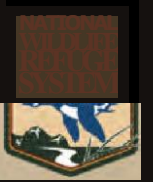




Western Snowy Plover

Docent Manual



Western Snowy Plover Docent Manual

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IAJIN ULU w.viN "vve can make a difference."

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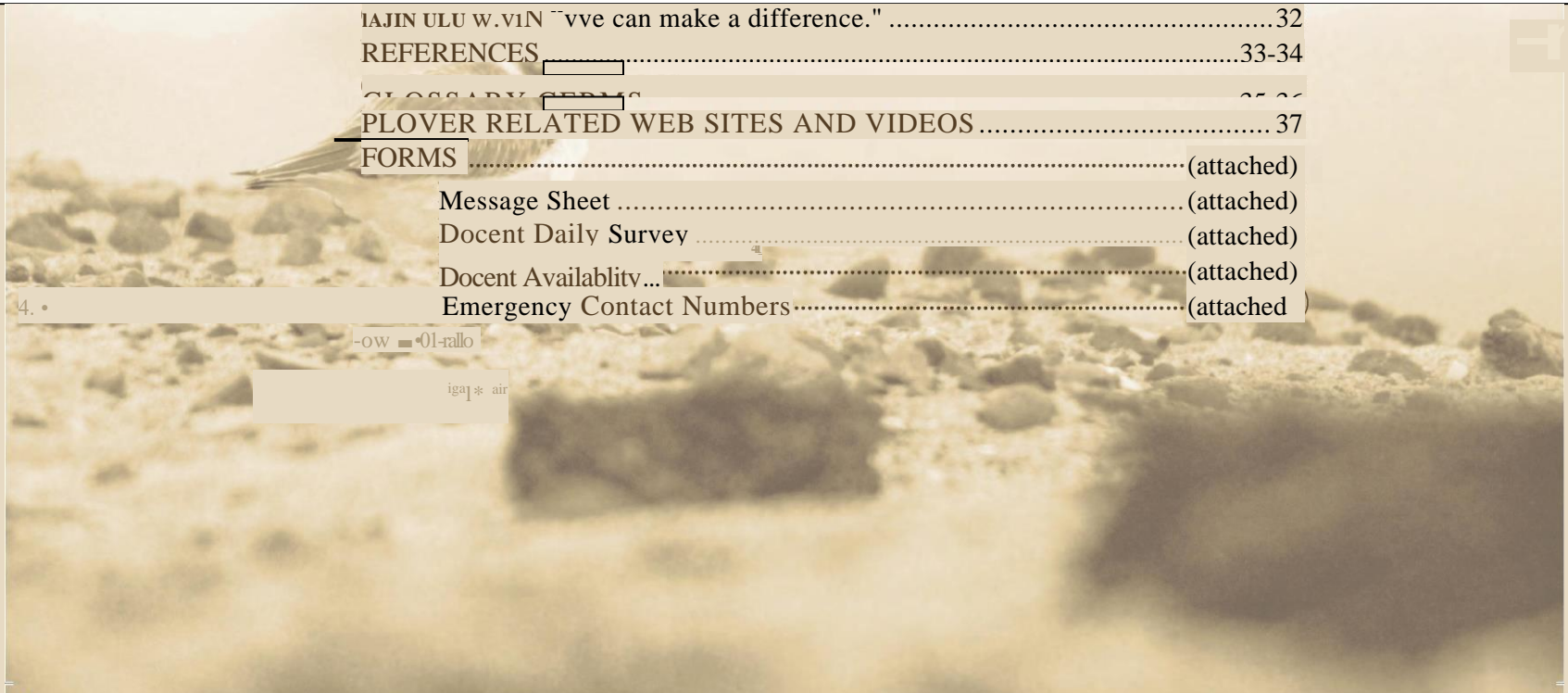
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Acknowledgments

PARTNERS

U.S. Fish and Wildlife Service
National Wildlife Refuge
California State Parks and Recreation
Santa Barbara County Parks
Center for Natural Lands Management
Dunes Center

FUNDING PROVIDED BY: THE UNOCAL OIL SPILL SETTLEMENT FUNDS

California Department of Fish and Game — OSPR
California Coastal Conservancy
National Fish and Wildlife Foundation
US Fish and Wildlife

ACKNOWLEDGMENTS

We want to thank the following individuals and agencies for helping us to create this Docent training manual by providing us with copies of their manuals and outreach materials:

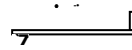
Coal Oil Point Reserve, Santa Barbara
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Jennifer Stroh, Volunteer Coordinator
Sue Abbott, PROB Educational Specialist
California State Parks and Recreation
Monterey District, North Beach Sector
Bay Area District, Half Moon Bay State Beach





Welcome

or



Welcome and thank you for participating in the Guadalupe Nipomo Dunes (Dunes) Western Snowy Plover Docent Program. We appreciate your interest and support in the recovery of the snowy plovers, and look forward to working with you.

Comments can be made directly to Docent Program Coordinators, or submitted in writing.

The "goals" of this program are to:

- Reduce potential human impacts on plovers and their habitat
- Increase public awareness about proper beach use
- Appreciation for nesting coastal species through interpretation

The "tools" we will use to accomplish these goals are:

- On-site interpretation and visitor contact
- Visitor beach use information
- Public outreach
- Educational programs and activities

We welcome any comments you may have about this program or the Docent training manual. Your input and involvement will help us to create the most effective Docent program possible.

Each spring, snowy plovers arrive to nest at the Guadalupe-Nipomo Dunes, and all along the Pacific coast from Washington to Baja. These small, well-camouflaged shorebirds are declining in numbers and struggling to survive. Their population is threatened by human disturbance, loss of habitat, and predation. These factors have led to a low nesting success.

By having Docents on the beach and offering information to visitors, we will help protect the snowy plovers and increase public awareness. Docents play an important role in the survival and recovery of this species.

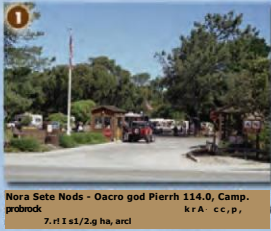
How Docents Help Plovers

- Inform beach visitors about the Plovers and ways they can use the beach without harming them.
- Monitor closed nesting areas to protect nests.
- Educate adults and children about the beach community, leading to awareness and understanding.

Helping the plover population increase in numbers, as studies have shown that docents lead to an increase in nesting success.



Guadalupe Dunes Complex



1
North Beach Campground
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Ocean Dunes State Vehicular Recreation Area
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Guadalupe Nipeno Dunes National Wildlife Refuge
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5
Rancho Guadalupe Dunes Preserve
Rancho Guadalupe Dunes Preserve: A fully protected county park offering passive recreational opportunities managed by the Center for Natural Lands Management.



6
Dunes Center
Dunes Center: promoting the conservation of the Guadalupe Nipeno Dunes through education, research and the support of cooperative stewardship.



"Together We Can"
Dunes Stewardship Collaborative





Plover Docent Position

TITLE: Western Snowy Plover Docent
SUPERVISOR: Docent Coordinator
LOCATION: Rancho Guadalupe Dunes

Summary of Position

The volunteer position will be responsible for interpreting Western Snowy Plovers and their habitat to beach users, monitoring closed areas, staffing the interpretive trailer, and other duties as assigned by Staff.

A Western Snowy Plover Docent is a trained volunteer who maintains a level of expertise about this species and its habitat.

