

Snowy Plover Management Plan

Updated 2015



Summary.

UC Santa Barbara's Coal Oil Point Reserve (COPR) manages 170 acres of coastal habitats including the beach to the mean high tide. Sands Beach near the Devereux Slough mouth is a wintering and breeding site for the threatened Western Snowy Plover (WSP), and occasionally the endangered California Least Tern.

The Reserve is the first site to recover a historical breeding site of plovers that was terminated from human disturbance. Breeding of WSP had stopped at the Reserve when the beach became open to the public in the late 1960s. Evidence suggests that increased public use caused intense

disturbance and contributed to the cessation of breeding. In 2001, the Reserve proposed a plan to reduce the disturbance to the wintering population. The plan was approved by the California Coastal Commission on November 16, 2001. The plan included the following actions: (1) installation of educational and regulatory signs, (2) closure of the Delta path that terminated in the plover roost area, (3) installation of a post and rope fence along a 400 meter stretch of beach above the mean high tide, (4) creation of a program to enlist docents to monitor plovers on the beach and educate the public about plovers, and (5) implementation of actions to reduce disturbance by official Reserve users, the public (e.g. direct public activities away from the roost area), domestic animals (e.g. increase compliance with leash rules and ordinances), and predators (e.g. reduce crow activity by cleaning up trash).

Immediately after the implementation of these actions, the plovers began breeding at the Reserve again. To accommodate for the new breeding population, the symbolic fence was extended to the west during the breeding season, and a predator control program started in 2008.

This program was hugely successful but a fast growing population in Goleta and on the UCSB campus creates new challenges for the protection of the beach. This plan identifies the need for new funds to maintain the Reserve and protect its beach from overuse. We plan to achieve these objectives through increased education efforts, a dedicated enforcement program, and a predator control program.

Rationale

The Pacific population of WSP is listed as threatened by the US Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA). The beach that extends from the western edge of Isla Vista to the middle of the Ellwood Mesa area, including Sands Beach at UCSB Coal Oil Point Reserve has been designated as critical habitat by the USFWS. Protective management of plovers at Sands Beach is necessary because the beach is open to the public. Public recreation has been one of the main causes of breeding site degradation and plover decline along the Pacific Coast. People unknowingly disturb wintering plovers and may trample eggs or chicks during the breeding season. Because the UC Natural Reserve System's mission is to protect natural areas for research, education, and public outreach, COPR has the opportunity and responsibility to be engaged in an active and creative plover management plan.

History

Lafferty (2000) reviewed the status of snowy plovers at Coal Oil Point in an effort to aid management decisions by the Reserve. A study of the types of disturbances experienced by snowy plovers and other shorebirds at the Reserve was also undertaken (Lafferty 2001a,b). These studies suggested several actions for managing snowy plovers and shorebirds at Coal Oil Point. Waldo Abbott, a long-time natural historian and former curator of the Santa Barbara Natural History Museum had watched snowy plovers (and other wildlife) disappear from Goleta beaches. In a 1972 interview, he reflected on the link between increased public access and losses of sensitive wildlife and, in particular, the importance of prohibiting dogs on the beach at Coal Oil Point (Kellogg and Yokota 1972). In “Recommendations for the Future Management of Environmental Lands: West Campus”, ornithologist Paul Lehman recommended a leash enforcement plan to reduce disturbance. The 1990 Long Range Development Plan (LRDP) requires that the UCSB prohibit pets and restrict parking at COPR, although in the past, the campus did not enforce the prohibition of pets in the area. Fahy and Holmgren (1993) proposed fencing potential nesting areas, beach closure between March and June, a public education campaign, enforcement of pet restrictions, habitat restoration and, if plovers were to breed, predator exclosures around nests and predator removal. They also suggested considering the reintroduction of large predators such as coyotes and bobcats to control the introduced red fox. Meeker (1996) recommended greater restrictions on access (especially for pets) to the area of beach used by plovers. De Chant (S.B. Audubon, in. litt. 1997) asked that the University prohibit pets, provide public education, and minimize access points near the roost. Coon (letter, 1997) acknowledged the willingness of the Reserve to experimentally close the beach, use volunteers to reduce disturbance, enforce existing pet restrictions, provide public education, restrict equestrian and motor vehicle access, and investigate other access controls. There is a current Santa Barbara County ordinance that requires dogs to be on leash on all public lands, but this law is rarely enforced in the county.

