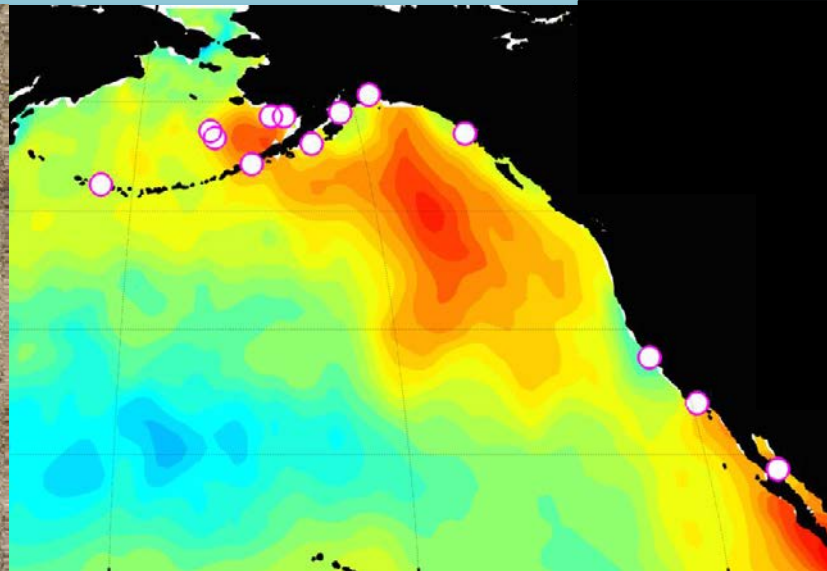


Beach Watch - Update 2015



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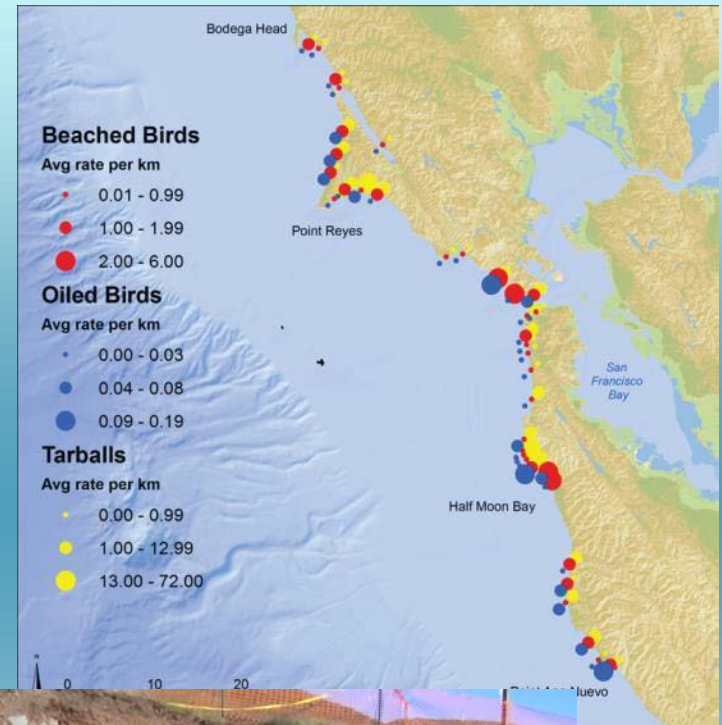
Beach Watch Overview

- Beach Watch started in 1993
- Shoreline surveys monitoring:
 - Live wildlife
 - Dead wildlife
 - Human-uses
 - Oil pollution
- Currently monitor 56 beaches surveyed by 140 volunteers and 6 staff



Beach Watch Management Questions

- Data have been used for triaging response efforts
- NRDA and restoration planning, over \$52M in restoration projects have resulted from Beach Watch data
- Data are used for designing wildlife protection zones and areas to be avoided
- On-line data query & mapping

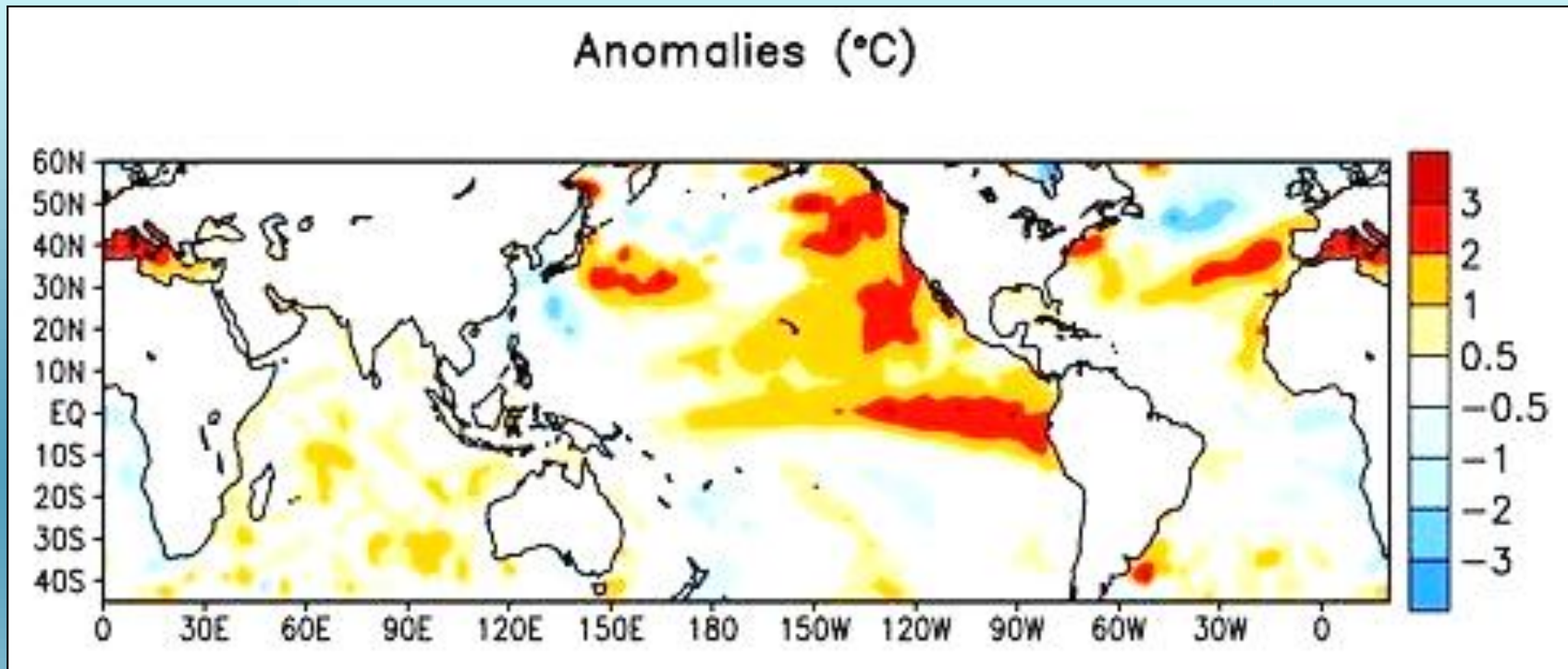


Beach Watch 2015 Highlights

- Oceanographic Anomalies
- Wildlife
 - Unusual Mortality Events
 - Range Expansion
- Oil
 - Luckenbach
- News from the Beach Watch Office
 - ONMS Volunteer of Year
 - Upcoming publication



