

BLACK OYSTERCATCHER NEST MONITORING PROTOCOL

In addition to the mid-late May population survey (see “Black Oystercatcher abundance survey” protocol) we will attempt to continue monitoring at least **25 nests** and broods for reproductive success. Reproductive success is measured in two stages: **nest success** and **fledging success**. A nest that **hatches at least one chick** is considered successful. Successful fledging is based on **at least one chick reared to an age when it is capable of flight**. Many tips on locating nests are found in the abundance survey protocol (so please review). Methods for determining nest and fledging success are outlined below in these guidelines. Reproductive monitoring will require **weekly** visits so this may be too great a commitment for some volunteers. Please contact project coordinators if you would like to commit to nest monitoring. We can work around brief absences, but we must know in advance if there is a week when you will not be able to visit the site/nest that you monitor.

When monitoring nests and broods, our highest priority is to **minimize disturbance**. Watch from as great a distance as possible. If you think there is any chance your presence may influence bird behavior, limit the time you spend at the site, and do not visit the site more than twice a week, however if it is a very distant nest, feel free to visit more frequently and make notes about behavior. If a bird is flying or calling or is actively responding to your presence in any way, back away or leave the site if necessary.

When you find a nest please fill out the upper section of the **Reproductive Data Sheet** (attached below), in addition to the first line on the second page (weekly monitoring notes). On subsequent visits to check nests and/or broods, it will **only be necessary to fill out a single line of information on the second section (weekly monitoring notes)** of the data sheet. See the completed data form below as an example. Please contact a project coordinator if you are uncertain about what you are seeing or whether a failure has occurred. Also, feel free to attach additional sheets with comments or interesting observations including breeding behavior, human disturbance, predators in the area, among others.

Nest finding and confirmation

Because oystercatchers don't build a nest and because from your vantage point you might not be able to see the nest contents, it is important to take steps to confirm that you have actually found a nest. A bird sitting in the exact same location (for at least 15 minutes) on 2 or more visits is a good indicator a nest could be present. A “mate switch”, one bird gets up from sitting and flies off and another bird (you see both birds together) sits in the exact same place, is another indicator of a nest. Please take detailed notes to help us confirm a nest location. Also, feel free to get in touch with Amelia or Joe if you would like help confirming a nest location.

Nest Checks

Once a nest has been located, try to visit it **at least weekly** to monitor activity. Since both male and female oystercatchers incubate, you will often find a bird on the nest. If you are certain that you have a nest (i.e., you have seen eggs, an incubation exchange, a sitting bird fly off then return and sit in the exact same location), and you know approximately when eggs were laid, then simply seeing an adult on the nest is confirmation that it is active. If you are watching from a distance and are confident that you are not disturbing birds, you may conduct a behavioral observation to provide data about behavior and incubation time (see codes on data form). However, in many cases your visit to the site can be extremely brief, and if you believe that there is any chance you are disturbing birds, please leave after you have confirmed that the nest is active.

Black Oystercatchers **incubate eggs for 26-32 days**. If you know the approximate date the nest was initiated (saw nest building or copulation one week and saw an adult incubating on the following visit), you can calculate the approximate date the nest might hatch and begin watching for chicks a little before that date. However, since adults brood young chicks (sit on top of chicks to keep them warm) almost continuously, you will need to watch the adults carefully to determine whether the adult is still sitting on eggs or brooding young. After a nest has hatched you will be able to catch glimpses of the downy chicks poking their heads out from under an adult's wing or body particularly when the second adult arrives with food. These food deliveries are often quite frequent (especially at low tide), and differ from the behavior of adults with eggs. Please watch the

nest for **30 minutes or until eggs or chicks are seen** if you do not see an adult on the nest and are unable to see eggs or if it appears that the nest is being incubated but you do not have any idea when eggs were laid.

