

State of California
Department of Fish and Game

Second Progress Report on Wildlife
Affected by the Santa Barbara Channel Oil Spill
April 1 - May 31, 1969

SUMMARY

This progress report summarizes the wildlife effects of the Santa Barbara Channel Oil Spill from the period April 1 to May 31, 1969. The first report covered the period from when the Union Oil Company oil well first erupted on January 28 to March 31, 1969.

Aerial surveys and beach transects established during the initial weeks of oil spillage were conducted from April 1 to May 31, 1969. During this period 178 man-hours were expended.

Significant bird population movements occurred during this period. A number of species wintering in the channel area migrated by the end of May to their breeding grounds further north. A large influx of pelagic birds, notably sooty and pink-footed shearwater, was noted offshore. Birds counted on aerial surveys averaged 5,242 per day which compares with 3,490 for the first report period. Estimated bird population in the channel area sampled was 85,000 for this period as compared to 12,000 during the first period. Average number of birds per count found utilizing the 4.8 miles of oil contaminated beach transects was 391 as compared to 290 birds during the first report period.

Nine oil-contaminated birds were turned into the bird treatment station during this period. Birds treated to date number 1,575. Of these, 1,406 or 89.3 percent died and 169 or 10.7 percent survived and are still being held or were released.

Miscellaneous dead birds found at various locations died at treatment stations and those reported too late to be included in the first progress report totaled 86. Losses of birds attributed to the Santa Barbara Channel oil spill is now 3,686.

No dead mammals were observed on the aerial surveys or beach transects during this reporting period. A report received of loss of marine mammals on San Miguel Island was investigated by the Department's Marine Resources Operations at Terminal Island and the Department of the Interior. A Federal report issued June 29 stated that there was no evidence that deaths of seals or sea lions on the island could be attributed to oil pollution.

THE MONITORING PROGRAM

The wildlife monitoring program established in February to collect information relative to wildlife populations in the oil spill area are continuing under the responsibility of Region 5. This report covering the period from April 1 to May 31 supplements the Department's "Progress Report on Wildlife Affected by the Santa Barbara Channel Oil Spill, January 28 - March 31, 1969," released May 2, 1969. Assistance in conducting surveys was provided again by the U. S. Fish and Wildlife Service, Departmental regional personnel, and the Santa Barbara Chapter of the National Audubon Society.

Reports received to date (May 31, 1969) indicate that crude oil is still escaping from the ruptured well. The extent of the surface area affected by oil contamination is greatly reduced from that reported in the first report. New oil has occasionally been reported on the beaches at various locations on the mainland and the channel islands.

Aerial Surveys

Methods

Seven aerial transects established in February were flown as outlined in the first progress report. Aerial surveillance was reduced to eight flights involving 48 man-hours. Table 1 summarizes the aerial counts made of each of the seven transects flown between April 1 and May 31.

Results

Birds counted on aerial surveys average 5,242 per day during the eight days counts were flown. This compares with 3,490 birds observed per day for the first progress report period. Bird use along the mainland was 37 birds/lineal mile along the beach area which was originally heavily contaminated and 48 per lineal mile along the noncontaminated areas as compared to 34 and 47 birds/lineal mile, respectively, for the first two-month report period. Offshore bird use increased from four birds/square mile to 89 reflecting a significant increase in birds during this period. Birds observed on the island transect were down from 45 per lineal mile to 40 this report period. Estimated bird population in the channel study area is 85,000 as compared to 12,000 during the first report period.

During this report period there was significant changes in bird populations in the Santa Barbara Channel area. Shorebird populations began to build up the middle of March as birds gathered on their northward migration. By the last of May their numbers were declining to a low summer population. Waterfowl wintering populations also declined as their northward migration started late in March and early April. Wintering populations of loons and grebes were also noticeably low by the end of May. A large influx of pelagic birds were noted offshore during this period. These consisted largely of northward migrating sooty and pink-footed shearwaters which began showing up in mid-May.

Approximately 200 marine mammals per day were observed on aerial surveys conducted during this period as compared to 209 for the first progress report period. No dead mammals were observed while conducting aerial surveys. Table 2 summarizes the aerial counts on mammals.