In 1997, and again in 2001, the Santa Barbara Chapter of the Audubon Society requested that UCSB develop a management strategy for snowy plovers (e.g., De Chant letter, 1997). The USFWS expects local management entities, such as COPR, to develop successful management

plans and in 1997 asked for the Reserve's participation in the recovery plan process (Coon letter, 1997). In 1999, biologists from the Ventura Field Office of the USFWS visited the Reserve and determined that recreation was leading to "take" (i.e. harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species) of plovers as defined by the Endangered Species Act (D. Noda letter, 1999). Instances of take are in potential violation of Section 9 of the ESA, particularly if the property owner does not make satisfactory efforts to minimize them, and can result in a \$200,000 fine for each infraction. An estimate of the rate of "take" of snowy plovers at the Reserve was around 150,000 incidents per year in 1999 before management began (Lafferty 2001).

The USFWS requested that the University apply for an incidental "take" permit, pursuant to section 10(a)(1)(b) of the ESA (Noda letter, 1999). An incidental "take" permit allows a landowner to legally proceed with activities that would otherwise result in an illegal "take" of a listed species. An incidental "take" permit is legal protection for a landowner in case a listed species is "taken" despite the owner's best efforts. The necessary components of a completed permit application are a standard application form and a low-effect Habitat Conservation Plan (HCP).

Subsequently, in lieu of an incidental "take" permit, the USFWS suggested that UCSB develop a management plan to reduce disturbance. The Reserve has taken the lead in developing a management strategy for plovers and has management authority within its boundaries. The campus assists the Reserve in limiting impacts from recreational activities by providing police and parking services enforcement of beach and parking regulations.

In 2001, the USFWS released the draft Western Snowy Plover Recovery Plan, providing goals and management guidelines. Goals set for COPR were four breeding adults (with a five-year average of one fledged chick per breeding male) and protection of the wintering population from disturbance. Because the plover recovered so well at the Reserve, the recovery goal was increased to 25 in 2007. The Reserve's SPMP was written to be consistent with the USFWS recovery plan. The Service reviewed the COPR draft SPMP and provided a comment letter in

October, 2001. In this letter, the Service suggested additional efforts to reduce trash and crows and more restrictive actions if goals were not met.

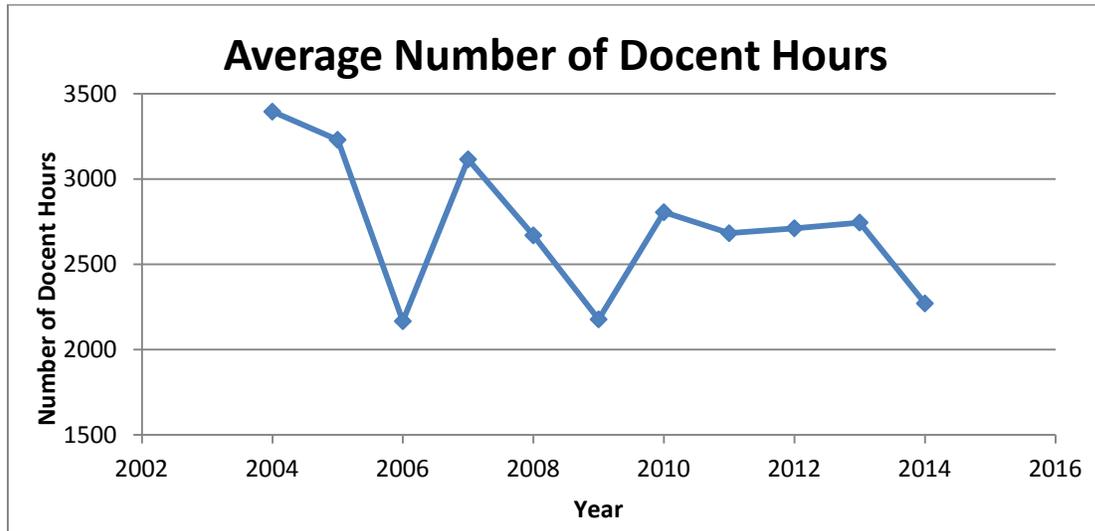
Status of implementation of the Snowy Plover Management Plan at the Reserve

