

Life Cycles

Each family of living things has its own life cycle. Differences in the basic life cycle often reflect adaptations for surviving and producing offspring under different environmental conditions. Some plants, like the black-eyed Susan, have a short cycle of only a couple of months. They grow from a seed, mature and rapidly die, while other plants, like white pine trees, have life cycles lasting for hundreds of years.

Animals also have different life cycles.

Most animals, including fish, mammals and birds, have very simple life cycles. They are born, either alive from their mother or hatched from eggs, and then they grow into adults. When they are young (juveniles), these animals typically look like their parents, just smaller. The juveniles grow to become adults and are then able to reproduce.

In contrast to organisms with simple life cycles, there are those that change in many ways – how they look, the habitat they use and their diet – as they move from one stage of development to the next.

Examples of animals with these more complex life cycles include frogs, salamanders and most insects.

Let's explore some common New Hampshire animals with complex life cycles.

The cycle of life can be seen in the development of a dragonfly as it emerges from the shell of its nymph stage and in the short life of the wild flower we call the black-eyed Susan.

Incomplete Metamorphosis

Dragonflies and damselflies are examples of insects with *incomplete metamorphosis*. The stages of incomplete metamorphosis are egg, immature, immature and adult. There are many immature stages as the insect molts (sheds) its exoskeleton.

Life Cycle of the Green Darner Dragonfly

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

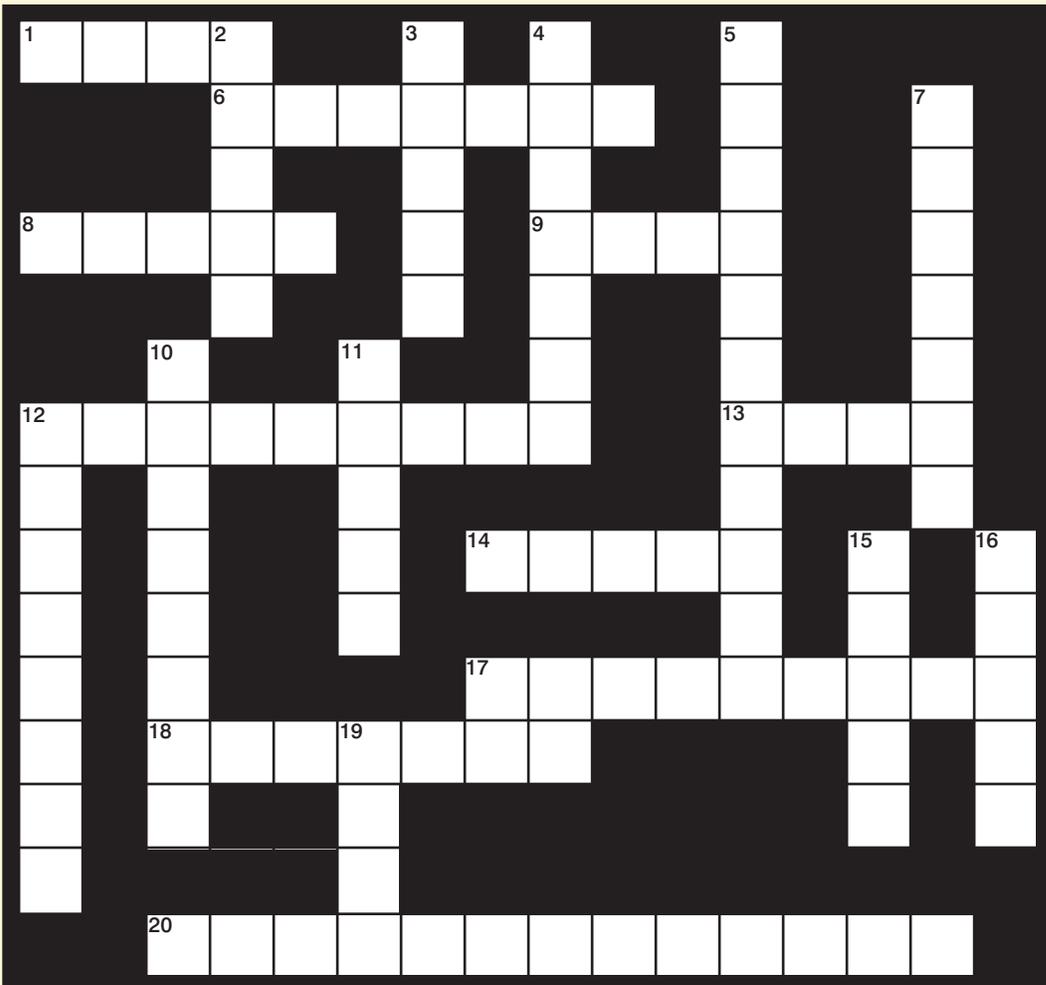
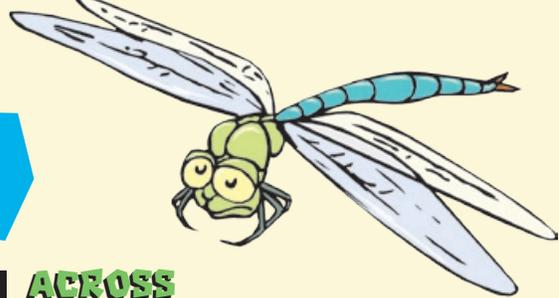
1 Adult dragonflies lay eggs in or near the water.

2 The eggs hatch. Most of the dragonfly's life cycle is spent in water as a larval nymph. At this stage, what look like crusty humps hanging onto its back are actually wing pads. At the end of this phase of the life cycle, the nymph climbs out of the water onto plants.

3

Life Cycle

CROSSWORD



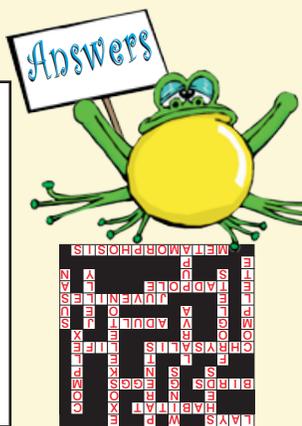
ACROSS

1. An adult monarch butterfly _____ eggs on the milkweed plant.
6. The place where an animal lives is called its _____.
8. Most animals, including fish, mammals and _____, have very simple life cycles.
9. Dragonflies lay _____ in or near water.
12. A butterfly's pupa is called a _____.
13. All plants and animals have a _____ cycle.
14. The stage of the life cycle where the animal can reproduce is called _____.
17. Young animals that can't reproduce are called _____.
18. Frog eggs hatch into tiny _____.
20. Incomplete _____ is where the immature stage looks like the adult.

DOWN

2. Another word for "molts" is _____.
3. Nymphs generally don't have developed _____.
4. In a simple life cycle, the young look like their _____.
7. Frogs, salamanders and most insects are examples of animals with more _____ life cycles.
10. Tadpoles with hind legs are called _____.

11. The stages of complete metamorphosis are egg, _____, pupa and adult.
12. Butterflies are an example of insects that undergo a _____ metamorphosis.
15. The wood frog lays thousands of _____ - covered eggs.
16. Some plants, like the black-eyed _____ have a short cycle of only two months.
19. Incomplete metamorphosis does not include the _____ stage.



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