Black Oystercatcher Conservation
Mendocino County, CA
Final Report on Nesting Success

Audubon California Collaborative Grant
California State Parks – Mendocino Coast Audubon Society – U. S. Bureau of Land Management

Photo by Don Shephard – Point Cabrillo

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Project Goals and Background

The Black Oystercatcher, *Haematopus bachmani*, is a year-round shorebird along the rocky intertidal west coast of the United States. Listed by the U.S. Fish and Wildlife Service (USFWS) as a species of focal concern, the long term goal of the Black Oystercatcher Conservation Project is to apply gainful knowledge to current conservation efforts that will preclude the need for an Environmental Species Act listing. Oystercatchers are associated with healthy, productive marine intertidal habitat, which prescribes them as an indicator species of intertidal marine health.

The goal of the 2014 Nest Success Survey is to continue to record baseline data beginning in 2012 on habitat status including: nest success and fledging success trends in Mendocino County, California. The regional chapter coordinator advises volunteers and state park personnel on guidelines, protocol, data collection and public outreach. Weekly surveys are performed May through September at pre-selected sites of high species density. The following data is provided to Audubon California's Seabird Program Manager and will be used to assist the United States Fish & Wildlife Service's (USFWS) range-wide working plan in identifying the best conservation practices needed to address threats and reverse declines.

The project is directed and funded by California Audubon's Collaborative Chapter Grant Program presented to Mendocino Coast Audubon Society (MCAS). Collaborative in-kind support is provided by California State Parks Department of Natural Resources and public outreach is funded by the U.S. Bureau of Land Management's California Coastal National Monument Program (CCNM).

An additional survey report (Appendix-E) identifies first year results of population, nest success, and fledging success at the Ten Mile State Marine Reserve (TMSMR). This is a Marine Protected Area (MPA) designated by the California Fish and Game Commission in December of 2012. The project is an extension of the Chapter Collaborative Grant through California Audubon funded by the Resources Legacy Fund Foundation's (RLFF) *Oceans, Coasts, and Fisheries Program*. The goal is to benefit the MPA's Monitoring Enterprise (ME) efforts to collect baseline assessment data and procure long term monitoring of Vital Sign Species to detect and interpret changes that may occur following MPA designation.

Project Timeline and Accomplishments

- **April** – Joleen Ossello, as regional chapter coordinator, conducted a five-hour volunteer training workshop including speakers: Katie Krieger, Environmental Engineer for Audubon California and Judy Steele, MCAS Grant Administrator for CCNM public outreach funding
- **May** – Additional acquisition of Community Based Seabird Colony Monitoring -Challenge Cost Share funding from BLM CCNM program for public outreach via social media and informational magnets
  – Seventeen MCAS volunteers, two state park environmental science personnel, and regional chapter coordinator began weekly surveys of pair/nest identification at the following sites of high density: MacKerricher State Park, Point Cabrillo State Historic Park & Preserve, Russian Gulch State Park, Mendocino Headlands State Park, Mendocino Bay Overlook, Van Damme State Park, and Navarro Point Preserve
  – Continuation of Yahoo BLOY Group for volunteer/coordinator communications
  – Regional chapter coordinator presented a ten minute presentation of the project for members of the Mendocino Study Club and another for the Mendocino Rotary Club
- **June** – regional chapter coordinator held mid-season progress meeting for surveyors and submitted progress report to Audubon California

- **August**– climate change and BLOY video interview with regional chapter coordinator by Daniela Ogden, Marketing and Communications Manager for Audubon California
- **September** – all weekly surveys completed with conclusive monitoring of forty-six nests, 460 volunteer field hours, 170 in-kind state hours, and 120 public outreach magnets disseminated
- **October** – end of season meeting conducted by regional coordinator reviewing preliminary results and collecting project feedback by MCAS volunteers and state park environmental scientists

