Monitoring Bodega Rock

Stewards of the Coast and Redwoods

Seabird Monitoring Program

Volunteer Manual

Stewards of the Coast and Redwoods

SEABIRD MONITORING PROGRAM
VOLUNTEER MANUAL

CONTENTS

THE PROGRAM

- **Some Administration**
- **Volunteers in Parks Program & Stewards Volunteer Program**
- **Web Sites to Peruse**

SOME ADMINISTRATION

You may participate in the Seabird Monitoring Program in one of two ways:

1) FOR A DAY-USE PASS

--OR--

2) FOR A SMALL STIPEND

The following pages describe the program. Notice that between the two program statements (Volunteers in Parks Program and Volunteer Program) the BENEFITS section is different (reflecting the two ways of participating listed above)

If you wish to keep track of your hours for a pass, you will need to fill out the Stewards Volunteer Program Application. A copy of this is on the back of the program description form with the emblem for California State Parks

If you wish to keep track of your hours for a small stipend, you will need to fill out a Stipend Reimbursement Form monthly. A copy of this form is on the back of the program description form with the emblem for
Stewards of the Coast and Redwoods

Sonoma Coast State Park Volunteer Program

Managed by Stewards of the Coast and Redwoods

Title: **Seabird Monitoring Citizen Scientist**

Purpose: To monitor seabirds and shorebirds on Sonoma Coast for the purpose of ensuring their protection through outreach, education as needed. Stewards will develop a Seabird Protection Network chapter from Bodega Bay to the Mendocino County line.

Duties: Make a commitment and show up on time for monitoring shifts that will take place as assigned. Use monitoring forms and equipment with accuracy and report to assigned supervisor as agreed upon.

Skills: Requires ability to identify seabirds and shorebirds. Must be proficient at recording accurate monitoring data on the forms provided. Must be able to use binoculars, spotting scope and a camera. Must have reliable transportation and be able to drive to Sonoma Coast from home and then potentially up and down the Sonoma Coast.

Reports to: Assigned supervisor under the direction of Stewards of the Coast and Redwoods, the manager of this program, in partnership with California State Parks in the Sonoma Mendocino Coast District.

Time: Shifts are scheduled monthly during the non-breeding season and weekly during the breeding season. Citizen Monitors should be available at least once a month for a shift during the breeding season.

Training: Training is required and provided by Stewards of the Coast and Redwoods and their assigned trainers.

Benefits: Participation in a program which provides scientific data to ensure seabird protection. This is a state park Volunteers in Parks program so volunteer hours qualify for day-use passes depending on the number of hours they work.

Partners: Partners with Stewards include: Bureau of Land Management, California Coastal National Monument, Seabird Protection Network, Madrone Audubon Society, Fort Ross Conservancy

Stewards Volunteer Program Application

Name: _____

Address:_____

City, State, Zip: _____

Phone: _____

Email:_____

Current Volunteers in Parks Volunteer? YES NO

Which Programs? _____

_____

Availability: (Be specific about days of the week and how many hours a day)_____

_____

_____

_____

Attended Training? YES NO Date: _____

Have you read and do you understand the Duty Statement for this program? YES NO

Are you able to perform all the essential functions of the job without a need for reasonable accommodation? YES NO

If no, please specify what accommodations you need: _____

_____

I give permission to Stewards to use my image in photos taken of me while volunteering for this project for promotion or reporting. YES NO

Emergency Contact: (Name and phone) _____

I understand that all data and information collected in conjunction with this program will be compiled for use by Stewards of the Coast and Redwoods and their partners and may not be used for my personal use.

Signature: _____

Date: _____

Stewards of the Coast and Redwoods

Stipend Reimbursement Form

Name: _____ (*Please Print*)

Where would you like Stewards to mail your reimbursement check?

Address: _____

City: _____ State: _____ Zip: _____

Date	Activity	# Hours	Amount
Total			

Stipends = $25 for a half day shift; $50 for a full day shift. Examples of possible shift times (varies seasonally and by program):

Half Day Shift = 6:30 AM to 11:00 AM (*4 ½ hours*)

Full Day Shift = 11:00 AM to 3:30 PM (*9 hours with a 1 hour lunch break*)

Turn in reimbursement form monthly (**Send by 3rd of each month)**. Reimbursement requests submitted more than 45 days in arrears may not qualify for payment. Payment will be made within 10 working days of Stewards receiving reimbursement from funding source, if applicable. **Mail to:** Stewards, P.O. Box 2, Duncans Mills, CA 95421 or **Email:** stewards@stewardscr.org

I certify that the above facts are true to the best of my knowledge. I acknowledge that hours for which I receive reimbursement cannot also count toward a Volunteer in Parks (VIP) day-use pass.

Date submitted (*to Stewards*): _____

Signature of recipient: _____

Date received (*by Stewards*): _____

Signature of Stewards staff: _____

Date check mailed: _____

Sonoma Coast State Park
Volunteers in Parks Program

Managed by Stewards of the Coast and Redwoods

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WEB SITES TO PERUSE

Seabird Monitoring Program on Steward's web site:

http://www.stewardscr.org/cms/pages/volunteer_sonoma_coast_seabird_monitoring.html

Seabird protection network:

http://www.blm.gov/ca/st/en/prog/blm_special_areas/nm/ccnm/spn.html

http://farallones.noaa.gov/eco/seabird/welcome.html

http://seabirdprotectionnetwork.org/

Audubon-related:

http://ca.audubon.org/protecting-seabirds-through-marine-life-protection-act

http://ca.audubon.org/seabirds

Google Drive is a repository for the schedule and contact list, blank & completed forms, historical data, photographs, articles and other resources including a PDF of this manual. Follow the folder structure after logging in

URL: https://drive.google.com

Username or email: stewards.sbm@gmail.com

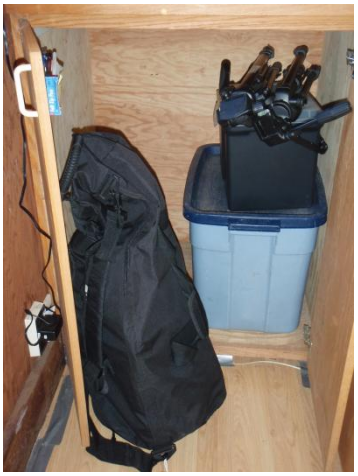
Password: seabirds

THE PROCESS

- **Overview**
- **Schedule/Contact List**
- **Checklist and List of Equipment**
- **Using the Equipment**

SEABIRD MONITORING OVERVIEW FOR VOLUNTEERS

1) Pick up equipment at the Jenner Visitor's Center (JVC). *

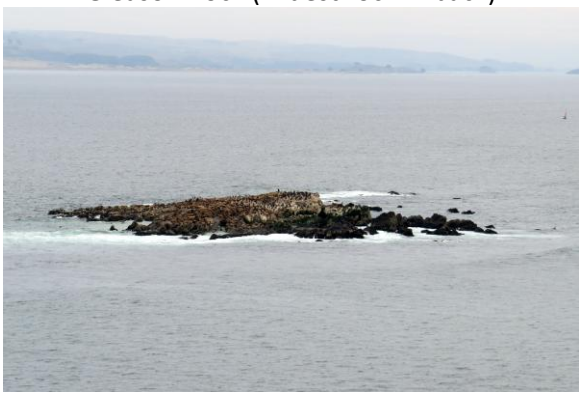


2) The equipment bag (left) for Seabird Monitoring is in the back cupboard. Fill out the check-out form that's on a clipboard inside the bag and leave it on the back counter at the JVC.

3) Drive to the monitoring site.

Gull Rock

Gleason Rock (widest rock in back)



Bodega Rock

4) Photograph the rock, monitor for 1 hour & fill out the survey form or forms.

5) If there is a disturbance, take photographs and fill out a Disturbance Form.

6) Check your forms and clean the equipment.

7) Drive back to the JVC.* Returning forms and equipment and closing out the check-out form.

* There may be an alternate location for equipment if you are monitoring Bodega Rock.

SCHEDULING/CONTACT LIST

There is a volunteer coordinator for the Seabird Monitoring Program. Your coordinator's name:

_____

The coordinator will contact you via e-mail to "sign you up" for dates to monitor. Currently, this is a manual process (you tell the coordinator which days you can monitor, the monitor fills in and sends out the schedule). This may be automated in the future.

The coordinator will also create a contact list. You do not have to share your personal information with the group if you do not want to. You'll receive the contact list of those who agree to it.

If you're scheduled to monitor with another person, get in contact with that person to coordinate your monitoring.

VOLUNTEER TIME/PROGRAM PLAN:

Breeding Season:
- April through August
- Use the Breeding Forms
- Rocks are to be monitored on a weekly basis

Non-breeding Season:
- September through March
- Use the Non-breeding Forms
- Rocks are to be monitored on a monthly basis

Consistency is part of citizen science, so we strive to monitor each rock at the same time of day on the same day of the week. Each rock is monitored for one hour (refer to The Rock section of this manual for details). The time and day of week may change during the season, so write these in pencil.

BODEGA ROCK: Monitoring time: _____:_____
- Monitoring day of week: _____
- During breeding season, the best time to monitor this rock is at 14:00
- During non-breeding season, the best time to monitor this rock is one hour BEFORE sunset

GLEASON ROCK: Monitoring time: _____:_____
- Monitoring day of week: _____
- During breeding season, the best time to monitor this rock is anytime beginning one hour AFTER sunrise up to 14:00
- During non-breeding season, the best time to monitor this rock is one hour AFTER sunrise.

GULL ROCK: Monitoring time: _____:_____
- Monitoring day of week: _____
- During breeding season, the best time to monitor this rock is anytime beginning one hour AFTER sunrise up to 14:00
- During non-breeding season, the best time to monitor this rock is one hour AFTER sunrise.

Seabird Monitoring Checklist
Jenner Visitor Center (JVC) and Monitoring Site

1. Remove key from lockbox. Be aware of tactile and auditory feedback when pressing code buttons. (Make sure to hold something under the lock box to catch the key in case it falls out upon opening.)
2. Remove black seabird monitoring bag from cupboard and inventory contents to make sure it's complete. Equipment list follows.
3. Sign-out equipment on log found in the bag—leave the clipboard with the sign-out sheet at the JVC on the counter above the cabinet.
4. Return key to lockbox after locking the door. Replace key; press CLEAR button; enter code to replace the lockbox cover.
5. At the monitoring site: use the Kestrel to record temperature, wind speed (average) and other weather information required on the form.
6. Record the date, start time, site identification and names of volunteers onto the form.
7. At the end of the shift: make sure data is complete on forms using zeroes for instances of "no sightings." All volunteers should check over the completed form and initial. Note who took the photographs
8. Completed forms should be put in the FRONT of the binder.
9. Clean all equipment before returning it to the bag. There is a microfiber cloth (called E-cloth) for the scope and binoculars and a small microfiber cloth in the camera case for the camera. If any of the equipment has been exposed to wind-driven salt spray, wipe it carefully with fresh water (there is a sink at the JVC) and dry thoroughly before placing it back in the bag.
10. Return the equipment bag to the Jenner Visitor Center; write the sign-in time on the sign-out form on the clipboard, put the clipboard back in the bag and return the bag to the cupboard.

