

Gray Whales Count: On-Effort Totals and Estimates 2007 through 2019



Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Time Counting On-Effort: Phase 1</b>	518:48	554:18	507:27	452:20	552:32	518:29	517:59	501:09	469:55	355:45	373:38	408:01	510:34
<b>Raw Count Phase 1: General Migration</b>	435	516	451	460	459	474	481	581	923	816	632	750	854
<b>Estimate Phase 1: General Migration</b>	1874	2188	2054	2118	2131	2023	2235	2528	3122	3962	3083	4093	3787
<b>Time Counting On-Effort: Phase 2</b>	414:00	283:48	274:38	341:03	339:05	309:31	372:29	416:46	479:11	467:50	359:19	335:34	251:36
<b>Raw Count Phase 2: Calves</b>	50	59	33	29	109	226	126	226	249	296	210	99	34
<b>Estimate Phase 2: Calves</b>	443	423	336	308	571	1074	640	1050	986	1171	985	671	414
<b>Estimate: gray whales migrating north, nearshore Santa Barbara Channel, past Counter Point</b>	2,760	3,034	2,726	2,734	3,273	4,171	3,515	4,628	5,094	6,304	5,053	5,435	4,615

These data include only entries on-effort, in adequate visibility, in sea conditions less than 5 Beaufort.  
 Phase 1 - General Migration is males and females, juvenile and mature, not associated with mothers and calves.  
 Phase 2 - Mother/calf migration. The raw count and Estimate totals only calves, and not the mothers.  
 Since each calf is accompanied by its mother, we calculate the total whales migrating north through the nearshore of the Santa Barbara Channel, past Counter Point, as: (Estimate of Phase 1) + (2 x (Estimate Phase 2)).