

*The Florida Manatee*  
(*Trichechus manatus latirostris*)



# Manatee Anatomy Facts and Trivia

- A manatee can move each side of its lip pads independently. This flexibility allows the manatee to "grab" aquatic plants and draw them into its mouth.

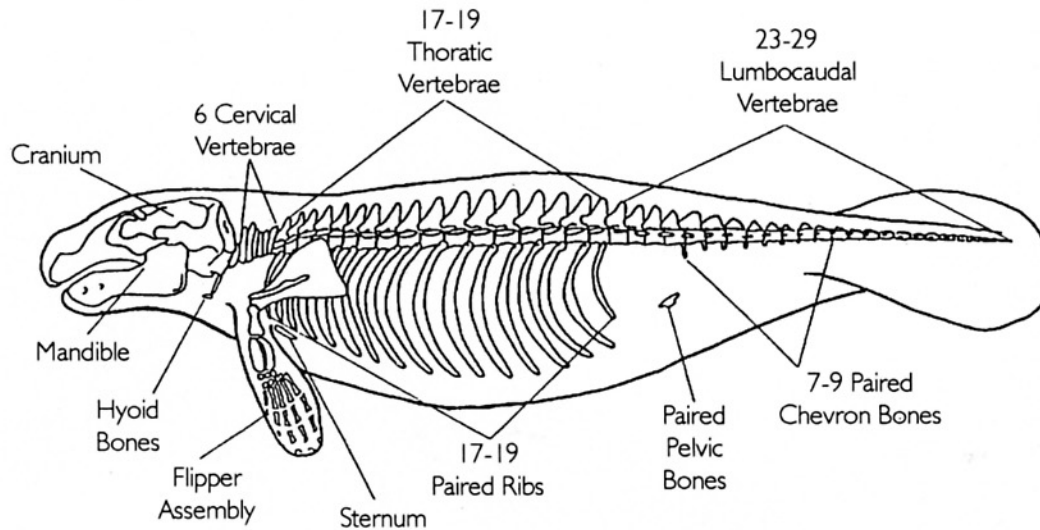
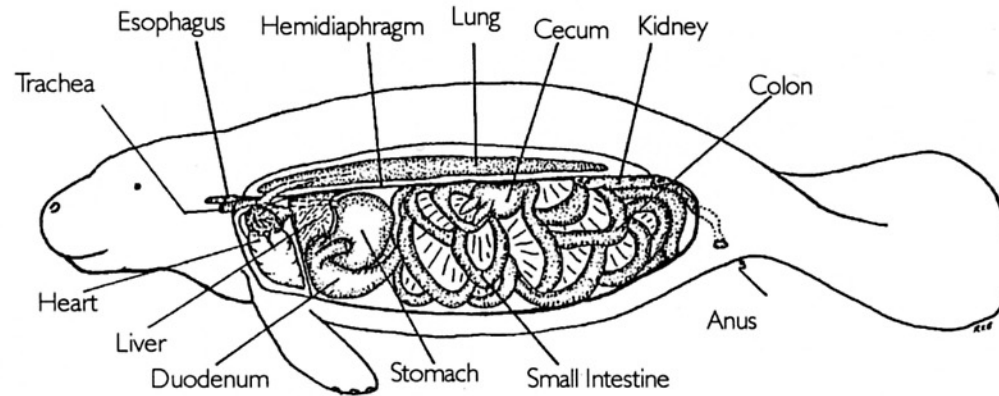
- Manatees do not have eyelashes. Their eye muscles close in a circular motion, much like an aperture on a camera. They have a lid-like membrane (called a nictitating membrane) that closes over their eyes for protection when they are under water.

- Manatees can hear very well despite the absence of external ear lobes.

- A manatee's heart beats at a rate of 50 to 60 beats a minute. The heart rate slows down to 30 beats a minute during a long dive.

- Manatees have no "biting" teeth, only "grinding" teeth. A manatee's teeth (all molars) are constantly being replaced. New teeth come in at the back of the jaw and move forward about a centimeter a month. The front molars eventually fall out and are replaced by the teeth behind them. This tooth replacement is an adaptation to the manatee's diet, as it consumes plants that may hold a lot of sand.

- Manatees have only six cervical (neck) vertebrae. Most all other mammals, including giraffes, have seven. As a result, manatees cannot turn their heads sideways, they must turn their whole body around to look behind them.



- The manatee's rib bones are solid, there is no marrow. They make red blood cells in their sternum where marrow is found.

- The manatee has pelvic bones, but they are not attached to its skeletal frame. They are remnants of a time when manatees lived on land. The bones are found in a cartilage tissue area of the body (look for them on the diagram) in the vicinity of the reproductive organs and the urinary bladder. The bones are soft when the manatee is young and later harden as they mature.

- Other remnant bones found in the manatee are the hyoid bones located near the neck region. These bones are similar to the Adam's apple in humans. Today, there is no known use of these bones in the manatee.

- The manatee's lungs lie along its backbone instead of along its rib cage as is found in most mammals. The lungs are long (1 meter or more in adults), wide (20 cm), and thin (5 cm or less). Besides breathing, the lungs help the manatee with buoyancy control.

- The bones in a manatee's flipper are similar to a human hand. The jointed "finger bones" of the flipper help the manatee move through the water, bring food to its mouth and hold objects. Three or four nails are found at the end of each flipper.

- The adult manatee averages about 10 feet long and weighs about 1000 pounds.

Florida Department of  
Environmental Protection  
Mail Station 245  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000  
(904) 922-4330

The manatee information on this mini-poster is compiled from excerpts from the Save the Manatee Club's fourth edition of "Manatees, An Educator's Guide," Florida Power and Light's booklet, "The West Indian Manatee in Florida," and the U.S. Fish and Wildlife Service's "Manual of Procedures for the Salvage and Necropsy of Carcasses of the West Indian Manatee." Drawings by Robert K. Bonde.

This material has been printed using a portion of the proceeds from the sale of the manatee and Florida panther license plates.

Florida Advisory Council on  
Environmental Education  
Room 230 Holland Building  
Tallahassee, Florida 32399-1600  
(904) 487-0123

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