Skills and Qualifications

- A positive and enthusiastic attitude towards the program and the public.
- Good written, verbal, and observational skills.
- A basic understanding of plovers and willingness to share this with people

Requirements

- Learn and educate people about snowy plovers and their habitat.
- Attend all required training sessions and field trips.
- Interpret dunes' rules and regulations to the public.
- Work the hours you have signed up for.
- Wear prescribed uniform and present

professional appearance.

Time Commitments

- Minimum of 2-hours per shift during nesting season March through October. Weekend staffing being the top priority.

Benefits and Opportunities

- Spend time on the beach observing wildlife and walking
- Learning about the beach community through observation
- Sharing nature with people, helping increase awareness
- Contribute to the success of a threatened species
- Increase knowledge of local shorebirds and their habitat

Required Training (1 Training Session, 1 Field Trip)

The first training is 2 hours and covers biology of the Western Snowy Plover, Docent Training Manual, Techniques in visitor contact, and includes refreshments.

The second training is field oriented and will occur on the beach and be accompanied by an experienced Docent or Docent Coordinator.

Periodic on-site trainings may be scheduled with experienced Docent or Docent Coordinator to refresh and enhance your skills.





Mission Statement

"To protect and preserve the Western Snowy Plover and its habitat by educating beach visitors as to the importance of the coastal beaches. To protect the birds, plants, and animals that live on and around the Dunes."





Procedures

Procedures

Docent Shifts - Days / Hours

- Friday, Saturday, and Sunday (peak/non-peak beach use time)
- Docents work from a monthly calendar, prepared by the Docent Coordinator with input from the Managing Agency

Dune Access

- Rancho Guadalupe Dunes Preserve Parking Lot
End of West Main Street, south of Guadalupe

Parking and Transportation

- Parking is free
- Docents must have reliable transportation to and from service site

Docent's Role

- Being present at the beach near parking lot, with presence clear to beach users
- Sharing information about the plovers and the natural environment
- Interpreting the interrelationships of plants, animals, and humans
- Providing public outreach and outreach materials
- Contacting the proper enforcement agency, when necessary.

Docent Uniform

- Blue vest or sweat shirt and docent name tag.

- Docent baseball cap or other appropriate sun hat.

Equipment

- Beach chair (optional)
- Spotting scope with tripod (optional)
- Backpack (required)

Backpack Contents

- first aid kit
- cell phone
- binoculars or spotting scope
- photo flip book
- docent field binder
- docent identification (hat, vest, sweatshirt)
- trash bags
- local bird field guide
- other educational/outreach materials as desired

Daily Docent Survey Form

- Data will be used to improve future docent programs and track visitor uses

Contact with Beach Visitors

- Let beach visitors contact you, unless otherwise needed
- Never become confrontational with visitors, always maintain a calm demeanor
- See "Frequently Asked Questions page"



Supervision

- The Docent Coordinator will supervise Docents
- Docent Coordinator will provide Docents with:
 - On and Off-site training
 - Monthly schedules
 - Answers to questions and concerns
 - Docent Coordinator works under the supervision of CNLM park manager
- Docent Coordinator, and docent volunteers will work together to schedule staffing and ensure sufficient coverage of weekends and holidays

Docent Binder

- A Docent Binder is available and includes copies and cuttings of related newspaper articles, recent and updated plover information, and local and regional plover issues, along with a copy of the Docent Training Manual. This information can be extremely helpful to you and to the people you talk to on the beach. Please take time to review it, and feel free to make copies that interest you. (Copies can be made at The Dunes Center.)
- Periodically, selected articles and information will be copied and distributed to Docents.

What To Wear And Bring On Your Shift

- Docent uniform
- Light jacket
- Sunscreen (also in backpack)
- Comfortable walking shoes
- Snack and water (the wind and sun dehydrates us)

***Check In:* at the kiosk or interpretive trailer, check kiosk first, then head out to beach if locked and check in at trailer**

- I. Arrive at the kiosk 10 minutes before your shift, and get trailer key from kiosk ranger.
- II. Open Plover Docent Binder and:
 - Look for messages on the Message sheet
 - Check-in on the Check-in sheet
 - Schedule your next shift on the Calendar
 - Refer to Docent Training Manual, when necessary
- III. Gather the Backpack (beach chair and scope/tripod are optional), cell phone, and lock-up storage container.

Drive to parking lot, and have a good time!

Check Out:

- I. Return backpack (and optional equipment) to storage container.
- II. Replace handouts in Tri-Fold for the next Docent. (Additional Handouts are in the storage container.)
- III. Place your completed Survey sheets in the envelope in storage container.
- IV. Clean binoculars, spotting scope if necessary.
- V. Plug cell phone into charger.
- VI. Check-out and don't forget to reschedule your shift on the Calendar.
- VII. If any supplies need to be restocked or you have any comments/questions for the Docent Coordinator and/or other Docents write it on the Message sheet (or feel free to call).





Docent Quiz

Docent Quiz

Test Your Plover Knowledge

(Western Snowy Plover is referred to as "plover" below.)

1. The _____ was created in August 2000 to help protect, enhance, and restore coastal and dune habitats and the species that live on it.
2. The _____ provides opportunities to the public for wildlife compatible educational and recreational activities such as wildlife _____ and _____, _____, _____, and _____.
3. The Guadalupe-Nipomo Dunes NWR consists of _____ acres and is authorized to encompass _____ acres. The neighbors to either side are California _____ Oceano Dunes District and the Rancho _____ Dunes owned by the _____ County Parks.
4. The Guadalupe-Nipomo Dunes NWR is part of _____ system and U.S. Department of the Interior.
5. The Guadalupe-Nipomo Dunes NWR works closely with the _____ Center with educational and interpretive programs and is funding the Docent Program.
6. The Western Snowy Plover is protected under the Endangered Species Act and is listed as a _____ species.
7. This plover can be found from southern _____ to southern _____, California on the _____ coast.
8. A plover is a small _____ bird and is in the _____ family.
9. A _____, which is also in the plover family resembles the plover except it is a bit _____, with different markings, and hangs out with its flock running in/out of the tide to feed.
10. Plovers nest on the Dunes from _____ through _____.
11. Plover's migrate/winter from _____ through _____.
12. Plovers prefer to nest on wide-open beaches and _____ dunes.
13. Plovers make a small depression in the sand with its _____ and line it with bits of _____, _____, or _____.





Docent Quiz

14. Plover nest on the open sand in, around, or under beach items such as _____, _____, and _____.
15. Plovers lay _____-_____ buff colored eggs spotted with black markings that are well _____. Eggs are laid within _____ of each other. Both parents incubate the eggs for _____ days. When the eggs start to hatch, the _____ raises the chicks, while the _____ goes off and mates with another _____.
16. The chick(s) cannot fly for _____ days after they hatch, which leaves them extremely vulnerable to _____, _____, and the _____.
17. The rod and wire fencing you see coming off the boardwalk and on the beach is called _____ fencing. This fencing is used to keep people _____ the _____ and out of plover _____.
18. The fuller fence you see inside the _____ fencing is called an _____. This fence is used when a _____ is found to protect it and the birds from _____, _____, and _____.
19. The biggest threat to plover recovery today is _____ impacts. Other impacts include _____, _____, and _____.
20. What beach users can do today to help aid in plover recovery:
- (1) walk on the _____ sand during plover season,
 - (2) don't take _____ to the beaches or fly _____ where plovers are nesting,
 - (3) ride horses/vehicles only on _____ sand and in designated riding areas,
 - (4) _____ all plover signs, and
 - (5) pack out your own _____.



