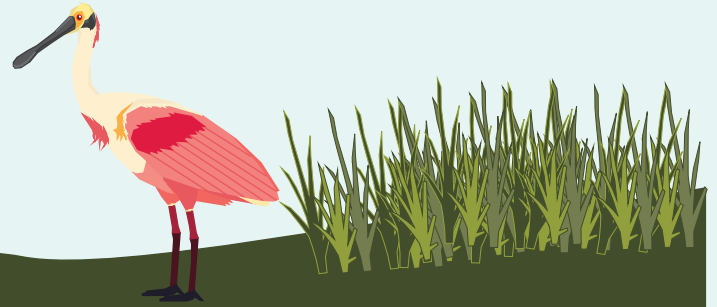


CWPPRA Coastal Crossword Puzzle

Have students read the text below.

Use the information to complete crossword puzzle.



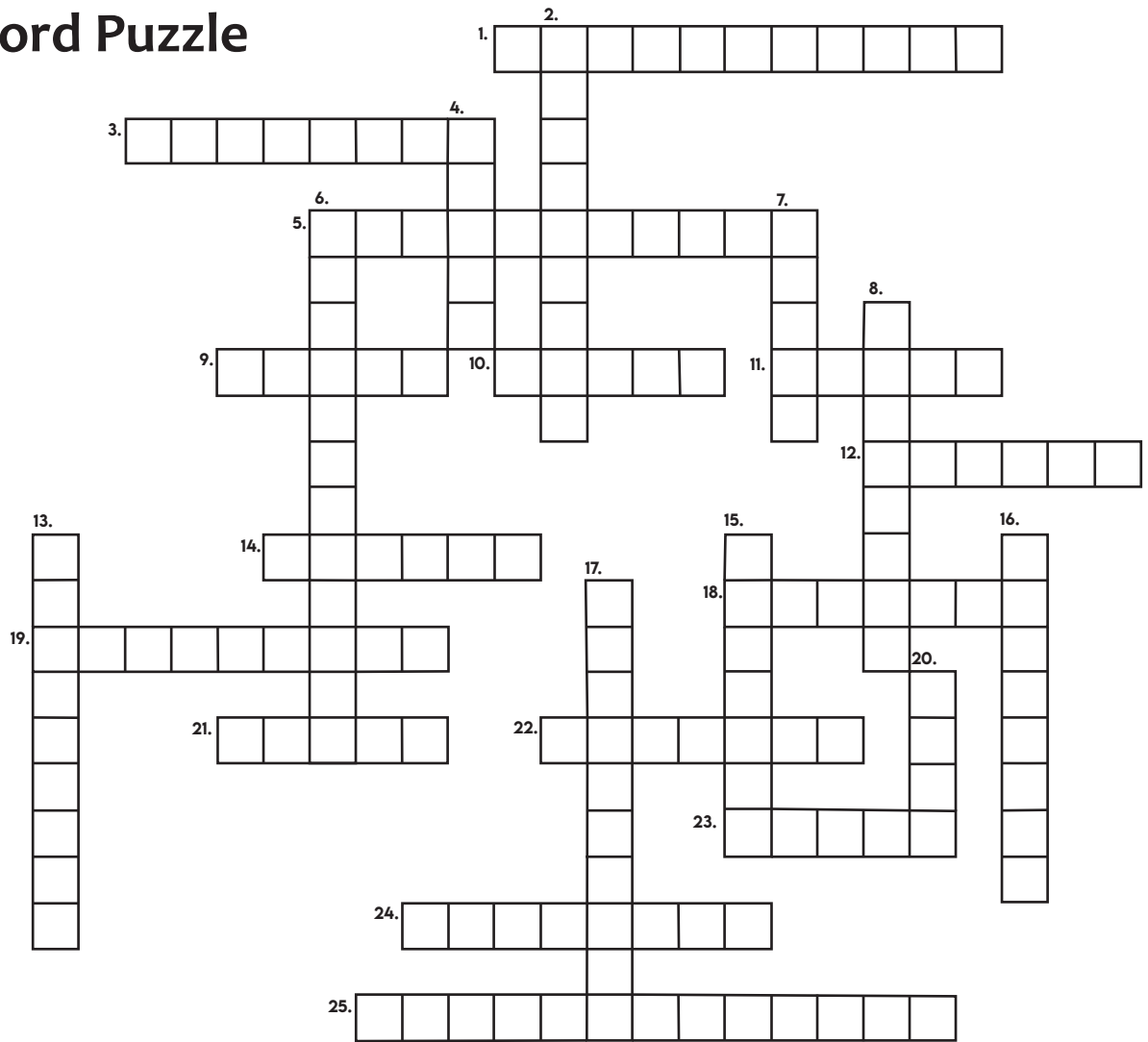
Louisiana is known for its unique wetland environments. Wetlands are environments that are covered with water all or part of the time. Wetland ecosystems have high biodiversity meaning there are a high variety of species that live in these environments. The different types of wetlands are defined by plant species and type of water present. Swamps have woody shrubs and trees and are in areas with freshwater. The Bald Cypress, the state tree of Louisiana, is a common tree species you will see in swamps. A wetland environment with grasses is called a marsh. Marshes can be in areas with freshwater, brackish water, or saltwater. Brackish water is a mixture of salt and freshwater. The measurement of salts in water is called salinity. Barrier Islands are sandy wetland environments found close to shore off the coast. These small land masses are a first line of protection against hurricanes and tropical storms.