Determining Fledging Success

Black Oystercatchers will lay 1-3 eggs but usually only raise 1-2 chicks to fledging. After hatching, chicks will be brooded almost continuously for the first couple of days. Chicks are brooded at least intermittently for the first **23 days** and less often as they mature. When chicks are not being brooded they are almost always attended by at least one parent and will often be within a few feet of a parent (but are well camouflaged and can be difficult to see).

To determine fledging success, weekly visits to sites will be necessary until chicks are **capable of flight at approximately 38-40 days old**. If the nest was located on a narrow ledge, adult and chicks may be seen very close to the nest site. However, chicks are capable of walking almost immediately after hatching and become very good climbers at about 2-3 weeks. So in situations where a nest was located on a broad flat rock, cluster of low rocks, or gravel, it is likely that parents and chicks will move from the nest spot. In these situations you may need to watch the general area in which nest was located, until a parent is spotted. A parent brooding chicks will appear to be sitting. Occasionally both parents will brood simultaneously. You will want to watch brooding parent(s) for about **30 minutes** or until you are confident that you have counted all chicks.

As chicks mature, they may venture further away so you may need to spend a little longer trying to locate and count all chicks around the parents. If you cannot spot a brooding adult or chicks, look for adult foraging near the nest location (try to visit near low tide). Watch any foraging adults carefully. An adult with one or more chicks will often take breaks from foraging and fly off, carrying food to their chicks. If you are watching carefully with a spotting scope or binoculars, you will likely be able to see food in the bill of the oystercatcher as it flies off. However, even if you are not able to see food in the bill, you may see a foraging adult quietly fly off, return to forage, and then fly off again in the same direction, delivering small pieces of food to its chicks. Try to follow the oystercatcher visually and look for a second adult and chicks in the location where the first adult lands. Alternatively, if you see one oystercatcher or a pair of oystercatchers foraging continuously and consuming multiple prey items (watch for swallowing), it is not likely that they have chicks and hence, may indicate that the brood has failed.

What do you do if you think a Nest or Brood has Failed?

It is possible that you may return to a site and see parents but find that they do not seem to be incubating and/or do not see any chicks. Please **conduct at least one additional survey within a week after not seeing nest/chicks** to confirm that the nest/brood failed.

From our experience in previous years, it is fairly common for chicks to be “missing” at about three weeks but then reappear shortly before fledging, at about five weeks. If you suspect that there has been a predation event or failure during this time period, please continue visiting and checking for chicks. In particular, try to visit the site at low tide and watch any foraging adults to see if they deliver food. If you witness an adult flying off with food in its bill it is feeding at least one chick. Do not despair if you can not find the chick(s); food carrying is confirmation that the chicks have not all failed and you may well be able to spot the chick(s) and count them on the following visit.

As chicks mature they will become similar in size and appearance to adults so pay careful attention to their bills. A chick’s bill will not be as long as an adult bill and they will not be bright red. Bill will be **entirely dark gray** at first and will then slowly start turning reddish at the base. Eyes will also be duller than adults.

If a nest fails early in the season (May or June), the adults will likely re-nest in the same location or nearby within 1-2 weeks. Your assistance would be greatly appreciated if you monitor these replacement nests. Please contact a project coordinator if you have questions or cannot monitor a nest on a given week.

Once you have completed monitoring the nest and know its fate please fill out the second section of the survey form (questions 7-16). After filling out the data form, please enter core data (16 questions on first age of data form) into the on-line survey form (contact Joe Liebezeit or Amelia O’Connor for the survey link).

THANKS SO MUCH FOR ALL YOUR HELP!