1. Public Education

The Reserve instructs its users to avoid the plover area, leash their dogs, and walk along the ocean edge. Public education is provided through monthly field trips, slide shows, and a docent program that started in June 2001. The docent program has been a huge success in educating beach users and improving compliance with the leash law and restricted areas. The volunteer docents are recruited in the community and at UCSB. In addition, the Reserve seeks funds from grants for paid interns to fill shifts that are not chosen by the volunteers. The docent program staffs the beach approximately 3,000 hours per year (Figure 1), during daylight hours, 7 days a week. The Reserve is in the process of creating a Nature Center which will provide more ways to educate the visitors, such as exhibits and short films. More education needs to be done to target specific audiences such as freshman students living in the UCSB housing, particularly the new dorms close to the Reserve.



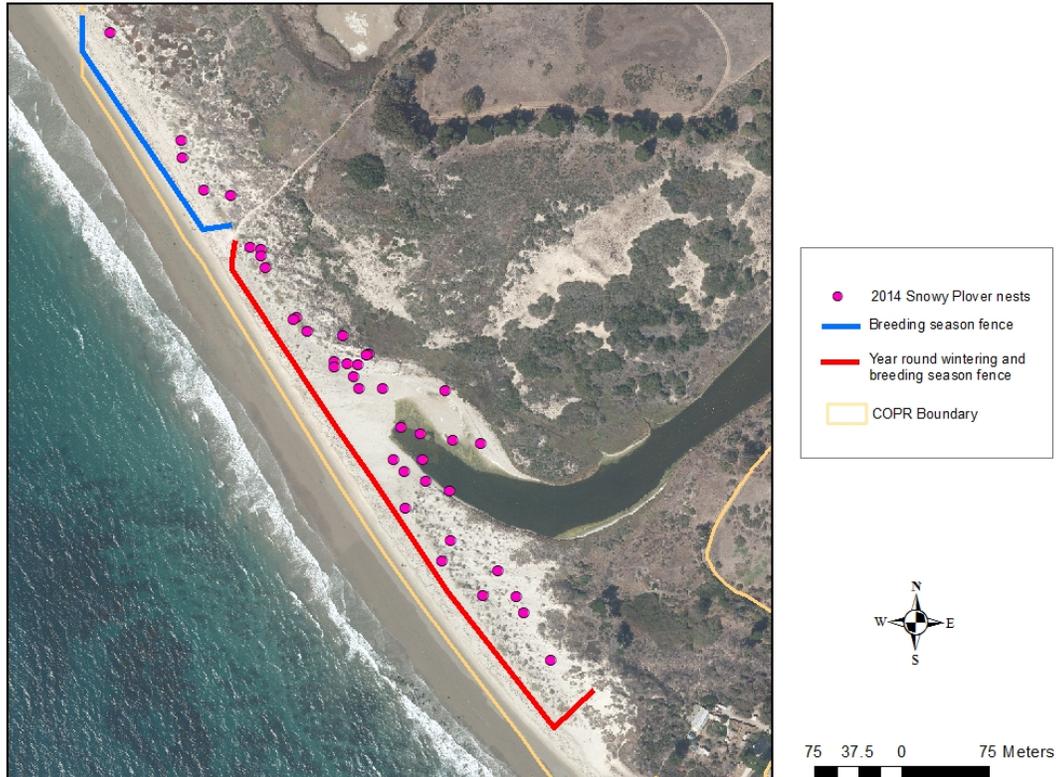
Figure 1. Average number of hours worked by snowy plover docents per year.