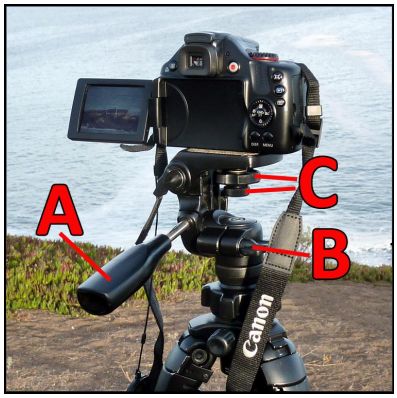
Seabird Monitoring Equipment List

Spotting scope in case
Tripod
Binoculars
Camera in case with cleaning cloth and spare battery
Kestrel Weather Instrument
2 Clicker Counters
E-cloth in plastic bag for cleaning equipment
Binder with data collection sheets, reference sheets & mechanical pencils in pouch
Clipboard (for survey sheets)
Clipboard (with sign-out sheet which remains at JVC)
Laminated reference sheets (some of these may be in the binder)
Weight bag (for securing the tripod in heavy wind)
Handouts for public interest
Flashlight
First aid kit
GPS unit (not used)
Compass (not used)

HOW TO USE THE CAMERA TRIPOD AND SCOPE

At the beginning of the shift a series of photographs is taken. First a record of the overall scene is made followed by a group of slightly overlapping photos forming a grid of the entire rock. Birds in the water or on nearby rocks that may impact activity on the main rock are also photographed. Later on the camera may be used to record a disturbance or something else unusual. We use an advanced point and shoot camera with a powerful zoom lens mounted on a tripod for stability and ease of forming the grid. An easily accessible program has been set up in the camera which sets all the variables for you, including turning on the self timer which is used at all times when the camera is on the tripod.

Once the photos are completed the camera is removed from the tripod and the scope is attached. The camera can be switched back as necessary during the shift, or used hand held. At the end of the session both camera and scope are cleaned before returning them to their cases.

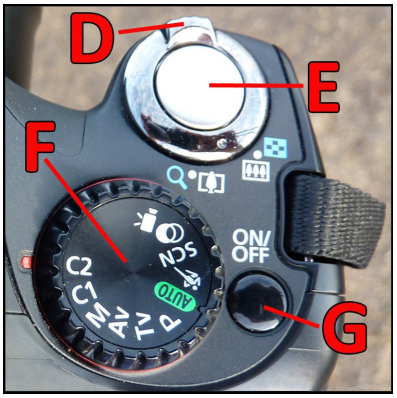


Tripod controls:

A Handle to move up and down
B Loosen screw to rotate
C Attachment screw and tightening nut

Camera controls:

D Zoom lever
E Shutter button
F Main control dial
G On/Off button



SETTING UP

Try and find a spot that is fairly flat and at least 5 feet away from any hazards such as cliff edges or large potholes. Extend the legs of the tripod all the way using the turn screws on each section. Set it down with one leg directly pointing forward and the other two on each side of your body. Loosen the handle **A** and the screw **B** and adjust the head so that the handle is pointing right at you and the platform is horizontal. Tighten the handle but the screw can be left slightly loose so that the head rotates easily. Never over tighten the controls.

Rotate the control dial **F** on the top of the camera until C2 is lined up with the red notch. Line up the screw hole on the bottom of the camera with the tripod screw **C** and start the attachment. Switch to the larger nut to finish tightening. Open the LCD screen on the back of the camera using the thumb indentation on its right side and tilt it up at a good angle for viewing. Remove the lens cover and turn the camera on **G**. The camera will display its settings on the view screen for a couple of seconds when it is first turned on and you should see C2 displayed in the top right. Next the horizon may need to be leveled. To do this move the camera so that the white outlined rectangle in the center of the LCD screen is over the horizon. Pan the camera side to side to see if it is level, if not adjust the height of one or more of the tripod legs until it is.

TAKING PHOTOGRAPHS

The first photograph is of the overall scene. Zoom in just enough so that the rock, the water all around it, the horizon and some sky are visible. The camera uses the area inside the white rectangle on the LCD screen to focus so it is important that there are some items with contrast in the box. When you are happy with your composition tighten the handle and depress the shutter **E** half way whilst looking at the LCD screen. When the rectangle turns green you know you are in focus. Continue to press the shutter all the way down. Try and do this with one hand only without gripping the camera hard. Remove your hand gently when you hear the self timer start beeping as the camera is very sensitive to the slightest movement especially when the lens is zoomed in. You will hear the shutter when it takes the picture and the result will show on the LCD screen for a few seconds. Check to see if the image is sharp. If it not, check the central area again and move the camera a little so that there is more contrast there and try again.

Next comes the grid formation. Loosen the handle and move the camera so that the top left of the rock is in the screen. Zoom the lens in all the way and readjust the composition so that the very top and left edge of the rock are included. Make sure there is something in the rectangle that the camera can focus on. Tighten the handle, take the photograph and check the sharpness. Look to see what is in the right side of the LCD screen, and move the camera to the right until the part that was on the right is now on the left. Check again to see what is in the rectangle and if necessary move the camera back a little. Take your photo, check that it is sharp then continue taking photos until you have the right edge of the rock showing. Swing the camera back to the beginning and note what is is the bottom of the screen. Loosen the handle and move the camera down until what was in the bottom is now at the top. Tighten the handle and repeat the series left to right and top to bottom until you reach the bottom edge of the rock. All these photos are taken with the zoom lens at its maximum.

Look in the water and if you see any birds nearby photograph them. Look to see what is on nearby rocks and photograph anything that may impact the birds on the rock. You may find it easier to remove the camera from the tripod and hand hold it to do this. In that case, use the AUTO setting on the main control dial.

Throughout your shift if you see anything unusual photograph it if you can. If conditions change drastically, such as most of the birds leave, retake your opening grid at the end.

USING THE PLAYBACK MODE

If you find it hard to check the focus of your photos in the view screen you can put the camera in playback mode when you have finished the grid. Press the blue arrow found on the top back of the camera. Use the round dial on the back to go forwards and backwards – press the right side (ISO) to go forward and the left side (MF) to go back. Use the zoom lever to enlarge the image. Do not delete any photographs. Retake any photos that are blurry. Lightly tap the shutter button to return to shooting mode.

PHOTOGRAPHING A DISTURBANCE

Sometimes a boat or light aircraft comes too close to the rock and disturbs the birds. Photographs of the offending vessel are including when reporting these instances. Take at least one photo of the vessel in relation to the rock. Zoom in and take one or more close up photos of the vessel showing identifying marks if possible. You may find it easiest to hand hold the camera set on Auto to take these pictures especially if you have already removed it from the tripod.

BATTERIES

The battery is charged regularly so there should not be a problem, but there is a spare in the camera case. The access door is on the bottom of the camera. Please let your coordinator know you have changed the battery.

SWITCHING TO THE SCOPE

Turn the camera off, close the view screen, attach the lens cap and remove the camera from the tripod. Return the main control dial to Auto and set the camera aside but handy in case you need it quickly.

Mount the scope the same way as you did the camera. It may help to have one person hold the scope steady until it is firmly attached. Remove the lens caps and pull out the front lens hood. If the eyepiece is too high for you to look through easily the barrel of the scope can be rotated to make it lower. Look for a ring around the barrel with a nut on the right side, loosen it, rotate the barrel and tighten it back up.

Set the zoom lens at its widest (20x) by rotating the ribbed ring under the eyepiece all the way to the right. Point the scope at the rock and focus using the tubular nob on top of the scope. Move the scope to the part of the rock you want to examine, zoom in as much as needed by rotating the ring to the left and refocus as needed.

CLEANING UP

There is a microfiber cloth in the scope bag which is used to clean off the body of the scope and camera. If the scope is still on the tripod, wipe it down then use a different cloth (found in the camera bag) to wipe the glass surfaces. Be careful not to mix up the 2 microfiber cloths. Return the lens cap then remove the scope from the tripod. If you have already removed the scope from the tripod hold it very carefully as you clean it. Remove any dirt that has blown into the carrying bag before replacing the scope in it. Repeat the process with the camera and pack up the tripod.

USING THE KESTREL TO COLLECT WEATHER DATA

HOW TO TURN IT ON AND OFF

On: Pull the Kestrel out of its housing and press the round central button. The display will light up and you are ready to scroll through the menus using the right and left arrows to go forward and back.

Off: Hold the central button down until the display turns off – it may take a couple of seconds. Push the unit back into its housing. If you put the Kestrel back into its housing without turning off the display it will eventually turn itself off, but it may take around 45 minutes, so to conserve battery power please turn off the display when you are finished.

READING THE AVERAGE WIND SPEED

Scroll through the menus until you find the average wind speed. Hold the Kestrel up in front of you facing into the wind and wait ten seconds before taking the reading. The Kestrel starts averaging as soon as it is turned on. Therefore, if you take the reading soon after it is turned on the average will be accurate. If you put the Kestrel down turned on and out of the wind that unexposed time will be included in the average and so you will not get an accurate reading. In that case, turn it off, wait a couple of seconds and turn it back on before doing your reading.

READING THE TEMPERATURE

The temperature is the next item on the menu after the average wind speed. It will flash DEC then give you a reading in degrees Celsius. As the Kestrel is very sensitive you may need to hold it up for around 30 seconds before you see the temperature stabilize. This is especially true if it has been in a very warm place for a while or the wind is blowing.

THE REST OF THE MENU

The Kestrel is capable of giving you more information on such topics as altitude and barometric pressure. As we do not use these settings the Kestrel has not been calibrated for them and will not give you accurate information.

Carol Farnes March 10, 2014

THE BIRDS

- **Bird Names and Abbreviations; Comments**

- **Birds from the Breeding Seabird Survey Form:**

  Cormorants (DCCO, BRAC, PECO)
  Western Gull (WEGU),
  Black Oystercatcher (BLOY),
  Brown Pelican (BRPE)
  Common Murre (COMU)
  Pigeon Guillemot (PIGU)
  Canada Goose (CANG)
  Surfbird (SURF)
  Black Turnstone (BLTU)
  Heermann's Gull (HEER)

- **Birds from the Non-Breeding Seabird Survey Form:**

  Glacous-winged Gull (GWGU)
  Ring-billed Gull (RBGU)
  California Gull (CAGU)
  Wandering Tattler (WATA)
  Peregrine Falcon (PERE)
  Common Raven (CORA)

- **Typical Species Locations on Rocks**

- **Some Links to Bird Identification Sites**

BIRD SPECIES ON OUR FORMS

Common nesting seabirds on our offshore rocks are:
Cormorants:
Double-crested Cormorant (DCCO)
Brandt's Cormorant (BRAC)
Pelagic Cormorant (PECO)
Gulls:
Western Gull (WEGU)
Alcids:
Common Murre (COMU)
Pigeon Guillemot (PIGU)
Oystercatchers:
Black Oystercatcher (BLOY)

Other birds on our Breeding Seabird Survey Form:
Canada Goose (CANG)
Surfbird (SURF)
Black Turnstone (BLTU)
Heermann's Gull (HEER)

Other Birds from our Non-breeding Seabird Survey Form:
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California Gull (CAGU)
Ring-billed Gull (RBGU)
Peregrine Falcon (PERE)
Common Raven (CORA)
Wandering Tattler (WATA)

A Note about the visuals:
There are larger versions of the visuals in the binder in the equipment bag as well as in *The Sibley Guide to Birds*.

A Note about Gulls:
Things to notice about gulls (if you can see them)—the size and shape of their bill, the gray tone of their mantle (the top of the closed wings when sitting—looks like their back but isn't), the leg and eye color, the pattern and color of their wing tips (these look like their tail when sitting, but are really the tip of the bird's wings; black with white spots for Western Gulls).

