

## Doyle A. Hanan

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### **Education:**

PhD, Biology 1996  
University of California  
Los Angeles

MA, Marine Biology 1976  
California State University  
Long Beach

BA, Biology 1969  
California Lutheran University  
Thousand Oaks

### **Affiliations and panel experience:**

**Member:** Pacific Fishery Management Council's Highly Migratory Species Advisory Subpanel; **Representative:** California Cooperative Oceanic Fisheries Investigations (CalCOFI) committee; **Representative:** Pacific Scientific Review Group (advising Secretary of Commerce on marine mammals in the Pacific); **Member:** Pacific Drift Gillnet Take Reduction Team; **Member:** Congressional pinniped/salmon interaction working group; **Co-chair:** Pacific Fishery Management Council's CPS fishery management plan development team; **Chair:** Pacific Fishery Management Council's Coastal Pelagic Fisheries Management team; **Member:** Congressional National Ecosystem Principles Panel; **Representative:** Mexus-Pacifico; **Advisor:** United Nations Food and Agricultural Organization on shark fisheries management; **Member:** marine mammal society; Associate **Editor:** *California Fish and Game* quarterly periodical; Journal **Referee:** *Fisheries Bulletin*, *Marine Mammal Science*, *Fisheries Oceanography*, *International Whaling Commission Special Reports*, and *CalCOFI Fisheries Investigations Reports*; Research and Grant **Reviewer:** California Sea Grant, Saltonstall-Kennedy, and City of San Diego; **Court-recognized Expert witness:** on retainer City of San Diego. **Member:** Scientific Advisory Team, State of California MLPA initiative.

### **Professional Experience:**

Hanan & Associates, Inc.  
President/ Chief Scientist  
2001-Present

HDR Engineering, Inc.  
Director Marine Coastal Program  
Senior Biologist/Project Manager  
2000-2001

California Dept of Fish and Game  
Senior Marine Biologist, Supervisor  
Pelagic Ecosystems 1993-2000  
Associate Marine Biologist  
Marine Mammals 1983-1993  
Assistant Marine Biologist  
Fisheries Analyses 1979-1983  
Assistant Marine Biologist  
Kelp Bed Ecosystem 1974-1979

California State Univ. Long Beach  
Part-time Faculty  
Invertebrate Zoology 1975-1976  
Teaching Assistant  
Vertebrate Zoology 1973-1975  
Graduate Assistant  
Biology 1972-1975  
Teaching Assistant  
General Biology 1973-1975

PVSD, Camarillo, CA  
Teacher  
Biology/Science 1969-1973

USMCR 1969-1975  
Sergeant E-6 Honorable discharge

Personal **publication history** includes 27 peer-reviewed papers and 60+ contract or administrative reports.

**Dissertation:** Dynamics of abundance and distribution in the Pacific harbor seal, *Phoca vitulina richardsi*, on the coast of California

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Doyle Hanan formed and is president of Hanan & Associates, Inc. a marine consulting firm providing expertise to fisheries and wildlife agencies, municipalities, and foundations. After an early retirement as a senior marine biologist supervisor for California Department of Fish and Game, he was employed as marine director for HDR Engineering, Inc. At CDFG, he directed and participated in research teams investigating nearshore and offshore fisheries, as well as, marine mammals, invertebrates and plants. His projects focused on marine ecosystems and population biology; development and implementation of fishery management plans (white seabass plan, CPS plan, market squid plan); applied research, and fisheries analysis. He designed and implemented observer programs for the shark/swordfish drift gillnet fishery, the nearshore setnet fisheries, salmon troll fishery, and CPFV fishery. He was the state=s voting member of California Cooperative Oceanic Fisheries Investigations (CalCOFI). He was selected to serve on two standing committees to advise the Secretary of Commerce: 1) Pacific Scientific Review Group which reviews all marine mammal stocks, research, and fisheries interactions in the Pacific Ocean; and 2) Drift Gillnet/Pacific Cetacean Take Reduction Team which was charged with developing overseeing a plan to reduce marine mammal bycatch in this fishery. The plan did effect an 80% reduction in this bycatch. He served on the National Ecosystem Principles Panel commissioned by Congress through the Sustainable Fisheries Act to develop recommendations expanding the application of ecosystem principles in fishery conservation and management activities. He participated in the working and contributing groups for the Report to Congress on Salmon-Pinniped and Greater Ecosystem Interactions commissioned by Congress in the reauthorization of the Marine Mammal Protection Act. For PFMC, he was co-chair of the CPS FMP development team and chair of the CPS management team that developed, wrote, and implemented the CPS FMP. He served recently on the PFMC Highly Migratory Species Advisory Sub panel. H&A, Inc. has contracts with National Marine Fisheries Service, Pacific States Marine Fisheries Commission, Gulf & South Atlantic Fisheries Foundation, Inc., the City of San Diego, and the California Wetfish Producers Association. Projects include fish, fisheries, and marine mammal research and consulting. He recently served on the MLPA scientific advisory team for the State of California.

