

# Return of Harbor Porpoises (*Phocoena phocoena*) to San Francisco Bay

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## Supplemental Appendix

Chronology of San Francisco Bay (SF Bay) harbor porpoise (*Phocoena phocoena*) observations prior to October 2008\*

Date	Location	Observation	Reference
2600-700 BP	Emeryville	Skeletal remains in midden	Broughton, 1999
1874	SF Bay	Seine fishing bycatch	Scammon, 1874
1906	SF Bay	“Formerly abundant”	“Save the Seal,” 1906
1915	SF Bay	“Still enter . . . occasionally”	Kofoid, 1915
1924	SF Bay	Bycaught individual	Hohn & Brownell, 1990
Late 1920s	Raccoon Strait	Multiple sightings	M. McDonough, pers. comm., 15 November 2008
1939, 1941 & 1942	Point Richmond	Multiple sightings	Benson, 1939-1942
1958	Point Richmond	Few sightings	K. Clausen, pers. comm., 29 November 2015
1972	SF Bay	“Occasionally sighted”	Orr, 1972
1975	Fort Baker	Sighting of one	Huber, 1982
1978	Sausalito	Sighting of one	Szczepaniak, 1990
1985	SF Yacht Harbor	Sighting of one	Szczepaniak, 1990
2000	Yerba Buena Island	Sighting of one	Green et al., 2006
2004	Crissy Field	Sighting of one	J. Yakich, pers. comm., 4 September 2012
2005-2006	Central Bay	Sailboat log entry, four sighted	S. G. Allen, pers. comm., 20 March 2012
2007 July	Napa River	Photographed two	Todorov, 2007
2007 September	Central Bay	Sailboat log entry, one sighted	S. G. Allen, pers. comm., 20 March 2012
2007 November	Central Bay	Videotaped two in oil spill	KCRA TV, 2007
2008 July	SF Yacht Harbor	Sailboat log entry, few sighted	K. Clausen, pers. comm., 29 November 2015

\*San Francisco Bay is defined as waters east of the strait at the Golden Gate Bridge; locations are noted on map (Figure 1 in text). Authors’ initial observations of porpoises began in October 2008.

## Appendix References

- Benson, S. B. (1939-1942). *Field notes, Museum of Vertebrate Zoology, University of California, Berkeley*. Retrieved from [http://ecoreader.berkeley.edu/?special=page&scan\\_directory=v524\\_s5&section\\_order=5&page=7&orig\\_query=534998#](http://ecoreader.berkeley.edu/?special=page&scan_directory=v524_s5&section_order=5&page=7&orig_query=534998#)
- Broughton, J. M. (1999). Resource intensification during the late Holocene, San Francisco Bay. *Anthropological Records*, 32. Berkeley and Los Angeles: University of California Press.
- Green, D. E., Grigg, E., Allen, S., & Markowitz, H. (2006). *Monitoring the potential impact of the seismic retrofit construction activities at the Richmond-San Rafael Bridge on harbor seals (Phoca vitulina), May 1, 1998-December 31, 2004* (Final Report IHA 11/19/03-11/18/04). Washington, DC: National Oceanic and Atmospheric Administration.
- Hohn, A. A., & Brownell, R. L., Jr. (1990). *Harbor porpoise in central Californian waters: Life history and incidental catches* (Scientific Committee Meeting Paper SC/42/SM47). Cambridge, UK: International Whaling Commission.
- Huber, H. R., Ainley, D. G., & Morrell, S. H. (1982). Sightings of cetaceans in the Gulf of the Farallones, California, 1971-1979. *California Fish & Game*, 68(3), 183-190.
- KCRA TV. (2007). *Coast Guard crews monitor oil spill in S.F. Bay*. Sacramento: KCRA TV. Retrieved from [www.youtube.com/watch?v=SyjC8A9xdBs&NR=1&feature=endscreen](http://www.youtube.com/watch?v=SyjC8A9xdBs&NR=1&feature=endscreen)
- Kofoid, C. A. (1915). Marine biology on the Pacific coast. In American Association for the Advancement of Science (Ed.), *Nature and science on the Pacific Coast*. San Francisco: Paul Elder.
- Orr, R. T. (1972). *Marine mammals of California*. Berkeley and Los Angeles: University of California Press.
- Save the seals [Editorial]. (1906, March 18). *San Francisco Call*, 99(108), 26.
- Scammon, C. M. (1874). *The marine mammals of the north-western coast of North America, described and illustrated; together with an account of the American whale-fishery*. San Francisco: John H. Carmany and Company. [1968 reprint. New York: Dover Publications]
- Szczepaniak, I. D. (1990). *Natural history of the harbor porpoise (Phocoena phocoena) in the Gulf of the Farallones and adjacent northern California* (Unpublished Master's thesis). San Francisco State University, San Francisco, CA.
- Todorov, K. (2007, August 1). Fin and games: Dolphin spotted in Napa River. *Napa Valley Register*. Retrieved from [http://napavalleyregister.com/news/local/fin-and-games-dolphin-spotted-in-napa-river/article\\_4f7473ae-ce97-5c9b-9e49-e374f3f88c77.html](http://napavalleyregister.com/news/local/fin-and-games-dolphin-spotted-in-napa-river/article_4f7473ae-ce97-5c9b-9e49-e374f3f88c77.html)