Objective: Keystone Species

1. **A Keystone:** *What is it?*

   Keystone Species: *define the term.*

2. **Sea Otters:** *describe what happened in the 1990’s. Use the following terms keystone species and habitat*

3. **Trophic cascade:** *explain this term*
Otters were eaten (in large numbers) by orcas.

- Led to more urchins
  - Led to decline in kelp forest
  - Loss of specific area to find resources

- Key species
  - Loss of habitat for a variety of animal life
Objective: Keystone Species

1. A Keystone: *What is it? What happens when a keystone is removed?*

2. Sea Otters: *describe what happened in the 1990’s. Use the following terms keystone species and habitat*

3. Trophic cascade: *explain this term*

  > top level predators (sea otter) control the #’s of “lower level” consumers (urchins)
Objective: Coastal Keystone Species

Purple Starfish:
1. When removed – what happened?
2. Benthic species – explain.

Sea Otters:
3. Decline and extirpation led to a trophic cascade. Explain.
4. 2 Factors that led to the decline of the sea otter. Name and explain.
Objective: Coastal Keystone Species

Purple Starfish:
1. When removed – trophic cascade, over years – all but one population disappeared
2. Benthic species – explain.

Sea Otters:
3. Decline and extirpation led to a trophic cascade. Explain.

4. 2 Factors that led to the decline of the sea otter. Name and explain.
3/06/19

Objective: Coastal Keystone Species

Purple Starfish:
1. When removed — **trophic cascade**, over years — all but one **population** disappeared

2. **Benthic species** — **bottom**

Sea Otters:
3. Decline and **extirpation** led to a trophic cascade. *Explain.*

4. 2 Factors that led to the decline of the sea otter. *Name and explain.*
With otters and urchin.
1. When removed – **trophic cascade**, over years – all but one **population** disappeared

2. **Benthic species** – **bottom**

Sea Otters:

3. Decline and **extirpation** led to a trophic cascade. **No d-d limiting factor** to control urchins – which destroyed the kelp forest **community** – decline and disappearance of fish and other marine **populations**

4. 2 Factors that led to the decline of the sea otter. **Name and explain.**
2. **Benthic species** – **bottom**

Sea Otters:

3. **Decline and extirpation** led to a trophic cascade. **No d-d limiting factor** to control urchins – which destroyed the kelp forest **community** – decline and disappearance of fish and other marine **populations**

4. 2 Factors that led to the decline of the sea otter. **Orcas** – loss of whale prey during the whaling years and **fur trade** – taking of otters for furs during 17-1800’s