**ESTUARY FOOD WEB: Journal Entry**

**DIRECTIONS:**

***Using the following list of organisms and their food, create a food web.(10 pts for sketch)***

**Key Points:**

1. Include a small, simple sketch of the organism next to the name.
2. Use up the entire paper to make your web visible.
3. Write detritus and put a circle around it an include it as part of the web. Somehow indicate that the photosynthetic organisms become detritus.
4. Answer the questions on a on the page following your food web.

**ORGANISM LIST**

**PHOTOSYNTHETIC ORGANISMS: ORGANIC MATTER:**

*Spartina*, Ulva, phytoplankton detritus

|  |  |
| --- | --- |
| **ORGANISM** | **FOOD** |
| Amphipods/isopods | Detritus |
| Fiddler Crab | Detritus |
| Ducks/geese | *Spartina* |
| Insects | *Spartina* |
| Bread crumb sponge | Zooplankton; phytoplankton |
| Sand shrimp | Detritus; small worms |
| Blue crab | Minnows, young fish |
| Ribbed mussel | Detritus; zooplankton |
| Kelp bryozoan (lacy crust bryozoan) | Bacteria, phytoplankton |
| Zooplankton (fish, crab, etc.) | Phytoplankton; detritus |
| Soft-shell clam | Detritus; zooplankton; phytoplankton |
| Diamondback terrapin | Ribbed mussel; soft-shell clam |
| Raccoon | Fiddler crabs; ribbed mussel |
| Comb jell | Zooplankton |
| Minnow  | Shrimp, amphipod/isopod; detritus |
| Flounder | Shrimp |
| Sea star | Ribbed mussel, clams |
| Small worms (polychaete) | Detritus |
| Heron/egret | Minnow, young fish; isopod, blue crab |
| Lion’s mane jelly | Minnow, menhaden |
| Red-wing blackbird | Insect |
| Young menhaden | Shrimp; amphipod/isopod;detritus |

**QUESTIONS: (25 pts)**

1. List 3 top predators 3 pts
2. Which organisms become detritus and how? 3 pts
3. Which organism would be MOST affected by the loss of minnows and young fish in the estuary, explain your answer? 5 pts
4. A. If the*Spartina* grass was uprooted and destroyed for land development, who would directly be affected by this? 2 pts

B. How do these animals use the salt marsh? 2 pts

1. What is the main, most important food source in this habitat? 2 pts
2. Give an example of a food chain from your web that has FIVE levels. Label each level starting with “primary producer” and move up. 5 pts
3. What is the term used to describe organisms that feed on detritus? 1 pt
4. What are the decomposers in this habitat and describe their role. 2 pts

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| --- | --- | --- |
| **ORGANISM** | **FOOD** | **Plantae, chlorophytes,**  |
| Amphipods/isopods | Detritus | Arthropod |
| Fiddler Crab | Detritus | Arthropod |
| Ducks/geese | *Spartina* | *Chordata* |
| Insects | *Spartina* | Arthropod |
| Bread crumb sponge | Zooplankton; phytoplankton | Porifera |
| Sand shrimp | Detritus; small worms | Arthropod |
| Blue crab | Minnows, young fish | Arthropod |
| Ribbed mussel | Detritus; zooplankton | Mollusk |
| Kelp bryozoan (lacy crust bryozoan) | Bacteria, phytoplankton | bryozoan |
| Zooplankton (fish, crab, etc.) | Phytoplankton; detritus |  |
| Soft-shell clam | Detritus; zooplankton; phytoplankton | Mollusk |
| Diamondback terrapin | Ribbed mussel; soft-shell clam | Chrodata |
| Raccoon | Fiddler crabs; ribbed mussel |  |
| Comb jell | Zooplankton | ctenophore |
| Minnow  | Shrimp, amphipod/isopod; detritus |  |
| Flounder | Shrimp | chordata |
| Sea star | Ribbed mussel, clams | Echinoderm |
| Small worms (polychaete) | Detritus | Annelid |
| Heron/egret | Minnow, young fish; isopod, blue crab |  |
| Lion’s mane jelly | Minnow, menhaden | cnidaria |
| Red-wing blackbird | Insect |  |
| Young menhaden | Shrimp; amphipod/isopod;detritus |  |

**Food Chain Journal Entry**

Food Web

 All organisms 5 \_\_\_\_\_\_\_\_\_\_

 Neat 2 \_\_\_\_\_\_\_\_\_\_

 Detritus circle 2 \_\_\_\_\_\_\_\_\_\_

 Whole page 1 \_\_\_\_\_\_\_\_\_\_

Predators 3 \_\_\_\_\_\_\_\_\_\_

Detritus/how 3 \_\_\_\_\_\_\_\_\_\_

Affected by minnow loss 5 \_\_\_\_\_\_\_\_\_\_

Spartina uprooted 2 \_\_\_\_\_\_\_\_\_\_

How Spartina used 2 \_\_\_\_\_\_\_\_\_\_

Food source 2 \_\_\_\_\_\_\_\_\_\_

Food chain 5 levels (w/labels) 5 \_\_\_\_\_\_\_\_\_\_

Detritus feeders 1 \_\_\_\_\_\_\_\_\_\_

Decomposers and role 2 \_\_\_\_\_\_\_\_\_\_

**TOTAL 35 \_\_\_\_\_\_\_\_\_\_**

**Food Chain Journal Entry**

Food Web

 All organisms 5 \_\_\_\_\_\_\_\_\_\_

 Neat 2 \_\_\_\_\_\_\_\_\_\_

 Detritus circle 2 \_\_\_\_\_\_\_\_\_\_

 Whole page 1 \_\_\_\_\_\_\_\_\_\_

Predators 3 \_\_\_\_\_\_\_\_\_\_

Detritus/how 3 \_\_\_\_\_\_\_\_\_\_

Affected by minnow loss 5 \_\_\_\_\_\_\_\_\_\_

Spartina uprooted 2 \_\_\_\_\_\_\_\_\_\_

How Spartina used 2 \_\_\_\_\_\_\_\_\_\_

Food source 2 \_\_\_\_\_\_\_\_\_\_

Food chain 5 levels (w/labels) 5 \_\_\_\_\_\_\_\_\_\_

Detritus feeders 1 \_\_\_\_\_\_\_\_\_\_

Decomposers and role 2 \_\_\_\_\_\_\_\_\_\_

**TOTAL 35 \_\_\_\_\_\_\_\_\_\_**