Observations - BLOY

- Territorial nesting areas shared with Western Gulls, Pelagic Cormorants, and Pigeon Guillemots
- Fewer non breeding birds were reported flying and/or aggregating than in previous year
- Territorial displays constant throughout breeding season
- Majority of pairs nesting by the first week in June
- Several previously occupied nest sites from 2013 were either uninhabited or had a territorial pair attempt to nest, but never lay
- Three pairs are suspected of re-nesting after initial failure; two of the pairs successfully fledged one young and the third pair appeared to have three different nest sites within a small area eventually hatching one young that did not fledge
- Predators observed within nesting areas include: Common Raven, Western Gull, Peregrine Falcon, and river otter
- Direct predation by Peregrine Falcon on young observed by volunteers at one survey location, another site had a failed Peregrine Falcons nest nearby and volunteer does not believe PEFA predation was the cause for both of that sites nest failures.
- The last successful fledgling was recorded on September 29th.

Observations – Survey sites

- Fifty-five nesting attempts observed; majority of nests found in same area where nesting occurred in 2013 with the addition of several nesting sites newly discovered
- Strong northwest winds and calm heavy fog days created difficult viewing conditions
- General public continues to access particular nesting areas at low tide; Laguna Point and Glass Beach
- Recreational divers, kayakers, and fisherman continue to visit areas close to nesting sites at Van Damme State Park and Russian Gulch State Park
- 120 CCNM BLOY magnets were distributed by volunteers. This approach to public outreach continues to be a successful talking point for visitor contact.

Results

Fifty-five nesting attempts were identified (Appendix C - Table A) and forty-six were determined to have conclusive data (Appendix C - Table B). Of the forty-six conclusively monitored nests, twenty-eight nests (60.9%) successfully hatched young and sixteen of those nests (34.8%) successfully fledged one or more young.

Nests with inconclusive data (nine in yellow) had an undetermined outcome. Five nests at Laguna Point in MacKerricher State Park were unsuccessfully monitored on a weekly basis, however, three of those nests successfully hatched young. The other five nests from various sites were inconclusive due to the nature of observed behavior; for example, two adults (pair) defended nesting territory, may have copulated, were seen nest building, but never laid. Other inconclusive data are those nests with locations generally obscured.

An additional project meeting at mid-season took place this year at the request of volunteers in 2013. A survey summary sheet was introduced to facilitate up to date reporting of individual nest status. Participants' records appeared more relaxed this year with less behavioral description which is useful to the regional chapter coordinator when reviewing observations. There remains a general reluctance to follow coding protocol by using the "UN" code instead of "FS" and "F". Interest and moral tends to remain high if there is some level of success at the survey site. I anticipate returning volunteers.

Expenditures

The independent contractor acting as the said regional coordinator will furnish upon request to Audubon CA or any other agency involved disclosure of project expenditures for services rendered.

Recommendations

- Furnish participants with map of previously recorded nesting sites as well as an initial blank map to record potential nesting pairs on first few surveys
- Modify data sheet to record GPS coordinates, volunteer field time, and utilize the summary sheet to promote up to date reporting status of individual nest sites
- Use data sheets or summary sheets "in the field" and record "all" codes that apply
- Provide survey maps through California Audubon's GIS Specialist; this will improve long term accuracy of nest locations
- Continue to provide the public with project information in hand and through social media
- Continue to monitor existing sites with anticipation of adding previously surveyed GP site along the California Coastal Trail in 2015. Nesting activity also exists at Jug Handle State Reserve and Caspar State Beach Headlands, both of which are not currently monitored.
- Hold mid-season meeting in June with participants just prior to submitting July progress report
- Encourage Yahoo BLOY social media group for ongoing communication with participants
- Collaborate with California State Parks to establish specific areas of sea bird nesting signage
- Submit group volunteer form with California State Parks
- Exchange survey sites among participants

Acknowledgments

Thank you Anna Weinstein, Seabird Program Coordinator for Audubon California, for your determination in making this study possible since our initial excitement in 2011. Thank you to Katie Krieger, Environmental Engineer for Audubon California, for coming on board with GIS support just in time. Thank the Mendocino Coast Audubon Volunteers for taking on this summer commitment year after year and ultimately being responsible for the success of this citizen science project. With the support from the U.S. Bureau of Land Management and California State Parks, this project is a successful collaborative effort.