Docent Quiz Answers

Docent Quiz Answers

Test Your Plover Knowledge

Answers

1. The GUADALUPE-NIPOMO DUNES NWR was created in August 2000 to help protect, enhance, and restore coastal and dune habitats and the species that live on it.
2. The GUADALUPE-NIPOMO DUNES NWR provides opportunities to the public for wildlife compatible educational and recreational activities such as wildlife OBSERVATION and PHOTOGRAPHY, HIKING, EXPLORING, and SURF FISHING.
3. The Guadalupe-Nipomo Dunes NWR consists of 2,553 acres and is authorized to encompass 8,936 acres. The neighbors to either side are California STATE PARKS Oceano Dunes District and the Rancho GUADALUPE Dunes owned by the SANTA BARBARA County Parks.
4. The Guadalupe-Nipomo Dunes NWR is part of U.S. FISH AND WILDLIFE SERVICE system and U.S. Department of the Interior.
5. The Guadalupe-Nipomo Dunes NWR works closely with the DUNES Center with educational and interpretive programs and is funding the Docent Program.
6. The Western Snowy Plover is protected under the Endangered Species Act and is listed as a THREATENED species.
7. This plover can be found from southern WASHINGTON to southern BAJA, California on the PACIFIC coast.
8. A plover is a small SHORE bird and is in the PLOVER family.
9. A SANDERLING, which is also in the plover family resembles the plover except it is a bit LARGER, with different markings, and hangs out with its flock running in/out of the tide to feed.
10. Plovers nest on the Dunes from MARCH through SEPTEMBER.
11. Plover's migrate/winter from OCTOBER through FEBRUARY.
12. Plovers prefer to nest on wide-open beaches and FORE dunes.



Docent Quiz Answers

13. Plovers make a small depression in the sand with its FEET and line it with bits of SHELLS, ROCKS, or GRASS.
14. Plover nest on the open sand in, around, or under beach items such as DRIFTWOOD, ROCKS, and VEGETATION.
15. Plovers lay 2-3 buff colored eggs spotted with black markings that are well CAMOUFLAGED. Eggs are laid within DAYS of each other. Both parents incubate the eggs for 30 days. When the eggs start to hatch, the MALE raises the chicks, while the FEMALE goes off and mates with another MALE.
16. The chick(s) cannot fly for 30 days after they hatch, which leaves them extremely vulnerable to HUMANS, PREDATORS, and the ELEMENTS.
17. The rod and wire fencing you see coming off the boardwalk and on the beach is called SYMBOLIC fencing. This fencing is used to keep people OFF the DUNES and out of plover HABITAT.
18. The fuller fence you see inside the SYMBOLIC fencing is called an EXCLOSURE. This fence is used when a NEST is found to protect it and the birds from HUMANS, PETS, and PREDATORS.
19. The biggest threat to plover recovery today is HUMAN impacts. Other impacts include INVASIVE PLANTS, and NATURAL/ INTRODUCED PREDATORS, NATURAL ELEMENTS (EL NINO / LA NINA).
20. What beach users can do today to help aid in plover recovery:
 - (1) walk on the WET sand during plover season,
 - (2) don't take PETS to the beaches or fly KITES where plovers are nesting,
 - (3) ride horses/vehicles only on WET sand and in designated riding areas,
 - (4) OBEY all plover signs, and
 - (5) pack your own TRASH.



Natural History

WESTERN SNOWY PLOVER BIOLOGY AND NATURAL HISTORY

Pacific Coast Western Snowy Plover

Biology and Natural History

Reprinted (in part and reformatted) from:

<http://refuges.fws.gov/birds/WestSnowyPlover/references.html>

The western snowy plover, which is one of twelve subspecies of the snowy plover, is a small, pale colored shorebird with dark patches on either side of the upper breast. The species was first described in 1758 by Linnaeus.

Snowy plovers need to rest, nest, and feed on specific type beaches. They like wide, flat, and open areas so they can see potential predators approaching, such as skunks, raccoons, avian predators, crows, gulls, etc. The dune-backed beaches help them to take cover in extreme high-tide conditions and storm events.

Pacific Breeding and Wintering Areas

Breeding Habitat

- Breeds in loose colonies primarily on coastal beaches from southern Washington to southern Baja California, Mexico.

- Larger breeding concentrations occur in the south, suggesting southern California is the center of the plovers' coastal distribution.

- 28 sites in Baja California, Mexico, with concentrations at six coastal lakes.

- Preferred breeding habitats: Sand spits, dune-backed beaches, unvegetated beach strands, open areas around estuaries, and beaches at river mouths.

- Less common breeding habitats: Salt pans, coastal dredged spoil disposal sites, dry salt ponds, and salt pond levees and islands.

28 Breeding Areas currently exists on the Pacific Coast

- 2 sites in southern Washington (Leadbetter Point, in Willapa Bay; and Damon Point, in Grays Harbor).

- 6 sites in Oregon (3 of these sites support 81% of the total coastal nesting population. They are: Bayocean Spit, North Spit Coos Bay and spoils, and Bandon State Park-Floras Lake).

- 20 sites in coastal California (8 of these

sites support 78% of the California coastal breeding population. They are: San Francisco Bay, Monterey Bay, Morro Bay, the Callendar-Mussel Rock Dunes area, the Point Sal to Point Conception area, the Oxnard lowland, Santa Rosa Island, and San Nicolas Island).

Wintering Areas

- The coastal population consists of both resident and migratory birds.
- Some birds winter in the same areas used for breeding – others migrate north or south to wintering areas.
- Plovers occasionally winter in southern coastal Washington near Cape Shoal water in Pacific County, Washington, representing the northernmost wintering record.
- Between 1982-1990, 43 to 81 plovers wintered on 3 Oregon coast beaches.
- The majority of plover's winter south of Bodega Bay, California in widely scattered locations on both coasts of Baja California and on the mainland coast of Mexico as far south as San Blas, Nayarit.
- Many interior plovers west of the Rocky Mountains winter on the Pacific coast in habitats similar to those used during the nesting season.

Reproduction and Population Information

Nesting and Reproduction

- Nest success (percentage of nests hatching at least one egg) ranges from 0 to 80 percent for the coastal snowy plover population.
- Low nest success has been attributed to a variety of factors, including predation, human disturbance, and inclement weather conditions.
- Reproductive success (number of young fledged per female, pair, or nest) ranges from 0.05 to 2.40.
- Snowy plovers must fledge 0.8 young

per female to maintain a stable population. Reproductive success falls far short of this threshold at many nesting sites.

Breeding Site Decline

- Historic records indicate that nesting western snowy plovers were once more widely distributed in coastal California, Oregon, and Washington.
- In California, snowy plovers bred at 53 coastal locations prior to 1970 – Now they only breed at 20 sites, representing a 62% decline in breeding habitat. The greatest losses of breeding habitat were in southern California, within the central portion of the snowy plover's coastal breeding range.
- Historically in Oregon, snowy plovers nested at 29 coastal locations. In 1990, only 6 nesting colonies remained, representing a 79% decline in active breeding sites.
- Historically in Washington, snowy plovers nested in at least 5 sites on the coast. Today only 2 colony sites remain active, representing, at minimum, a 60% decline in breeding sites.

Breeding Population Decline

- Snowy plover breeding population in California, Oregon, and Washington declined 17% between 1977 and 1989.
- Breeding season surveys along the Oregon coast from 1978 to 1993 show that the number of adult snowy plovers has declined significantly at an average annual rate of about 7%.
- In Oregon, the number of adults has declined from a high of 142 adults in 1981 to a low of 30 adults in 1992.
- In 1981, the coastal California breeding population of snowy plovers was estimated to be 1,565 adults. In 1989, surveys revealed 1,386 plovers, an 11% decline in the breeding population.
- Fewer than 30 birds have nested on the southern coast of Washington. In 1991, only one successful brood was detected in the State.
- No historic data for Washington. Breeding

population was probably never very large. Loss of nesting sites probably resulted in a reduction of overall population size.