Beach Surveys

Beach Transects

Four beach transects established in February were surveyed as outlined in the first progress report. Results are summarized in Table 3. Starting on various

dates in March bird use was also documented on the following beaches, marshes, lagoons, and ponded areas:

Vandenberg Air Force Base Beach, Santa Barbara County
Cojo Beach, Santa Barbara County
Hope Ranch Beach, Santa Barbara County
Coal Oil Point Beach, Santa Barbara County
Leo Carrillo Beach, Los Angeles County
Devereaux Slough, Santa Barbara County
Goleta Lagoon, Santa Barbara County
Goleta Sewage Ponds, Santa Barbara County
Bird Refuge, Santa Barbara County
El Estero Marsh, Santa Barbara County
Zuma Beach, Los Angeles County
Manhattan Beach, Los Angeles County

Counts on these areas were made by members of the Audubon Society, U. S. Air Force, and Department of Fish and Game personnel. All beach transects were run in a similar manner as outlined in the first progress report. Lagoons, marshes, and other ponded areas were censused at a low tide time period to reduce the chance of bias of having large numbers of birds resting in the open water at high tide. A total of 130 man-hours were expended in conducting bird counts on the above areas.

Results

Shorebird numbers fluctuated as birds gathered in feeding and resting areas for short periods of time before moving up the coast on their northward migration. The average number of birds utilizing the 4.8 miles of beach transects established in the oil contaminated areas was 391. This compares with an average of 290 birds during the first reporting period.

No dead birds were found on the 4.8 miles of beach transects. However, reported were 22 dead birds on the counts made in the above areas previously unreported. In addition, reports were made of 46 additional birds found dead during the first period. These were received too late to be included in the first report. Only nine oil contaminated birds were received between April 1 and May 31 at the Childs Estate Zoo treatment station. During this period 18 birds died at treatment stations.

Estimated bird losses occurring from oil contamination during the first report period was 3,600. Addition of bird losses reported during the second report period brings the total bird losses as of May 31, 1969, attributed to the Santa Barbara Channel oil spill to 3,686. As of May 31, 1969, 1,575 birds were treated since January 28, 1969, at bird treatment stations. Of these birds, 126 are still being held and 43 have been liberated for a total of 10.7 percent survival.

No dead mammals were reported this period on beach transects. A reported loss of marine mammals on San Miguel Island was investigated by the Department's Marine Resources Operation at Terminal Island and the Department of the Interior. The Federal report released June 24 stated that there was no evidence that death of seals and sea lions on the island could be attributed to oil pollution. They attributed the dead animals observed as a natural die-off principally from abortions, physical injuries, and other causes.

TABLE 1

Aerial Survey
Summary of Bird Counts, Santa Barbara Channel Area
April 2 - May 29, 1969

Transect	Species Grouping	Date of Aerial Survey										Birds Observed			
		2	9	16	23	30	8	21	29	Number	Percent	Avg./day			
Mainland Coastal Transect															
	Loons & Grebes	243	784	636	605	760	338	235	140	3,741	32.8				
	Pelagic Species	1	3				6			10	Tr.				
	Cormorants & Pelicans	25	180	95	15	14	3	10	19	361	3.2				
	Waterfowl	8	25	29	7	37	1	4		111	1.0				
	Water-Associated		1		1					2	Tr.				
	Shorebirds	366	554	1,030	150	387	621	174	24	3,306	29.0				
	Gulls & Terns	340	468	300	128	466	612	841	731	3,886	34.0				
	Unclassified				2					2	Tr.				
	Subtotal	983	2,015	2,090	908	1,664	1,581	1,264	914	11,419	100.0	1,427			
Offshore Transects (Three offshore transects combined)															
	Loons & Grebes	3	10	15	2			8	2	40	.3				
	Pelagic Species	2	25	19	145	104	13	8,863	3,923	13,094	91.3				
	Cormorants & Pelicans	2	3	3	53	16	1	36	5	119	.8				
	Waterfowl		25	60	2			1		88	.6				
	Water-Associated														
	Shorebirds	1	12	24	41	15		229	45	93	.6				
	Gulls & Terns	67	107	247	26	50	150			921	6.4				
	Unclassified														
	Subtotal	75	182	368	269	185	164	9,137	3,975	14,355	100.0	1,794			
Island Coastal Transect															
	Loons & Grebes	1	32	9	10	59	1	1		113	1.3				
	Pelagic Species		9	10		100	24	12		155	1.8				
	Cormorants & Pelicans	41	64	58	110	119	23	222		637	7.2				
	Waterfowl	416	165	16	18		125	150		890	10.2				
	Water-Associated		2		1		3			6	Tr.				
	Shorebirds	3	2	1	33	40	160			239	2.7				
	Gulls & Terns	73	676	423	381	3,737	276	1,189		6,755	76.8				
	Unclassified														
	Subtotal	534	950	517	553	4,055	612	1,574	-	8,795	100.0	1,256			

TABLE 1 (Cont'd)

Aerial Survey
Summary of Bird Counts, Santa Barbara Channel Area
April 2 - May 29, 1969

