

Modular Design in the Turtle

A turtle has the standard vertebrate pattern of limb bones, but the limbs are attached to the rest of the skeleton inside the rib cage. This facilitates growth of the unique, protective shell for which turtles are famous.

The shell is made of flattened ribs and bone produced in the skin (dermal bone). Armadillos and crocodiles also have protective coverings involving dermal bones, but their limbs are attached outside the rib cage.



A Common Snapping Turtle, *Chelydra serpentina*

Note the small plastron (lower shell)

Image: Jarek Tuszynski, CC by SA 3.0; Background removed



Red-eared slider, *Trachemys scripta*

Compare with the skeleton displayed

Image: Trisha M Spears, Public Domain