Wetlands in Louisiana were built by the flooding of the Mississippi River. As the river flooded, sediment was dropped into open areas, slowly building land. We need the input of sediment into wetlands because our soils are very spongy and over time they can compress and sink, which is known as subsidence. The end of the Mississippi River is called the delta. Sediment is deposited in the delta, building land, as the river flows into the Gulf of Mexico. The transition zone between the freshwater of the Mississippi River and the salty waters of the Gulf of Mexico is called an estuary. Estuaries are highly productive areas that are rich in nutrients and provide nesting and feeding habitats for many plant and animal species. Estuaries rely on the movement of water which is known as hydrology. We have altered the hydrology of the Mississippi River by building levees to prevent flooding. In addition to altering the natural water flow, wetlands have been impacted by the drilling of oil and gas, the introduction of invasive species, and the digging of canals and channels.

Because of all these impacts, our wetlands are eroding away. Erosion is the gradual wearing away of land. Because of erosion, we need to restore our coastal wetlands. Restoration activities are actions that seek to return an ecosystem to a previously existing or improved condition. There are many groups working to restore Louisiana's coastal wetlands. The Coastal Wetlands Planning, Protection, and Restoration Act, known as CWPPRA, is federal legislation signed into law in 1990 that brings money into Louisiana to design and build coastal restoration projects. The state agency responsible for coastal restoration in Louisiana is the Coastal Protection and Restoration Authority, also known as CPRA. Restoration tools used by both CWPPRA and CPRA include dredging, or the use of a machine to bring up sediment from water bottoms and depositing the sediment into areas of low-lying water to create marshes. Another restoration tool involves cutting openings in levees to divert water from the Mississippi river back into the wetlands. These diversions can bring both sediment and freshwater into wetlands to restore hydrology and build land.

To learn more about Louisiana's coastal restoration efforts go to LAcoast.gov!

Coastal Crossword Puzzle



ACROSS

- 1.** Activities that seek to return an ecosystem to a previously existing or improved natural condition or function.
- 3.** Particulate matter that is carried by water or wind and can be carried by water.
- 5.** State tree of Louisiana that is commonly found in coastal swamp forests.
- 9.** Higher elevation areas that run parallel to rivers from sediment built up after floods.
- 10.** An embankment built to prevent the overflow of a river.
- 11.** A type of wetland dominated by freshwater, brackish, or saltwater grasses.
- 12.** Acronym for the federal legislation enacted in 1990 that identifies, funds, and constructs coastal wetland restoration projects.
- 14.** Machine needed to bring up sediment from a water bottom by scooping or dragging.
- 18.** The gradual destruction of land by wind, water, or other natural agents.
- 19.** A restoration strategy that allows river water and/or sediment to flow from the Mississippi River into the wetlands.
- 21.** A slow-moving stream or river, with often poorly defined shoreline, typically found in flat, low-lying areas.
- 22.** The transition zone between river environments and marine environments.
- 23.** Mouth of a river where sediment is deposited and land is built.
- 24.** Amount of salt dissolved in a body of water.
- 25.** This coastal landform is the first line of defense against hurricanes and storm off of Louisiana's coast.