Transect	Species Grouping	Date of Aerial Survey										Birds Observed			
		2	9	16	23	30	8	21	29	Number	Percent	Avg./day			
Offshore Control Transect															
	Loons & Grebes		3	8		2							13	.9	
	Pelagic Species		2	3	239		1	110	15				370	25.9	
	Cormorants & Pelicans				12	8	25	36	5				86	6.0	
	Waterfowl	35	7	4		50							96	6.7	
	Water-Associated														
	Shorebirds			16		100							116	8.1	
	Gulls & Terns	89	10	108	5	1	265	105	145				728	51.0	
	Unclassified					20							20	1.4	
	Subtotal	124	22	139	17	420	291	251	165				1,429	100.0	179
Mainland Control Transect															
	Loons & Grebes	10	175	47	104	61	95	25	30				547	11.7	
	Pelagic Species														
	Cormorants & Pelicans	237	37	167	10	52	13		1				517	11.0	
	Waterfowl	51	41	2	54	31	3	16	10				206	4.4	
	Water-Associated	1											3	Tr.	
	Shorebirds	101	237	412	53	311	140	31	47				1,332	28.4	
	Gulls & Terns	122	333	100	92	166	109	564	600				2,086	44.5	
	Unclassified														
	Subtotal	522	823	728	313	621	360	636	688				4,691	100.0	566
Total		2,238	3,992	3,842	2,060	6,945	3,008	12,862	5,742				40,689		5,242

TABLE 2
Aerial Survey
Summary of Mammal Counts, Santa Barbara Channel Area
April 2 - May 29, 1969

Transect	Species	Date of Aerial Counts										Mammals Observed	Avg/day
		2	9	16	23	30	8	21	29	Number	Percent		
Mainland Coastal Transect													
	Sea Lions & Harbor Seals	1	6	1	2	9	1	11	31	96.9			
	Porpoise												
	Gray Whale	1							1	3.1			
	Subtotal	0	2	6	1	2	9	11	32	100.0		4.0	
Offshore Transects													
	Sea Lions & Harbor Seals			3			11	10	24	13.0			
	Porpoise	1	3	80			63	10	160	86.5			
	Gray Whale						1		1	.5			
	Subtotal	0	1	3	80	0	74	20	185	100.0		23.1	
Island Coastal Transect													
	Sea Lions & Harbor Seals	221	52	421	183	94	160		1,131	100.0			
	Porpoise												
	Gray Whale												
	Subtotal	0	221	52	421	183	94	160	1,131	100.0		161.6	
Offshore Coastal Transect													
	Sea Lions & Harbor Seals			1		1		21	22	26.2			
	Porpoise	52	3						56	66.7			
	Gray Whale				6				6	7.1			
	Killer Whale												
	Subtotal	0	52	3	1	6	1	0	84	100.0		10.5	

TABLE 2 (Cont'd)

Aerial Survey
 Summary of Mammal Counts, Santa Barbara Channel Area
 April 2 - May 29, 1969

Transect	Species	Date of Aerial Counts										Mammals Observed			
		2	9	16	23	30	8	21	29	Number	Percent	Avg./day			
Mainland Control Transect															
	Sea Lions & Harbor Seals						3	10					13	100.0	
	Porpoise														
	Gray Whale														
	Subtotal	0	0	0	0	0	0	3	10	0	0	0	13	100.0	1.6
	Total	0	276	64	503	191	111	238	62	1,445					200.8

TABLE 3 (Cont'd)

Beach Survey
 Summary of Bird Counts, Santa Barbara Channel Area
 April 1 - May 29, 1968

Date of Beach Surveys

Transect	Species Grouping	Date of Beach Surveys														Number	Percent	Ave/day				
		April							May													
		1	2	7	9	11	15	19	23	24	25	30	9	14	16	20	22	23	24	29		
El Capitan Beach Transect																						
	Loons & Grebes	42					29			31		21	11		20					39	193	15.7
	Pelagic Species						8			11		6	2		10					3	49	4.0
	Cormorants & Pelicans	9					9			7		8									39	3.2
	Waterfowl	15					1								1						3	.2
	Water-Associated	1					171			76		78	113		53					15	626	50.9
	Shorebirds	120					49			91		53	32		18					27	320	26.0
	Gulls & Terns	50																				
	Unclassified																					
	Subtotal	237	-	-	-	-	267	-	-	216	-	166	158	-	102	-	-	-	-	84	1,230	100.0
Total																						
		237	189	96	99	223	267	207	39	216	295	342	117	158	362	102	119	193	170	84	3,515	567