Warm Water Anomalies



Map courtesy of NOAA, NWS, National Climate Prediction Center

- Persistent warm water “Blob” 2014-2015
- Onset of ENSO 2015-2016, one of the strongest on record

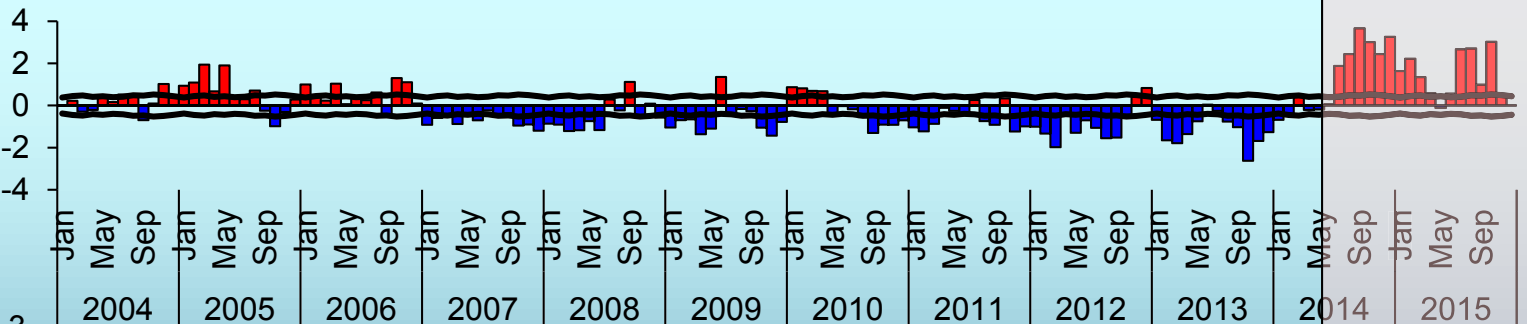


Warm Water Anomalies

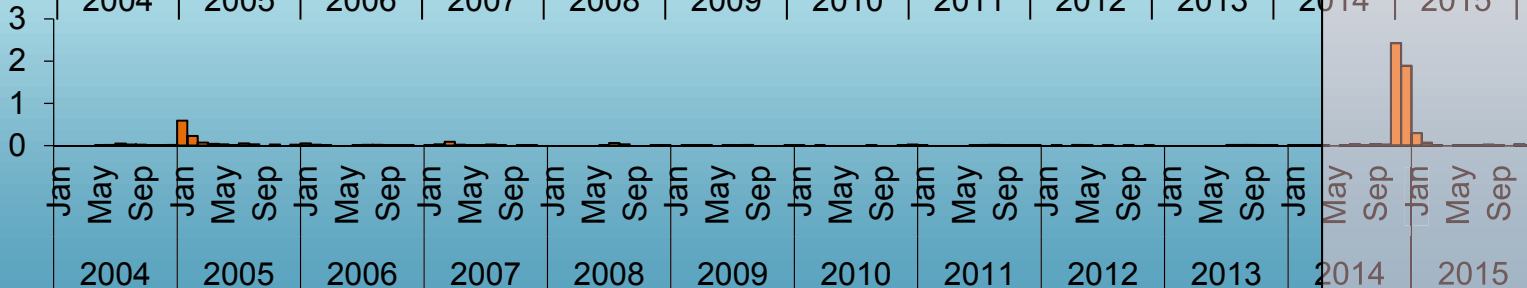
- Unprecedented UMEs detected by BW - CAAU, GFSE & COMU
- Various trophic levels impacted - CAAU zooplanktivores, COMU & GFSE piscavores
- Unusual occurrence of warm water species, such as Brown Boobies, Striped Dolphin, and Olive-Ridley sea turtles.



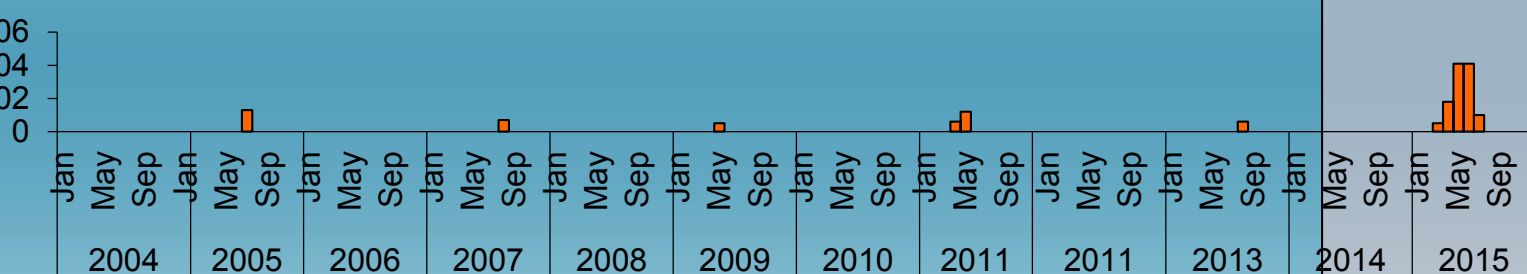
Sea surface temperature* anomalies (monthly)



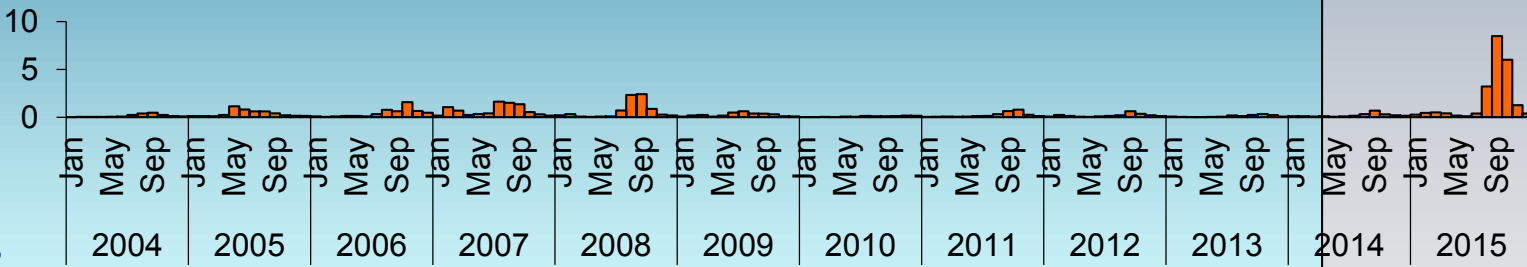
CAAU Encounter Rate (#/km)