2. Fencing during the Winter

The Reserve continues to fence the main roost area during the winter to reduce disturbance to plovers (Figure 2). Beach erosion in the last 4 years has taken down the symbolic fence making the protection of plovers more challenging. There are several weeks each Winter when the plover population is not protected with fences because of beach erosion and high surf.

Figure 2. Map of Sands beach and COPR showing the locations of the symbolic fence to protect WSP during the breeding and winter season and the nests recorded in 2014. Note that the Winter fencing is often smaller than depicted in the figure because of beach erosion.



3. Fencing during the breeding season

Each breeding season, the Reserve extends the symbolic fence to the west end of the Reserve. Ideally the symbolic fence is installed on March 1st but beach erosion has forced us to wait until later to install the fence. The Western Snowy Plover habitat at COPR has narrowed substantially because of beach erosion, reducing the carrying capacity of the system for plovers. This makes it

difficult to protect the plovers from disturbances because people recreating on the beach are now closer to the plovers, increasing the chances of disturbances to nests and chicks. As a result, nests have been less common east and west of the slough mouth and are now concentrated at the mouth of the slough and the slough mudflats (so long as the water level in the slough is low). We will continue to monitor the population of plovers and work with researchers studying beach erosion to attempt to understand and monitor these changes to the plover habitat.

4. Enforcement of beach use rules

The beach is open to the public for recreation. Despite the efforts of the docent program, not everyone complies with the regulations aimed at reducing disturbances to the plovers. Enforcement of the leash law has been the main regulatory problem that still exists. The Reserve posted the leash regulation on signs at all entrances of the Reserve. The docents talk to pet owners and request compliance with the leash law. Docents carry leashes to distribute to pet owners who do not have leashes. The docents also restrain dogs without owners and, if they cannot find the owner, they call County Animal Control to remove the dog from the beach. Docents call campus police if dog owners refuse to comply with the leash regulations. The number of unleashed dogs on the beach has declined since these measures have been implemented (Figure 3). Yet 40% of dogs (Figure 4) arriving at the beach are unleashed and this poses a risk to plover nests and chicks. Many unleashed dogs come from Ellwood beach, where there is no enforcement.

Figure 3. Number of dogs at Sands Beach per hour.