Wintering Population Decline

•Surveys indicate a decline in wintering snowy plovers, particularly in southern California. The number of snowy plovers observed during Christmas Bird Counts from 1962 to 1984 significantly decreased in southern California despite an increase in observer participation in the counts. This observed decline was not accompanied by a significant loss of wintering habitat over the same time period.

Adverse Impacts and Effects of Management Actions

Habitat Loss

•The most important form of habitat loss to coastal breeding snowy plovers has been encroachment of European beach grass (*Ammophila arenaria*):

Non-native dune plant - introduced on the west coast around 1898 to stabilize the dunes.

- Found up and down the coast from British Columbia to southern California
- Covers about 50% of all breeding sites in California, Oregon, and Washington.
- Reduces unvegetated areas above tide line, decreases beach width, and increases slopes.
- Reduces potential nesting habitat and may hamper brood movements.
- Provides habitat for predators that historically would not occur in uncovered dune habitat.
- Currently, no cost effective methods to control or eradicate it.

Human Impacts

•In the habitat remaining for snowy plover nesting, human activity (e.g., walking, jogging, running pets, horseback riding, off-road vehicle use, and beach raking with heavy equipment) is a key factor in the ongoing decline in snowy plover coastal breeding sites and breeding populations in California, Oregon, and Washington.

•The nesting season of the western snowy plover (mid-March to mid-September) coincides with the season of greatest human use on beaches of the west coast (Memorial Day through Labor Day).

•Human activities detrimental to nesting snowy plovers include unintentional disturbance and trampling of eggs and chicks by people and unleashed pets; off-road vehicle use; horseback riding; and beach raking. Research determined that snowy plovers were disturbed more than twice as often by such human activities than all other natural causes combined.

Effect of Controlling Human Intrusion

•Nesting success has improved when human intrusion is precluded either through area closures or by natural events.

•The average number of young fledged per nesting pair increased from 0.75 to 2.00 after the nesting site at Leadbetter Point, Washington was closed to human activities.

•A vehicle closure on a portion of Pismo Beach, California, led to an eight-fold increase in the nesting plover population.

•After beach access was virtually eliminated by the 1989 earthquake, fledging success increased 16 percent at Moss Landing Beach, California.



Impact of Predation

•Western snowy plover eggs, chicks, and adults are taken by a variety of avian and mammalian predators, such as coyotes, skunks, raccoons, red foxes, ravens, and crows.

•These losses are exacerbated by human disturbances.

•Accumulation of trash at beaches attracts predators.

Effect of Predator Management

•At most active breeding sites few measures have been implemented specifically to protect snowy plovers.

•Artificial measures have been used at several nesting sites to improve snowy plover nesting success. In 1991, the California Department of Parks and Recreation and the Service conducted plover nest enclosure studies on National Wildlife Refuge and State property in the Monterey area. Hatching success of plover nests in enclosures was 81 percent as compared to 28 percent for unprotected nests.

•Use of nest enclosures at Coos Bay North Spit resulted in up to 88 percent nesting success, compared to as low as 9 percent success for unprotected nests.

•Nest enclosures continue to be used at the above sites. The Service finalized a predator management plan for Salinas River N.W.R., which proposes management measures to reduce red fox populations on the Refuge.

Management Actions

•In a few areas in California, including the Marine Corps Base at Camp Pendleton, plovers have benefited somewhat from protective measures taken for the endangered California least tern (*Sterna antillarum browni*).

•At Vandenberg Air Force Base in southern California, beaches are closed to all foot and vehicular traffic during the least tern-nesting season.

•Dogs and cattle have been restricted from some beaches at Point Reyes National Seashore.

•Some beaches on Federal land in Oregon have been closed to vehicles to protect plovers and other wildlife.

•Leadbetter Point in Washington (Fish and Wildlife Service), a 5-acre spoil disposal site in Coos Bay (Bureau of Land Management), and a 25-acre spoil disposal site in Coos Bay (Corps of Engineers) are the only nesting sites where human access has been restricted in the past specifically for plover nesting.

•In 1993, at Oregon Dunes National Recreation Area, the Forest Service used temporary fencing and signing to direct beach visitors away from snowy plover nesting areas.

At Coos Bay, Oregon, the Corps of Engineers is proposing two projects to create or improve plover nesting habitat using dredged spoils.

Pacific Coast Population of the Western Snowy Plover More Interesting Natural History

Reprinted (in part and reformatted) from the Federal Register:

<http://www.epa.gov/EPA-SPECIES/1999/December/Day-07/e31357.htm>

Updated to 1999

Seasonality

- Breeding season extends from early March to late September, with birds at more southerly locations beginning to nest earlier.
- Activities defining nesting season are courtship, copulation, nest scraping, egg laying, incubation, and rearing of the young to the fledgling stage.
- Wintering season generally extends roughly from October to February but often overlaps the nesting season with birds arriving on wintering areas as early as midsummer.

Migration between Breeding and Wintering Sites

- Nesting birds from the Oregon coast have wintered as far south as Monterey Bay on the central coast of California. Birds from Monterey Bay have wintered north to Bandon, Oregon, and south to

Guerrero Negro, Baja California. Birds from San Diego in southern California have wintered north to Vandenberg Air Force Base in Santa Barbara County and south to Scarmon's Lagoon, Baja California.

- In winter, plovers are found on many of the beaches used for nesting but also on beaches not used for nesting. They also visit manmade salt ponds and estuarine sand and mud flats. In California, the majority of wintering plovers concentrate on sand spits and dune-backed beaches. Some also occur on urban and bluff-backed beaches, which are rarely used for nesting.

Wintering

- In western North America, both the interior and Pacific coast populations winter mainly in coastal areas from southern Washington to Central America. A small number winter at two locations on the Washington coast, the northernmost being Midway Beach in Pacific County.
- Fewer than 100 plovers winter at 9 locations on the Oregon coast, probably as many as 2,500 along the mainland California coast, and hundreds more in San Francisco Bay and the Channel Islands.
- The majority of wintering plovers on the California coast are found from Bodega Bay, Sonoma County, southward. Because of their similarity of appearance, wintering individuals from the interior and Pacific coast populations are virtually indistinguishable.



Reproductive Success

- The fledging success varies greatly by location and year. Even plovers nesting on neighboring beach segments may exhibit quite different success in the same year. For example, the percentage of chicks fledged on different beach segments of Monterey Bay in 1997 varied from 11 to 59 percent and averaged 24 percent overall. During the prior 13 years, the percentage of young fledged on Monterey Bay beaches averaged 39 percent.

- From the Moss Landing salt ponds (now called the Moss Landing Wildlife Area) in Monterey Bay, the fledging rate of chicks ranged from 13.2 percent to 57.1 percent (mean = 41.4 percent) from 1988 to 1997.

