Day in the Life of the Hudson & Harbor Vocabulary

adapt: to develop a way of dealing with conditions in a particular environment

adaptation: a feature that allows an organism to adjust to differing environmental conditions

<u>algae</u>: single celled, sometimes colonial, plants without a vascular system – the tubes that move sap and water through plants

anadromous: lives in salt water but migrates back to freshwater to spawn

<u>barbel</u>: a slender whisker-like organ on some fishes' heads used to feel and taste (see image of barbels on catfish)

barge: a wide, flat-bottomed boat that is pushed or towed by other boats to transport goods

brackish: mixture of fresh and salt water

breeding: producing young, by hatching or live birth, through sexual reproduction

bulkhead: a barrier of wood timber, concrete or metal, holding the shore in place along the water's edge

camouflage: colors and patterns that let animals blend in with their surroundings



cargo: goods or materials carried on a ship

<u>catadromous</u>: living in freshwater but migrating to saltwater to spawn (for example the American eel - see image)

<u>characteristic</u>: a special quality or appearance that makes an individual or group different from others

<u>chlorophyll</u>: a green pigment found in green plants, algae and cyanobacteria that is responsible for the absorption of light to provide energy for photosynthesis.

chloride: a primary ionic component of seawater, often used to determine water's salinity

community: a group of living things that interact and are located in one place

compass rose: on a map, a design that shows directions

concentration: the amount of an ingredient in a given volume of liquid or other substance







<u>crustacean</u>: one of a class of mostly aquatic arthropods such as shrimp, crabs, and Daphia (blue crab, for example - see image)

current: water moving continuously in a certain direction

dam: a barrier that holds water behind it

data: information

<u>decay</u>: to break down through chemical change; to become decomposed, rot



<u>detritus</u>: the organic debris from decaying organisms (biology) or the grains or small fragments of rock (geology)

dilute: to reduce the strength of a mixture or liquid by adding in and mixing something

dissolved oxygen (DO): the amount of oxygen gas in the water

dock: (noun) a platform for unloading ships; (verb) to guide a ship onto a pier or wharf

downriver: towards a stream's mouth

ebb current: the outgoing tidal current

estuary: a body of water in which fresh and salt water meet

extracted: to remove by pulling, pressing, distilling, or by a chemical process



<u>fin</u>: a thin extension of a water-living animal's body, used in guiding its movement (shown - dorsal (back), and pectoral (side), see image)

flood current: the incoming tidal current

food chain: the path by which energy in food moves from one organism to another

<u>food web</u>: interwoven food chains linking organisms to many food sources



<u>fresh water</u>: water that is not salty (rainwater is fresh water) <u>gill</u>: in fish and other animals living in water, an organ used to draw oxygen from water

habitat: the particular sort of place where a given plant or animal lives

harbor: a body of water protected and deep enough to be a safe place for ships

high tide: highest water levels in the tidal cycle

Hudson River miles: distance measured north from the Battery at Manhattan's southern tip

intertidal zone: an area covered by water at high tide and uncovered at low tide

invertebrate: an animal without a backbone

landscape: a region's set of landforms, viewed as a whole

lateral line – a sense organ (found along the length of some fish) used to feel movement or vibration in the water

life cycle: the stages of form and activity through which a living thing passes as it develops from a beginning stage to an adult able to reproduce and restart the cycle

low tide: lowest water levels in the tidal cycle

marsh: an area of shallow water with many plants



growing through the water's surface (Iona Marsh, for example - see image)

migrate: to move from one place to another

molt: to shed periodically an outer covering such as feathers or a shell

<u>native</u>: belonging in a particular place by birth; not brought in from another region

<u>nautical charts</u>: depth and feature maps used by boat captains for navigating the river (see image)



Lamont-Doherty Earth Observatory



COLUMBIA UNIVERSITY | EARTH INSTITUTE

organism: an individual living thing (plant, animal, bacteria, etc.)

<u>pH</u>: a number used in expressing acidity or alkalinity on a scale with values running from 0 (acidic) to 14 (alkaline); 7 is neutral

photosynthesis: the process by which plants that contain chlorophyll make carbohydrates from water and from carbon dioxide in the air in the presence of light

physical adaptation: an adaptation involving the form of an organism

physical map: a map of an area's landforms

pier: structure built out into the water for use as a docking place or walkway

<u>plankton</u>: floating or weakly swimming animal and plant life of a body of water (Phytoplankton = Plants; Zooplankton = Animals)

port: a harbor area where ships load and unload cargo

population: a group of individuals of one species living in a particular region

predator: an animal that eats other animals (striped bass image)

<u>river</u>: a natural stream of water larger than a brook or creek



salinity: a measure of the amount of dissolved salts in water

salt front: the leading edge of seawater entering an estuary

salt water: seawater or other water that contains salt

scale: on a map, a line marked to show distance

school (of fish): a group of fish swimming together

scientist: a person skilled in science

sea level: the average height of the ocean



seawater: salty ocean water



<u>sediment</u>: loose sand, clay, silt and soil particles, broken down by weathering and erosion, that settle at the bottom of a water body (see image with examples)

<u>seine net</u>: a fishing net that hangs vertically between floats and weights

spawn: to lay eggs; usually refers to animals that live in water

<u>species</u>: a class of living things of the same kind and same name

<u>submerged aquatic vegetation</u>: rooted plants that grow below low tide level (water celery, for example - see image)

symbol: something that stands for something else

<u>threatened</u>: an animal or plant that exists in such low numbers that care must be taken to keep it from dying out





<u>tidal cycle</u>: the repetitive rise and fall of the ocean's surface over a 24-hour period

<u>tides</u>: the alternating rise and fall of the surface of the ocean and bodies of water closely linked to it

transmitter: a device that sends out signals

transparent: see-through

tugboat: a strongly built, powerful boat used to tow or push other vessels

turbidity: how cloudy or clear the water is

upriver: towards a stream's source

vessel: a boat, ship, or other craft used for travel on water

<u>watershed</u>: the area of land from which water drains into a body of water (Hudson River watershed in image)