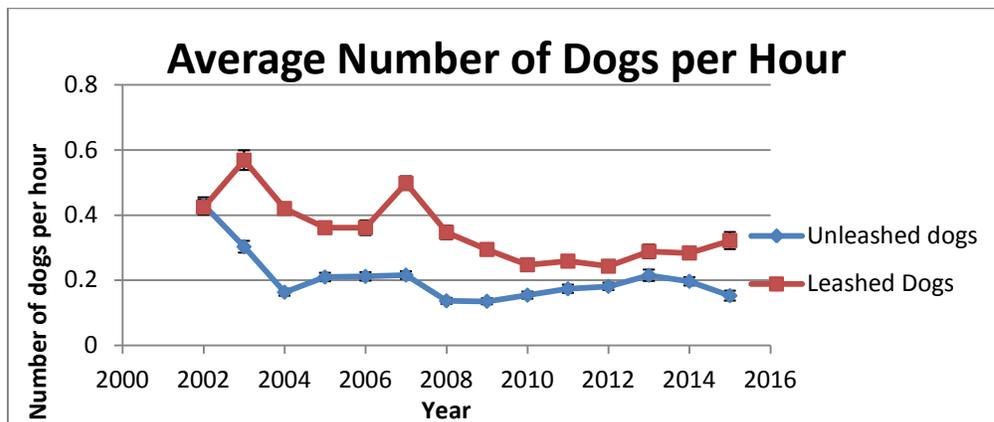
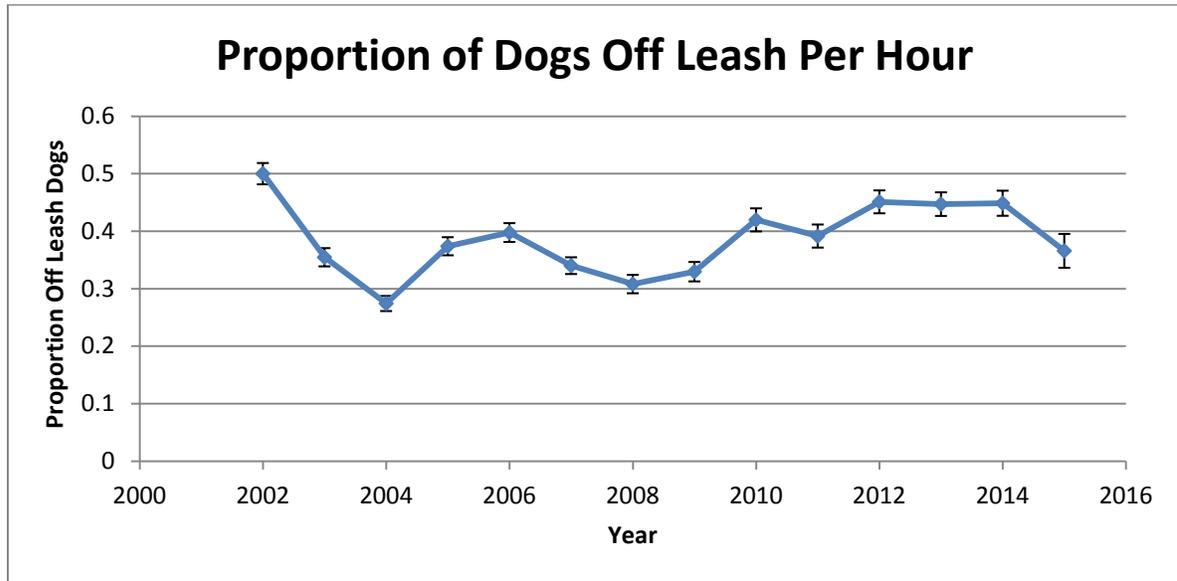


Figure 4. Proportion of dogs off leash per hour

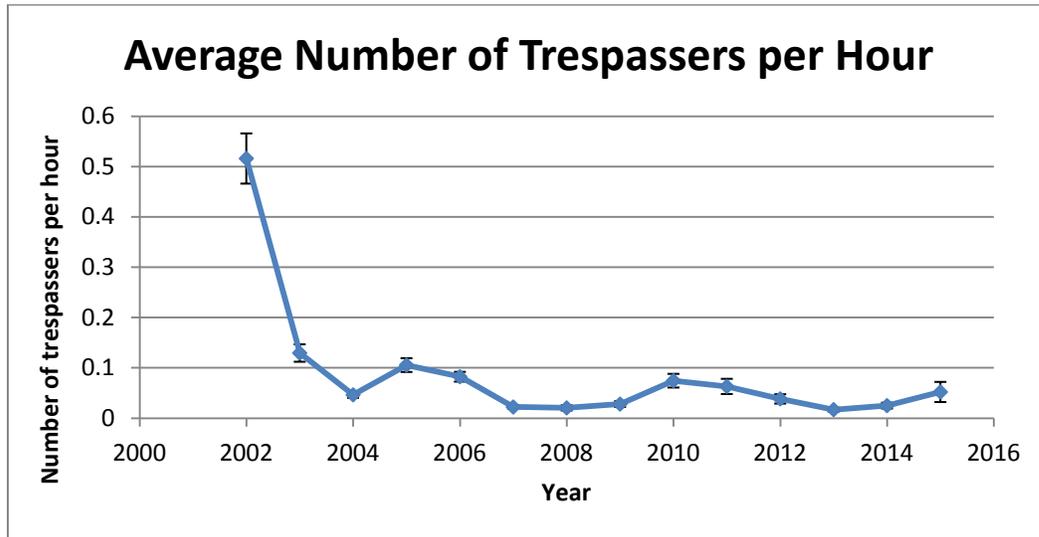


Horses are not permitted at the beach on COPR and Ellwood. Some horses still access the reserve through Ellwood bluffs and Access D.