Appendix – A (omitted for public view)

2014 BLOY Nest Success Survey Results – Mendocino County

Failed Nest	Fledging Success	Inconclusive data	No activity	No Data

Appendix – B 2014 BLOY Nest Success Survey Results – Mendocino County

Inconclusive Data blank = no pair activity

Table 1a

Laguna Point, MacKerricher State Park

Nest #	1	2	3	4	5
# of Young	ND	1	2	1	UN
# Young Fledged	ND	UN	UN	UN	UN

Table 2a

Glass Beach, MacKerricher State Park

Nest #	1	2	3	4	5	6	7
# of Young	1	0	2	0	1	0	no pair
# Young Fledged	0	0	0	0	0	0	

Table 3a

Point Cabrillo Historic State Park & Preserve

Nest #	1	2	3	4	5	6	7	8
# of Young	2	1	3	3	2	0	1	0
# Young Fledged	1	0	1	1	0	0	1	0

Table 4a

Russian Gulch State Park

Nest #	1	2	3	4	5	6	7	8	9	10	11	12	13
# of Young	YS	0	2	0	2	2	1	2	0	0	0	1	2
# Young Fledged	0	0	0	0	2	2	1	2	0	0	0	0	2

Table 5a

Mendocino Headlands State Park

Nest #	1	2	3	4	5	6	7	8	9
# of Young	no pair	3	2	no pair	2	no pair	2	2	0
# Young Fledged		1	1		1		0	0	0

Table 6a

Mendocino Bay Overlook

Nest #	1
# of Young	0
# Young Fledged	0

Table 7a

Van Damme State Park - Spring Ranch

Nest #	1	2	2a	3	3a	4	5	6	7
# of Young	0	2	0	1	0	0	1	0	0
# Young Fledged	0	0	0	1	0	0	1	0	0

Table 8a

Van Damme State Park - Little River Headlands

Nest #	1	2	3	4	5	6
# of Young	3	0	3	2	0	0
# Young Fledged	0	0	0	0	0	0

Table 9a

Navarro Point Nature Preserve

Nest #	1	2	3
# of Young	0	0	no pair
# Young Fledged	0	0	

Table 10a

Ten Mile State Marine Reserve

Nest #	1	2	3	4	5	6	7	8	9	10	11
# of Young	0	0	0	1	0	0	0	0	0	0	0
# Young Fledged	0	0	0	0	0	0	0	0	0	0	0

Appendix – C 2014 BLOY Nest Success Survey Results – Mendocino County

Inconclusive data

Table A - Inconclusive Results			
# Nesting attempts observed	**55**		
Young seen	55		
Nests with young	30	0.545	54.5%
Nests with Fledgling(s)	14	0.255	25.5%
Fledged young	18	0.327	32.7%
Nest Hatchling Success	UNKNOWN		
Nest Fledgling Success	UNKNOWN		
Nest Failures	UNKNOWN		

Table B - Conclusive Final Results			
# Nests conclusively monitored	**46**		
Young seen	50		
Nests with young	28	0.609	**60.9%**
Nests with Fledgling(s)	16	0.348	**34.8%**
Fledged young	18	0.360	**36.0%**
Nest Hatchling Success	28	0.609	**60.9%**
Nest Fledgling Success	16	0.348	**34.8%**
Nest Failures	30	0.652	**65.2%**

Table C - Inconclusive Results			
Ten Mile State Marine Reserve			
# Nesting attempts observed	**11**		
Young seen	1		
Nests with young	1	0.091	9.1%
Nests with Fledgling(s)	0	0	0.0%
Fledged young	0	0	0.0%
Nest Hatchling Success	0	0.000	0.0%
Nest Fledgling Success	0	0.000	0.0%
Nest Failures	11	1.000	100.0%

Table D - Conclusive Final Results			
Ten Mile State Marine Reserve			
# Nests conclusively monitored	**9**		
Young seen	1		
Nests with young	1	0.111	11.1%
Nests with Fledgling(s)	0	0	0.0%
Fledged young	0	0	0.0%
Nest Hatchling Success	0	0.000	**0.0%**
Nest Fledgling Success	0	0.000	**0.0%**
Nest Failures	9	1.000	**100.0%**