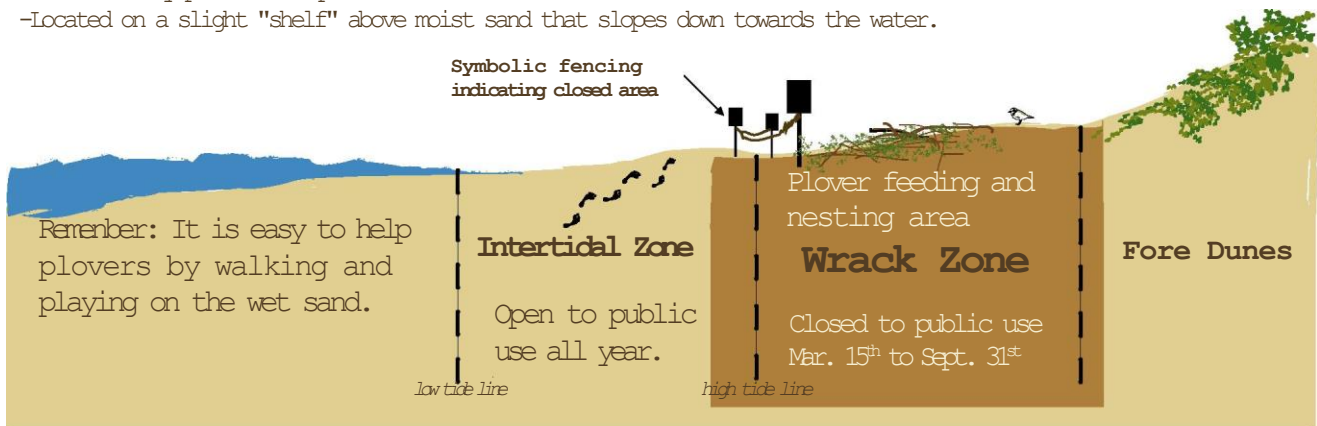
- In San Diego County, the fledging rate of chicks ranged from 32.6 to 51.4 percent (mean = 41 percent) from 1994 through 1998.

Foredunes

- Plovers' breeding sites are often located on beaches with low dunes sparsely vegetated.
- Foredunes = dunes closest to the flat sand of the beach.
- Play an important role in site-selection for nesting pairs; but they do not typically nest in the foredunes.
- Can help protect plovers from wind and high tides during storms.
- Deposit sand on beaches that increase beach size and plover habitat.

Wrack Zone

- Where plovers do most of their resting and feeding.
- Just above the mean high-tide line where kelp is deposited on the sand.
- Identified by piles of kelp and driftwood.
- Located on a slight "shelf" above moist sand that slopes down towards the water.





Info. for Public Inquires

Guadalupe-Nipomo Dunes Complex

• Hidden on central California's coast is the Guadalupe- Nipomo Dunes, is the largest remaining dune system south of San Francisco.

• Eighteen miles of coastline, with dunes extending inland two to fi ve miles, this is truly one of the last remaining natural treasures of California's coast.

• Home of the federally endangered California least tern and Western snowy plover, along with several rare plant and amphibian species, these dunes are also one of the premier off-road vehicle play areas in the state.

• Balancing ORV use, as well as a multitude of other recreation opportunities, and endangered species protection is the charge of a collaborative effort in both land ownership and management.

• California State Parks, the counties of San Luis Obispo and Santa Barbara, The Nature Conservancy, and a non-profi t group called the Dune's Center initially tackled this daunting project.

• Just recently (in the year 2000) The Nature Conservancy transferred their remaining ownership

and management to the U.S. Fish and Wildlife Service, which has established the new Guadalupe- Nipomo Dunes NWR, and to the Center For Natural Lands Management.

Oceano Dunes State Vehicle Recreation Area

576 Camino Mercado, Arroyo Grande California
93420 Superintendent: Andy Zilke Resource
Ecologist: Laura A. Gardner Phone: (805) 473.7230
Fax (805) 473.7324 Website: www.parks.ca.gov
Radio: AM 1620

MISSION STATEMENT

The mission of the California Department of Parks and Recreation is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

California Department of Parks and Recreation
Off Highway Motor Vehicle Recreation Division
Oceano Dunes State Vehicle Recreation Area

Recreational Area Objectives:

- Provide leadership in the area of off highway vehicle recreation.
- Ensure that quality recreational opportunities



remain available for future generations.

- Provide education, conservation, safety, and enforcement efforts that balance off highway vehicle recreation impacts with programs that conserve and protect cultural and natural resources.

Public Uses:

- The park is a multi-use recreational wonder, allowing for the broadest of public uses that fit the needs of the ever growing and diverse population of California. Uses include: off highway vehicle recreation, camping, fishing, swimming, surfing, bird watching, nature study, horseback riding, dog walking, jogging, and picnicking.

Habitat Type:

- Coastal sand dunes.

Acreage:

- 3,600 (2,100 acres permanently protected, 1,500 acres for off highway vehicle recreation)

Current Issues:

- Protection of listed animal and plant species, balancing recreational access with resource protection and spread of invasive plants.

Oso Flaco Lake Natural Area

576 Camino Mercado, Arroyo Grande California
93420 Superintendent: Andy Zilke Resource
Ecologist: Laura A. Gardner Phone: (805) 473.7230
Fax (805) 473.7324 Website: www.parks.ca.gov
Radio: AM 1620

- Oso Flaco Lake Natural Lake area consists of 2100 acres and is the largest permanently protected properties outside of the Dunes Preserve.

- The most notable features are two stunning freshwater lakes, known as Oso Flaco Lake and Little Oso Flaco Lake.

- The area is open all year to the public, and human uses include hiking, fishing, and other passive recreational activities.

- Dogs not allowed

- Off-highway vehicles prohibited.

- This area is owned and managed by the State Parks OHV Division.





Guadalupe-Nipomo Dunes National Wildlife Refuge

1045 Guadalupe Street, P.O. Box #9, Guadalupe,
California 93434 Refuge Manager: Christopher J.
Barr Phone: 805/343-9151 Fax: 805/343-9141 E-
[mail: chris_barr@rl.fws.gov](mailto:chris_barr@rl.fws.gov)

U.S. Fish and Wildlife Service- MISSION STATEMENT

The mission of the Service is working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

The National Wildlife Refuge System - MISSION STATEMENT

The mission of the Refuge system is to preserve a national network of lands and waters for the conservation and management of fish, wildlife, and plant resources of the United States for the benefit of present and future generations.

Refuge Facts and Natural History

- Established: 2000
- Acres: 2,553 (The refuge acreage changes annually due to continued acquisition on a sales/seller voluntary basis within the approved acquisition boundary)
- Located in the heart of 18-mile stretch of

coastal dunes.

- Recognized as a National Natural Landmark
- Habitat includes coastal dune scrub, dune swale, wetlands, dune scrub, fore dune, active dune, and coastal strand.

Refuge Objectives

- Protect, enhance, and restore sensitive and imperiled habitats.
- Protect threatened and endangered species.
- Protect, manage, and restore coastal habitats and associated wetlands.
- Provide opportunities to the public for wildlife compatible educational and recreational activities.

Management Tools

- Monitoring and management for federally listed species.
- Partnership in control of Invasive Species.
- Recovery of federally listed plants.
- Law enforcement.

Public Use Opportunities

- Wildlife Observation
- Photography
- Surf fishing
- Hiking/Exploring
- Education/Interpretation Programs



Rancho Guadalupe Dunes Preserve

**A Santa Barbara County Park Managed by the
Center for Natural Lands Management**

PO Box 97, Guadalupe, California 93434 Preserve
Manager: Willie Richerson Phone: (805) 474-
0896 Fax: (805) 343-0442, Kiosk: (805) 343-2354
Website: www.cnlm.org

MISSION STATEMENT

The mission of the Center for Natural Lands Management is to: (a) preserve or to assist in the preservation of natural habitat, native species and functioning ecosystems; (b) own and/or manage lands in an ecologically beneficial manner consistent with federal and state environmental laws; (c) promote the conservation values of such lands through education; (d) promote and facilitate uses of such lands by the public that preserve the conservation values; and (e) enable and assist the state and federal governments in their obligations to protect native fish, wildlife, plants and their habitats necessary for maintaining biologically sustainable populations of such species for the public benefit.

