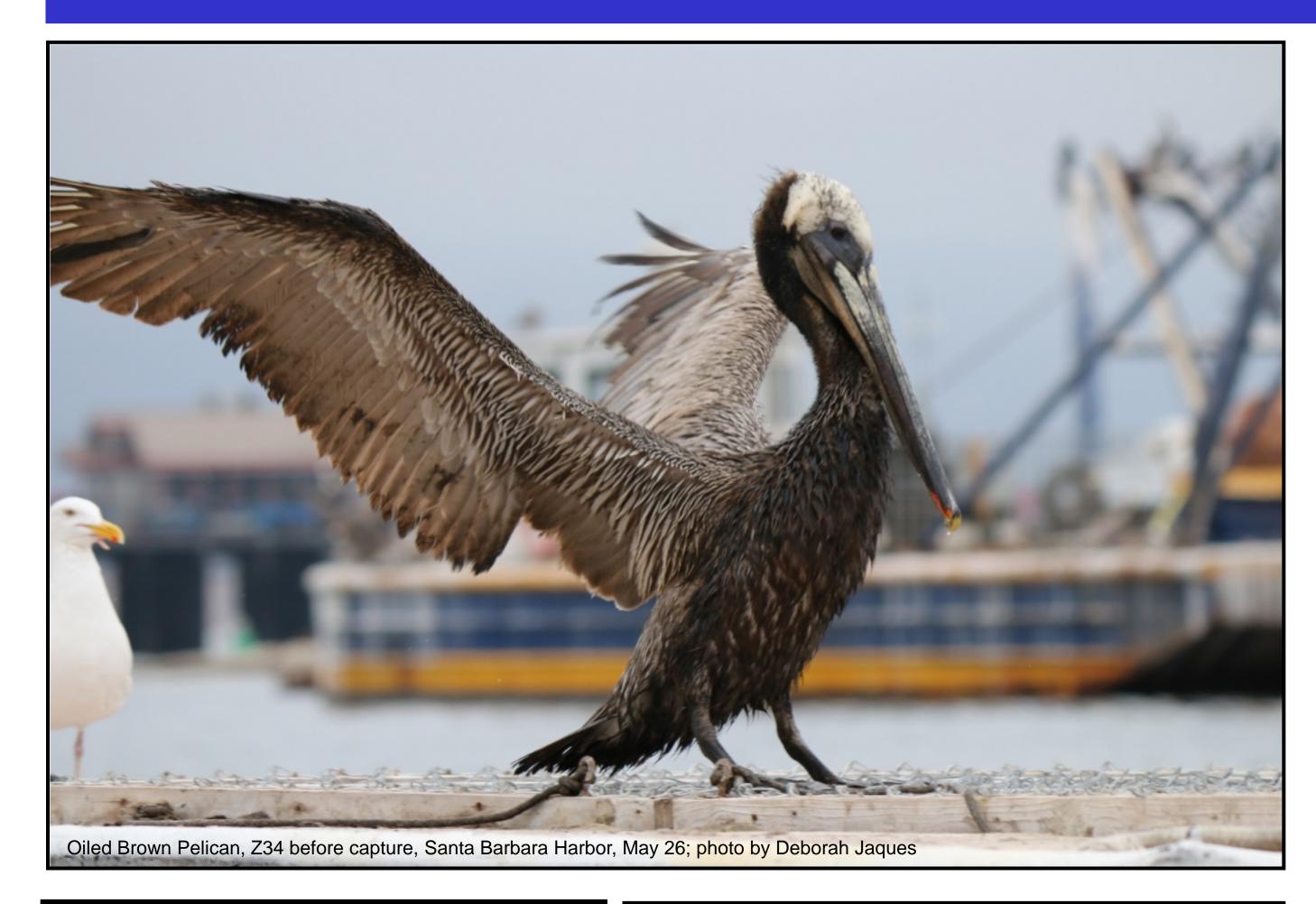
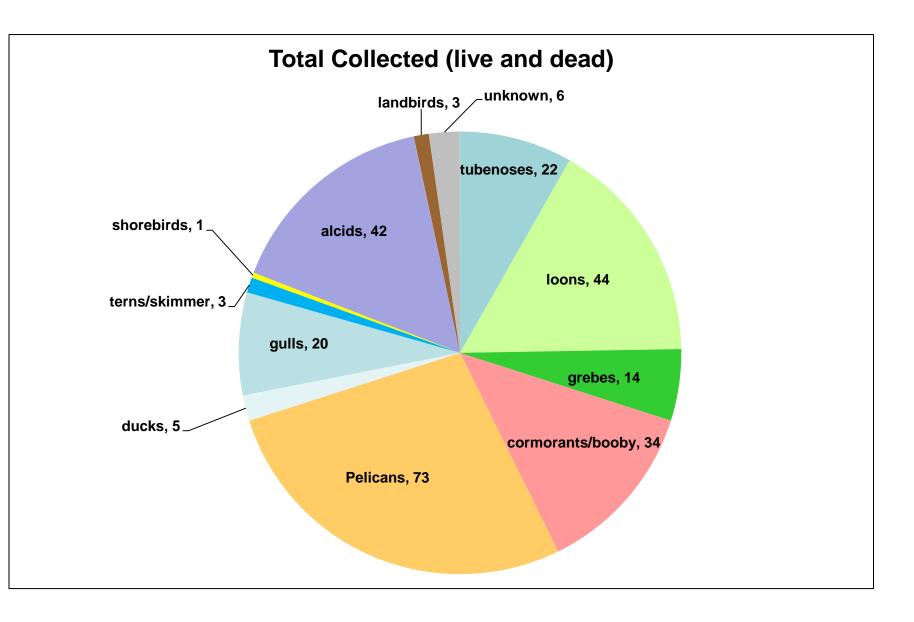
## REFUGIO NATURAL RESOURCE DAMAGE ASSESSMENT BIRDS