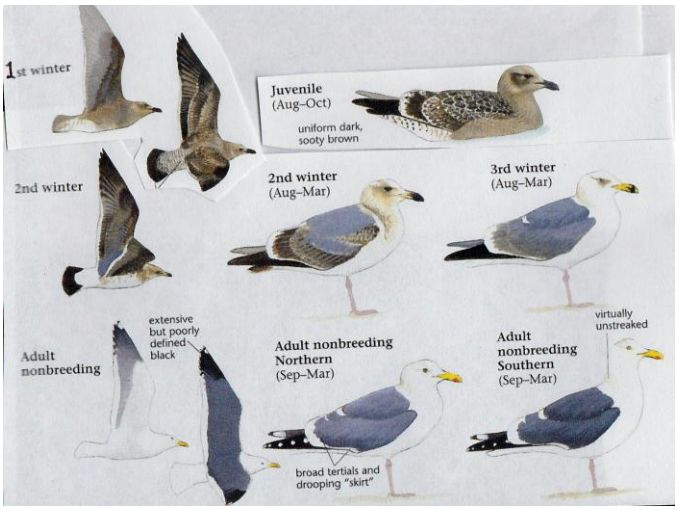
CORMORANTS

Double-crested Cormorant (DCCO)
Expect DCCO to be the most common nesting cormorant on Gleason Rock. Their yellow-orange gular pouch (the skin on the "chin") is indicative of this species in all plumages. Juvenile plumage (very light on the neck and breast) lasts for a few years before they get their true adult plumage and are ready to breed, so they're easy to distinguish from adults. Breeding adults may or may not have crests; the crests can be light or dark. In flight, DCCO have a very distinct curve to their necks.

Brandt's Cormorant (BRAC)
Expect BRAC to be the most common nesting cormorants on both Bodega Rock and Gull Rock. They are the most "pelagic" (open-ocean) of our cormorants. Their breeding plumage is quite subtle with white feathers over the ears and on their backs. Juveniles are lighter underneath than adults but not as light as DCCO. In flight, their necks are straighter than DCCO and thicker than Pelagic Cormorants (PECO).

Pelagic Cormorant (PECO)
The smallest of our cormorants nest on Gleason, Gull and Bodega Rocks—but they nest on almost vertical surfaces. Their bills are quite small and thin compared with either DCCO or BRAC. Breeding plumage consists of prominent white "bumpers" on both sides of their rump visible in flight. They are generally covered by the wings when they're not flying, but if they're grooming or opening their wings while perched, you can see them. In flight, they look smaller than the other cormorants and hold their necks straight.

Photos scanned from Sibley *Guide to Birds*



Western Gull (WEGU)

Western Gulls are by far the most common species of gull on the coast of California and are the only gulls that breed on our coast. Gulls can be difficult to identify because they have so many different plumages. They have a juvenile plumage then a "summer" and "winter" plumage for each year it takes them to mature. For WEGU, they have 9 different plumages! Adult WEGUs are the only gulls on our coast with a clear white head during the winter. They nest on all three of the rocks we monitor. Their chicks are gray balls of fluff that soon develop spots for camouflage, and they're mighty cute.

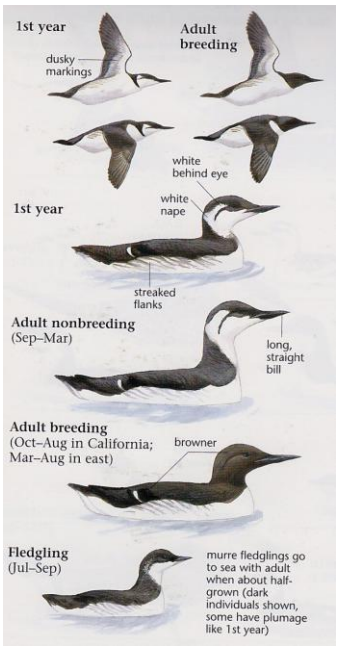
Black Oystercatcher (BLOY)

While these birds probably won't nest on the rocks we monitor, you will need to learn their shrill cries as they fly around as we monitor. They tend to prefer more privacy for nesting, but keep track of them in the event they do nest. They do not build a nest but collect a few pebbles and clear a small area to lay their eggs. They are difficult to see against the dark rocks (which is why we listen for them) but they are unmistakable with pinkish legs and bright orange bills.

Brown Pelican (BRPE)

Brown Pelicans nest off the coast of Southern California and Baja. They're unmistakable for identification purposes, but you will want to learn the different plumages you may see them in.

Photos scanned from Sibley *Guide to Birds*



Common Murre (COMU)

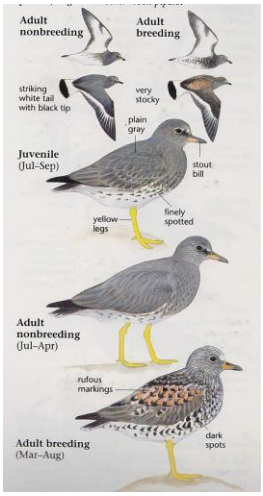
Common Murres are considered the "penguins" of the Northern Hemisphere. They nest in large colonies and have recently set a new colony up on Gull Rock. They stand cheek-to-jowl while incubating their one egg between their feet. It's difficult to count them, and it's difficult to even see their chicks. However, with practice, you'll learn. Watch for adult birds flying into the colony carrying food (usually fish) to confirm breeding. When the chicks are rather young, they're kicked off the rock into the water below and are fed by their fathers. You will notice the pairs of birds, one with adult and the other with juvenile plumage. The colony leaves the rock and moves out to sea for the rest of the year.

Pigeon Guillemot (PIGU)

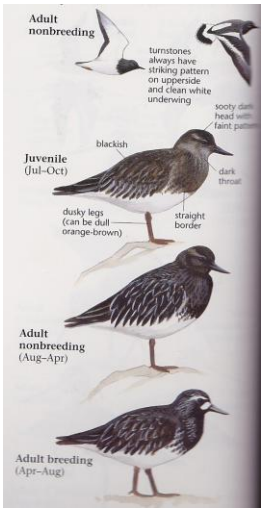
Pigeon Guillemots nest in cavities and crevices on both Gull and Gleason Rocks so nesting behaviors are difficult to see. Watch for copulation, watch for birds burrowing (or for evidence of burrowing—especially on Gleason Rock). Always count the PIGUs you see in the waters around the rock you're monitoring. Look for juveniles in the water and notice as the adults molt between breeding and nonbreeding plumages.

Photos scanned from Sibley *Guide to Birds*

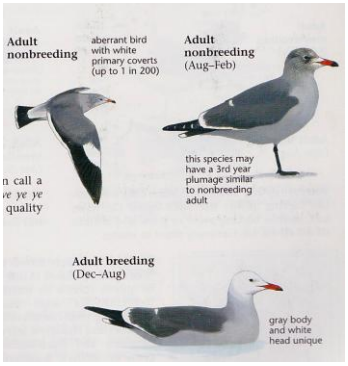
Canada Goose (CANG)
Introduced to Sonoma County, these geese do very well here. They do nest on cliffs so are often on both Gull and Gleason Rocks. (They're also on Arch Rock.) You can identify them by their white chin strap. If there are young, they'll jump off the rock about 48 hours after hatching and will make their way to shore with their parents.



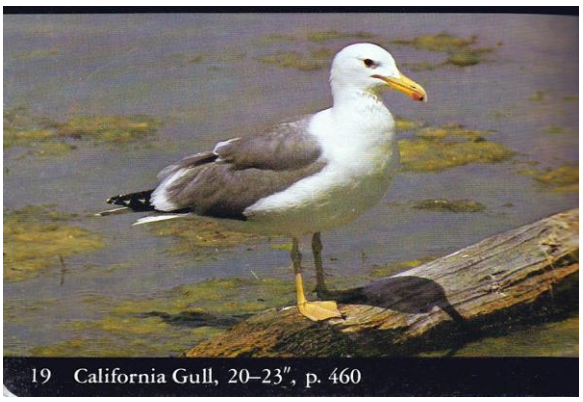
Surfbird (SURF)
Surfbirds only winter along our coast. You will see them in March and April as they migrate north, and you may see them as early as July when they return from nesting in the north.



Black Turnstone (BLTU)
Black Turnstones, like the Surfbirds, only winter along our coast. You will see them in March and April as they migrate north, and you may see them as early as July when they return from nesting in the north. They're pretty common at these times on Bodega and Gleason Rocks. Look for the smaller size and more white in the patterning on the back and wings when they fly in comparison to the Surfbirds.



Heermann's Gull (HEER)
These pretty gulls migrate along our coast and winter on the coast from Marin/San Francisco to Baja. They mature in 2 years, so you only need to know 5 different plumages for them. Their bright orange bill in adult plumage is unmistakable. They're most common around Bodega and Gleason Rocks, especially in August, but any time during migration. They nest in Mexico and on arid rocks—recently trying to nest on Alcatraz. They might try to nest in our area, too.

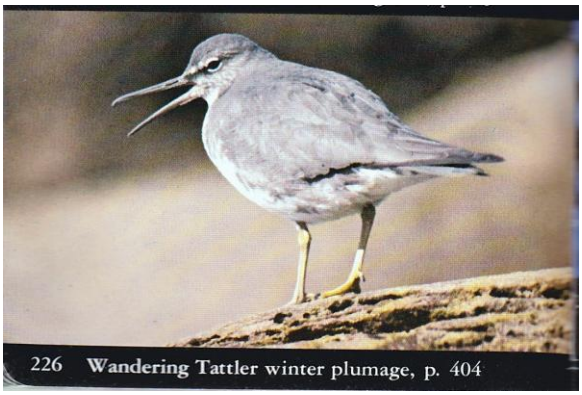


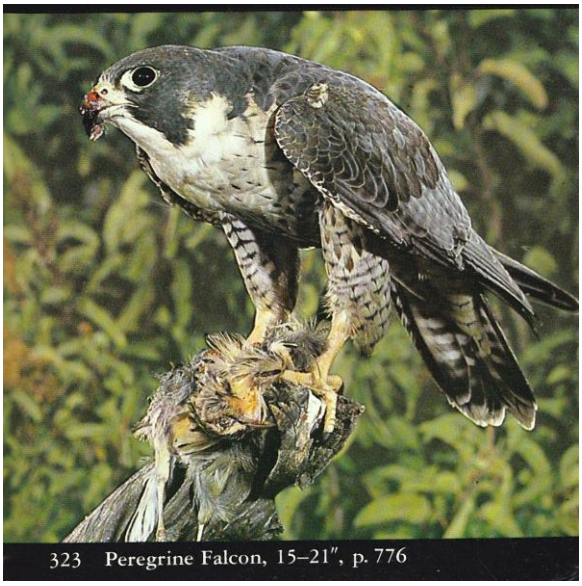
Glaucous-winged Gull (GWGU): The wing tips are the same color as the mantle; the legs are pinkish.

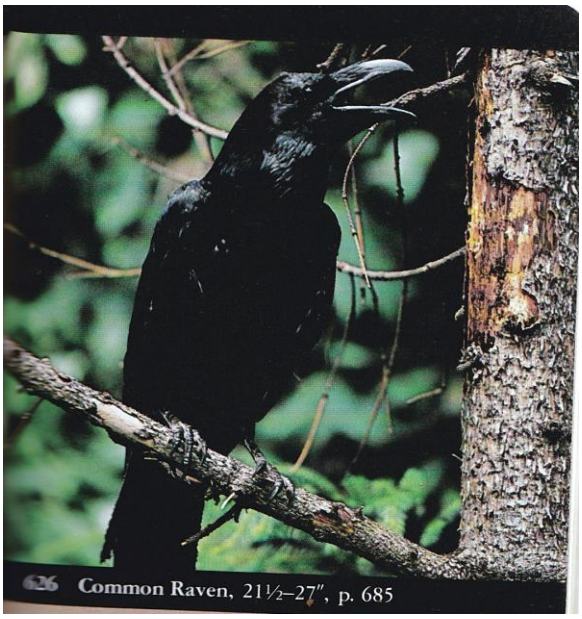
Ring-billed Gull (RBGU): The legs are yellow; the eyes are light; the bill has a ring around it.