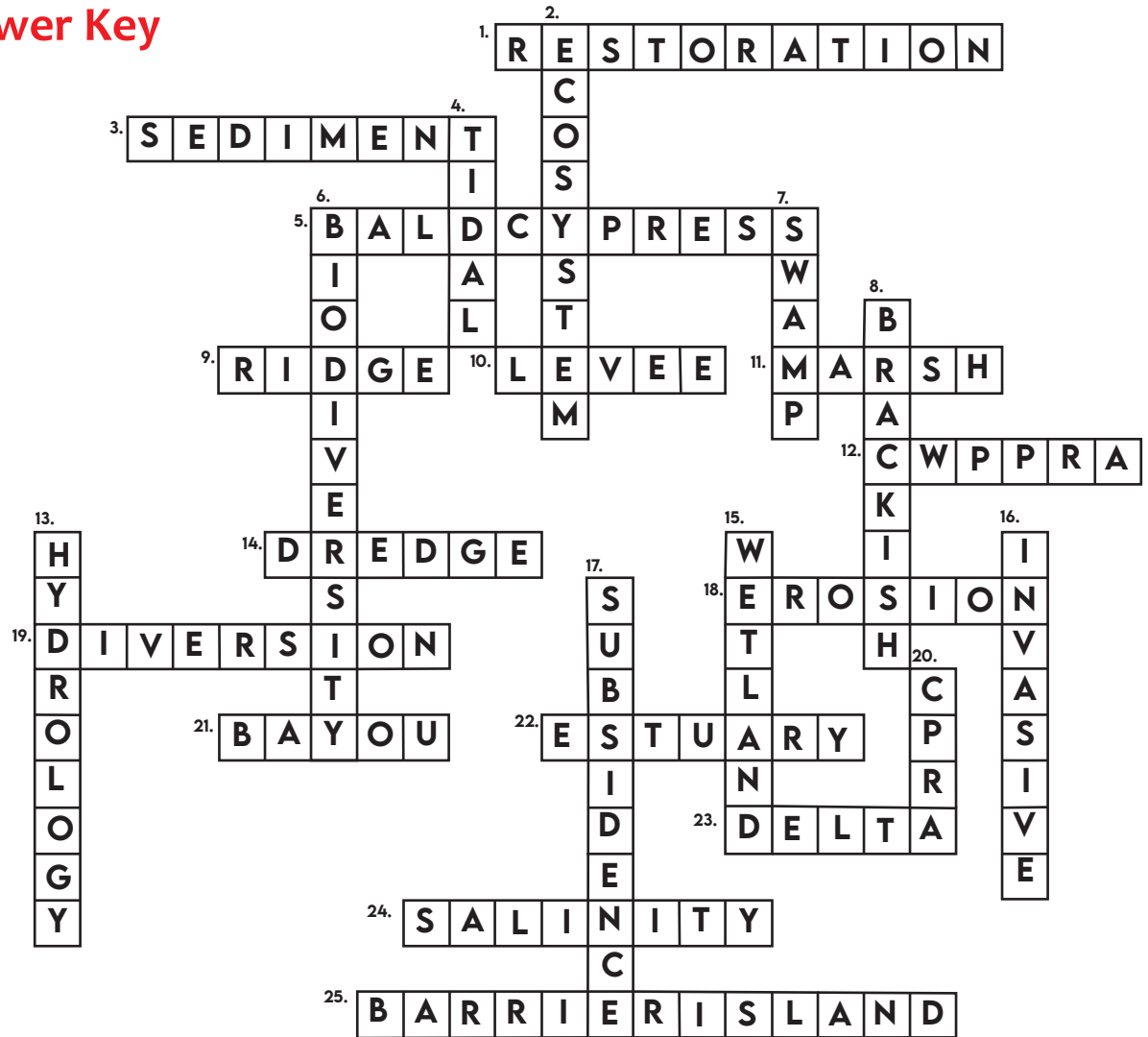
DOWN

- 2.** A community of interacting organisms within its physical environment.
- 4.** This type of wetland is influenced by the natural of flooding and draining by the movement of water in adjacent estuary, sea, or ocean.
- 6.** Wetlands have a high variety of species which is also know as
- 7.** A type of wetland dominated by trees and shrubs.
- 8.** A mixture of freshwater and salty seawater.
- 13.** The study of the movement of earth's water especially in relation to land.
- 15.** Land that is often intermittently covered with shallow water or have soil saturated with water.
- 16.** Non-native plant and animal species that cause damage to ecosystems.
- 17.** Gradual sinking of land.
- 20.** The acronym for the state agency that addresses the coastal land loss crisis in Louisiana.



Coastal Crossword Puzzle

Answer Key



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