GFSE Encounter Rate (#/km)



COMU Encounter Rate (#/km)



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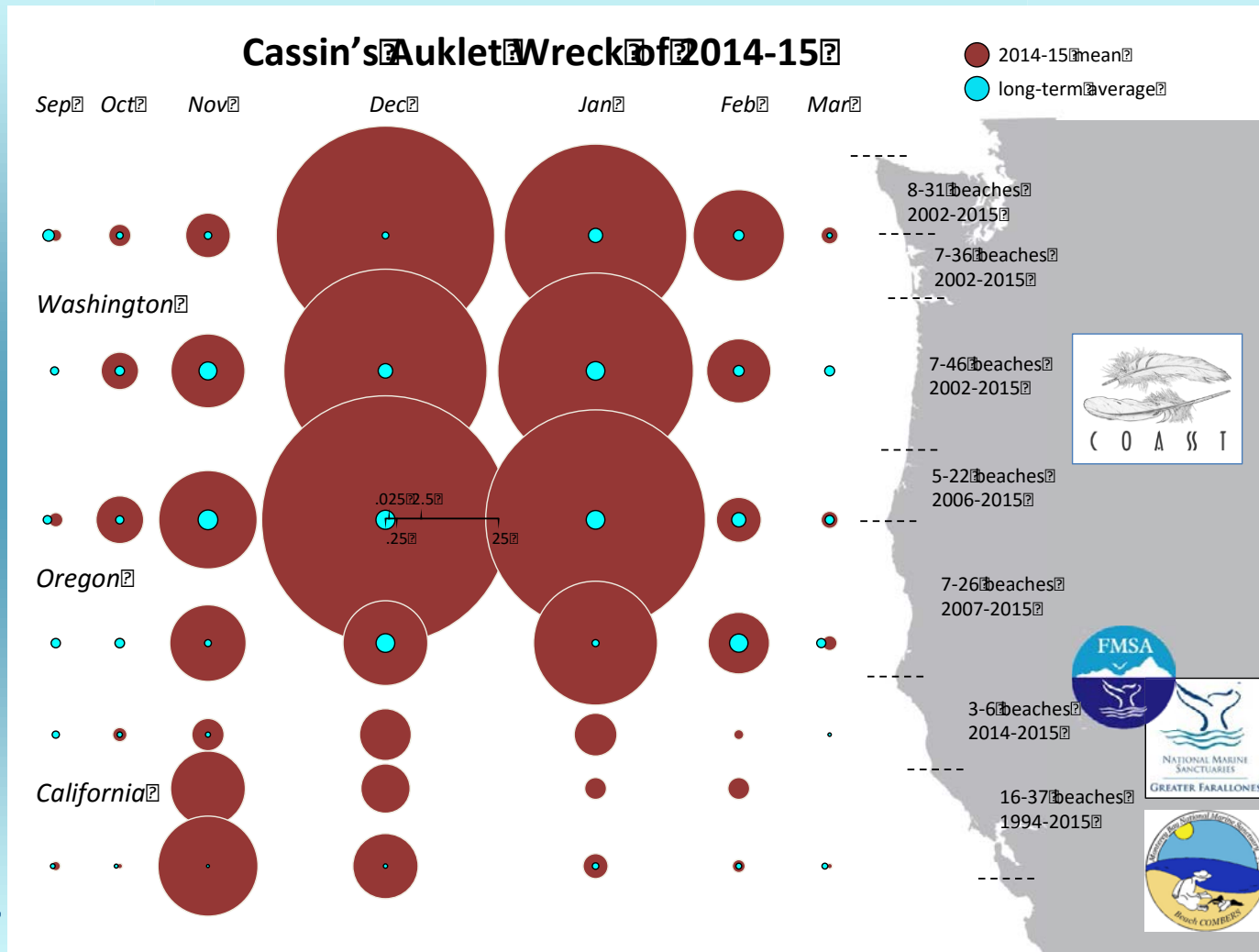
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Cassin's Auklet UME

- CAAU baseline deposition 0.0087 vs. 2.82 birds/km
- 320 times higher, for the same time of year
- 75% of aged CAAU were young of the year



Cassin's Auklet UME



From: Henkel et al. 2015 Pacific Seabird Group Conference

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Guadalupe Fur Seal UME

- Guadalupe Fur Seals are an uncommon migrant and threatened species
- GFSE baseline deposition 0.0005 mammals/km vs. 0.025 mammals/km
- 46 times above baseline for the same time of year
- 100% fur seals were pups