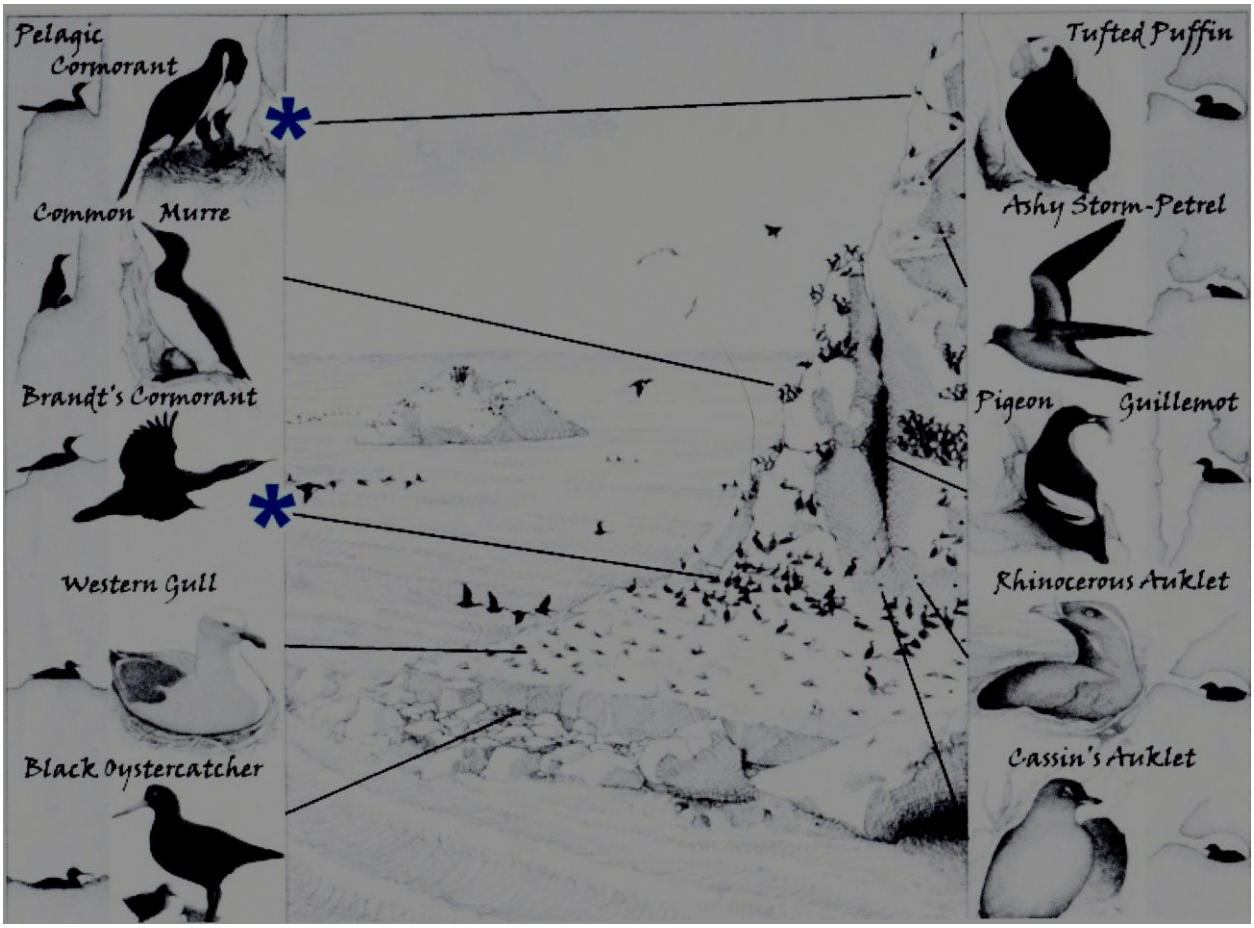
California Gull (CAGU): The legs are yellow and the bill has both a dark and a red spot.

Photos scanned from *Audubon Society Guide to North American Birds (Western Region)*









Typical Species Locations on Rocks

HELPFUL RESOURCES ON IDENTIFICATION & COUNTING

Bodega Ocean Observing Node: *webcam from the Bodega Marine Lab includes wind speed and link to chart of wind speeds over the last 48 hours so you can see trends*
http://www.bml.ucdavis.edu/boon/

Cormorant ID Challenge *it's a test! and you can see how others responded*
http://www.birdfellow.com/journal/2009/03/13/cormorant_id_challenge

ID Challenge: Cormorants Unveiled – *follow-up to the above ID Challenge photographs of the three Pacific Coast cormorants together with discussion so you can visually compare size and shape*
http://www.birdfellow.com/journal/2009/03/16/id_challenge_cormorants_unveiled

Rich Stallcup PRBO Focus 1982 Cormorants
http://www.pointblue.org/uploads/assets/observer/focus01cormorants1982.pdf

Rich Stallcup PRBO Focus 1996 Cormorants Revisited
http://www.pointblue.org/uploads/assets/observer/focus43cormorants1996.pdf

David Lukas "Bay Area Birds" – *sample text from his book - on cormorants (pelicans and herons too)*
http://lukasguides.com/SNB_Sample_Text.html

All About Birds: *Cornell Lab of Ornithology's guide to birds with good descriptions of species, field marks, life histories and sounds*
http://www.allaboutbirds.org/guide/search

Building Bird Identification Skills: *Cornell Lab*
http://www.allaboutbirds.org/NetCommunity/page.aspx?pid=1053

Bird Counting 101
http://ebird.org/content/ebird/news/counting-101/

Bird Counting 201
http://ebird.org/content/ebird/news/counting-201/

Tips for Counting Big Flocks
http://ebird.org/content/vt/news/tips-for-counting-big-flocks/

John Muir Laws Presentation on Keeping a Nature Journal *(counting birds begins 39:00 – estimating cloud cover begins about 51:30)*
https://www.youtube.com/watch?v=e3jb5674TCk

THE FORMS

- **General Tips for Filling out Forms**
- **Sample Form**
- **Notes on how to fill out the form**
- **Legend Codes**
- **Manual Weather Information**

TIPS FOR FILLING OUT FORMS WHILE MONITORING

- Use one of the mechanical pencils provided in the pouch—they remain sharp
- When you get to the rock, give a quick glance with the binoculars
- Fill in the weather data (Ambient Variables) on the form
- Take photos of the rock as directed (top left to right going down the rock)
- Enter counts of species/ages noted at the beginning of the shift on the left side of the boxes so there's room to record additional arrivals/final counts
- Strive for accuracy in identification; if uncertain, use Unknown box and write a descriptive note
- Use printing rather than cursive writing. Printing is more legible
- End of shift: enter final counts on right side of box if different from those recorded at beginning.
- Strike out (rather than erase) original counts if updated; circle final counts for clarity
- Enter zeroes in boxes for species not present
- Check the form! Everyone present should initial the completed form
- Indicate the person taking the photos
- Clean the equipment before putting it away

When it's windy, you will be protected from it by sitting on the ground to monitor—bring a ground cloth or a low chair.
Don't monitor in dangerous weather

THE FORMS

Breeding Seabird Survey
Gull Rock (breeding season supplemental sheet)
Bodega Rock (breeding season supplemental sheet)
Non-breeding Seabird Survey
Wildlife Disturbance Reporting Form

A sample of each form is followed by notes on how to fill out the specific form

BREEDING SEABIRD SURVEY

PG OF

AMBIENT VARIABLES

Colony		Point #		Date yyyymmdd	2015_ _ _ _	Data Recorder	
Start Time		Cloud %		Precip		Other Observer(s)	
End Time		Wind		Temp °C		Photos:	

CORE INDICATOR SPECIES

Enter # of Birds Counted. Valid Codes are: # (count) 0 (no birds present) X (no data)

BRAC	Downy Chick	Full Size Chick	Dull Brown Juvenile	Adult	Unknown	BRAC Injured	BRAC Dead	BRAC Notes
DCCO	Downy Chick	Full Size Chick	White Throat and Belly	Adult	Unknown	DCCO Injured	DCCO Dead	DCCO Notes
PECO	Downy Chick	Full Size Chick	Dull Brown Juvenile	Adult	Unknown	PECO Injured	PECO Dead	PECO Notes
BRPE	Brown Head/ White Belly	White Heads/ Light Belly		White Head/ Dk Brown Belly	Unknown	BRPE Injured	BRPE Dead	BRPE Notes
BLOY	Downy Chick	Juv Feathers Dark Bill Tip		Adult	Unknown	BLOY Injured	BLOY Dead	BLOY Notes
WEGU	Tiny Chick in Nest	Chick Not Full Grown	Juvenile All Brown	Grayish Back Brownish Head	Gray Back White Head	WEGU Injured	WEGU Dead	WEGU Notes
COMU	Chick		Nonbreeding Adults	Breeding Adult	Unknown	COMU Injured	COMU Dead	COMU Notes
PIGU	Chick		Nonbreeding Adults	Breeding Adult	Unknown	PIGU Injured	PIGU Dead	PIGU Notes
OTHER SPECIES	CANG	SURF	BLTU	HEEG	UNGU		Counts of Species Not Listed + Notes	
	Harbor Seal Adult + Imm.	Harbor Seal Pups Total	Dead Pups	red seals	Seals w/ Shark Bites	Disturbance		
						Y / N	Additional Space for Notes on Reverse	

NOTES and OTHER OBSERVATIONS	
SITE/DATE	
SPECIES	
	Make many notes. More information is better
	because it gives the clearest picture. Make notes
	anecdotal, behavioral or just a jot of what you're
	observing. It will all help science in the long run.

BREEDING SEABIRD SURVEY

PG OF

AMBIENT VARIABLES

Colony		Point #	Date 2015_ _ _ _	Data Recorder	
Start Time		Cloud %	yyyymmdd Precip	Other Observer(s)	
End Time		Wind	Temp °C	Photos:	

Colony: Write in Bodega Rock, Gull Rock, or Gleason Rock (Arch Rock may be added at some point)
Start Time: Use military time also called the 24-hour clock (e.g. 1:00 PM becomes 13:00, etc.)
End Time: Use military time
Point #: Currently not in use
Cloud %: Estimate the area of the sky covered by clouds or fog
Wind: Use the Kestrel. Use AVG (average) wind speed. Hold the Kestrel away from your body pointed into the wind
Date: The YEAR (which is printed on the form) must always be FIRST. Then you input the month and day
Precipitation: Codes from the Legend page—0 = No precipitation
1 = Mist or fog
2 = Light drizzle
3 = Light rain
4 = Heavy rain (and you shouldn't be out there!)
Temperature: Use the Kestral. Use Celsius. Hold the Kestrel away from your body
Data Recorder: Your name
Other Observers Others' names (everyone checks the form then initials it when it is complete)
Photos: Indicate who did the photography
PG OF: Put in the number of this page (PG) OF the total number of pages (generally it's "1 of 1" or "1 of 2" if you fill out the back of the page or add pages

CORE INDICATOR SPECIES

Enter # of Birds Counted. Valid Codes are: # (count) 0 (no birds present) X (no data)

BRAC	Downy Chick	Full Size Chick	Dull Brown Juvenile	Adult	Unknown	BRAC Injured	BRAC Dead	BRAC Notes
DCCO	Downy Chick	Full Size Chick	White Throat and Belly	Adult	Unknown	DCCO Injured	DCCO Dead	DCCO Notes
PECO	Downy Chick	Full Size Chick	Dull Brown Juvenile	Adult	Unknown	PECO Injured	PECO Dead	PECO Notes
BRPE	Brown Head/ White Belly	White Heads/ Light Belly		White Head/ Dk Brown Belly	Unknown	BRPE Injured	BRPE Dead	BRPE Notes
BLOY	Downy Chick	Juv Feathers Dark Bill Tip		Adult	Unknown	BLOY Injured	BLOY Dead	BLOY Notes
WEGU	Tiny Chick in Nest	Chick Not Full Grown	Juvenile All Brown	Grayish Back Brownish Head	Gray Back White Head	WEGU Injured	WEGU Dead	WEGU Notes
COMU	Chick		Nonbreeding Adults	Breeding Adult	Unknown	COMU Injured	COMU Dead	COMU Notes
PIGU	Chick		Nonbreeding Adults	Breeding Adult	Unknown	PIGU Injured	PIGU Dead	COMU Notes
OTHER	CANG	SURF	BLTU	HEEG				Counts of Species Not Listed + Notes
	Harbor Seal Adult + Imm.	Harbor Seal Pups Total	Dead Pups	Red seals	Seals w/ Shark Bites	Disturbance		
						Y / N		Additional Space for Notes on Reverse

SPECIES	
Use 4-letter codes if known	

1) Learn the 4-letter codes for each bird species (you will be "pronouncing" these in no time—"Wee-goo" and "Pee-goo" will become part of your vocabulary)
2) Notice that the idea is to fill in everything with numbers, zeroes, or "Xs" (if you don't have time, blanks will be entered as zeroes)
3) It's very important to remember to fill in the Disturbance column—if it's "Y" for "yes" you must FILL OUT A DISTURBANCE FORM

CORE INDICATOR SPECIES Enter # of Birds Counted. Valid Codes are: # (count) 0 (no birds present) X (no data)								
	Downy Chick	Full Size Chick	Dull Brown Juvenile	Adult	Unknown	BRAC Injured	BRAC Dead	BRAC Notes
BRAC								

COLUMN HEADINGS:
Column headings differ for different species.
They're generally self-explanatory.
Here are some clarifications.

