

FORMAL ASSESSMENT

Migrating Mangroves and Marshes

Each activity in the Estuaries 101 Middle School Curriculum is designed around specific performance tasks. A generalized set of scoring rubrics is provided to judge student progress against these performance tasks. Use the performance assessment indicators in the table below along with the suggested answers in the Teacher Guide to arrive at a score for each performance task.

In addition, you can use the attached Student Assessment handout to conduct a formal assessment at the conclusion of the activity. Use the suggested answers and performance assessment indicators to rate each student's progress.

Performance Tasks	Performance Assessment Indicators		
	Low - Basic	Medium - Proficient	High- Advanced
Students can explain how a specific chosen salt marsh or mangrove animal is adapted to survive in that estuary habitat.	The response is partially correct. There is also evidence of inaccurate, incomplete, or inappropriate skills or knowledge.	The response is correct, and demonstrates accurate understanding of concepts. Minor inaccuracies may appear but there is no evidence of misconceptions.	Evidence of higher-level thinking and the application of the appropriate skills and prior knowledge. The response is correct and complete, and contains elaboration and extension. There is no evidence of misconceptions. Minor inaccuracies should not necessarily lower the score.
Students can interpret maps showing the range of mangrove habitat and salt marshes in the Harbor Island area over several decades.			
Students can correlate severe winter weather events with mangrove habitat contraction.			

Questions and Answers

1. Identify which habitat supports each animal.

Fiddler crab finds its food in the salt marsh.

Whooping Crane finds its food in the salt marsh.

Snowy Egrets find their food in the salt marsh and the mangrove.

Roseate Spoonbill finds its food in the mangrove.

2. What dominant factor limits the range of the Mangroves' ability to spread?

b. Temperature

3. What happens to organisms that live in the mangrove habitat when the mangrove habit expands?

If the mangrove habitat expands there is more area for organisms to adapt to that habitat. Organisms can increase their populations to take care of new habitat areas.

4. What happens to organisms that live in the mangrove habitat when the habitat disappears?

If the habitat contracts the populations of organisms adapted to the area decreases. Animals will either leave the area or face increased competition and the population will decrease.

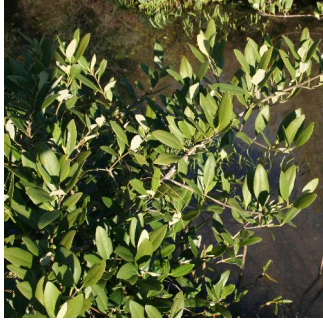

Reflection Question

Student responses will vary.

STUDENT ASSESSMENT

Migrating Mangroves and Marshes

Ongoing research is needed to increase our understanding of estuaries and to improve our ability to protect and sustain them. How did the study of mangroves and salt marshes help you understand and track changes in the estuary?

	<p>Mangrove</p> <p>A mangrove habitat is created by any of several tree species that grow in non-freezing estuaries.</p>		<p>Salt Marsh</p> <p>A marsh is a wetland habitat dominated by grasses or grass like plants. A salt marsh is flooded by salty water, such as salt water from the ocean.</p>
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1. Identify which habitat supports each animal.

Fiddler crab finds its food in _____

Whooping Crane finds its food in _____

Snowy Egrets find their food in _____

Roseate Spoonbill finds its food in _____

2. What dominant factor limits the range of the Mangroves' ability to spread?

- a. Tide or increased water depth
- b. Temperature
- c. Salinity
- d. Wind

3. What happens to organisms that live in the mangrove habitat when the mangrove habit expands?

4. What happens to organisms that live in the mangrove habitat when the habitat disappears?

Reflection Question

How did the study of mangroves and salt marshes help you understand and track changes in the estuary?