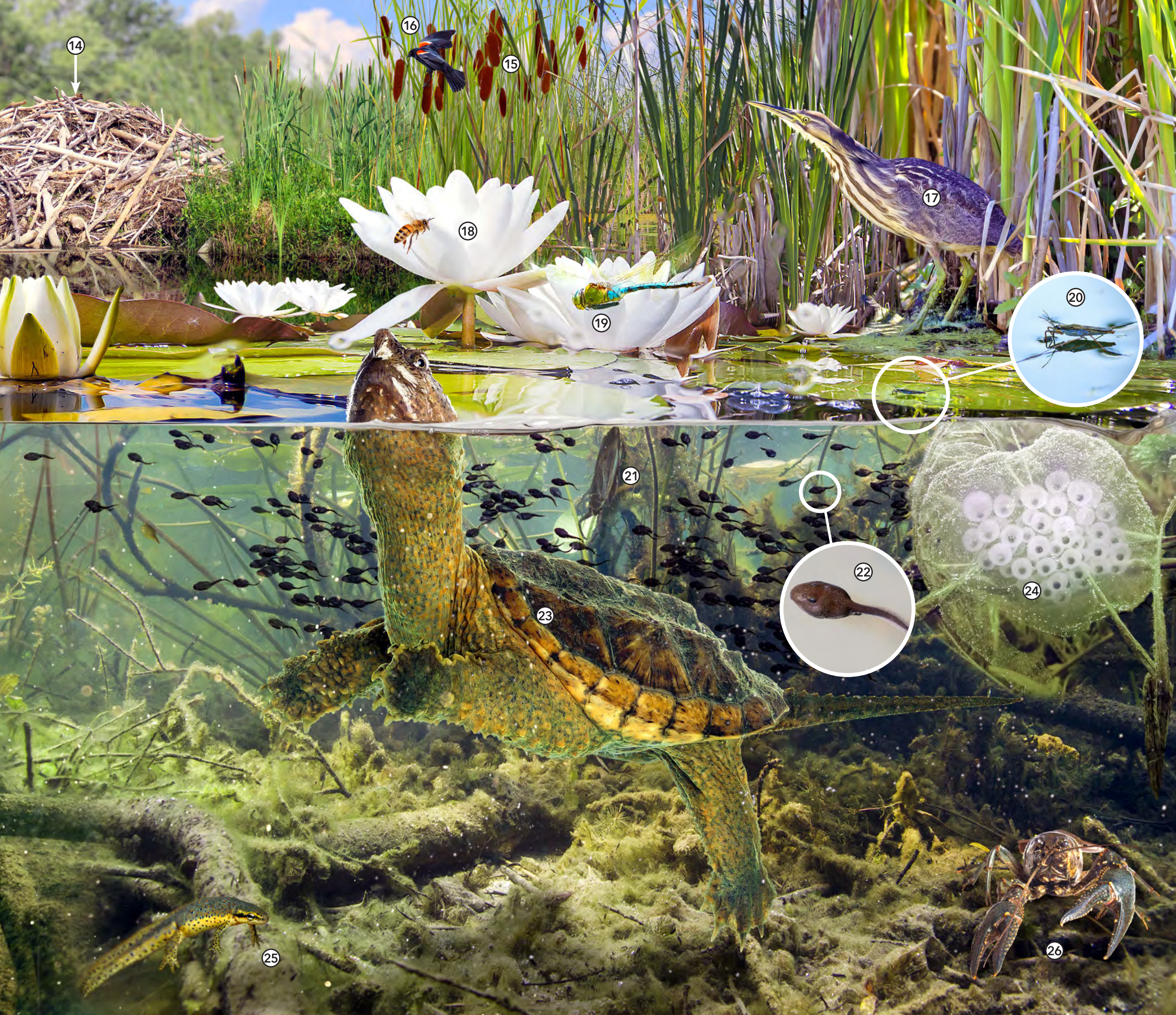
**10. CADDISFLY LARVA:** Caddisfly larvae use tiny pieces of plants, sand, or other debris to create a tube-like case to protect themselves.

**11. BROWN BULLHEAD:** These catfish are bottom feeders and can survive in water with low oxygen levels.

**12. GOLDEN SHINERS:** Golden shiners are common in New Hampshire's ponds and are an important source of food for bigger fish.

**13. POND SNAIL:** Pond snails play an important role in the ecosystem by feeding on algae and debris.





**14. BEAVER LODGE:** After constructing a dam, beavers will build a lodge in the deepest portion of the pond to live in.