Downy Chicks are small fluffy (downy) birds, generally in the nest (remember that all Cormorant chicks are black)
Full Size Chicks may still be fluffy or partially fluffy but are generally out of the nest—and full-size means adult size
Unknown means you know what the species is but you can't tell its age or see its plumage clearly i.e. plumage and age are unknown
Juv means juvenile
Blank (no column heading) means this column doesn't apply to this species, so leave it blank

CHEAT SHEET ON SPECIES ABREVIATIONS:

BRAC = Brandt's Cormorant
DCCO = Double-crested Cormorant
PECO = Pelagic Cormorant
BRPE = Brown Pelican
BLOY = Black Oystercatcher
WEGU = Western Gull
COMU = Common Murre
PIGU = Pigeon Guillemot
CANG = Canada Goose
SURF = Surfbird
BLTU = Black Turnstone
HEEG = Heermann's Gull

BREEDING SEABIRD SURVEY

PG OF

AMBIENT VARIABLES

Colony	GLEASON	Point #	1	Date yyyymmdd	20150603	Data Recorder	CAROL FARNES
Start Time	10.00	Cloud %	85	Precip	0	Other Observer(s)	JOAN ERSKINE - PHOTOS OF
End Time	11.00	Wind	3.4	Temp °C	15.2		VALERIE DIXEY (AP)

CORE INDICATOR SPECIES

Enter # of Birds Counted. Valid Codes are: # (count) 0 (no birds present) X (no data)

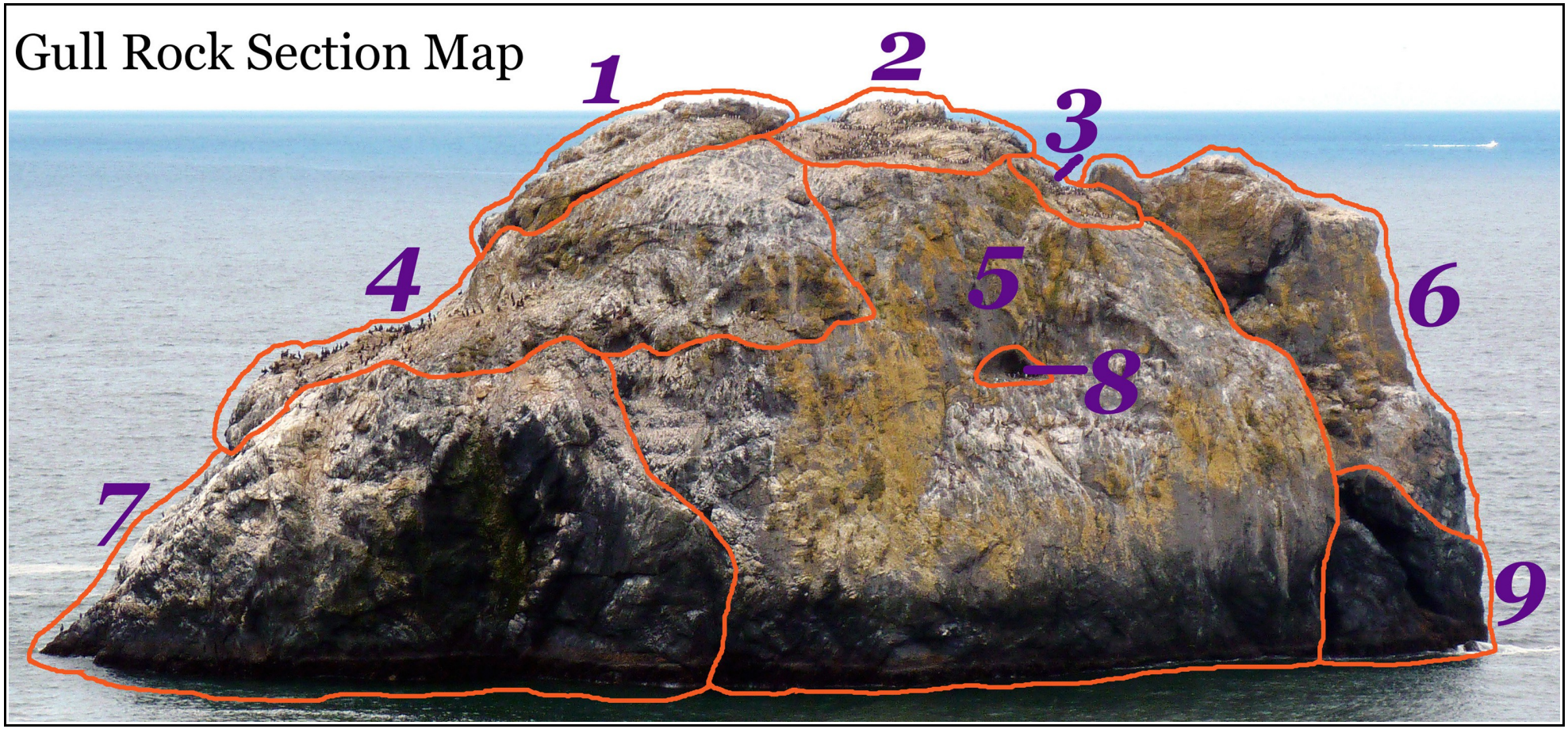
BRAC	Downy Chick	Full Size Chick	Dull Brown Juvenile	Adult	Unknown	BRAC Injured	BRAC Dead	BRAC Notes
	0	0	0	0	0	0	0	
DCCO	Downy Chick	Full Size Chick	White Throat and Belly	Adult	Unknown	DCCO Injured	DCCO Dead	DCCO Notes
	2	2	6	~~28~~ (32)	0	0	0	FEEDING, WING FLAPPING, NEST REPAIRS
PECO	Downy Chick	Full Size Chick	Dull Brown Juvenile	Adult	Unknown	PECO Injured	PECO Dead	PECO Notes
	0	0	0	4	0	0	0	GATHERING NESTING MATERIALS
BRPE	Brown Head/ White Belly	White Heads/ Light Belly		White Head/ Dk Brown Belly	Unknown	BRPE Injured	BRPE Dead	BRPE Notes
	0	0		1	0	0	0	10 FLEW BY TO NORTH
BLOY	Downy Chick	Juv Feathers Dark Bill Tip		Adult	Unknown	BLOY Injured	BLOY Dead	BLOY Notes
	0	0		0	0	0	0	HEARD NEARBY
WEGU	Tiny Chick in Nest	Chick Not Full Grown	Juvenile All Brown	Grayish Back Brownish Head	Gray Back White Head	WEGU Injured	WEGU Dead	WEGU Notes
	0	2	0	1	~~12~~ (14)	0	0	
COMU	Chick		Nonbreeding Adults	Breeding Adult	Unknown	COMU Injured	COMU Dead	COMU Notes
	0		0	0	0	0	0	
PIGU	Chick		Nonbreeding Adults	Breeding Adult	Unknown	PIGU Injured	PIGU Dead	PIGU Notes
	0		6	0	0	0	0	+7 IN WATER

OTHER SPECIES							
CANG	SURF	BLTU	HEEG	UNGU		Counts of Species Not Listed + Notes
0	0	0	0	0		11 HAUL ON ROCKS TO NORTH
Harbor Seal Adult + Imm.	Harbor Seal Pups Total	Dead Pups	red seals	Seals w/ Shark Bites	Disturbance	
0	0	0	0	0	(Y) / N	Additional Space for Notes on Reverse

BOAT CF12345 FISHING TOO CLOSE. 2 WEGU FLEW OFF BUT RETURNED SOON AFTER

1 PERE + 4 SWALLOWS ON FOREGROUND ROCK. 1 RAVEN ON CLIFF

Gull Rock Section Map



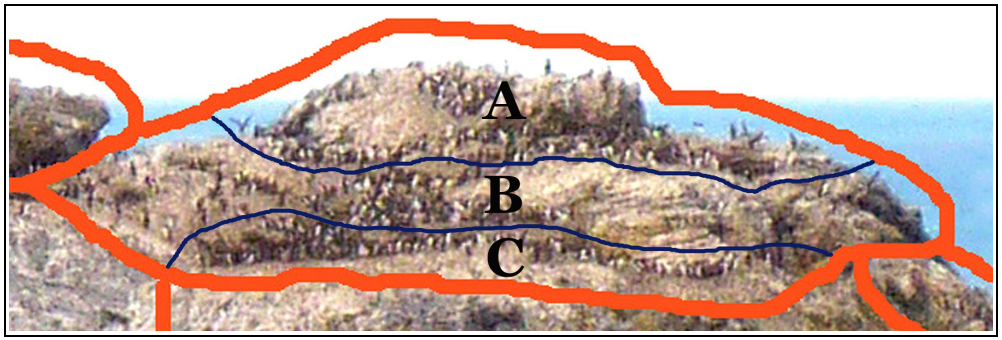
1 Top South
2 Top Central
3 Top North

4 Middle South
5 Middle Front
6 Middle North

7 Lower South
8 The Cave
9 Lower North

Section 2 enlarged to show subdivisions

A Top
B Middle
C Bottom



Gull Rock breeding season supplement sheet

Date _____

COMMON MURRES (COMU) BRANDT'S CORMORANTS (BRAC)

Section	Adults	Chicks	Section	Adults	Chicks	Nests
1 top south			1 top south			
2a top central			2a top central			
2b top central			2b top central			
2c top central			2c top central			
3 top north			3 top north			
4 middle south			4 middle south			
5 middle front			5 middle front			
6 middle north			6 middle north			
7 lower south			7 lower south			
8 the cave			8 the cave			
9 lower north			9 lower north			
Total			Total			

Species	1 top south	2 top central	3 top north	4 mid south	5 mid front	6 mid north	7 low south	8 the cave	9 low north	Total
PECO										
WEGU										
PIGU										
BRPE brown head/white belly										
BRPE white head/brown belly										

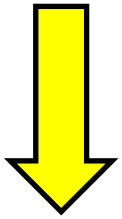
BREEDING SEASON SUPPLEMENTAL SHEETS
Gull Rock

The previous two pages show a sectional map of Gull Rock and its supplemental breeding season form.

While the supplemental form itself may not be needed for our monitoring, counting the birds is made amazingly easier by breaking the rocks down into sections. Counting in this systematic way will speed up the process (or the process can be shared by more than one observer). This will give you more time to observe birds in the water and to observe behaviors—such as carrying food to the rocks for their young. This also helps document the impact of species on each other by documenting their movement and relative positioning over time.

Fill out the Supplemental Sheets FIRST. Then transfer the totals onto the Breeding Seabird Survey form. Put both forms in the binder in the equipment bag.

Non-breeding Form on the next page:
Follow the notes for the Breeding Form.
The additional species on the form are migrants.



