The Marine Mammal Center advances global ocean conservation through marine mammal rescue and rehabilitation, scientific research, and education.

### **Marine Mammal Parents and Pups**

The second most common patient at the Center are Northern elephant seals like Stoffle. The center most commonly rescues orphaned pups that have stranded during mid-February to late June. Strong storms often wash these young seals off beaches before they have weaned from their mothers or learned how to survive on their own. This results in many malnourished and underweight pups needing our help!



Stoffle was rescued from Windmill Cove in Bodega Bay, Sonoma County. He still had his black coat (see bottom left picture), meaning he was separated too soon from mom and is younger than one month old. Stoffle weighed only 92 pounds when he was rescued. At his age, elephant seals should weigh closer to 300 pounds!

Elephant seal pups are born at 75 pounds and must nurse every day for approximately one month. After one month, and when they have reached 300 pounds, their mom leaves them. If an elephant seal pup does not reach this ideal weight or is prematurely separated from its mother, it may not be able to survive on its own.



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> Stoffle Northern elephant seal Male pup

**Rescue Location:** Windmill Cove, Bodega Bay, Sonoma

Age: Approximately 3 weeks old

Admit weight = 41.5kg (92 lbs)

#### In Treatment For:

- Malnutrition
- Maternal separation
- Trauma to chin and flippers

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Sometimes, pups like Stoffle are prematurely separated from their mothers due to higher sea levels. Higher sea levels allow storms to reach higher on land, and wash seal pups away. Sea level rise is caused by burning fossil fuels like coal, oil and natural gas. This releases excess carbon into the atmosphere where it acts like a heat trapping blanket around the earth and warming the land, air, and sea. When the sea warms, it expands causing sea levels to rise.





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> Additionally, storm surge is a higher sea level due to strong storms and winds that push water farther up the shore. These strong storms can wash young pups off the beaches and away from their moms.

> Sea level rise and storm surge combined can make seal breeding beaches even more crowded, making it easier for young pups to become separated and harder for mom to find them again.

Immediately after birth, Elephant seal mothers and pups learn to recognize each other by vocalizations and sniffing. If there is a great distance between mother and pup, they may only find eachother again by recognizing each other's call. When closer together, Mother and pup may recognize each other's scent. Try our activity on the next page to put yourself in the flippers of a baby elephant seal and try to find your way home by using only your sense of smell!



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## **Marine Mammal Parents and Pups**

## Activity:

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Being a newborn or young pup on a breeding beach, or rookery, is no easy task. In addition to the challenge of noisy surroundings and crowded spaces, rising sea levels make it even more difficult for marine mammal pups, like Stoffle, to find their moms on the beach if they get separated. While seal pups are all very cute, they tend to all look exactly alike. One way that mothers and pups can tell each other apart is through their sense of smell. Mothers will memorize their pups' unique scent and recognize it.

To better understand this challenge, you will get to role play and experience what it would be like to be an elephant seal mom searching for her pup using only your sense of smell.



### Materials:

- 2 people (mother and pup)
- ◆ 5 spices of your choice from your kitchen (ex: cinnamon, rosemary, paprika, oregano, chili powder, etc.)

### **Instructions:**

1. Choose a person to play the "pup" and a person to play the "mother".

2. The person who plays the "mother" will choose a scent to represent the smell of your "pup" (ex: cinnamon). Have the "mother" smell the spice and try to memorize the scent.

3. The person who plays the "pup" will then line up all 5 spices, with labels covered or facing away from "mother".

4. "Mother" can then go down the line and smell all 5 spices one by one. After smelling each of the spices, "mother" must try and identify the "pup scent" (ex: cinnamon) and "pup" can confirm if the correct scent is chosen.

5. For an added challenge, add more than 5 spices to your line up!

\*Only have 1 person? No problem! Shuffle all your scents once the labels are covered and try reuniting each yourself.





## **Marine Mammal Parents and Pups**

# **Activity Questions:**

1. Did you find the activity easy or difficult? Why?

2. How might crowded beaches, less space, or more pups affect an Elephant seal mothers' ability to sniff out their pup?

3. What ideas do you have to help marine mammal parents and pups, like Stoffle, stay safe?

## Become an Ocean Hero:

Explore ways you can take action to reduce your use of fossil fuels and lessen the impacts of climate change, like sea level rise, on marine mammal parents and pups! For example, did you know the energy it takes to produce our food to how it gets to our plates and what we eat can have a big climate impact? Rethinking your meals to eat lower on the food chain can make a positive change for our oceans. Learn more on our <u>website</u>!

