

Kid's KOrner

As oldest surviving reptiles, turtles are built for survival

WASHINGTON — Their ancestors roamed the earth some 275 million years ago, even before the Appalachian Mountains were formed. The first recognizable member of the species appears in the fossil record about 185 million years ago, many eons before the peak of the dinosaurs. And today, long after the dinosaurs' demise, the turtle remains, its dome still perched on its back.

"Turtles seem to have hit on a good, conservative thing," says Dr. Archie Carr, a world authority on them. "Turtles cling to their basic structural design, while many other animals experimented their way into extinction."

Many unique features help the turtle survive in an increasingly hostile world, writes freshwater-turtle specialist Christopher P. White.

Very Flexible Neck

The turtle's protective shell actually consists of two parts — the top half, called the carapace, and the lower half, the plastron. Eight vertebrae in this reptile's neck, compared with the seven of most mammals, allow most turtles to fold their necks and retract into their shells. Most turtles also can retract all four limbs as well as their head between the two shells.

In addition to breathing through a set of lungs, freshwater turtles can use their mouth cavity in gill-like fashion. Water is drawn through the nostrils, oxygen absorbed in the mouth, and the water expelled. A few turtles can even absorb small amounts of oxygen through their skin while submerged in mud.

Aquatic turtles have little in common with the pokey tortoise that almost lost the race to the hare. They're extremely fast. The smooth softshell turtle, for example, can outswim the speedy brook trout. Webbing between toes increases swimming speed while allowing some species to walk underwater to browse.

The world's 180 kinds of freshwater turtles include animals patterned with dots, splashes, and hieroglyphs. The spotted turtle, for instance, is sprinkled with dozens of yellow polka dots. The markings on the juvenile map turtle resemble contours on an ancient chart.

Freshwater turtles vary in size from the stinkpot, a three-inch-long variety that exudes a musky fluid when disturbed, to the alligator snapper, a giant native of the south-central United States that can weigh up to 250 pounds.

Snaps Off Fingers

The bite of the alligator snapper is legendary. "Late one night 16 years ago," related a veteran Florida turtle hunter, "my son and I pulled an old 75-pound alligator snapper out of a swamp. Like a fool I put the snapper right behind me in the boat. After a time we got stuck in some reeds, so I reached back for a paddle and slam! — something hit my hand so fast I didn't know what had happened. Then all of a sudden there was blood everywhere, and my son was shouting, 'Dad, two of your fingers just dropped into the bottom of the boat!'"

Those who dare to peer into an alligator snapper's mouth would



A Suwannee cooter, one of the world's 180 species of freshwater turtles, cruises the waters of Florida's Rainbow Run. Webbing between toes speeds turtles through water, and a gill-like mouth cavity allows them to breathe. Contemporaries of dinosaurs, turtles are the world's oldest surviving reptiles.

see a rose-colored wormlike appendage projecting from its tongue, used to lure minnows. Dissected stomachs of alligator snappers have turned up baby alligators, raccoons, snakes, acorns, shoes, and other turtles.

The increasingly rare alligator snapper is still legally hunted in many states. A few other turtle species, such as New England's Plymouth red-bellied turtle, are in more serious trouble. Considered endangered since 1980, a few hundred red-bellies survive in glacial ponds with the help of conservationists.

One threat to some freshwater

turtles' survival is a slow rate of reproduction. Mating can be elaborate. Each species has a courtship ritual of its own. Common snapping turtles, for example, face each other and sweep their heads from side to side in opposite directions. After several minutes, the two turtles return their heads to dead center and stare at each other for a while before mating.

The male red-eared slider tickles the female's neck as he swims backward and she forward. The two eventually sink to the pond bottom, where they mate.

Egg laying can be nearly as

ritualistic. Many females dig a chamber near water's edge, lay their eggs, and cover the nest. At least three varieties, however, practice triple clutching. They lay most of their eggs in a main nest and then add two smaller pockets for one or two eggs each. Some scientists believe the pockets are decoys, designed to distract predators from the main clutch, but Archie Carr has doubts.

"Two or three eggs in little side pockets aren't going to fool a hungry raccoon — they probably act more like a beacon," he says. "It's still a mystery, and I've been losing sleep over it for 30 years."

COLOR THIS!

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|-----------|---------------|
| 1. BLACK | 6. LT. GREY |
| 2. PINK | 7. GREEN |
| 3. YELLOW | 8. LT. BROWN |
| 4. BLUE | 9. LT. BLUE |
| 5. BROWN | 10. LT. GREEN |

PELICANS: THEY ARE THE WORLDS LARGEST WEB-FOOTED BIRDS. THE AMERICAN PELICAN IS BOTH WHITE AND BROWN. IT WEIGHS ABOUT 16 LBS AND IS ABOUT 5 FT. LONG. IT HAS A WINGS SPREAD OF 8 TO 10 FT. THE PELICAN HAS A POUCH ON THE UNDER SIDE OF ITS BILL. IT IS USED FOR SCOOPING UP FISH.



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