**15. CATTAILS:** Cattails can grow to be 8 feet tall. The tubers are a favorite food of muskrat.

**16. RED-WINGED BLACKBIRD:** These noisy birds commonly build their nests among cattails.

**17. AMERICAN BITTERN:** These wetland birds have brown and white streaks on their neck to blend in with pond vegetation.

**18. WATER LILY:** Water lily flowers provide nectar for bees, flies, and beetles, and lily pads are often used as nurseries for aquatic insects and snails.

**19. DRAGONFLY:** Dragonflies are predators with sharp mandibles, 360-degree vision, and the ability to fly backwards.

**20. WATER STRIDER:** These insects use surface tension to "walk" on top of the water.

**21. GIANT WATER BUG:** These large bugs do not have jaws or mouthparts, instead they inject digestive juices using their needle-like beak to liquefy their prey and drink them up.

**22. TADPOLE:** Young toads and frogs are called tadpoles. They breathe through gills and have tails but no legs.

**23. SNAPPING TURTLE:** This turtle will bury itself in the mud with only its nostrils and eyes showing, waiting for prey to swim or float by. It is an omnivore and eats both plants and animals.

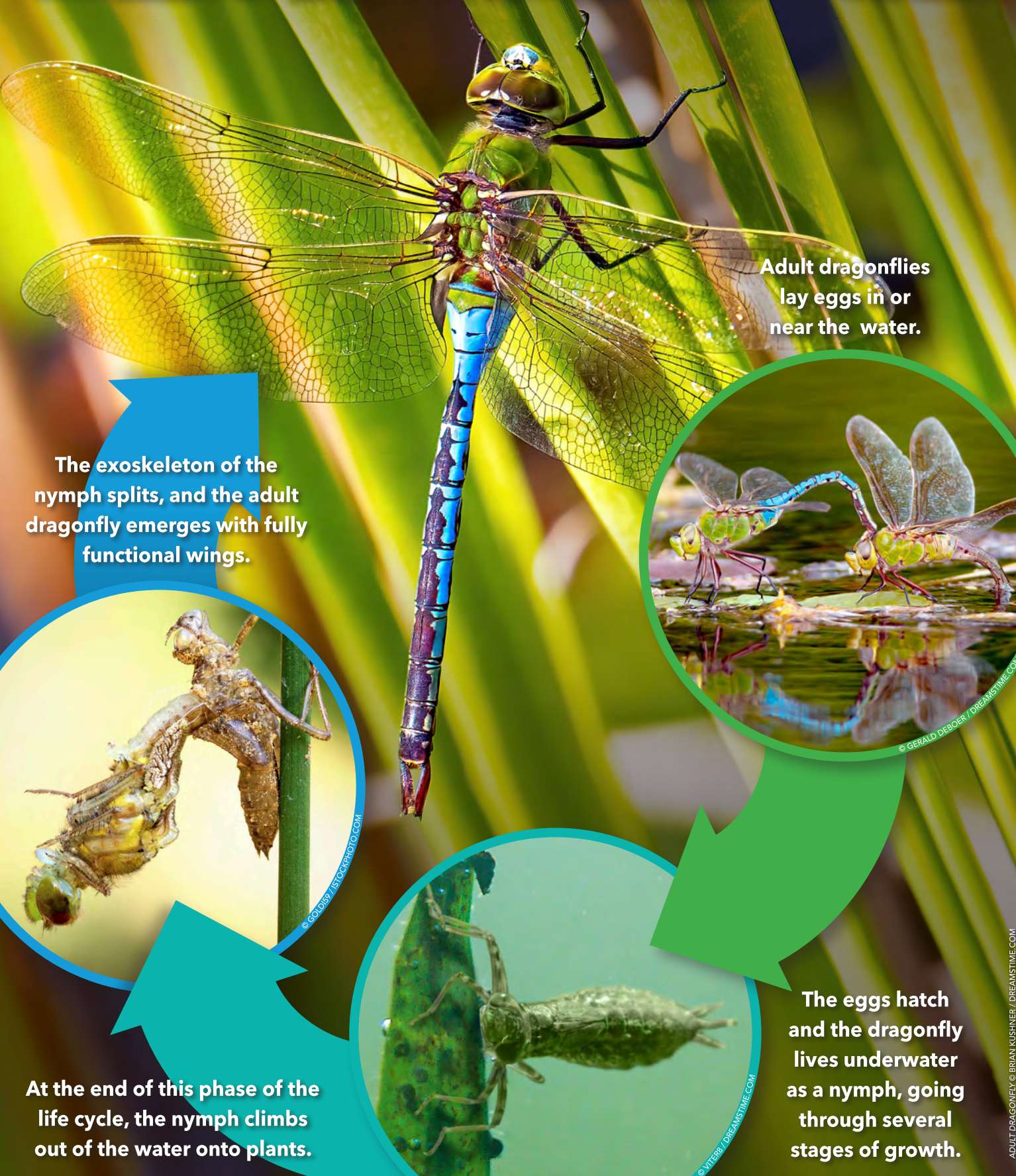
**24. SPOTTED SALAMANDER EGGS:** These eggs are encased in a jelly-like covering and are usually attached to an underwater stick or plant.