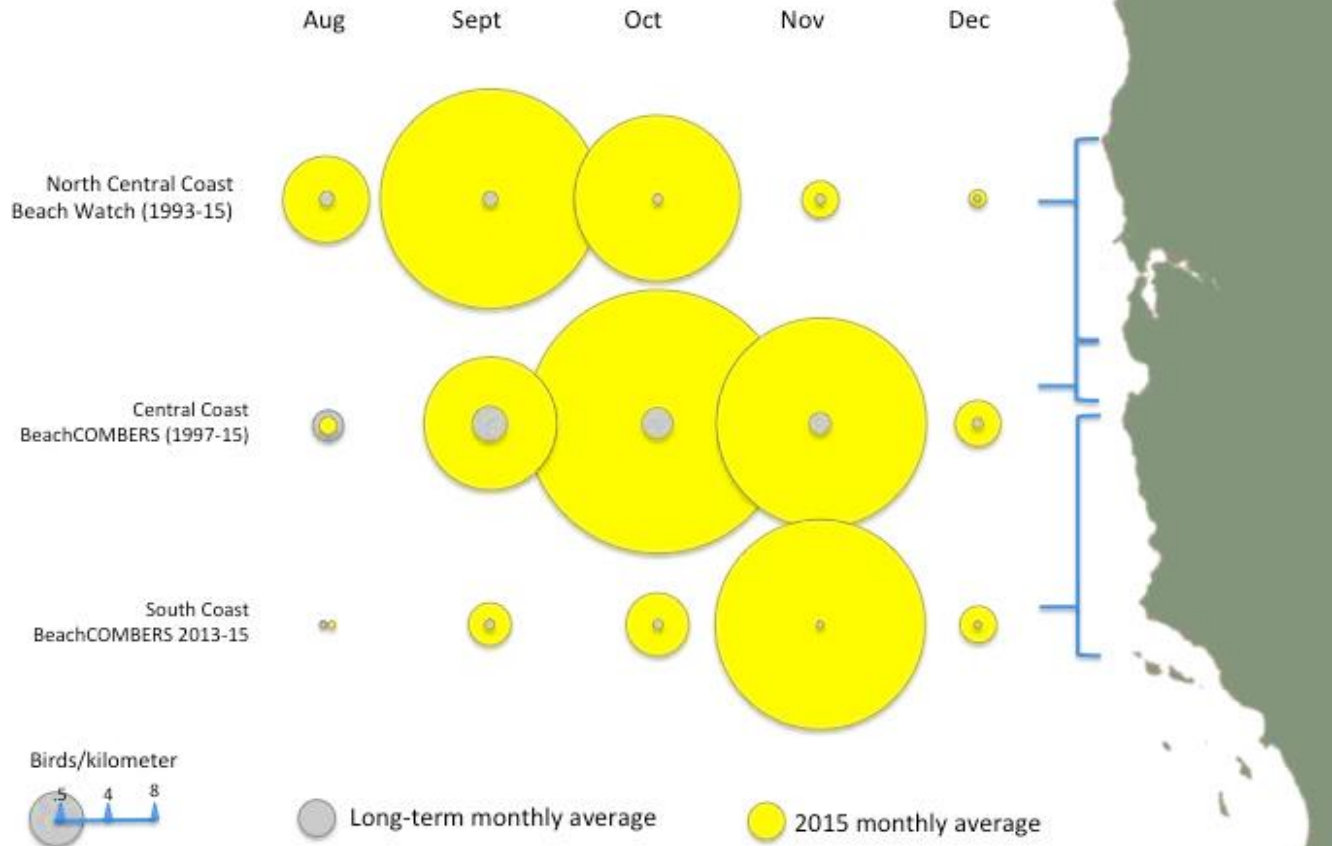
Common Murres UME

- COMU baseline deposition 0.497 birds/km vs. 5.95 birds/km
- 12 times above baseline for the same time of year
- 75% of aged murres were young of the year
- DA have been documented in some necropsied birds



Common Murres UME

Central California Common Murre Wreck 2015



From: Gibble et al. 2016 Pacific Seabird Group Conference

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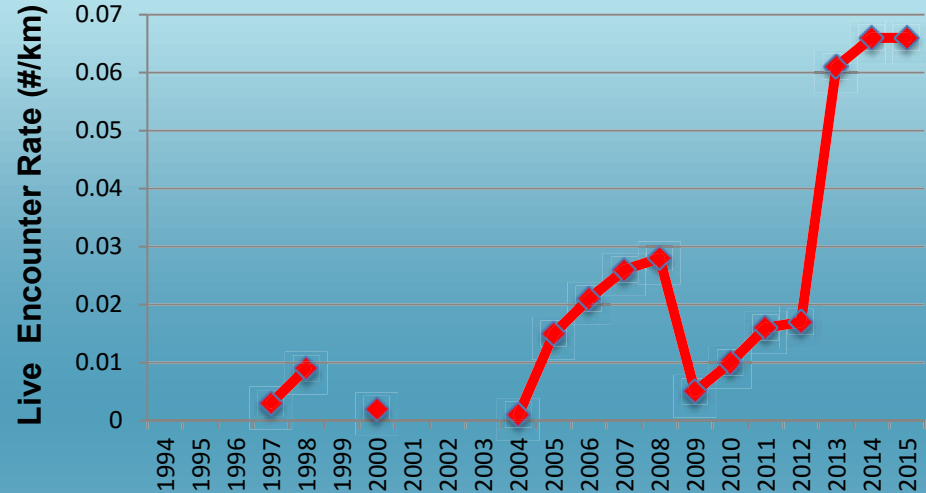


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Range Expansion

- Until 2005 BNDO was rare in our region with Ocean Beach as northern range limit.
- In 2012 BNDO were first observed in Marin
- In 2015 they were first observed at the southern Mendocino County line

Bottlenose Dolphin



New Elephant Seal Pupping Colony

- Discovered previously unreported ES pupping colony January 2015
- Havens Neck is a privately owned peninsula north of Gualala, CA; public access is not permitted