Facts and Natural History:

- 592 acres of beautiful coastal habitat
- Over 40,000 visitors annually
- Habitat of state and/or federally endangered plants, fish, birds, and reptiles.

- Quality shoreline and estuary habitats for diverse bird communities

- Large expanses of open sand dunes and sparse vegetation

- Managed by The Nature Conservancy until 2000, became a SB County Park in 1969 at 26 acres, expanded to current size in 1988.

Visitor Access:

- Open to the public from sunlight to sunset 365 days per year.

- No entrance fee; donations are encouraged.

- No dogs allowed March 1st through September 30.

- Dogs allowed October 1st through February 28th but must be on a leash

Recreational Opportunities:

- Walking/ Hiking
- Wildlife Observation/Photography
- Surf-fishing
- Surfing/ Wave riding
- Picnicking
- Birding

Significant Facts:

Rancho Guadalupe Dunes Preserve is part of Santa Barbara County Parks and is managed under a lease agreement with the Center of Natural Lands Management, a California non-profit organization.



Guadalupe-Nipomo Dunes Center

1055 Guadalupe Street, Guadalupe, California
93434 Dunes Center Director: Gillian Andrews
Phone: (805) 343.2455 x 103 Fax: (805) 343.0442
[E-Mail: esg@dunescenter.org](mailto:esg@dunescenter.org) Website: [www.
dunescenter.org](http://www.dunescenter.org)

Objectives:

- Coordinate the responsible stewardship of the Guadalupe-Nipomo Dunes Ecosystem.
- Provide the public with the highest quality visit to the dunes and the Center.
- Educate children of all ages about this unique ecosystem.
- Develop financial resources to help conserve, protect, and restore the dunes.
- Ensure that restoration activities are informed by the best science available.

MISSION STATEMENT

Promoting the conservation of the Guadalupe-Nipomo dunes ecosystem through education, research and the support of cooperative stewardship.

Facts About The Dunes Center:

- Is a California nonprofit corporation.
- Interprets the Guadalupe-Nipomo Dunes through Visitor Center located in the restored Craftsman era house in Guadalupe - the gateway to the dunes.
- Promotes the conservation of the dunes ecosystem through education, interpretation, and cooperation management with the land owning entities.



THE ART OF INTERPRETATION

Making Positive Visitor Contact

Ten Commandments of Good Public Relations

These are good guidelines for general public relations, and many will apply to your work as a Docent. (Adopted from Half Moon Bay Plover Volunteer Manual)

1. **Speak to people:** Nothing is as nice as a cheerful word of greeting.
2. **Smile at people:** It takes 72 muscles to frown, only 14 to smile.
3. **Call people by name:** The sweetest music to anyone's ears is the sound of one's own name.
4. **Be friendly and helpful:** If you would have friends, be friendly.
5. **Be cordial:** Speak and act as if everything you do is a genuine pleasure.
6. **Be generous with praise:** And cautious with criticism.
7. **Be genuinely interested in people:** And they will be interested in you.
8. **Be considerate of the feelings of others:** It will be appreciated.
9. **Be thoughtful of the opinions of others:** There are three sides to a controversy; yours, the other

person's, and the right one.

10. **Be alert to give service:** What counts most in life is what we do for others.

Awaken people's curiosity. It is enough to open minds; do not overload them. Put there just a spark. If there is some good flammable stuff, it will catch fire.

Anatole France

[The interpreter] is at his best when he discusses facts so they appeal to the imagination and to reason, gives flesh and blood to cold facts, makes life stories of inanimate objects.

Enos Mills

The purpose of interpretation is to stimulate the reader or hearer toward a desire to widen his horizon of interests and knowledge, and to gain an understanding of the greater truths that lie behind any statements of facts.

Freeman Tilden



A Good Public Relations Person

- Spreads information and is aware of the public interests.

- Ignoring public interests may create a negative image about the Docent program.

Positive Visitor Contact

- Be friendly, courteous, and helpful at all times and people will do the same for you.

- Educate people to learn to share the beach with the birds and other species.

- One negative action or comment can damage the work of the program and other Docents.

- 90% of trespassers are not paying attention and are embarrassed when approached by a Docent. Give them the benefit of the doubt.

- Most of the stories we tell ourselves are not true - do not judge others for their actions.

- Let the public come to you. This shows people are interested in what you are doing and enjoy learning.

- Be honest if you do not know the answer to a question. Offer to get the answer for them or have them contact the Docent Coordinator directly.

- Leave questions in the Docent Coordinator's or write them on the activities board so others can learn too - this way you'll be ready the next time!

- Remember, you learn by doing and asking questions. No question is stupid.

- Misleading information only confuses the visitor and yourself and may damage the Program's public relations efforts.

- Do not tell a visitor "I'm just a Docent". You are a qualified individual providing an important task. Accept who you are and others will do the same.



Frequently Asked Questions

FREQUENTLY ASKED QUESTIONS

SAMPLE

One Liner: Docents are here to help protect your recreational beach use. If people do not voluntarily comply, this beach could be closed.

I. What good are these birds? What do they do for us?

- Plovers and other birds, plants, and animals work as a barometer for the ecosystem. When their food source is low, it signals us that there is a problem with the oceans, which may affect our food source, weather, etc.

- Plovers depend on the food they find at the water's edge for their survival and feed mainly on invertebrates, including small crabs, clams, beetles, flies, and water bugs mostly in the seaweed washed to the high-tide line.

II. Why can't I bring my DOG to this beach?

- The Guadalupe-Nipomo Dunes NWR was created to protect, preserve, and restore its natural resources, such as threatened and endangered birds, plants, animals and dune habitats for people to see

today and for the generations to come.

- Dogs and other domestic animals often chase or actively threaten nesting shorebirds, such as the Western Snowy Plovers, which cause them to abandon their nests and/or separate parents from their chicks.

- Just the sheer presence of a dog causes stress to birds; specifically the Western Snowy Plovers, which are a threatened species and nest at the Guadalupe-Nipomo Dunes NWR. Did you know that 1 person = 1 disturbance, 1 unleashed dog = 100 disturbances to wildlife.

- These birds weigh less than one-ounce and need all their energy to reproduce successfully and protect their young.

- Any kind of disturbance from humans and domestic animals will jeopardize their survival and hopes for recovery of this species.

I. Where can I take my DOG?

County and City ordinances require that dogs and other pets be leashed at all times in areas where pets are allowed. Non-compliance of these laws could cost you up to or in excess of \$100 in fines.

•Leashed dogs and other pets can enjoy going to:

- Oceano Dunes State Beach
- Pismo Beach
- Avila Beach – Only before 10am and after 5pm

•Old Port Beach in Avila just north of the Avila Pier

•Dog Parks where dogs can play off leash? (see Map Handout)

•SLO County: El Chorro Regional Park, San Luis Obispo

•SB County: Waller Park, Santa Maria

II. Why can't these birds just move down or to another beach?

•Snowy plovers need to rest, nest, and feed on specific type beaches.

•Plovers like wide, flat, and open areas so they can see potential predators approaching, such as skunks, raccoons, avian predators, crows, gulls, etc.