Trespassing has decreased over the years (Figure 5) but it still occurs occasionally (about one per day). The docents talk to the trespassers or call the campus police.

A dedicated enforcement authority such as a CSO needs to be more present at the beach to deal with all of the public enforcement issues. The plover docents are meant to be educators and not enforcement officers. New funds from the University need to be allocated for this purpose as enforcement of beach recreation is not the Reserve's responsibility.

Figure 5. Number of trespassers into the plover area per hour.



5. Signage

Signs showing a map of the plover area and the beach regulations were posted at all entrances of the Reserve. Along the plover fence, additional signs request that users stay along the ocean's edge (Figure 6).

Figure 6. Sign posted at the beach entrance and near plover area.



6. Monitoring of plovers

Reserve staff and trained volunteers monitor plover nests and chicks a minimum of 3 times per week during the breeding season. Although chicks are not banded at the Reserve, the small area makes it possible to determine the fate of each brood until the chicks fledge. The Reserve submits an annual report to the California Coastal Commission and the US Fish and Wildlife Services. A summary of the breeding success is shown in Figure 7, 8, and 9.

Figure 7. Number of adults of WSP counted in the breeding window surveys.

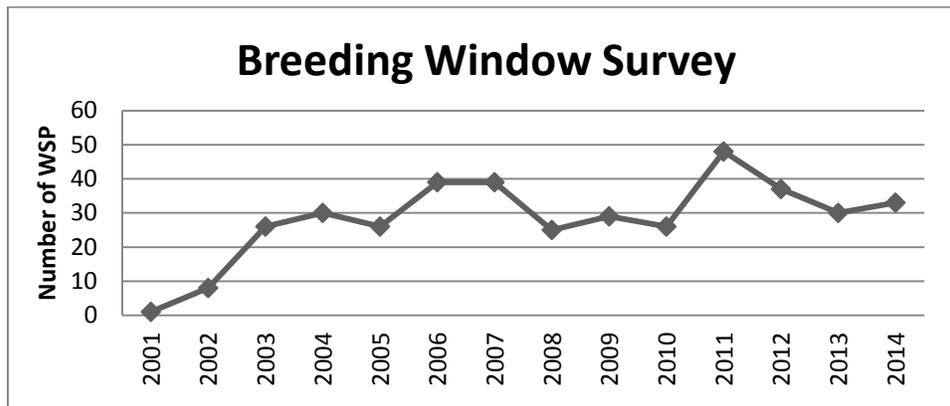


Figure 8. Number of WSP nests that successfully hatched each year at COPR.