Photo credit: J. Hall FMSA/GFNMS 28 Jan. 2016

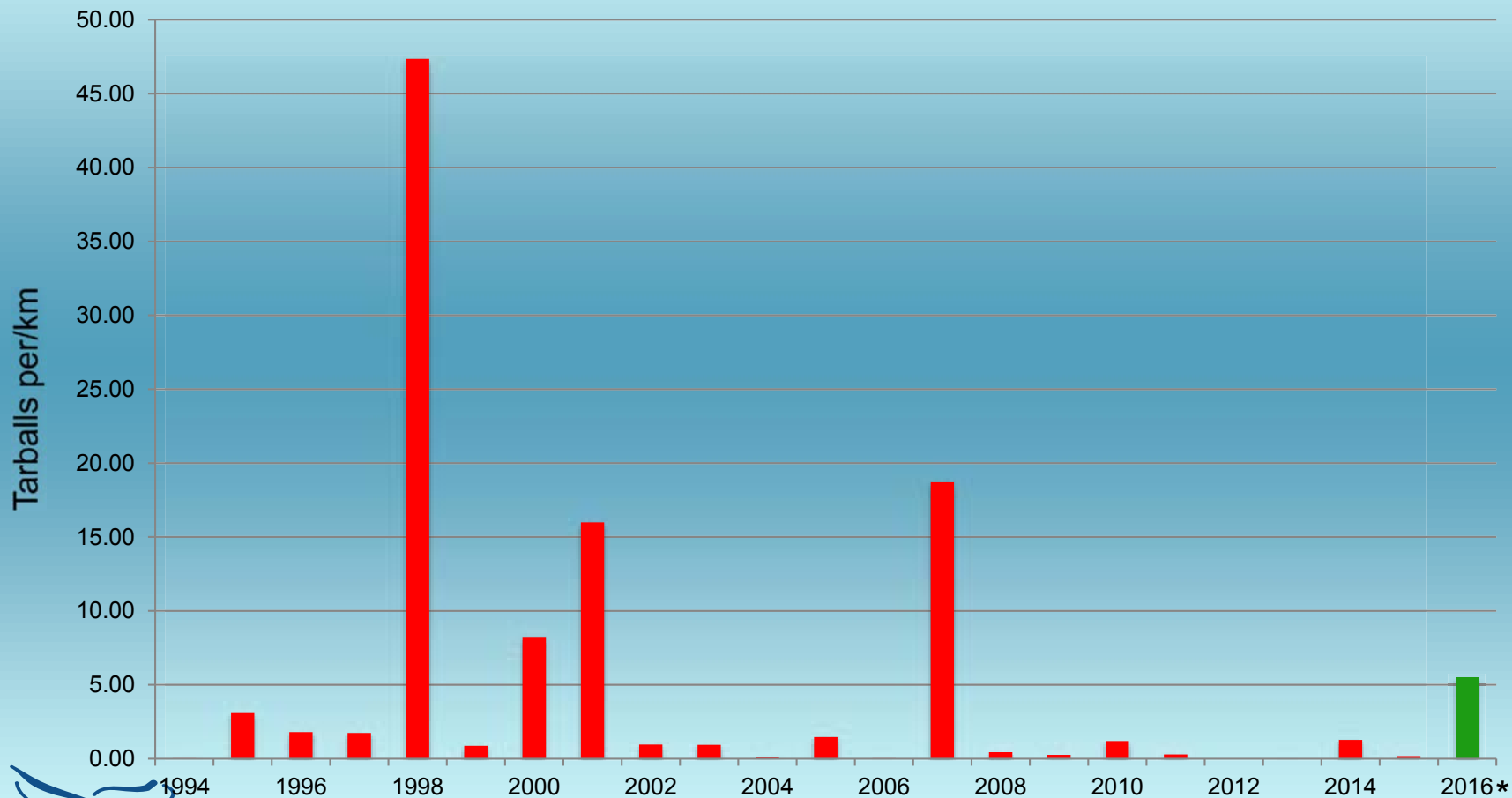


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Oil Update

Tarball Deposition per/km

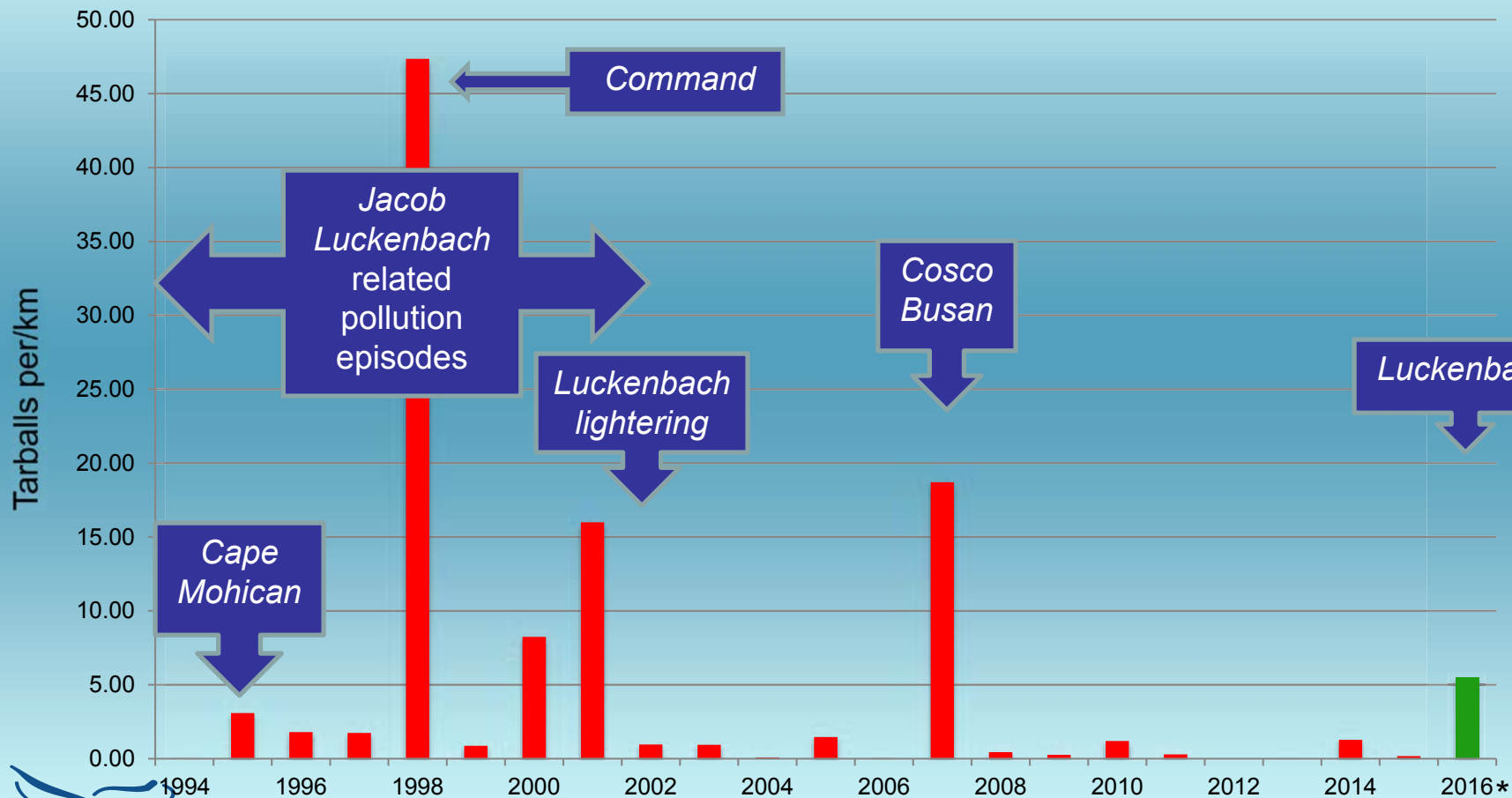


* Note that preliminary 2016 data is included here as an estimate of the minimum possible tarball rate for 2016 based on current tarball count and maximum km that may be surveyed in 2016

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Oil Update

Tarball Deposition per/km

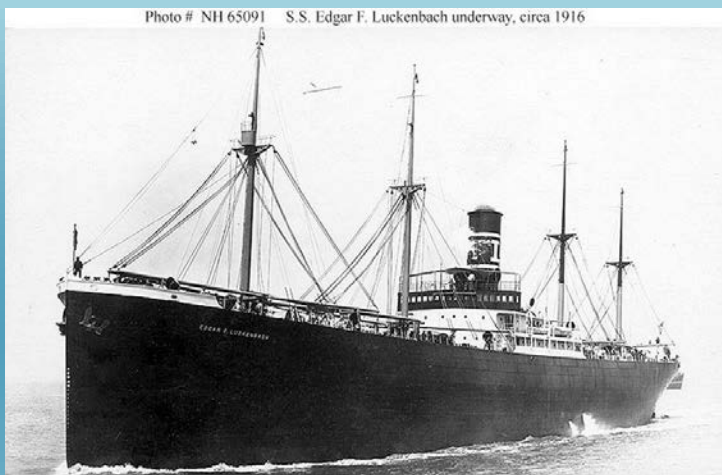


* Note that preliminary 2016 data is included here as an estimate of the minimum possible tarball rate for 2016 based on current tarball count and maximum km that may be surveyed in 2016

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Oil Update

SS Luckenbach is back in the news!



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EVERY BIRD MATTERS
NEWS AND VIEWS FROM INTERNATIONAL BIRD RESCUE

February 22, 2016

New Oiled Birds Tied To Old Sunken Ship Still Leaking Off San Francisco

Oiled seabirds recently cared for by International Bird Rescue have been conclusively traced back to a leaking cargo ship that sunk off the coast of California more than 60 years ago.

