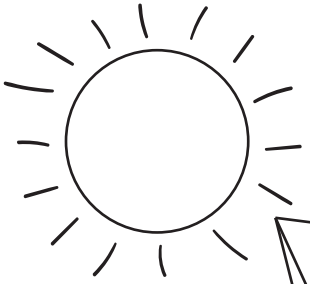
FRIENDS OF BALLONA WETLANDS

Name: ANSWER KEY

Using the Field Guide, draw a food web for the COASTAL DUNE ecosystem .

Arrows should point in the direction of energy flow.

Decomposer
Producer
Consumer



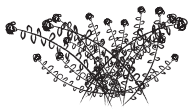

Willow


Cottontail Rabbit


Fence Lizard


Coyote

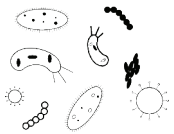

Fungi


Dune Buckwheat


El Segundo Blue Butterfly


Crab Spider


Red-tailed Hawk


Bacteria


Dune Lupine


Ground Squirrel


Legless Lizard


Gopher Snake

Answer the following questions:

I. If an invasive plant were to take over habitat in the COASTAL DUNES, what would some of the effects be on your food web? Which species would decrease, which would increase, which would move?

If an invasive plant were to take over habitat in the Coastal Dunes, many of the plant species would decrease. While animals that eat plants might be able to start eating the invasive plant, the El Segundo Blue Butterfly is dependent on Dune Buckwheat for its survival. The El Segundo Blue Butterfly population would decrease. This decrease will impact those that eat the butterfly. Depending on how the other species manage to eat or not eat the invasive plants, there will be a ripple effect up the food web with decreasing populations of many of the species. Larger predators might be able to move and find new habitat to survive in, some of the smaller ones may not.

2. For the species that might need to move or find food elsewhere, how might this affect the Sample Food Webs of the other Ballona Wetlands ecosystems?

Species that hunt or live in multiple ecosystems may have a better chance of finding food elsewhere. But if there is a big increase or decline in a species that hunts in both, it will impact the other ecosystems as well. For example, a decline of a predator in the Coastal Dune ecosystem might increase the population size of prey species in the Salt Marsh ecosystem.

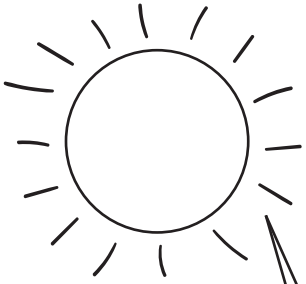
FRIENDS OF BALLONA WETLANDS

Name: ANSWER KEY

Using the Field Guide, draw a food web for the SUBTIDAL ESTUARY ecosystem .

Arrows should point in the direction of energy flow.

- Decomposer
- Producer
- Consumer



Topsmelt

Great Blue Heron

Fiddler Crab

Marine Algae

Horn Snail

Snowy Egret

Cormorant

Bacteria

Phytoplankton

Marine Invertebrate

Arrow Goby

Pelican

Answer the following questions:

1. If a chemical spill were to pollute the SUBTIDAL ESTUARY of Ballona Creek, what would some of the effects be on your food web? Which species would decrease, which would increase, which would move?

The species living directly in the water might die or move away, like the Topsmelt, Hornsnail, Fiddler Crab, Arrow Goby, Marine Invertebrate, Marine Algae, Phytoplankton and Bacteria. Some species might be able to survive the spill depending on what the spill is and how long it remains in the water. For those who do not live in the water but hunt in it, they will likely have to find a new hunting ground until the estuary is cleaned of the spill. Those that will likely move are all of the birds.

2. For the species that might need to move or find food elsewhere, how might this affect the Sample Food Webs of the other Ballona Wetlands ecosystems?

Species that hunt or live in multiple ecosystems may have a better chance of finding food elsewhere. But if all of the bird species are pushed to find food in other ecosystems, it will impact every species that lives there. It is also unlikely that the chemical spill wouldn't effect the Salt Marsh ecosystem so there might be many species that will be unable to find enough food to survive. There will either be deaths or larger species moving much further away to find food.

FRIENDS OF BALLONA WETLANDS

Name: ANSWER KEY

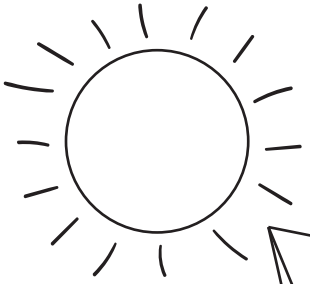
Using the Field Guide, draw a food web for the SALT MARSH ecosystem .

Arrows should point in the direction of energy flow.

Decomposer

Producer

Consumer



Salt Grass

Grasshopper

South Coast Marsh Vole

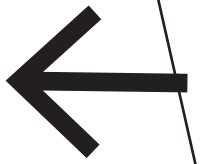
Red-tailed Hawk

Fiddler Crab

Pickleweed

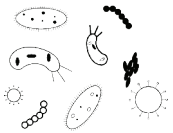
Belding Savannah Sparrow

Horn Snail



Marine Invertebrate

Great Blue Heron



Bacteria

Marine Algae

Arrow Goby

Answer the following questions:

I. If a parasite were to kill many of the grasshoppers in the SALT MARSH, what would some of the effects be on your food web? Which species would decrease, which would increase, which would move?

Without grasshoppers in the ecosystem, it is possible the Belding Savannah Sparrow population might decline which means there might be less food for the Red-tailed Hawk. The hawk might try to eat more South Coast Marsh Vole which might decrease the population of the vole. If the hawk is unsuccessful catching more voles, its population might decline. With less voles, the Great Blue Heron might spend more time hunting in water and decrease the arrow goby population. Without Grasshoppers eating the Salt Grass, it might increase in area.

2. For the species that might need to move or find food elsewhere, how might this affect the Sample Food Webs of the other Ballona Wetlands ecosystems?

Species that hunt or live in multiple ecosystems may have a better chance of finding food elsewhere. But if there is a big increase or decline in a species that hunts in both, it will impact the other ecosystems as well. For example, a decline of a predator in the Salt Marsh ecosystem might increase the population size of prey species in the Coastal Dune ecosystem.