**25. EASTERN NEWT:** The eastern newt is the aquatic development stage of the adult land-dwelling red eft salamander.

**26. CRAYFISH:** Crayfish prefer ponds with clear water, feeding on tadpoles and small fish.

LIFE CYCLE of the

# GREEN DARNER DRAGONFLY



Adult dragonflies lay eggs in or near the water.

The exoskeleton of the nymph splits, and the adult dragonfly emerges with fully functional wings.

At the end of this phase of the life cycle, the nymph climbs out of the water onto plants.

The eggs hatch and the dragonfly lives underwater as a nymph, going through several stages of growth.

# When I grow up...

Many species of wildlife are born and grow up in a pond and each is an important part of the ecosystem. See if you can match the immature stage of each critter with its mature adult by drawing a line that connects them.



I start out tiny but when I grow up I will swim all around the pond.



While I'm little I stay at the pond where I was born. As an adult I will fly to other ponds and lakes.



Before I grow up I'm a larva with a protective case. When I change into my adult stage I will fly away.



I hatch from my egg on land but spend most of my time in the water. As I grow up I get very big!



When I grow up I lose my tail and grow four legs. As an adult I eat lots of bugs and even crayfish.



When I'm an adult I will build dams to make a pond and eat tree bark and twigs.

American bullfrog



Snapping turtle



Beaver



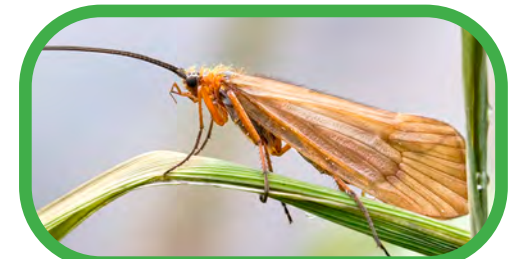
Canada goose



Yellow perch



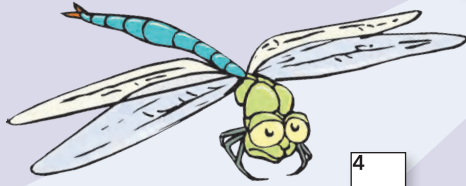
Caddisfly



# POND LIFE

# CROSSWORD

After reading the stories in this issue, complete the crossword puzzle by answering the clues.