Since December of 2015, Bird Rescue's wildlife center in Fairfield has cared for nine oiled birds including a Pacific Loon, Red-necked Grebe, Western Grebe, and six

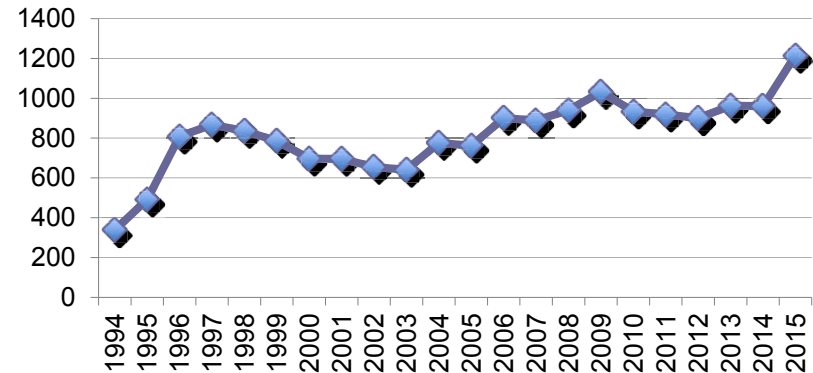
Oiled Red-necked Grebe in care. Photo: Cheryl Reynolds

Volunteer Effort

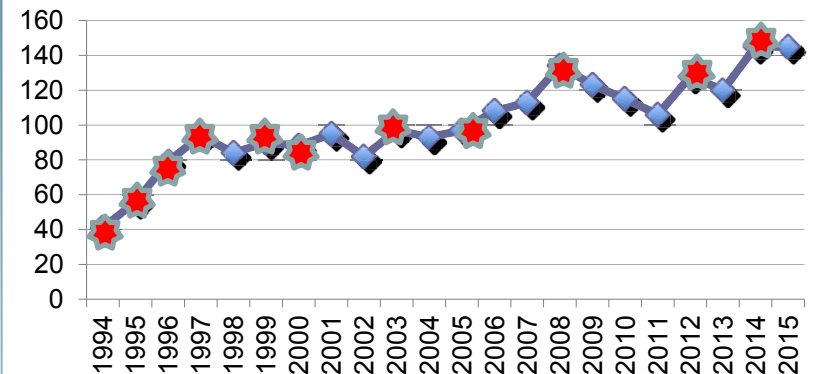
- Training in Bodega Bay and Gualala Nov 2014/15
- Added 16 beaches winter 2014-15
- Next training planned for fall 2016



Surveys per Year



Volunteers per Year



★ = new recruit training held this year



ONMS 2015 Volunteer of the Year

Farallones Marine Sanctuary Association
 Beach Watch Portal
 User: Jan Roletto [Profile](#) [Change Password](#) [Logout](#)



Your Event Reservations

No event reservations are on file for you.

Beach Watch Volunteer Resources

- **Survey Data Entry:** [Log On](#)
- Query Historical Beach Monitoring Data: [Log On](#)
- [Volunteer Resource Documents](#)
- [Your Team\(s\)](#)
- [Your Survey Statistics](#)
- [Survey Post Mortems](#)
- [Survey Schedules](#)
- [Survey Date Windows](#)
- [Volunteer Contact List](#)
- [Survey Photos Best Practices](#)
- [Specimen Maps](#) **NEW**

Scheduled Beach Watch Volunteer Events

- [Lectures](#) (1)
- [Birding Walks](#) (1)
- [Pelagic Trips](#) (0)
- [Advanced BW Training](#) (1)
- [HAZWOPER 24 Training](#) (0)
- [HAZWOPER 8-hr Refresher Training](#) (0)
- [View All Events](#) (3)

Farallones Marine Sanctuary Association
 Beach Watch Survey Post Mortem
 User: Jan Roletto [Profile](#) [Change Password](#) [Logout](#)
[Return to main page](#)



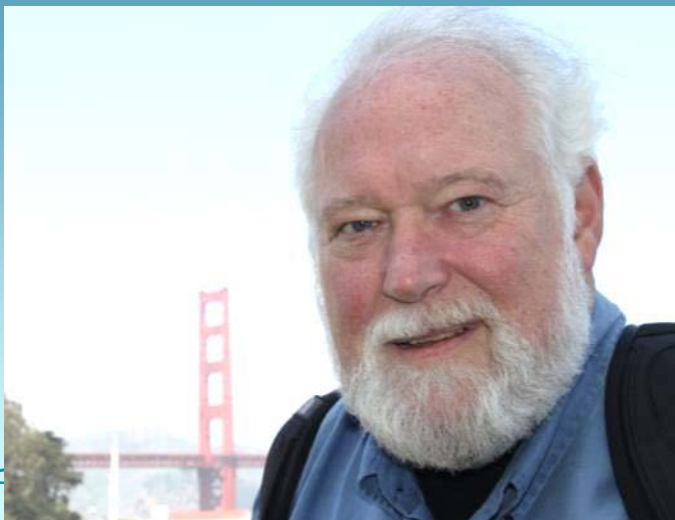
Surveys that can be viewed are listed here:

Beach: Date:

Beach	Date	Start	End	Percent Surveyed
100	Jan-14-2016	08:15	10:30	Dead: 100% Live: 100%
Survey data entered by:		Carol Farnes		
Participating Surveyors:		Carol Farnes, Jennifer Wheeler		
Surveyor Comments:		Earlier in the week high tides combined with a storm surge caused waves to wash up into the sand dunes so the beach is well scoured out. Lot of beach wrack at the top of the beach and into dunes, mostly wood. Almost no algae, no invertebrates seen. Creek is running nicely into ocean. 2 large Coastguard vessels patrolling the ocean just outside the surf line during our return dead section.		
Review Status:		Avian Review Complete, No mammal specimens to review		

#	Species / Verified Species	Sex / Verified Sex	Age / Verified Age	Surveyor Comments	Reviewer Comments	Reviewer	View
1	WCGR / WCGR	U / U	U / AD		AD by broad dark outer primaries	Peter Pyle	Photos

Green values mean the surveyor's identification matches the reviewer's analysis.
 Red data indicates it doesn't match the verified value
 Hover mouse over species codes to see common names.
 Clicking the Photos link will open a new browser window.



What's up Next?

We have at two peer UME papers in the works with partners at Point Blue and University of Washington

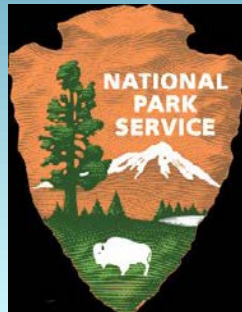
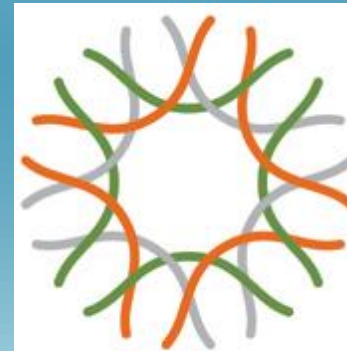
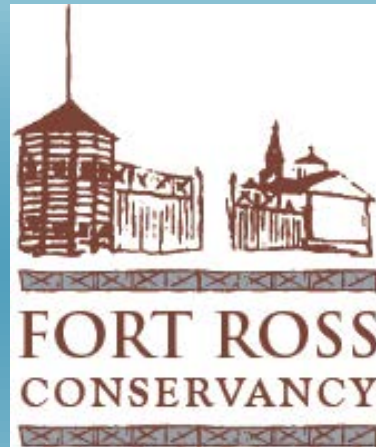
Fall 2016 new recruit training in SF!