NON-BREEDING SEABIRD SURVEY

PG OF

AMBIENT VARIABLES

Colony		Point #		Date yyyymmdd	2015_ _ _ _	Data Recorder	
Start Time		Cloud %		Precip Code		Other Observer(s)	Photos:
End Time		Wind Class		Temp °C			

CORE INDICATOR SPECIES

Enter # of Birds Counted. Valid Codes are: # (count) 0 (no birds present) X (no data)

BRPE	Brown Head/ White Belly	White Heads/ Light Belly	White Head/ Dk Brown Belly	Unknown Plumage	BRPE Injured	BRPE Dead	BRPE Notes
BRAC		Juveniles	Adults	Unknown Plumage	BRAC Injured	BRAC Dead	BRAC Notes
PECO		Juveniles	Adults	Unknown	PECO Injured	PECO Dead	PECO Notes
BLOY		Juveniles	Adults	Unknown Plumage	BLOY Injured	BLOY Dead	BLOY Notes
WEGU	Brown Full-Grown	Grayish Back Brownish Head	Gray Back White Head	Unknown Plumage	WEGU Injured	WEGU Dead	WEGU Notes
GWGU	Light Brown Full-Grown	Lt Brown Wing Lt Gray Back	White Head Lt Gray Wing	Unknown Plumage	GWGU Injured	GWGU Dead	GWGU Notes

OTHER SPECIES							
	BLTU	CAGU	COMU	CORA	DCCO	HEEG	Counts of Species Not Listed + Notes
	PERE	PIGU	RBGU	SURF	UNGU	WATA	
	Harbor Seal Adult + Imm.	Harbor Seal Pups Total	Dead Pups	Red Seals	Seals w/ Shark Bites	Disturbance	
						Y / N	Additional Space for Notes on Reverse

Site/Date:

SPECIES	NOTES and OTHER OBSERVATIONS

OVERVIEW OF DISTURBANCE REPORTING

If there is a disturbance, this is the most important part of the monitoring. You will need to take a few photographs, document the event in the notes section of the monitoring form, fill out an online form, and contact your coordinators to let them know what has happened. Later you will also send in the photographs via email.

THE PHOTOGRAPHS

The designated photographer of the day should take one photograph of the vessel in relationship to the rock, a close up of the vessel showing its identification if possible and photographs showing the reaction of the birds or other wildlife. You will probably find it easiest to hand hold the camera set on auto and use a wide angle for the overall scene then zoom in to do the detail work. A total of 4 or 5 is usually sufficient.

DOCUMENTATION

The data recorder should make notes on the monitoring form detailing the start and ending time, what happened and the identification of the vessel. If the photographer is unable to capture the ID as the vessel is too far away or in poor light, try and obtain that information using the Scope.

ONLINE REPORTING

In the clipboard box you will find detailed instructions of what information you will need to complete the form when you get home. Collect this information (always carry a notebook!). You will also find information on the Google Drive under resources and on the Stewards website, where you can also download the forms. Please complete the form as soon as possible. The website you will need to visit to do this is:

www.SeabirdProtectionNetwork.org

Scroll a little way down to find the Disturbance form, or the direct link is:

https://docs.google.com/forms/d/12ZXtBbMLVwhrtgEiYl_iGW79bUDyZQRRSOPxK9P736E/viewform

CONTACTING YOUR CORDINATORS

It is very important that you let your coordinators know what has happened. They will need to collect the camera, download your photographs and send them to you. A few days after you send in your report you will receive an email for you to verify your form and requests for other documentation you may have such as photographs, which hopefully you will have received by then.

TIPS

There is a lot of very helpful information in the Commonly Asked Questions section of the Disturbance Protocol section which follows and a wonderfully clear information package on the Google Drive under resources. If you carry your own set of paperwork you can fill in the form on site instead of jotting the information in a notepad – much easier!

Protocols
Reporting Wildlife Disturbance Incidents

This online form is used to quantify, describe and report wildlife disturbance incidents at seabird breeding and roosting sites, and at marine mammal haul-outs along the California coast, and on off-shore islands and rocks.

Not all incidents will result in prosecution. Some incidents may not warrant law enforcement involvement, however documentation of these incidents is important. The Seabird Protection Network (Network) and partnering agencies use the collected information for: 1) educational purposes, 2) tracking repeat offenders, and 3) illustrating the need for more enforcement.

What is a Wildlife Disturbance?

For the purposes of the Wildlife Disturbance Reporting Form, a **wildlife disturbance is defined as any human-related harassment, flushing, displacement, harm and/or agitation of wildlife**, which includes but is not limited to operating a vessel or aircraft or to do any other act that results in the disturbance or molestation of **nesting or roosting seabirds** or **resting marine mammals**.

Seabird Disturbance

A seabird disturbance is defined as any event that results in the following actions:

1. Birds flushing (birds flying off the rock) or displacing (moving from their nest, resting site or rafting area).
2. Any event which causes eggs or chicks to be exposed (adult moves away from the egg or chick), displaced (egg or chick moves from nest site), or taken (egg/chick is depredated).
3. An event that causes birds to be visibly agitated or alerted, including "head-bobbing" in Common Murre (birds moving their heads up and down) and alert postures in cormorants (e.g., heads up and alert, wing-flapping).

It may not be necessary to complete the Wildlife Disturbance Reporting Form for an incident that results in only head-bobbing. Head-bobbing behavior in Common Murre indicates agitation and a certain level of disturbance. However, it is difficult and unnecessary to record every event in which head-bobbing occurs.

Marine Mammal Disturbance

A marine mammal disturbance can be defined as any event that results in the following actions:

1. **Head-alert** is defined as a pinniped raising its head from a resting position. The animal will turn its head in the direction of potential danger.
2. **Flushing** behavior constitutes the animal moving towards or into the water. The animal is flushed from the resting position.

Sea Turtles

The laws and regulations that prevent disturbance to marine mammals and birds may also include sea turtles. This form can be used to record sea turtle disturbance incidents as well.

Regulations and Protections

	AIRCRAFT DISTURBANCE	VESSEL DISTURBANCE
SEABIRDS	USFWS Law Enforcement + Seabird Protection Network Info Packet	Seabird Protection Network Info Packet
MARINE MAMMALS	NOAA Office of Law Enforcement + Seabird Protection Network Info Packet	NOAA Office of Law Enforcement + Seabird Protection Network Info Packet
SPECIAL CLOSURE ENCROACHMENTS (MARINE PROTECTED AREA)	Does not Apply	California Department of Fish Game + Seabird Protection Network Info Packet

How to Report a Wildlife Disturbance Incident

WITNESSES SHOULD NOT APPROACH OR CONTACT ANYONE SUSPECTED OF CAUSING A WILDLIFE DISTURBANCE

An incident must be reported as soon as possible in order for law enforcement authorities to respond and successfully prosecute potential wildlife disturbance incidents. Specific information is essential and must be accurately documented and reported. Photographing or video recording a wildlife disturbance incident is critical in order to confirm details of the incident afterwards.

Reporting a wildlife disturbance incident is a multi-step process.

Obtaining & Completing the online Wildlife Disturbance Reporting Form

Step 1:

Access the online form here → Wildlife Disturbance Reporting Form.

Step 2:

Complete the form with as much information as possible. See the document entitled, *Overview of Wildlife Disturbance Reporting* for question definitions and or clarification.

Step 3:

Click the Submit button once you have accurately completed the form.

Step 4:

Within three days of your submission you will receive an email with a PDF of your completed form attached to the email. First review the form thoroughly to ensure all the information is accurately captured. Then return a reply email confirming all information is correct.

Step 5:

If you have changes or additions to the form include the information in your reply email. If you have photos, video or maps of the disturbance incident, attach them to your reply email. Label each attachment using the following format:

Type of attachment (photo, map, video) – Date (Yr-Mo-Day) – Source – Location – Time

Example: PHOTO – 2014-04-02 – VESSEL – DSR – 1324

Step 6:

Report the incident via phone according to your location and type of activity that caused the incident. See Phoning Law Enforcement section. Call in the incident as soon as possible. Describe the following information to law enforcement: 1) Source of disturbance; 2) Date of incident; 3) Time of incident; 4) Location of incident; 5) Vessel or aircraft characteristics; 6) Identification/license numbers; 7) Last known direction; 8) Behavior of animals affected prior to, during and after incident; 9) Description of incident.

Commonly Asked Questions

When should wildlife disturbances be reported?

Incidents that result in a wildlife disturbance from humans should be reported. Wildlife disturbance incidents have the highest probability of enforcement action if you are able to obtain full identification numbers from the aircraft or vessel. Aircraft tail numbers, or vessel name and CF numbers are critical for following up with an incident. Without tail numbers, vessel name and description or CF numbers, officers may not be able to respond. If after returning from the field, the full identification of the aircraft or vessel cannot be obtained, the incident can still be used to show a need for education and outreach.

When should photos or video be taken?

Photographs and video can be entered as evidence in court cases. Always have a camera available to obtain photos of the vessel, kayak, or aircraft causing a disturbance. Ideally these photos should be able to identify the aircraft or vessel, show its relation to the wildlife area affected, and show birds being disturbed. Zoom in and get a clear photo of the identification number on the vessel or aircraft.

Who is responsible for follow up?

The Network and Gulf of the Farallones National Marine Sanctuary will follow-up with the appropriate education (letters, phone calls and presentations) and work with law enforcement as needed. The Network is responsible for coordinating with law enforcement as needed.

When should one or more forms be completed?

In the event of a wildlife disturbance incident from one anthropogenic source, complete one form. If an incident occurs and involves two separate sources, submit two forms. If more than one colony/sub-colony was disturbed from one source in the same timeframe, fill out only one form for the entire incident. For example, if a vessel is traveling north and causes birds to flush from two areas on Devil's Slide Rock → fill-out one form and describe the two areas where birds were disturbed.

If a low-flying helicopter is the source of a wildlife disturbance incident, complete a form. If the same helicopter passes over the colony again, on its return flight, complete a second form.

EXAMPLE:

Submission 1: At 14:20 a helicopter heading south flies over sub-colony A at 400 ft., flushing 20 murres. At 14:23 the same helicopter circles around and flies over sub-colony B at 350 ft. causing 15 large BRCO chicks to stampede towards the crest of sub-colony B. The helicopter continues flying south.

Submission 2: At 15:19 the same helicopter returns flying north over sub-colony C and sub-colony D at 300 ft., flushing 60 murres from sub-colony C and 30 from sub-colony D.