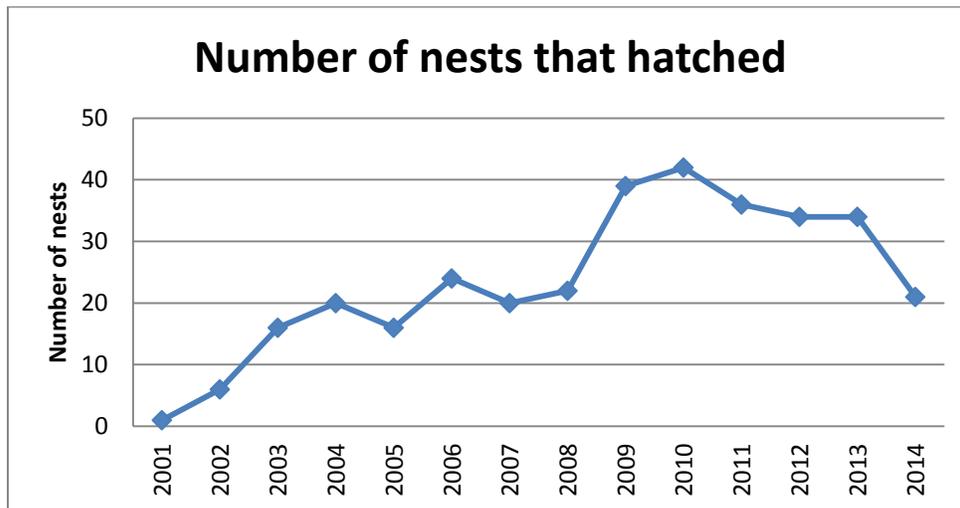
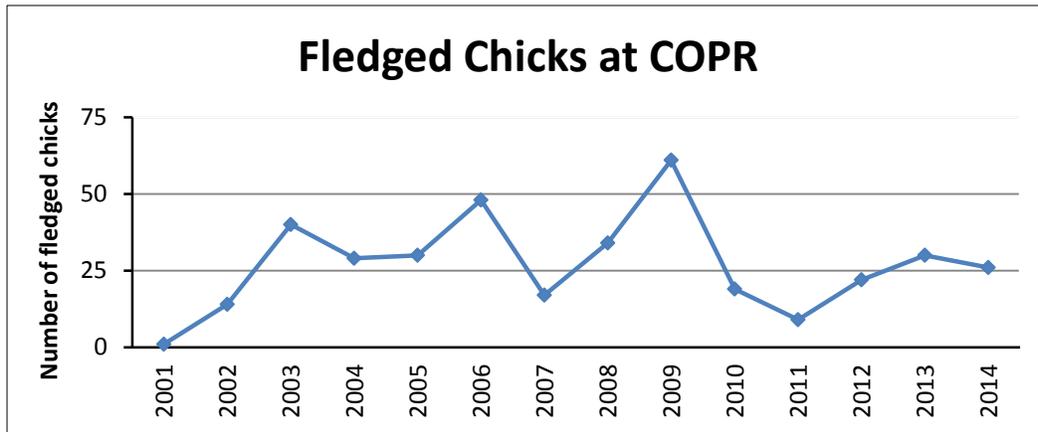


Figure 9. Number of fledged chicks of WSP at COPR



7. Monitoring of beach use

The docents count the number of people on the beach and in the ocean at the beginning of each docent shift (2 hours) (Figure 10). They also record the numbers of leashed and unleashed dogs on the beach and the number of trespassers. They note whether the interaction with the dog owner or trespasser is positive and compliant.

Figure 10. Year average of the number of beach users counted during snapshot surveys. At the start of every shift, each docent does a count of all people present on the COPR beach (sunbathing, jogging, bird watching, etc).