Project coordinators:

Joe Liebezeit (jliebezeit@audubonportland.org; Phone: 971-222-6121; Cell: 503-329-6026)

Amelia O'Connor (ameliajoconnor@gmail.com; Phone: 406-546-5797)

**THE FOLLOWING SECTION INCLUDES AN
EXAMPLE OF A COMPLETED 2016 DATA SHEET**

2016 Black Oystercatcher Reproductive Data Sheet

- 1) Observer Name: Amelia O'Connor 2) Email: ameliajoconnor@gmail.com
3) Survey Route Map Name: Seal Rock 1 4) Nest ID*: 16AOC01
5) Date nest was found: 5/20/2016 6) Nest Location, Lat: 44.497823 Long: -124.084563

*Nest ID is the last two numbers of the year, your initials, and the nest number. If Jane Anne Doe monitors two nests in 2016 the nest IDs will be 16JAD01 and 16JAD02.

Please fill this section out when you have completed monitoring the nest.

- 7) Last date nest was checked: 6/29/2016
8) Last date the nest was checked when young alive and in nest: 6/16/2016
9) Did monitoring cease while nest was still active: (Circle one) Yes, No, or Not sure
10) Maximum number seen: # Eggs: 2 # Chicks: 1 # Fledglings*: 0
*A fledgling is a fully grown chick that can fly; usually it is close to 40 days old.
11) Is this nest on an **Off-shore rock**, **Mainland** or **Not Sure**? An offshore rock is not connected to the mainland at low tide. (Circle one)
12) During your time monitoring did you see other **People**, **People with dogs**, **Neither**, or **Not Sure** within ~100 meters of the nest? (Circle one)
13) During your time monitoring did you see avian predators within ~100 meters of the nest? (Circle one) **Eagles**, **Falcons**, **Both**, **Neither**, **Other**, or **Not Sure**
14) Did you see any disturbance resulting in both parents leaving the nest? (Circle one) Yes, No, or **Not sure**
15) Did you see any other birds nesting within ~100 meters of your nest? (Circle one) **Yes**, No, or **Not sure**
16) Please comment on the fate of your nest. For example, if you recorded a fledgling, what indicated to you the chick had fledged? Or if your nest failed, what causes do you think may have contributed?

Nest failed → no fledglings observed and adults abandoned nest site. Not sure what happened to the chick but disturbance could have played a role. I saw one eagle in the area and at one point I saw some teenage kids playing around climbing awfully close to where the nest was.

Use this section for your weekly monitoring notes.

Codes:

N: nest building (rock tossing) observed C: copulation observed UN: nesting status unknown
 E: eggs seen ES: eggs suspected PO: predation observed
 Y: young/chicks seen YS: young suspected (predator at nest)
 I: adult seen incubating IE: incubation exchange observed
 F: failure confirmed (missing eggs or 2nd visit with no incubation/chicks) FS: failure suspected

Please mark below the date and applicable code(s) for each and every site visit.

Date	Codes (above)	#eggs/young	Comments
5/20/2016	ES	?	-Abundance survey observer spotted nest and suggested it may have eggs
6/1/2016	ES	?	-First visit to site, nest is on a large rocky formation attached to mainland, Gulls are nesting nearby, lots of people walking nearby beach area. BLOY parent didn't move off nest, some fidgeting.
6/3/2016	E	2	-Watched mate switch and saw two eggs clearly!
6/8/2016	YS	?	-incubating parent adjusting a lot but can't tell what is underneath, also very alert.
6/14/2016	Y	1	-a very downy chick popped its head up while adult was adjusting positions, can't tell if there is a second chick.
6/16/2016	Y	1	-Got a good view of nest on mate switch, one chick only.
6/23/2016	FS, PO		-one BLOY (adult) flying in area but nothing in/on nest. Gulls in nest site area and a Bald Eagle flew not far from area.
6/29/2016	F		-no birds seen near original nest site.

After you complete your survey please:

- 1) Enter the numbered questions on the online data form at: <https://www.surveymonkey.com/r/2016BLOYNest>
- 2) Scan and email Amelia O'Connor a copy of your original data sheet to ameliajocconnor@gmail.com or mail to 6330 Nellie Ave, Otter Rock, OR 97369. Thank You!