



FRIENDS OF THE ELEPHANT SEAL

E-SEAL NEWS

SUMMER
2012



The Kids are Coming Back!

The molting season is winding down at the Piedras Blancas viewing site, but it's been a busy summer, with lots of seals and thousands of visitors, many of them from out of the country.

The huge adult males star in the last act of the molting season, coming in to shed a layer of tan or brown skin and hair and leaving with a sleek new silvery gray coat. While they are adversaries in the winter during the birthing and mating season, this time of year they may play their "I'm bigger than you" game, but they also just hang out, relax and use each other as pillows. The rivalry during the molt usually involves stretching their necks to appear taller and sounding off. The adult voice is much different from that of the adolescent males. The younger ones announce their presence with what sounds like a series of large belches. The adults have a voice that has been described as sounding like a Harley revving up in a gym. When the adults announce their arrival, the sub-adults scatter. The adult males will fast and molt for about a month before returning to the sea and heading to Alaska again, where they forage off the Aleutian Islands, bulking up for the winter season here, when they will not eat for over three months.

The next season on the beaches is called the fall haul
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For up-to-date information, visit our web site at www.elephantseal.org

When's Dinner?

Understanding the elephant seal's life at sea has been an evolving science. At one stage it was thought that they remained close to shore during their time at sea. First solar navigation techniques and then GPS told us otherwise – that the seals often traveled as much as 3000 miles in the open ocean. Time-depth recorders (TDR) then told us of the great depths, over a mile, to which these animals could dive, their ability to stay submerged for periods up to two hours and how little time they spend on the surface. The details of those recordings showed different patterns of dives – patterns that were associated with activities such as traveling, sleeping, digesting and foraging. These classifications were, however, inferences, not based on direct knowledge.

An interesting study* was undertaken to directly determine when the seals were getting food. At Ano Nuevo, temperature sensors were placed in the stomachs of female seals, also equipped with GPS and TDR. As the internal temperature of elephant seals is about 97° F (36 C) and the food they eat has a temperature of around 40° F (14 C), the effect of taking food is a significant drop in stomach temperature. The sensors radiated the temperature to recorders mounted on the outside of the seal. The sensors remained in the stomach an average
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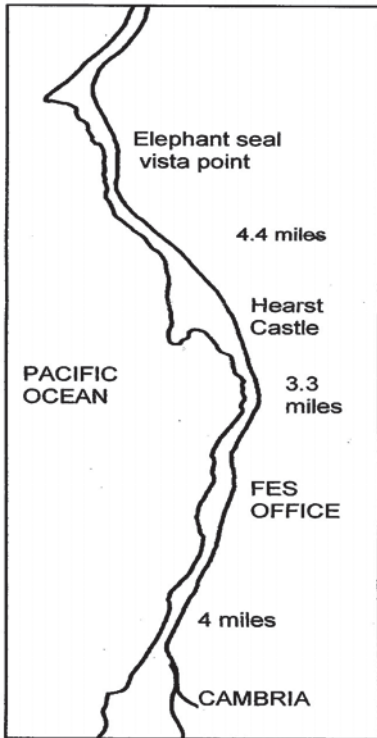


Tips for Safe Viewing

- View from a safe and respectful distance.
- NEVER get between a seal and the water.
- Dogs and seals don't mix. Keep dogs away from the seals
- Please stay off sand dunes which are fragile areas for plants and animals.

Elephant seals are protected by law. It is illegal to harass any marine mammal. If you witness harassment, call 1-800-853-1964.

**Map to
Elephant Seal Viewing
Piedras Blancas**



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**Visit our office, gift shop,
and displays at the
Cavalier Plaza, Highway 1
San Simeon**

What's New

Become a docent

Friends of the Elephant Seal will hold annual training sessions for new volunteer docent guides on Saturdays Sept. 29 and Oct.13 and 27 at the Cavalier meeting room in the Cavalier Plaza in San Simeon. Call the FES office at 924-1628 for information and applications.

Spring training added six new docents to our roster: Ginny Drew, Nancy Hendricks, Edward Miggins, Paula Ross, Elaine Russo and Ellen Stoner. They are now contributing to our mission on the bluff and will be taking the longer, more complete fall training.

2011 Pup Count

The pup count this year was up over last year with more than 4500 pups. The number has increased every year since 1992 except in 2008 when it dropped from 3900 in 2007 to 3100 in 2008.

Film success

Organizer Christine Heinrichs reports that Holly Lohuis, underwater video producer for Jean-Michel Cousteau's Santa Barbara-based Ocean Futures Society held the audience spellbound with her video presentation May 5 at Hearst Castle Theater. It was a financial success for FES, returning almost \$1,000 to the treasury. Christine says several people in Cambria stopped her on the street following the event and showed her their reusable water bottles. They vowed never to buy water in plastic bottles again. We have been invited back and the Board is considering dates in 2013 to sponsor a showing of "Otter 501," a film about a young woman who rescued an otter pup and got involved with the rehab program at Monterey Bay Aquarium.

The LiveCam is up and running

The elephant seal web cam, with major assistance from State Parks, came alive in March and has been on the web site since then. If you haven't had the opportunity, follow the link on the web site home page. After dark, a rerun from the time of peak population in May is available. There were more than 11,500 visitors to the web site this May, almost three times the number a year ago. Many thanks to all of you who made this possible.

Grand Ole SOUPabration II

Artisan soups, boutique wineries, authors and art are the first four ingredients to this year's A Grand Ole Soupabration, a Friends of the Elephant Seal (FES) fundraiser, set for Sunday, September 9, from noon to 4 p.m. at Camp Ocean Pines in Cambria. Top chefs and restaurants from the central coast will compete for your pleasure and awards by a panel of executive chefs and food critics. Children's author Marianne Wallace, mystery writer Sue McGinty and environmentalist David Helvarg will sign their books as they raise funds for FES. Plein air artists will paint on site and offer that work in a silent auction.

Tickets, including private author chats, are available through www.brownpapertickets.com/event/242378. For information call 805/924-1628 or email soupabration@live.com.

We're on the bus!

Four of the buses used at Hearst Castle will be "wrapped" as shown on page one, giving our friends a bit more publicity.



The Kids are Coming Back! — Continued from page 1
 out, when young elephant seals return to rest. There will be a few of this year's youngsters, born last winter, among these young seals, but most of them are males and females between two and six years old. After months at sea, migrating north to dive and forage, they return to California beaches to rest. No one really knows how they know when it's their turn to take a vacation from the sea and where to go to do it. They are solitary during their ocean journeys. Somehow one seems to know, "Hey, it's September, I'm supposed to join my buddies on the beach in California."

Elephant seals are a perfect example of Mother Nature's methods of hardwiring creatures to operate on instinct. They navigate their northward paths to feed, following similar routes each year, and return to their resting, molting and breeding areas, where they don't eat at all. Their cycle is feasting and fasting.

Researchers wondered why they come in during the fall haul out, as they aren't breeding, birthing or molting. One suggestion was that after months in the sea, where they are not subject to gravitational stress, that like astronauts, they lose bone mass. Hitting the beach and experiencing gravity might be necessary to rebuild their bones. Researchers performed MRI tests on some of the seals when they first came in and a month later, just before they set out to sea again, and discovered that they do gain bone mass while they are ashore. Another suggestion is that the fall migration is training them for the winter migration when they are adults. As they approach sexual maturity their haul out time more closely coincides with that of the breeding seals.

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of 8 days. During the period that the sensors were active, the first week of the approximately two month post breeding migration, only 23% of the dives were of the foraging type and 43% of the transit type, compared to 56% and 31%, respectively, for the complete two month trip.

While it might be expected that the females would be eager to feed after fasting for over a month while birthing and nursing, on average the first food was taken 4 hours, 36 miles (59 km) after departure, followed by an average of 15 hours to the next intake. These early feedings were single events. It took an average of almost 8 days, 370 mi (600 km), from departure before active feeding began, effectively extending the birthing fast by another week. Active feeding recorded individual averages of 8 to 13 takes each day with a maximum of 30. Dive frequency was the same at night as during the day but the take and depth were significantly less.

The new technologies being used by researchers have contributed enormously to our knowledge of the ten months of the year the females are at sea.

*Kuhn, Carey E., Crocker, Daniel E., Tremblay, Yann, and Costa, Daniel P.. *Time to eat: measurements of feeding behavior...* Journal of Animal Ecology, Vol 78, p 513-523 (2009).

Make Travel Plans Now

Multiple presentations of three seminar/rookery tours will be offered in 2013. The seminars, held in San Simeon at Cavalier Plaza, will feature photographic illustrations of elephant seal behavior followed by a question and answer period with a panel of *Friend of the Elephant Seal's* most experienced guides. Doors open for coffee at 9:30; the ninety minute seminars begin at 10:00am. Guided rookery tours, conducted in small groups, begin thirty minutes after each seminar. Reservations are welcomed, but not required. Admission is free.

***Birthing and Nursing* January 5, 12, 19, or 26**

An examination of e-seal birthing and mothering practices. The rookery tour will search for behavior explored in the seminar--arrival of expectant mothers, males battling for breeding rights, and the birthing and nursing of elephant seal pups.

***Mating and Weaning* February 2, 9, 16, or 23**

An exploration of male dominance hierarchies, e-seal mating practice, the phenomenon of delayed implantation, weaning of pups, departure of impregnated females and development of weaned pups.

***The Catastrophic Molt* May 4 or 11**

An exploration of the molt and seal adaptations that support deep dives, long periods without air, functioning (for up to 100 days) without food or water and the ability to shut off the blood supply to the skin.