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Partnerships



CALIFORNIA
ACADEMY OF
SCIENCES



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Thanks to all our Peeps!

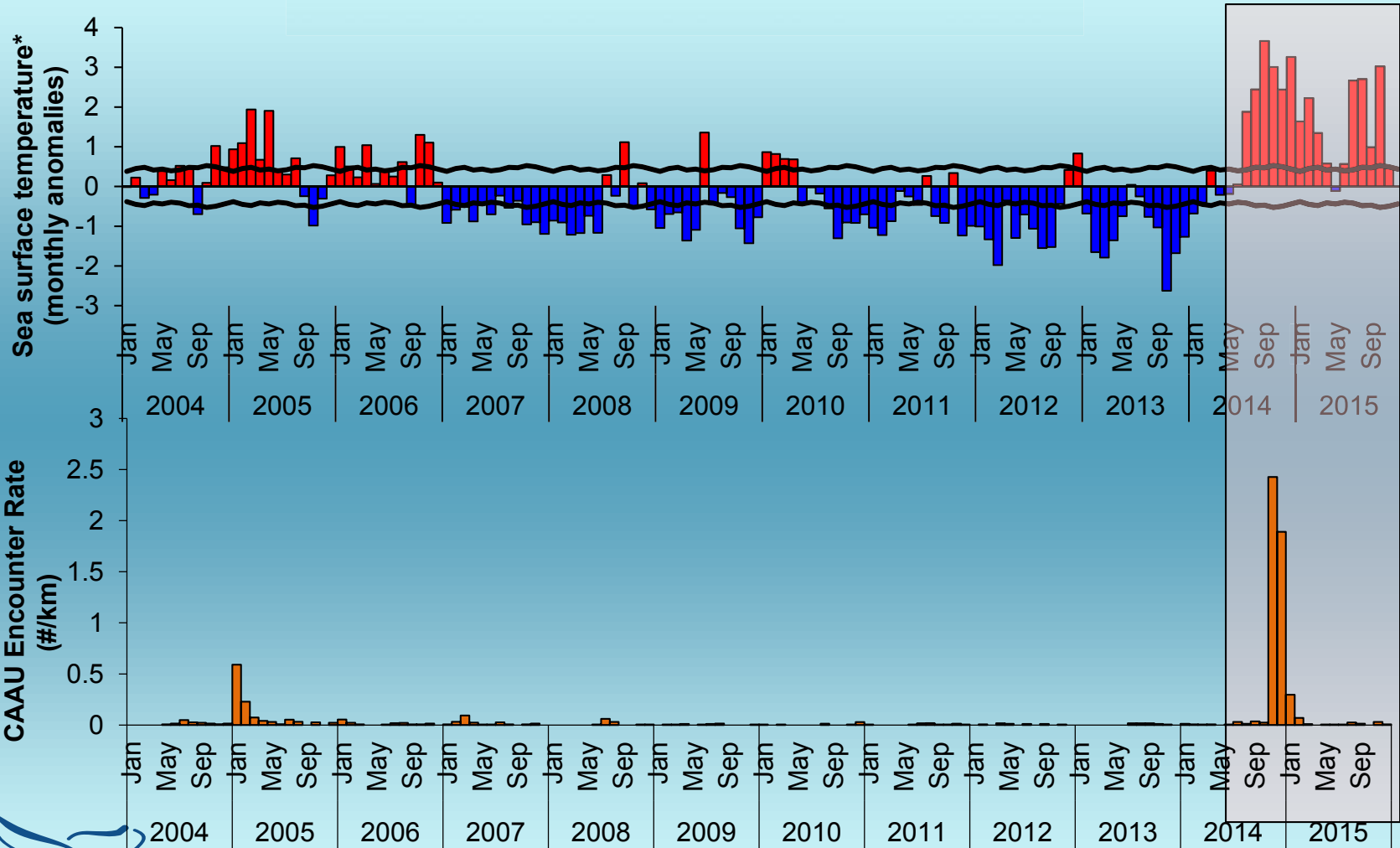
Thanks to over 350 volunteers for making Beach Watch Possible!



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Cassin's Auklet UME



*NOAA buoy data, SST graph courtesy of Point Blue Conservation Science



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Cassin's Auklet UME

What happened? **Spring 2014-** upwelling was normal producing good breeding and foraging conditions.