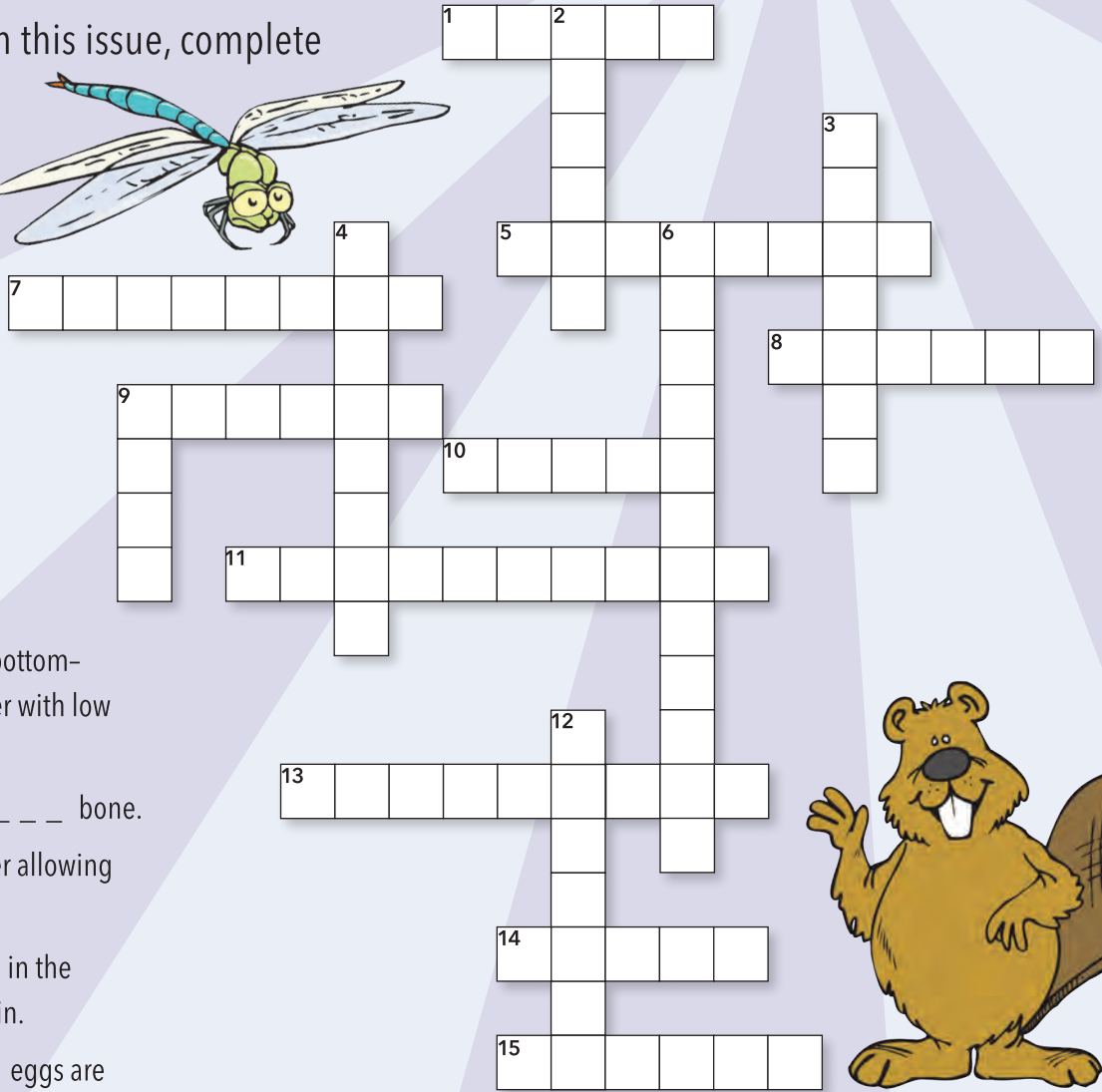


## ACROSS

1. A dragonfly spends most of its life underwater as a \_\_\_\_\_.
5. This turtle will bury itself in the mud with only its nostrils and eyes showing, waiting for prey to swim or float by.
7. A brown \_\_\_\_\_ is a bottom-feeding fish that can survive in water with low oxygen levels.
8. A turtle's shell is made of \_\_\_\_\_ bone.
9. Sunlight penetrates shallow water allowing \_\_\_\_\_ to grow.
10. Beavers will build a \_\_\_\_\_ in the deepest portion of the pond to live in.
11. Spotted \_\_\_\_\_ eggs are encased in a jelly-like covering.
13. Naturally formed ponds are filled by \_\_\_\_\_ or an underwater spring.
14. Ponds provide \_\_\_\_\_ for many plant and wildlife species.
15. This animal creates a pond by damming up a stream.

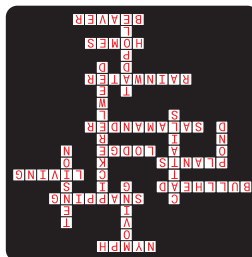
## DOWN

2. A pond is different from a river because it does not have \_\_\_\_\_ water.
3. A water strider uses surface \_\_\_\_\_ to "walk" on top of the water.
4. These plants can grow up to 8 feet tall.
6. This purple flower grows in shallow water and has arrow-shaped leaves.
9. A \_\_\_\_\_ is a small and shallow area of freshwater.
12. A frog or toad in its immature stage is called a \_\_\_\_\_.



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ANSWERS

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Support for this issue of *Wild Times* is provided by the Wildlife Heritage Foundation of New Hampshire, the official non-profit partner of the New Hampshire Fish and Game Dept.