Wildlife Disturbance Reporting Form

WITNESSES SHOULD NOT APPROACH OR CONTACT ANYONE SUSPECTED OF CAUSING A WILDLIFE DISTURBANCE

Question	Definition / Clarification	Question Type
Date & Time Reported	*This field is automatically entered*	Automatic
Reporter's Personal Information		
First name	*First name of reporter*	Text
Last name	*Last name of reporter*	Text
Email	*Must provide a reliable email address in the event you need to be contacted about your observations*	Text
Phone	*Must provide a reliable phone number in the event you need to be contacted about your observations*	Text
Incident Information		
Date of Incident	--	Date
Start Time of Incident	--	Time
Duration of Incident	*How long did the incident last*	Time
Weather Condition	*Describe the weather conditions*	Multiple choice
Location		
Geographic Region	*Describe the geographic region.* If *your region is not provided, choose "Other"*	Multiple choice
Site Description	*After choosing the geographic region, you will choose a specific site within the region*	Multiple choice
Other Location	*If you witness a wildlife disturbance outside of the geographic regions provided, describe the location of the wildlife – Provide as much detail as possible*	Paragraph Text
Additional Description	*Provide additional descriptions of the wildlife disturbance incident – Describe observer location*	Paragraph Text
Type and Description of Disturbance		
Type of Disturbance	*Describe the type of disturbance from the options provided*	Multiple choice
Description of Incident	*Be as specific as possible – Describe details of the incident including person(s) creating disturbance*	Paragraph Text
Aircraft		
N-number Obtained	*This is a Yes or No question*	Multiple choice

Question	Definition / Clarification	Question Type
If YES, Report Number	*If Yes to the previous question, report the unique alphanumeric string that identifies the aircraft*	Text
Type of Aircraft	*Choose the type of aircraft from the options provided*	Multiple choice
Usage (Purpose)	*Choose the usage or purpose of the aircraft*	Multiple choice
Color	*Describe the color of the aircraft*	Checkboxes (all that apply)
Approximate Aircraft Height	*Describe the approximate height of the aircraft*	Multiple choice
Landmark/equipment Used to Estimate Altitude	*Describe the landmark and equipment used to estimate the altitude of the aircraft*	Text
Estimated Horizontal Distance from Aircraft to Disturbed Area	*Estimate the horizontal distance from the aircraft to the disturbed area*	Text
Description of Aircraft		
Props	*Identify the number of propellers on the aircraft*	Multiple choice
Landing Gear	*Identify the type of landing gear on the aircraft*	Multiple choice
Wing Arrangement	*Identify the wing arrangement on the aircraft*	Multiple choice
Rotor	*Identify the number of rotor blades on the helicopter*	Multiple choice
Helicopter Landing Gear	*Identify the type of landing gear on the helicopter*	Multiple choice
Vessel		
Vessel Registration Number Obtained	*This is a Yes or No question*	Multiple choice
CF Numbers	*If Yes to the previous question, report the unique alphanumeric string that identifies the vessel*	Text
Name of Vessel	*Report the name of the vessel*	Text
Home Port/Vessel Nationality	*Report the home port or vessel nationality*	Text
Identify Characteristics/Special Markings	*Identify characteristics or special markings on the vessel*	Text
Color	*Describe the color of the vessel*	Checkboxes (all that apply)
Vessel Type	*Describe the type of vessel*	Multiple choice
Vessel Length	*Describe the vessel length*	Multiple choice
Approximate Vessel Distance to Disturbed Wildlife	*Describe the approximate vessel distance to wildlife*	Multiple choice
Landmark and/or Equipment Used to Determine Distance	*Describe the landmark and equipment used to estimate the distance*	Text
Last Observed Direction of Vessel	*Describe the direction of the vessel*	Text
Land-Based		
Source of Disturbance	*Identify the source of disturbance*	Multiple choice
Distance from Wildlife	*Describe how far the source of disturbance was from the wildlife*	Multiple choice
Habitat Altered	*This is a Yes or No question*	Multiple choice
Habitat Removed	*This is a Yes or No question*	Multiple choice

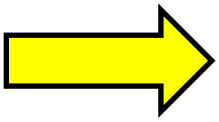
Question	Definition / Clarification	Question Type
If Altered or Removed, Describe Habitat	*Describe the habitat that was altered or removed*	Text
Number of People Involved	*Identify the number of people involved*	Text
Vehicle License Number/Other Identification	*Report the vehicle license number or other identification*	Text
Disturbance Observations		
Identify All Species Disturbed	*Identify all species that were disturbed*	Checkboxes (all that apply)
Number of Each Species Disturbed	*List the number of each species that was disturbed*	Text
Disturbance Pattern	*Describe the disturbance pattern*	Multiple choice
Describe Disturbance Pattern	*List the number of passes or length of time the source of disturbance hovered or lingered*	Text
Behavior of Any Animal Affected During Incident	*Describe the behavior of any animal affected during the incident*	Checkboxes (all that apply)
Describe Various Behaviors Observed During Incident	*Describe which species were flushed versus agitated if two species had different reaction*	Text
Did Affected Animals Return to their Original Behavior after the Incident	*This is a Yes or No question*	Multiple choice
If NO, Describe How the Behavior Changed	*If No to the previous question, describe how the behavior changed*	Text
Additional Information		
Additional Notes	*Report any additional details here*	Paragraph Text
Are Photos/Videos Included in this Report	*Report if photos or videos were captured*	Checkboxes (all that apply)
If YES, Report Contact Information of Photographer/Videographer	*If Yes to previous question, report contact information*	Text
Other Witnesses		
First Name	*First name of other witnesses*	Text
Last Name	*Last name of other witnesses*	Text
Email	*Provide a reliable email address in the event other witnesses need to be contacted*	Text
Phone	*Provide a reliable phone number in the event other witnesses need to be contacted*	Text
Notification		
What Other Agencies Were Notified	*Identify all agencies that were notified of the incident*	Checkboxes (all that apply)
Contact		
If Contact was made with Suspected Violator, Please Explain Incident	*Explain incident so law enforcement can follow up in needed*	Paragraph Text

LEGEND CODES

Legend Codes:
Some codes are not used by our program, but reading through them is helpful in general.

CODES NOT USED
Wind Speed
Adult Behavior
Nest Condition
Largest Chick Size

CODES USED
Precipitation
AOU Species Codes and Common Names—this is quite helpful. Note that UNGU for Unknown Gull is on our non-breeding survey form, and the codes for several birds only seen in winter (or migration) are useful. These include Wandering Tattler (WATA), Whimbrel (WHIM) and Ruddy Turnstone (RUTU).



LEGEND CODES

Precip Code	PRECIPITATION Description
0	No precipitation
1	Mist or fog
2	Light drizzle
3	Light rain
4	Heavy rain

Behavior Code		ADULT BEHAVIOR Description	
0		Adult(s) not present at the site	
S		Adult(s) standing next to or near nest	
N	I	Adult(s) on nest	Adult(s) in incubating posture on nest
	B		Adult(s) in brooding posture on nest
U		Adult(s) in other posture – Describe in field notes	

Wind Code	WIND SPEED Description
0	Smoke rises vertically
1	Wind direction shown by smoke drift
2	Wind felt on face; leaves rustle
3	Leaves, twigs in constant motion; light flag extended
4	Raises dust and loose paper; small branches moved
5	Small trees in sway
6	Wind whistling, large branches moving

Nest Code		NEST CONDITION Description
BT		Birds are present, have a territory, and are displaying.
NM		Nest material is present in loose clumps or stringy bunches of marine or terrestrial vegetation forming at most a disorganized mat.
N	PN	Poorly-Built Nest: a disorganized mound or a flat pile of nesting material
	FN	Fairly-Built Nest: a well-defined, roughly circular pile of nesting material up to approximately 6” in height, with some evidence of a nest bowl depression at its center
	WN	Well-Built Nest: substantial (>6” vertical height) amount of nesting material, forming a clearly-defined circular nest structure with a well-developed nest bowl, often plastered with much guano
NV		Nesting birds are present but the actual nest site is not visible from the vantage point.
AB		Abandoned nest from the current year - Abandoned nests are nests that do not have adults in attendance for two or more consecutive days during the monitoring period.

USGS Species Code	AOU SPECIES Common Name
BLOY	Black Oystercatcher
BLTU	Black Turnstone
BRAC	Brandt’s Cormorant
BRBL	Brewer's Blackbird
BARS	Barn Swallow
BRPE	Brown Pelican
CAGU	California Gull
CLSW	Cliff Swallow
COMU	Common Murre
CORA	Common Raven
DCCO	Double-crested Cormorant
EUST	European Starling
GWGU	Glaucous-winged Gull
HEEG	Heerman's Gull
HERG	Herring Gull
MEGU	Mew Gull
PECO	Pelagic Cormorant
PEFA	Peregrine Falcon
PIGU	Pigeon Guillemot
RBGU	Ring-billed Gull
RUTU	Ruddy Turnstone

Chick Size Class		LARGEST CHICK SIZE Description
C	C1	Tiny Naked Chick (1-8 days old): completely helpless, struggling to raise head for short periods
	C2	Small Downy Chick (8-15 days old): completely downy, able to sit up to feed, but no other mobility
	C3	Large Downy Chick (15-25 days old): mostly to entirely downy, with sheathes of flight feather often visible in older chicks, able to stand up, move about in nest, beg aggressively, and even wander out of nest; and beginning to crèche
	C4	Gawky Chick (25-40 days old): most flight feathers well established and body contour feathers largely replacing downy fluff; head and neck remain mostly down; very mobile, crèching heavily
J		Juvenile (40+ days old): flight and contour feathers >95% established, very mobile and completely independent of nest site; possibly capable of flight

USGS SP. Code	AOU SPECIES COMMON NAME
SURF	Surfbird
UNGU	Unknown Gull Species
WATA	Wandering Tattler
WEGU	Western Gull
WHIM	Whimbrel
WILL	Willet

Mammal Species Code	Common Name
ES	Elephant Seal
HS	Harbor Seal
CSL	California Sea Lion
SSL	Steller Sea Lion
NFS	Northern Fur Seal

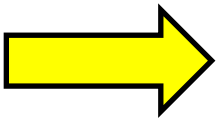
NOTE: Enter an X in any Data field when No Data are collected.

MISCELLANEOUS WEATHER REFERENCES

Weather References:

In case the Kestrel isn't available or you're just interested, there is a Celsius/Fahrenheit conversion table on the following page. You may also find it helpful to attach a small thermometer to your day pack.

Additionally, the Beaufort scale for wind/sea conditions is helpful to be familiar with. You could probably determine wind speed from the Beaufort descriptions (and from the Wind Speed codes on the Legend Codes page) without using the Kestrel if you had to. This information is located after the Celsius table.



Celsius to Fahrenheit Conversion Chart

°C	°F	°C	°F	°C	°F	°C	°F
50	122.0	27	80.6	4	39.2	-19	-2.2
49	120.2	26	78.8	3	37.4	-20	-4.0
48	118.4	25	77.0	2	35.6	-21	-5.8
47	116.6	24	75.2	1	33.8	-22	-7.6
46	114.8	23	73.4	0	32.0	-23	-9.4
45	113.0	22	71.6	-1	30.2	-24	-11.2
44	111.2	21	69.8	-2	28.4	-25	-13.0
43	109.4	20	68.0	-3	26.6	-26	-14.8
42	107.6	19	66.2	-4	24.8	-27	-16.6
41	105.8	18	64.4	-5	23.0	-28	-18.4
40	104.0	17	62.6	-6	21.2	-29	-20.2
39	102.2	16	60.8	-7	19.4	-30	-22.0
38	100.4	15	59.0	-8	17.6	-31	-23.8
37	98.6	14	57.2	-9	15.8	-32	-25.6
36	96.8	13	55.4	-10	14.0	-33	-27.4
35	95.0	12	53.6	-11	12.2	-34	-29.2
34	93.2	11	51.8	-12	10.4	-35	-31.0
33	91.4	10	50.0	-13	8.6	-36	-32.8
32	89.6	9	48.2	-14	6.8	-37	-34.6
31	87.8	8	46.4	-15	5.0	-38	-36.4
30	86.0	7	44.6	-16	3.2	-39	-38.2
29	84.2	6	42.8	-17	1.4	-40	-40.0
28	82.4	5	41.0	-18	-0.4		