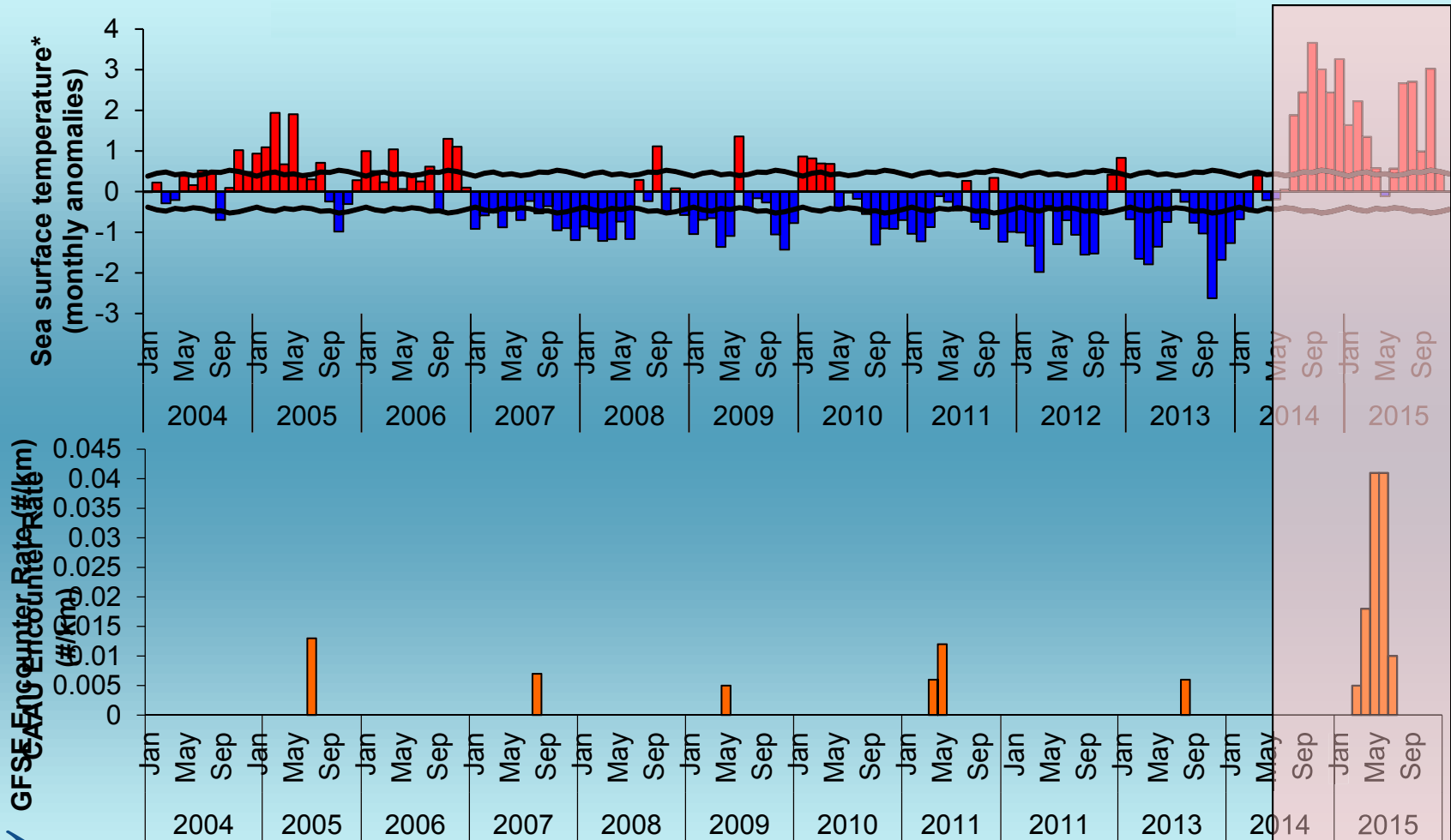


Summer 2014 - SST spiked in the last week of July

Fall 2014 – zooplankton was greatly decreased

Winter 2014– unprecedented HY CAAU mortality on BW surveys

Guadalupe Fur Seal UME



*NOAA buoy data, SST graph courtesy of Point Blue Conservation Science



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Guadalupe Fur Seal UME

What happened?

Summer 2014 – Pupping on islands off Baja in June, heading to sea in August (time and place was the epicenter of the Baja Blob).

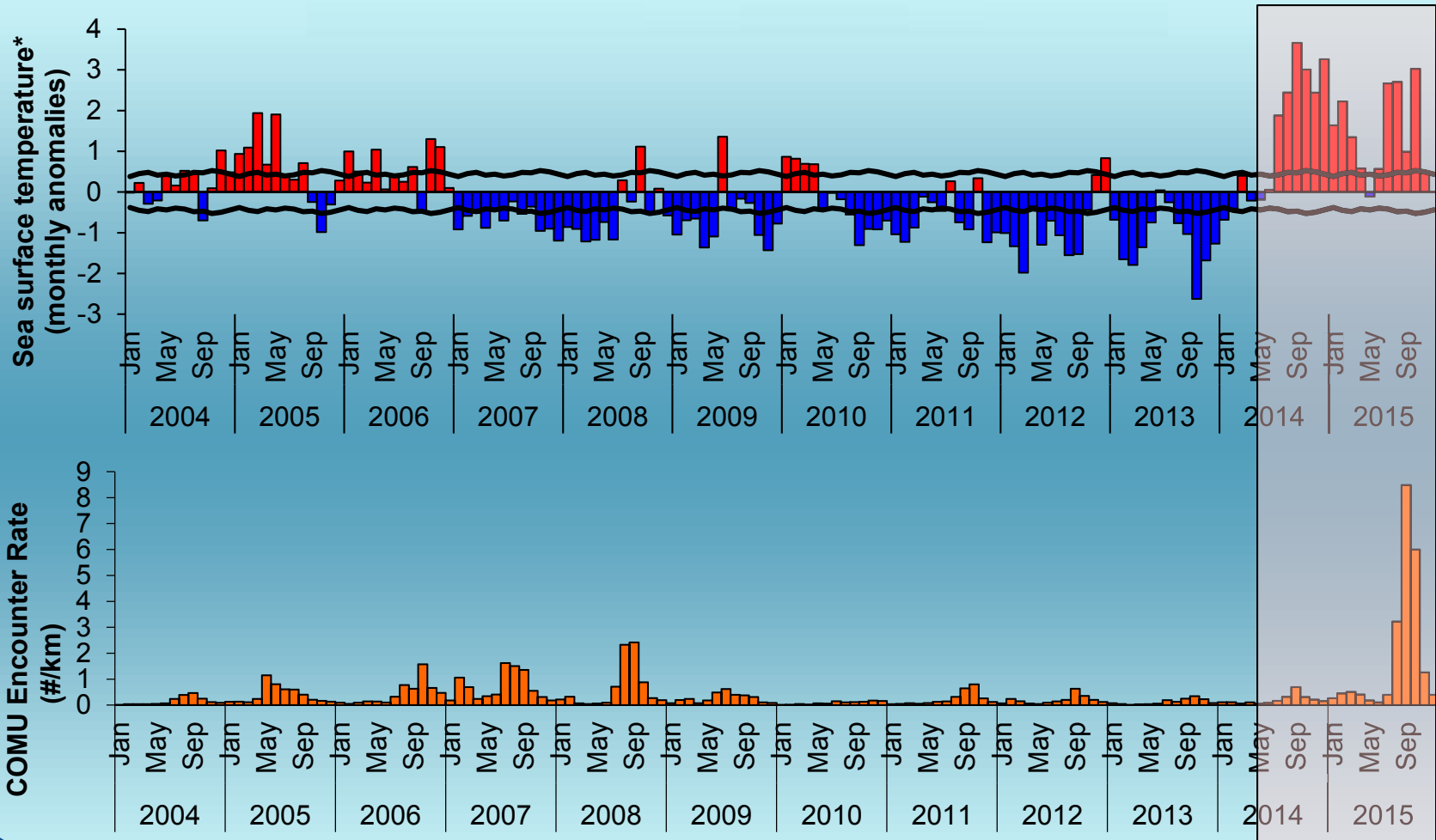


Fall/Winter 2014-2015 - Migrating north towards usually rich waters off CA, but waters were warm and prey below average.

Spring 2015 – pups washing shore in record numbers



Common Murres UME



*NOAA buoy data, SST graph courtesy of Point Blue Conservation Science



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Common Murre UME

What happened?



Spring 2015 – spring upwelling in our region cooled ocean temps down breeding season set up for success

Summer 2015 – The Blob arrives (again) in late July. SEFI saw slightly below average fledging. First dead documented in August.

Fall 2015- September and Oct large numbers of mostly HY COMU washing ashore.

**Why does the Sanctuary care about dead birds,
mammals and tarballs?**



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Why does the Sanctuary care about dead birds, mammals and tarballs?

- To protect our Sanctuary waters and inhabitants we need data:
 - how many tarballs were on the beach before an oil spill?
 - how many live birds are present during an oil spill?
 - how many dead birds are “normal”?