•The dune-backed beaches help them to take cover in extreme high-tide conditions and storm events.

I. Why not let natural selection proceed – if the bird was meant to die off, then it will!

•The decline of the Pacific Coast population of plovers is due to natural and unnatural events:

•Human recreational activities; dogs and other domestic pets; horses; off road vehicles; fireworks; pollution; coastal development; native/non-native; invasive plants native/non-native predators; and trash on beach attracts predators (crows, skunks, gulls, etc.).

•Plovers have been here longer than humans have been using the beaches, and it is only during our generation that human encroachment on the Pacific Coast has impacted their survival and nesting success.

• It is critical to the survival of the plovers to protect and preserve their nesting, migrating, and wintering habitats at the Dunes and at other locations on the Pacific Coast.

I just want to PLAY BALL –OR– FLY MY KITE. Why do you want me to move?

•The actions of people running and tossing a ball in the air OR fly a kite are very stressful for plovers.

• Plovers are forced to spend a lot of energy watching to insure your feet or the ball OR kite (which to plovers looks like a big avian predator) is not a directly threatening their safety.

• If you are too close to the nest (w/in 100 ft. and sometimes 200 ft.) the bird will abandon its nest – not being able to incubate the eggs or protect the chicks, which could limit the success of the nest and the chicks.

• Plovers also exert valuable energy running or flying away when feeling threatened. This time and energy is better spent nesting and feeding, so they can have a productive nesting season.

II. Why can't I HANG TOWELS or CLOTHING on driftwood, fences, or posts? Why can't I pick up DRIFTWOOD, ROCKS, and OR PLANTS that I find on the beach?

• Plovers nest in, on, and around driftwood, rocks, or vegetation found on the beach and you may jeopardize a nest and chicks. Also, certain



vegetation on the Dunes is endangered.

- Garments hanging on driftwood resemble an avian predator and scare the plovers. Plovers will abandon their nest and chicks leaving eggs and chicks vulnerable to humans, predators, and the elements (sun, wind, rain, sand, etc.).

- Placing driftwood up straight can become a perch for avian predators (Hawks, Falcons, Crows, Shrikes, Harriers, Gulls), and may leave plovers, eggs, and chicks in danger and possibly death.

III. Why can't I ride my HORSE here? Is there somewhere else that I can ride?

- Horses are not allowed on the Guadalupe-Nipomo Dunes NWR.

- Horses can destroy nests and kill birds if they are not ridden in designated areas (i.e., wet sand and posted areas).

- Chicks can get stuck in the hoof print and are unable to get out, which leaves the vulnerable to other horses and people crushing them, predators eating them, or dying from the heat, cold, or exhaustion.

- Horses may contribute to the separation of chicks from their parents when feeding.

- If you notice a small bird running ahead of you when riding, stop and turn around. It's possible that a plover chick was separated from its parents and may die or be eaten by a predator if you continue to follow it.

- Yes, you can ride your horse at the Oceano Dunes State Park only in designated horse areas. Please go back to where you came by way of the wet sand.

- There are also equestrian trails at Live Oak Campground at Cachuma Lake Recreation Area, Hwy 154, between Santa Barbara and Solvang.

IV. I can't believe you protect the birds, but won't remove a ANIMAL CARCASS!

- Though stinky and unsightly, the carcasses provide food for many native shore animals.

- A carcass that has been in the area for sometime can have many bird and animal tracks around it speeding up the decaying of the dead animal.

- The tide will take the carcass out to sea during extremely high tides.



Emergency Procedures

EMERGENCY PROCEDURES

Definition and Information for 911 Emergencies: A situation that threatens human life or property and demands immediate attention:

- Swimmer in distress
- Violence of any type
- Disturbance turning into violence and threatens Docent's safety
 - Immediate danger to plovers or nesting habitat
 - Firearms/weapons use or obvious possession
 - Any medical emergency which is potentially life-threatening and requires an ambulance (do not render aid until you have requested help)
 - A cell phone is in the Backpack and is to be used for emergencies. Numbers are preprogrammed for easy access.

Call Landowner/Land Manager and Police (See Emergency/Important Phone Numbers.)

- Property damage in progress (vandalism of signs, fences, vehicles on beach, etc.).

- If you find a dead or injured Snowy Plover or Least Tern.

- Dog owner who refuses to leash and remove dog from the Dunes.

- Visitor harassing Docent (argumentative, vocally uncooperative).

- People, dogs, horses who enter plover habitat and refuse to leave.

- Suspicious behavior including sexual acts.

If you are unsure what to do after reviewing the above, call the appropriate Landowner/Land Manager, and he/she will direct you.

- Don't exaggerate or downplay the situation - tell it like it is.

- Give a clear picture of what happened or is happening.

- Give the police your cell# and stay put until he/she arrives.

If a visitor reports an incident to you, get his/her name and phone# and complete details of the incident (description of suspect, injuries incurred, location of incident, etc.) - write them all down for the record.



Cell Phone Instructions

CELL PHONE INSTRUCTIONS

As a reminder:

- Cell phone has pre-paid service with limited time.

- Cell phone is for emergency use only.

- When a call is made, the caller is informed about phone time remaining. . Please tell Docent Coordinator when phone time is low. (below 20 minutes)

- Please recharge the phones when batteries are low. You should plug the phone into the wall jack at the parking lot kiosk. Be sure to alert the ranger to your plans, and ask him to return it to the backpack.

- The Docent Coordinator will be responsible for adding additional time to phones and reactivating the phones. Phones need to be charged with more time every 60 days.

- Typically, the phones will be used from March 1 to September 30th each year during plover and tern nesting season, unless otherwise notified.

How to use the cell phone

See attached copies for "basic functions" of the phones and "battery" instructions. Additional information about the phones can be found in or near the Plover Docent backpack.



Conclusion

CONCLUSION

**On behalf of everyone involved in the Western Snowy Plover
Docent Program at the Guadalupe-Nipomo Dunes, THANK YOU!**

We hope that you enjoy learning about the plovers and the other natural resources at the beach and dunes. Please have fun interpreting what you learned to others who visit. The work done by you in education and outreach has far reaching benefits which are often overlooked. Visitors remember a smile and person who took the time to explain the reasons for rules and closures. Answering questions and providing information regarding coastal resources is a vital task. A positive memory such as this can lead to greater acceptance and even appreciation of rules that visitors may have been against previously. Additionally talking with children and educating them about plovers is a wonderful way to reach the adults.

At times your volunteer work may seem boring, difficult, or unneeded. Remember, you are a critical bridge between the resource which needs protecting and the public who needs to understand their role in protection. Just being present at the beach shows visitors that someone values the resource and can be the first step toward stewardship of the resource. Don't forget to enjoy your time at the beach!

**Through UNDERSTANDING, Comes ACCEPTANCE
Leading to APPRECIATION, Culminating in STEWARDSHIP**



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**This information was extracted from the Federal Register: March 2, 1995, Page 11768, Proposed Designation of Critical Habitat for the Pacific Coast Population of the Western Snowy Plover; Proposed Rule

For further information contact: Sacramento Field Office, U.S. Fish and Wildlife Service, Sacramento Field Office, 2800 Cottage Way, Room E-1803, Sacramento, CA 95825-1846, telephone 916/979-2725, facsimile 916/979-2723.

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Glossary of Terms

GLOSSARY OF TERMS

Berm The high, flat area of the beach just above the high-tide line. The plovers can usually be found resting or feeding here.

Biodiversity Full range of variety and variability within and among living organisms, their associations, and habitat-oriented ecological complexes. Term encompasses ecosystems, species, and landscape as well as intraspecific (genetic) levels of diversity (Fiedler and Jain 1992).