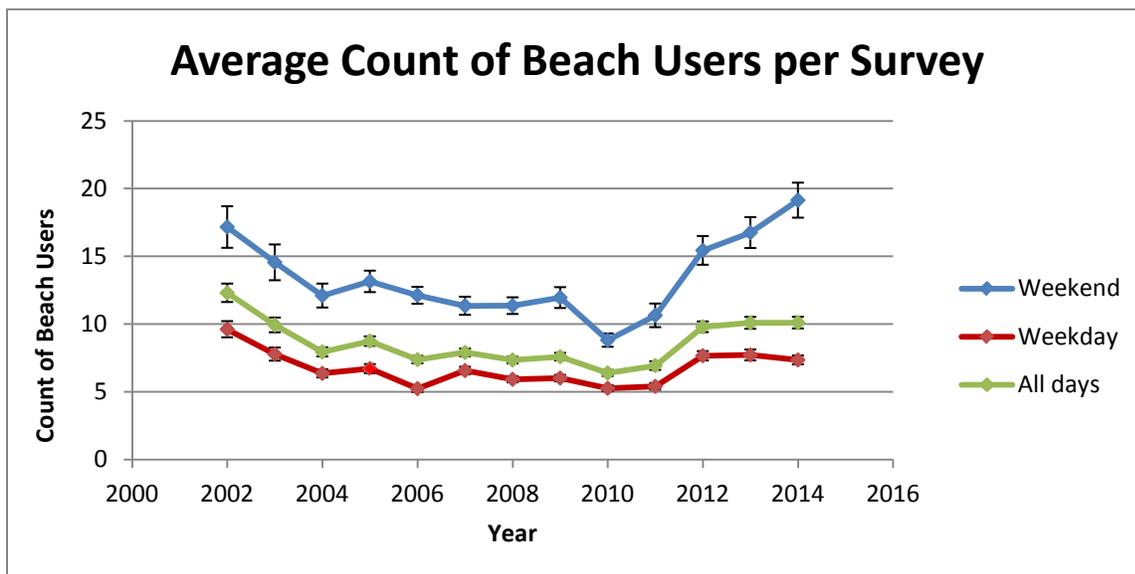
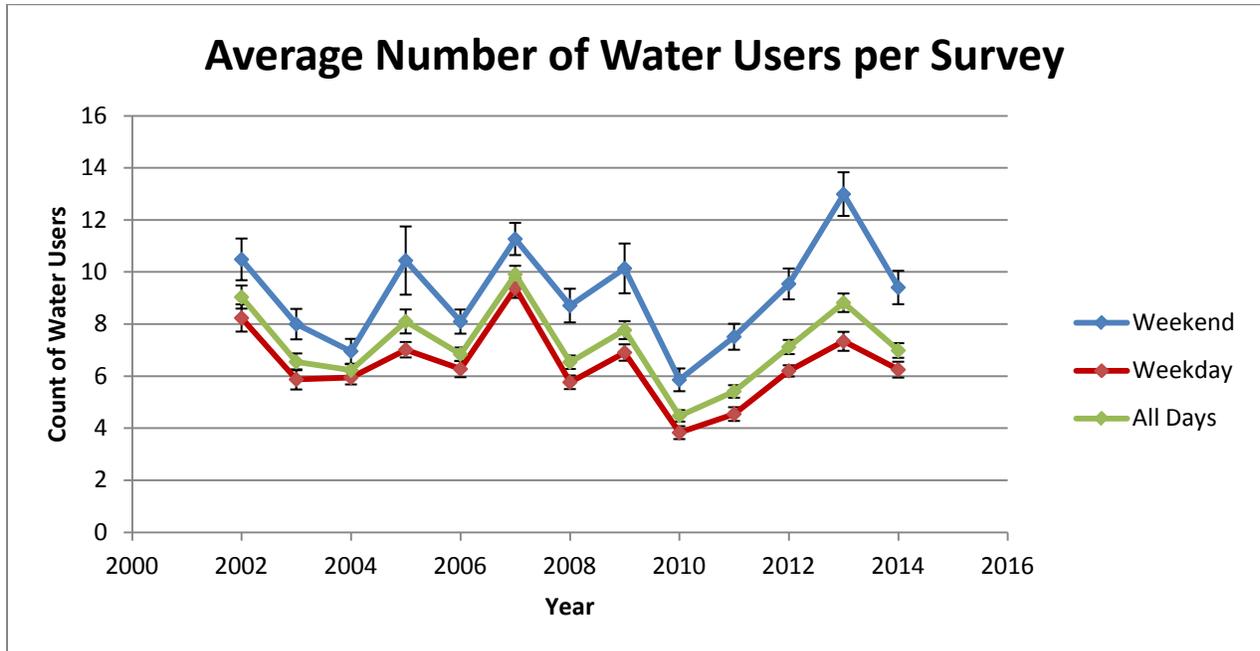


Figure 8. Year average of the number of people using the ocean during snapshot surveys. At the start of every shift, each docent does a count of all people in the ocean at COPR (surfing, swimming, etc).



8. *Predator Control*

Coal Oil Point Reserve has contracted USDA Wildlife Services at since 2008 to conduct predator management activities in the plover nesting area during the breeding season. USDA traps and removes mammalian predators that are found in the nesting area. New funds need to be identified for this effort as the Reserve does not have a recurrent budget for controlling predator.

To reduce crows, the Reserve replaced all trash cans and dumpsters with ones having secured lids. Also, the docents scare off crows that approach the protected area. Crow use of the beach has declined, but constant vigilance and removal of individual crows that prey on nests is still required to protect plover eggs and chicks.