Note: For an automatic conversion tool visit www.wbuf.noaa.gov/tempfc.htm

Beaufort Wind Scale Table

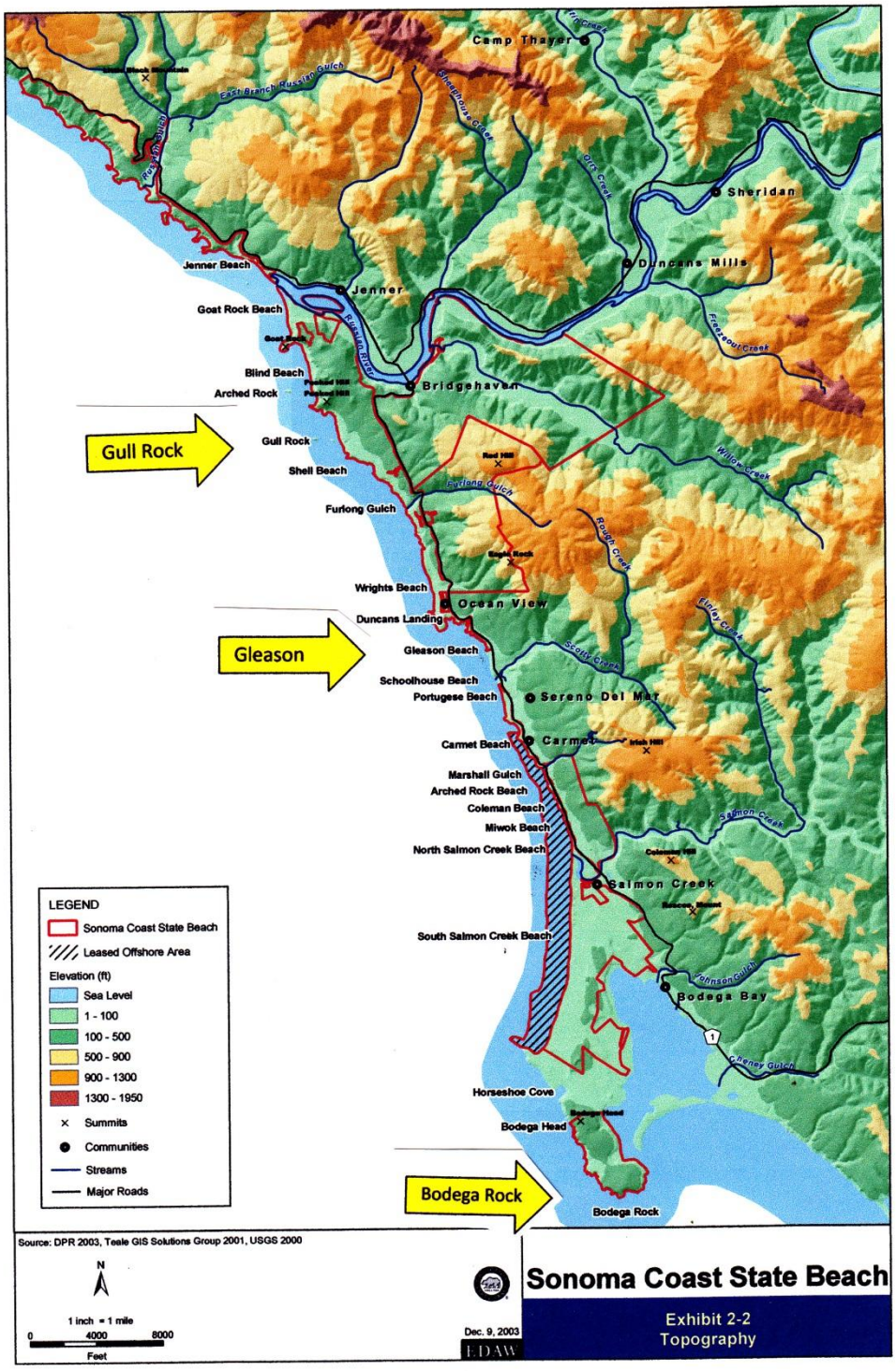
Force	Wind Speed		Descriptive Term	Effects Observed at Sea	Effects Observed on Land
	Km/h	Knots			
0	Less than 1	Less than 1	Calm	Sea surface like a mirror, but not necessarily flat.	Smoke rises vertically.
1	1 - 5	1 - 3	Light air	Ripples with the appearance of scales are formed, but without foam crests.	Direction of wind shown by smoke drift, but not wind vanes.
2	6 - 11	4 - 6	Light breeze	Small wavelets, still short but more pronounced. Crests do not break. When visibility good, horizon line always very clear.	Wind felt on face. Leaves rustle. Ordinary vane moved by wind.
3	12 - 19	7 - 10	Gentle breeze	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered whitecaps.	Leaves and small twigs in constant motion. Wind extends light flag.
4	20 - 28	11 - 16	Moderate breeze	Small waves, becoming longer. Fairly frequent whitecaps.	Raises dust and loose paper. Small branches are moved.
5	29 - 38	17 - 21	Fresh breeze	Moderate waves, taking a more pronounced long form. Many whitecaps are formed. Chance of some spray.	Small trees with leaves begin to sway. Crested wavelets form on inland waters.
6	39 - 49	22 - 27	Strong breeze	Large waves begin to form. The white foam crests are more extensive everywhere. Probably some spray.	Large branches in motion. Whisteling heard in telephone wires. Umbrellas used with difficulty.
7	50 - 61	28 - 33	Near gale	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.	Whole trees in motion. Inconvenience felt in walking against wind.
8	62 - 74	34 - 40	Gale	Moderately high waves of greater length. Edges of crests begin to break into the spindrift. The foam is blown in well-marked streaks along the direction of the wind.	Breaks twigs off trees. Generally impedes progress. Walking into wind almost impossible.
9	75 - 88	41 - 47	Strong gale	High waves. Dense streaks of foam along the direction of the	Slight structural damage occurs, e.g.

Force	Wind Speed		Descriptive Term	Effects Observed at Sea	Effects Observed on Land
	Km/h	Knots			
				wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.	roofing shingles may become loose or blow off.
10	89 - 102	48 - 55	Storm	Very high waves with long overhanging crests. Dense white streaks of foam. Surface of the sea takes a white appearance. The tumbling of the sea becomes heavy and shock-like. Visibility affected.	Trees uprooted. Considerable structural damage occurs.
11	103 - 117	56 - 63	Violent storm	Exceptionally high waves. Sea completely covered with long white patches of foam. Visibility affected.	Widespread damage.
12	118 - 133	64 - 71	Hurricane	Air filled with foam and spray. Sea entirely white with foam. Visibility seriously impaired.	Rare. Severe widespread damage to vegetation and significant structural damage possible.

THE ROCKS

- **General Location Map**
- **Gleason Rock**
- **Gull Rock**
- **Bodega Rock**

Arch Rock



The yellow arrows point to the three rocks you will be monitoring.

GLEASON ROCK

TIMING

The best timing to monitor this rock is from one hour after sunrise to around 14:00.
The specific hour may change during the season, so mark the "monitoring hour" here: ____:____. Mark the day of the week to monitor here: _____.

BIRDS

These are the species that commonly nest on Gleason Rock in order of numbers:

Double-crested Cormorant (DCCO)
Western Gull (WEGU)
Pigeon Guillemot (PIGU)
Pelagic Cormorant (PECO)

Count all Pigeon Guillemots (PIGU) in the water around the rock as well as on the rock.
Watch for Peregrine Falcons (PERE)

LOCATION & TRAVEL TIME (~1.5 Hours Total)

Drive south on Highway 1 to the turnout AFTER the turnout with the Gleason Beach sign.
Walk to the monitoring site (~25 feet).
ALWAYS BRING A BIRD BOOK WITH YOU
ALWAYS BRING THE BIRD IDENTIFICATION NOTES FROM THE BINDER WITH YOU

10-12 minutes' drive from JVC one way
5 minutes each set up/pack up
1 hour monitoring

1) When you see this sign in a turnout, the very NEXT turnout is the one you pull into

2) This is the Gleason Rock turnout (Gleason Rock is in the background left of the car)

3) Path to the monitoring spot is left of the log

4) The monitoring spot at Gleason Rock (largest rock in the background)
Photograph, then monitor the rock for 1 hour

GULL ROCK

TIMING
The best timing to monitor this rock is from one hour after sunrise to around 14:00.
The specific hour may change during the season, so mark the "monitoring hour" here: ____:____. Mark the day of the week to monitor here: _____.

BIRDS
These are the species that commonly nest on Gull Rock in order of numbers:

- Common Murre (COMU)
- Brandt's Cormorant (BRAC)
- Western Gull (WEGU)
- Pelagic Cormorant (PECO)

Count all Pigeon Guillemots (PIGU) in the water around the rock—they may nest in the rock's crevices
Watch for Rhinoceros Auklets (RHAU) in the water
Watch for Peregrine Falcons (PERE) on the rock, flying over and/or possibly disturbing the birds

LOCATION & TRAVEL TIME (~2 Hours Total)
Gull Rock is located in Goat Rock State Beach. Park at the top of the hill where you can see the rock (note: you're parking on a blind curve, so you may want to turn around in the Blind Beach parking lot on your way in and park off the road close to the path).
Walk down to the overlook, taking the main trail straight down then turning right after the first rock cropping in the path.
Walk until you feel you're directly in front of the rock watching not to step in badger holes and avoiding poison oak.
ALWAYS BRING A BIRD BOOK WITH YOU
ALWAYS BRING THE BIRD IDENTIFICATION NOTES FROM THE EQUIPMENT BAG WITH YOU

- 8-10 minutes driving from JVC one-way
- 10-12 minutes one-way hiking
- 5 minutes set up/pack up each
- 1 hour monitoring

Wear the binoculars while you walk!

1) Goat Rock State Beach Entrance from Hwy 1

2) Blind Beach Parking Lot Turnaround


3) Parking for Gull Rock (Path is in front of parked car and Gull rock is on the left in the ocean)

4) This is about 15 feet down the path from where you've parked your car. Turn left and follow the path down the hill.

5) This is the first rock out-cropping on the path to Gull Rock (seen in the background)

6) Gull Rock from the path—rock outcropping is on right of picture, turn right on the path where the scope is (barely visible in the bottom left corner of the picture). There are various paths. Follow a well-traveled path, keeping Gull Rock in view as you walk. If you stay on the paths on the upper side of the hill (towards where you parked) and skirt the coyote bush, it's easier to maneuver with the scope.

7) Position of the scope for monitoring Gull Rock. Photograph, then monitor the rock for one hour.

BODEGA ROCK

TIMING

The best timing to monitor this rock is 14:00 or an hour before sunset in winter
The specific hour may change during the season, so mark the "monitoring hour" here: ____:____. Mark the day of the week to monitor here: _____.

BIRDS

These are the species that commonly nest on Bodega Rock in order of numbers:

Brandt's Cormorant (BRAC)
Western Gull (WEGU)
Pelagic Cormorant (PECO)

Count all Pigeon Guillemots (PIGU) in the water
Black Turnstones are common during migration
Note other birds in the water around the rocks
Watch for Peregrine Falcons (PERE)
If it's foggy, sea lions waving their flippers can look like cormorants.

LOCATION & TRAVEL TIME (~2.5 Hours Total)

Bodega Rock is located at East Bodega Head. Drive south on Highway 1, turning right at the Bodega Head Westside Park Marinas sign. Continue to the barrier for East Bodega Head parking lot. Remove the barrier, drive in; replace the barrier.
Park in lot at the end of the road—you will need a PARKING PASS to leave on your windshield—you can get one from Stewards.
Take the path to the left of the toilets and turn left down towards the signal signs where you will be monitoring.
Be aware that there are ticks.
ALWAYS BRING A BIRD BOOK WITH YOU
ALWAYS BRING THE BIRD IDENTIFICATION NOTES FROM THE BINDER WITH YOU

30 minutes driving from JVC one-way (Includes moving the barrier)
10-12 minutes one-way hiking
5 minutes set up/pack up each
1 hour monitoring

Wear the binoculars while you walk!

1) The turn-off on Highway 1 to Bodega Head (East Shore Road)

2) The barrier for East Bodega Head parking lot

3) Taking the path to Bodega Rock, the toilets will be on your right. You need a pass to park here.

4) At a rise in the main path, take a side trail to your left (where the scope is positioned). You'll see the signal signs and Bodega Rock on the left center of the photo.

7) The position of the scope for monitoring. Note the 4 Brown Pelicans (BRPE) flying over Bodega Rock.
Photograph, then monitor the rock for one hour

5) This is the path.

6) The signal, the scope and Bodega Rock.

Quotes from Volunteers:

"We will never look at the off-shore rocks in the same way."

"I had no idea how much I would learn, how much my mind would be stimulated, what fun I would have and what interesting people I would meet by participating in this program."