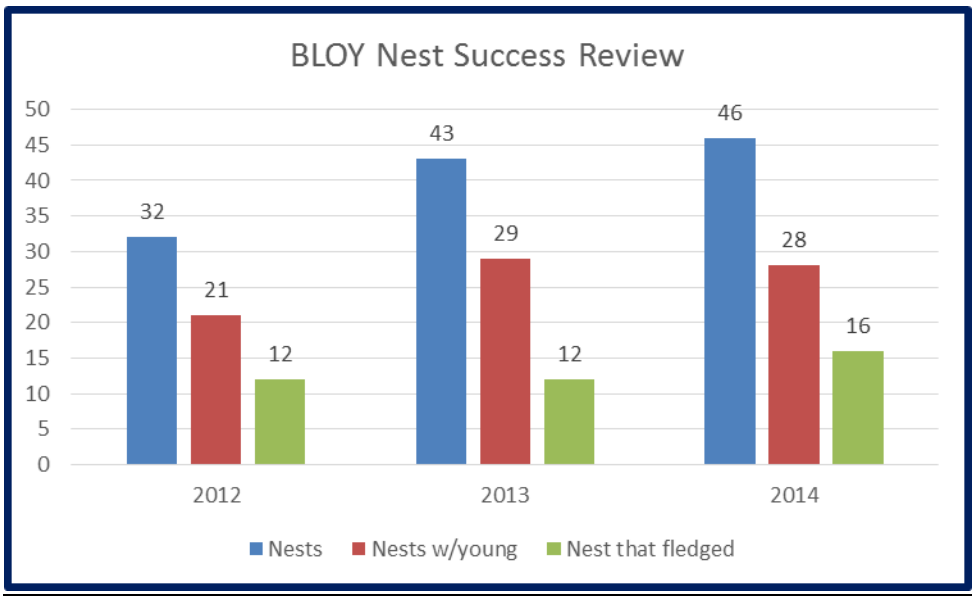
Appendix – D 2012-2014 BLOY Data Comparison - Mendocino County

Table A1	
2012 - Conclusive Final Results	
Nests Observed	**32**
Young seen	43
Nests with young	21
Nests that fledged	12
Fledged young	18
Failed Nests	20
Nest Hatchling Success	**65.6%**
Nest Fledgling Success	**37.5%**
Nest Failures	**62.5%**

Table A2	
2013- Conclusive Final Results	
Nests Observed	**43**
Young seen	52
Nests with young	29
Nests that fledged	12
Fledged young	17
Failed Nests	31
Nest Hatchling Success	**67.4%**
Nest Fledgling Success	**27.9%**
Nest Failures	**72.1%**

Table A3	
2014 - Conclusive Final Results	
Nests Observed	**46**
Young seen	50
Nests with young	28
Nests that fledged	16
Fledged young	18
Failed Nests	30
Nest Hatchling Success	**60.9%**
Nest Fledgling Success	**34.8%**
Nest Failures	**65.2%**

Table A4	2012	2013	2014
Nest Hatchling Success	65.6%	67.4%	60.9%
Nest Fledgling Success	37.5%	27.9%	34.8%
Nest Failures	62.5%	72.1%	65.2%



Appendix E – Ten Mile State Marine Reserve

Location: The reserve is located in Mendocino County along CA Highway 1 between Seaside Beach and the Vista Pullout at Bruhel Point. This survey follows remote coastline from 39° 35.900' N and 123° 47.243' W to 39° 33.300' N and 123° 46.015' W with approximately 40% public access and 60% private land ownership. Permission to pass was granted by two of the private land owners. The reserve is three and a quarter miles in linear length with survey time generally five hours including time to drive and walk between survey points.

Appendix E Cont. – Ten Mile State Marine Reserve (omitted for public view)

Acknowledgements: Thank you Anna Weinstein, Seabird Program Coordinator for Audubon California, for securing additional funding to add this important marine protected area to the study. Thank you landowners for allowing access to your private lands on a weekly basis throughout the summer; the Jackson-Grube Family of the Inn at Newport and Sally Ottoson of the Pacific Winery.