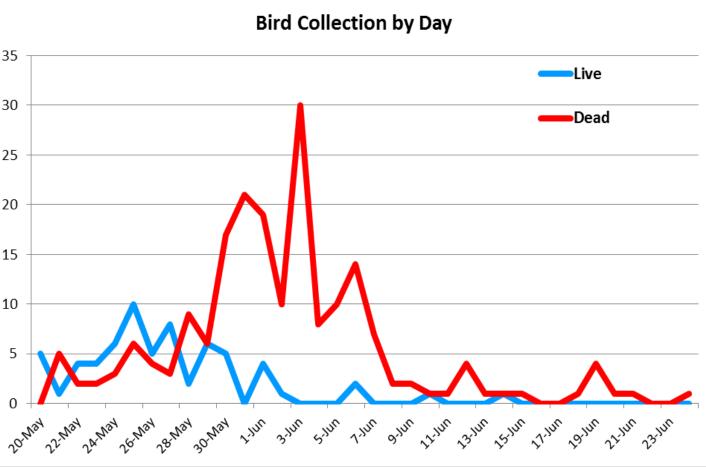


Birds collected alive: 65 Rehabbed and released: 46 Birds collected dead: 202 \*Includes some nonspil-related birds. Total estimated dead: pending



Oil Spill Nam	" Rifyis	s Inch	Junt 2015	Facility: (	TOBLEC	Circle One	Bird Mammal Other	Circie One:	Restrand	
Log Number (L-xxxx)	Date Arrived (m/d/y)	Time Arrived (24 hr)	Date Collected (m/d/y)	Time Collected (24 hr)	First Initial & Last Name of Collector runs definities & "DBL-" if contector units party	Beach Search Number	Collection Location (Beach Name)	GPS Coordinates (N)	GPS Coordinates (W)	Field Band/Tag Color & Number
L-0031	5/26/15	1800	5/26/15	1230	J Stagland D. McGuire		Goleta Pier	34.417103	419,828409	(0-3060)
	5/27/15	1340	7/26/15	1250	L. Cottiglia		Refigio Beach	34,46302	120.06976	
L_D033	5/27/15	1345	5/27/15	0900	D. Titus S. Young		Refugio Harbor	34 .24822	119.27274	
L-0034	5/27/15	1345	5/27/15	0930	D. Titus		Rogingio Harto: Breakwater	34.74822	119.27274	
-0035	5/7/15	1345	5/24/15	0955	P-Tits ) C-Young		Ringis Harbor Breakucky	34.24822	119. 27274	
L-0036	5/27/15	2040	5/27/15	1105	J. Stedut		SB Harbon Spit sand	34.406717	119.688332	
6-0037	5/2+/17	Zoyo	5/24/15	1115	K. Clumphen J. Amar		SB Harbor	34.40718	119.68944	
-0038	5/27/14	0705	5/27/15	1015	KSlymphor J. Amer		SB Harbor	34.40773	119,68907	
L-0039	5/29/15	kio	5/28/15	0840	K- ampior		SB Harbor burge	34.40782	119.68880	
-0040	5/29/15	1540	5/29/15	0913	D. Titus C. Young		Offshore of McGrath Shate Beach	34.219386	119.264423	

Note: All numbers are preliminary and subject to further refinement and analysis.



## **Primary Species Collected:**

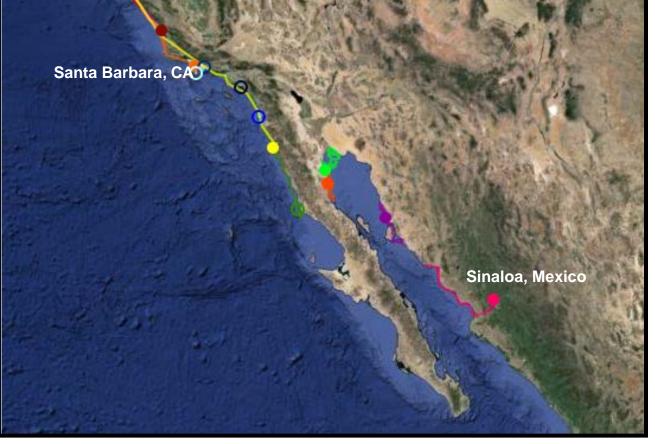
		<u>live</u>	<u>dead</u>	<u>total</u>
	Brown Pelican	47	26	73
	Common Murre	5	33	38
	Pacific Loon	6	17	23
	Sooty Shearwater	0	16	16
	Double-crested Cormorant	0	14	14
1	Brandt's Cormorant	2	11	13
	Red-throated Loon	1	12	13





## **Assessment Tasks:**

(Partial list)



On-line map of the 20 satellite-tagged Brown Pelicans from http://www.atlanticseabirds.org/ owcn-map

The map is updated every few days and shows the tracks of the birds during the last 10 days.

Pelicans that were oiled and rehabilitated are shown with a filled circle (9 of 12 are still alive); control birds are shown with an open circle, in hues of blue.

This study is funded by the Oiled Wildlife Care Network.

- Review of live and dead bird intake data
- Review of baseline deposition (live and dead)
- Delineation of spill related birds
- Analysis of scavenging rates and search efficiency
- Surveys for oiled pelicans and oiling rates at roost sites
- Overflight survey of pelican roost sites (Morro Bay to LA)
- Pelican rehab survival study (see left)
- Total mortality estimate for pelicans and beachcast birds
- Assessment of demographic parameters and recovery mechanisms for impacted species
- Surveys of Brandt's Cormorant colony at Sandpiper Pier
- Snowy Plover surveys at Coal Oil Point and Ventura/Oxnard
- Assessment of spill/clean-up impacts on Snowy Plovers
- Evaluation of potential restoration projects