Community An association of living organisms having mutual relationships among themselves and their environment and thus functioning, at least to some degree, as an ecological unit (Warner and Hendrix 1984).

Critical Habitat According to US Federal Law, the ecosystems upon which endangered and threatened species exist (Meffe and Carroll 1994).

Disturbance Any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment. Key descriptors are magnitude, frequency, size of area, and dispersion (Fiedler and Jain 1992). In the Endangered Species Act, disturbance means any activity that causes the animal to change its behavior.

Ecology The scientific study of the interaction of organisms with their environment, including both the physical environment and the other organisms that live within it (Purves et al. 1995).

Ecosystem An interacting system of living organisms and their physical environment, which is independent of other groups and is self-sustaining, provided it receives radiant energy (Little and Jones 1980). - Or - The organisms of a particular habitat, such as a pond or forest, together with the physical environment in which they live (Purves et al. 1995).

Endangered Species Wild species with so few individual survivors that the species could soon become extinct in all or most of its natural range (Miller 1990).

Endemic Any localized process or pattern, but usually applied to a highly localized or restrictive geographic distribution of species (Meffe and Carroll 1994). - Or - Confined to a particular region, thus often having a comparatively restricted distribution (Purves et al. 1995).

Enclosure This encompasses the roped-off area on the beach, set aside to exclude humans, dogs, and horses while creating a protected resting area for the majority of the plover population at the Refuge.

Exotic Species Species that do not originally belong to an area and were introduced by humans directly or by their activity (Fiedler and Jain 1992).

Extinct The termination of a lineage of organisms (Purves et al. 1995)

Or: A species is considered extinct when no member of the species remains alive anywhere in the world: "The dodo bird is extinct" (Primack 1993).

Habitat The environment in which an organism lives (Purves et al. 1995).

High Tide Line The upper edge of the tide on a beach.

Low Tide Line The lower edge of the tide on a beach.

Invasive Exotic plants not native to an area and which spread quickly and displace native vegetation (Perry 1995).

Management Manipulation of nature for a specific goal (Fiedler and Jain 1992).

Habitat Management Management that ensures the original habitat types are maintained (Primack 1993).



Native Indigenous; not introduced into a geographical area by man (Little and Jones 1980). Local native: native species that are or were present on a particular location.

Natural History Information about ecology, evolution, and biology in general about a particular species, population or community.

Non-native Refer to invasive or exotic.

Population Any group of organisms coexisting at the same time and in the same place capable of interbreeding with one another (Purves et al. 1995).

Resource Something in the environment required by an organism for its maintenance and growth that is consumed in the process of being used (Purves et al. 1995)

Restoration (ecology) The science and practice of restoring damaged or degraded ecosystems (Purves et al. 1995). - Or - Return of an ecosystem to a close approximation of its condition prior to disturbance (National Resource Council 1995).

Species The basic lower unit of classification, consisting of a population or series of populations of closely related and similar organisms. The more narrowly defined "biological species" consists of individuals capable of interbreeding freely with each other but not with members of other species (Purves et al. 1995).

Threatened Species Wild species that is still abundant in natural range but is likely to become endangered because of declining population numbers.

Wrack Zone Area of the shore that runs parallel to the ocean, just above high tide-line, and contains large amounts of seaweed.

WESTERN SNOWY PLOVER AND RELATED WEBSITES/AGENCIES

U.S. Fish and Wildlife Service
www.fws.gov/

U.S. Fish and Wildlife Service — Pacific Region
Western Snowy Plover Draft Recovery Plan
<http://pacific.fws.gov/ecoservices/endangered/recovery/snowyplover/default.htm>
Guadalupe-Nipomo Dunes National Refuge
<http://www.fws.guadalupe-dunes-nwr.gov/>

National Refuge System
www.refuges.fws.gov

National Wildlife Refuges "The Snowy Plover"
<http://refuges.fws.gov/birds/WestSnowyPlover/references.html>

California State Parks and Recreation
<http://cal-parks.ca.gov>

California State Parks
Oceano Dunes State Vehicle Recreation Area
http://cal-parks.ca.gov/default.asp?page_id=406
http://www.chv.parks.ca.gov/default.asp?page_id=1207

NON-PROFITS

Guadalupe-Nipomo Dunes Center
<http://www.dunescenter.org>

Center For National Lands Management
Rancho Guadalupe Dunes Preserve
<http://www.cnlm.org/guadalupe.html>

Santa Barbara Audubon
"Snowy Plover Docent Program"



<http://www.rain.org/~audubon/sbasplvrdocsents.html>

Morro Coast Audubon Society

"Western Snowy Plover Watch Volunteer Program"

<http://www.gliderpiolots.org/audubon>

Surfrider Foundation

Isla Vista Chapter (Santa Barbara)

www.coec.ece.ucsb.edu/people/dan/ivs surf.html

BIOLOGY / RESEARCH CENTERS

Coal Oil Point Reserve Homepage

<http://nrs.uccp.edu/reserves/coaloil.html>

Point Reyes National Seashore

http://www.nps.gov/pore/nature/wldlf_splovers.htm

Point Reyes Bird Observatory

<http://www.prbo.org/CstEst.html>

VIDEOS

"Life at the Ocean's Edge"

The Western Snowy Plover and the
California Least Tern

Produced by La Purisima Audubon Society

in association with Pygmy Marmoth Productions, 1999

La Purisima Audubon

<http://lpas.westhost.com/>

OTHER WEBSITES FOR MORE INFORMATION ABOUT PLOVERS

Western Snowy Plovers and California Least Terns (Abby
Powell)

<http://biology.usgs.gov/s+t/SNI/noframe/cal68.htm>

Habitat Use and Reproductive Success of Western Snowy
Plovers at New Nesting Areas Created For California Least
Terns

<http://www.npwrc.usgs.gov/resource/2000/wsplover/wsplover.htm>

Ecology of Western Snowy Plover

<http://mercury.bio.uaf.edu/~abby.powell/plover.html>

Western snowy plover (photo: Bureau of Land Management)
Washington

<http://www.pacificbio.org/ESIN/Birds/WesternSnowyPlover/westernsnowyploverpg.html>

There's Room for Shorebirds, Too (Kevin Lafferty)

<http://soundwaves.usgs.gov/2002/02/>

Seattle Audubon

<http://www.seattleaudubon.org/conservation/Plover.htm>

Oregon National Resource Council

Western Snowy Plover Critical Habitat Lawsuit

<http://www.onrc.org/snowyplover/index.html>

<http://www.partnersinflight.org/pubs/birdcons/14pg11.pdf>

Sand's Beach - Snowy Plovers

www.coec.ece.ucsb.edu/people/dan/copnews1.html

www.coec.ece.ucsb.edu/people/dan/plovers.html

Agencies Agree to Predator Control Plan to
Help Threatened Snowy Plover

<http://news.fws.gov/NewsReleases/R1/D4FDD893-480F-459A-8D7AC2F4B91B4F36.html>

There's Room for Shorebirds, Too (By: Kevin Lafferty)

<http://www.usgs.gov/public/press/publicaffairs/pressreleases/pr1524m.html>

Friends of the Dunes

<http://www.friends of the dunes.org>

Docent Daily Survey

Name:

Date:

Weather Notes:

Total Visitors Estimate:

Natural Observations:

Plover's Seen:

Marine Mammals:

Other Shorebirds:

Other observations:

Visitor Observations:

Beach Activities:

Violations:

Other Comments: