



# Harbor Seal Monitoring at Point Bonita in the Golden Gate National Recreation Area



NPS Photo

Harbor seals “haul-out” together on rocks in Point Bonita Cove. The seals require this time out of the water to rest, stay warm, avoid predators, raise young, and more.

**Importance:** *Monitoring the harbor seals at Point Bonita helps the National Park Service (NPS) effectively protect them.*

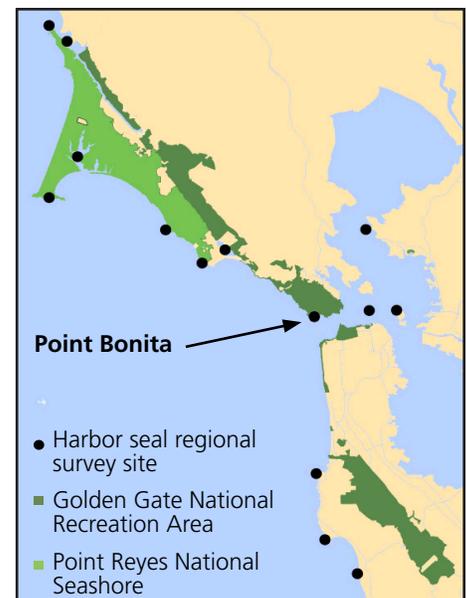
Harbor seals are year-round residents of San Francisco Bay Area waters. As both predators to fish and other small marine creatures—and prey for sharks and orcas—they are important members of the ocean community. They are also sensitive to changes in their environment, so the health of their populations can help us gauge the health of our bays and oceans.

Water is not harbor seals’ only home, however. Every day they must also spend time on land to gather and rest at traditional “haul out” sites. During their breeding and molting seasons (March-July), land is even more important for them to give birth, nurse, and molt (when the seals lose their worn fur and grow a fresh coat). Harbor seals only emerge from the water at suitable sites that are close to food sources and mostly free of predators and people. In the Bay Area, haul-out sites have declined in recent years, so remaining sites like Point Bonita Cove are especially valuable. Point Bonita is also significant because it is the only major haul-out site in between the San Francisco Bay and the Pacific Ocean.

In the 1990s NPS discovered that Point Bonita’s harbor seals were often being scared into the water, or “flushed,” by visitors to Point Bonita Cove who were not aware that their actions disturbed the seals. Disturbances can disrupt crucial resting periods or cause pups to be separated from their mothers. Repeated disturbances can cause harbor seals to haul-out at night when they normally feed, reproduce less, or abandon a haul-out site altogether. Harassment, defined as any disruption of a marine mammal’s normal behavior, is also illegal under the Marine Mammal Protection Act of 1972. Monitoring and education efforts were implemented by the NPS, San Francisco State University, the Marine Mammal Center, and others in an effort to understand and prevent future disturbances to the Point Bonita harbor seals.

**Monitoring Program:** *The National Park Service monitors harbor seal numbers and disturbances at Point Bonita.*

Universities and non-profit wildlife groups have been monitoring harbor seal populations in the San Francisco Bay area since the 1970s. Harbor seal monitoring by NPS commenced in 1996, and regular annual monitoring at Point Bonita began in 2000. Trained NPS staff and volunteers monitor



Map of harbor seal haul-out sites where monitoring occurs (black dots) in the San Francisco Bay Area.

the population by counting the number of seals at the site at regular intervals, with a focus on the breeding and molting seasons. During the breeding season they also count pups. All the while, monitors also keep an eye out for disturbances. For monitoring purposes, disturbances are occasions when the harbor seals react to something by lifting their heads (head alert), moving towards the water (flush) or entering the water (flush into water).

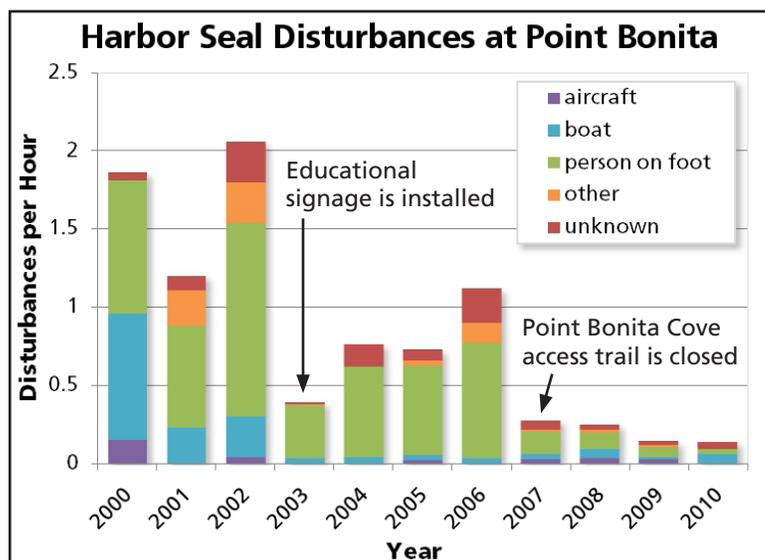
When a disturbance occurs, monitors record information like the time, the source of the disturbance (number of boats, people, aircraft, etc...), the location (the Point Bonita monitoring site is divided into 20 subsites), the harbor seals' reaction, and how many reacted. If the seals flush into the water, monitors also record how long it takes them to haul out again, and where they haul out.

Jessica Weinberg



Harbor seals react to disturbances with head-alerts (left) or, if the disturbance is serious enough, by flushing towards or into the water (right).

**Status and Trends:** *Disturbances to Point Bonita's harbor seals have decreased, and harbor seal numbers have increased, since the Point Bonita Cove trail was closed in 2007.*



The bars in this graph show the average number of harbor seal disturbances per hour for each year from 2000 to 2010. The different colors represent the sources of those disturbances. For instance, people on foot (green), boats (turquoise) and aircraft (purple) caused all of the known disturbances in 2000.

and more harbor seal pups have been born at Point Bonita since the 2007 trail closure.

During the first few years of monitoring, harbor seal disturbance rates were high compared to other haul-out sites in the San Francisco Bay area. Harbor seals were being disturbed more than once an hour on average in large part by boaters and people visiting Point Bonita Cove on foot. In late 2002 NPS began placing signage along the Point Bonita Lighthouse and Cove trails encouraging people to avoid disturbing the seals. These efforts seem to have resulted in an initial reduction in disturbances to harbor seals, but by 2006, disturbances had risen once again.

In 2007, NPS took the step of closing the trail to Point Bonita Cove during the breeding season to protect hauled-out harbor seals. Since then, the data indicate a dramatic decrease in disturbances. In both 2009 and 2010, there was an average of only 0.14 disturbances to seals each hour. Data also indicate that more harbor seals have been hauling out during breeding and molting seasons,

Great strides have been made to ensure that harbor seals can safely haul-out at Point Bonita. Now scientists can learn more about how this unique seal population is doing without as much human disturbance, and about how the seals are affected by other changes in the environment such as sea level rise associated with climate change. Still, it is possible to reduce disturbances to Point Bonita's seals even further. For instance, NPS is considering ways of reaching out to boaters and pilots who have been associated with harbor seal disturbances from the water and the air rather than from on land.

### Additional Resources:

For more information on the harbor seals at Point Bonita visit <http://www.sfnps.org/seals> or contact Bill Merkle, Golden Gate National Recreation Area Wildlife Biologist, at 415-289-1843 or [bill\\_merkle@nps.gov](mailto:bill_merkle@nps.gov). Summary written by Jessica Weinberg.