**Doyle A. Hanan, PhD.**

**Selected Publication List:**

Hanan, D. A., 2007. Utilizing Commercial Passenger Fishing Vessels to Catch and Tag Nearshore Groundfish. Final Report for PSMFC Contract No. 05-76 Job Number 577.05 as amended April 21, 2005. California Groundfish Disaster Response Program. Available from: Pacific States Marine Fisheries Commission, 205 SE Spokane St, Suite 100. Portland, Oregon 97202-6413. February 12, 2007. 14 pages.

Hanan, D. A., and Pleschner-Steel, D. 2006. Market Squid Industry-Agency Cooperative Research and Biological Observations. Poster presented at California and the World Ocean '06. Long Beach, CA. September 17-20, 2006.

Hanan, D. A., 2006. Utilizing Commercial Passenger Fishing Vessels to Catch and Tag Nearshore Groundfish. Final Report for PSMFC Contract No. 05-23. West Coast Cooperative Research Program. Available from: Pacific States Marine Fisheries Commission, 205 SE Spokane St, Suite 100. Portland, Oregon 97202-6413. January 31, 2006. 10 pages.

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Hester, F., R. Hudson, and D. Hanan. 2005. "Southeastern U.S. Commercial Shark Fishery Stock Assessment and Fishery Management Policy Analysis." Final rpt. presented to Gulf and South Atlantic Fisheries Foundation, Inc. August 5, 2005 Cooperative Agreement No. NA 17FD Contract No. 84-04-2800/6000. 78 pages.

Hanan, D. A. 2005. Correction factors for aerial counts of molting Pacific harbor seals (*Phoca vitulina richardsi*) in California. Final report to Pacific States Marine Fisheries Commission In fulfillment of PSMFC Contract Number 04-41. March 31, 2005. 18 pages.

Hanan, D. A., and G. S. Campbell. 2005. Recommendations for U.S. West Coast Highly Migratory Species Observer Programs with Options for Levels of Significance. Final Rpt. Service Order No. 40JGNF20063. Submitted to USDOC NOAA/NMFS SWFSC. February 2005. 115 pages.

Hanan, D. A., 2004. Biological Letter Report and Recommendations for Construction, Regarding Pinniped Surveys at Children's Pool, La Jolla, California. Final report submitted to the City of San Diego, California. In Partial Fulfillment of Fixed Fee Agreement C-12438 for *Children's Pool Lifeguard Tower*. 27 pages.

Hanan, D. A., 2004. Utilizing Commercial Passenger Fishing Vessels to Catch and Tag Nearshore Groundfish. Final Report for PSMFC Contract No. 03-03. Collaborative Groundfish Data Collection, California Groundfish Disaster Response Program. Available from: Pacific States Marine Fisheries Commission, 205 SE Spokane St, Suite 100. Portland, Oregon 97202-6413. 9 pages

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R. N. Fraker, D. A. Hanan, and M. A. Fraker. 2002. Tyco Global Network, TransPacific Cable Installation, Marine Wildlife Monitoring Report. Tyco Networks (US) Inc. Morristown, New Jersey. December 2002. TerraMar Environmental Research LL. Ashland, Oregon USA 97520.

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Barlow, J., R. W. Baird, J. E. Heyning, K. Wynne, A. M. Manville II, L. F. Lowry, D. Hanan, J. Sease, V. Burkanov. 1994. A review of cetacean mortality in coastal fisheries along the west coast of the U.S., Canada, and the east coast of the USSR. *Rep. International Whaling Commission (Special Issue 15)*. 51 pages.

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Hanan, D. A., L. M. Jones, and M. J. Beeson. 1993. Harbor seal, *Phoca vitulina richardsi*, census in California, May-June 1992. Final Rpt. Cooperative agreement No. NA17FX0304-01. Submitted NOAA/NMFS SWR, January 1993. 53 pages.

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Hanan, D., and J. Sisson. 1992. Marine mammal resources: pinnipeds. Pages 208-211 in California's living marine resources and their utilization. W. S. Leet, C. M. Dewees, and C. W. Haugen (eds.) Sea grant extension publication. UCSGEP-92-12.

Hanan, D. A., L. M. Jones, and M. J. Beeson. 1992. Harbor seal, *Phoca vitulina richardsi*, census in California, May-June 1991. NOAA/NMFS SWFC Admin. Rpt. LJ-92-03. January 1992. 68 pages.

Forney, K. A., D. A. Hanan, and J. Barlow. 1991. Detecting trends in harbor porpoise abundance from aerial survey data using analysis of covariance. *Fish. Bull.*, U.S. 89(3):367-377.

Hanan, D. A., E. S. Konno, and M. J. Beeson. 1991. Harbor seal, *Phoca vitulina richardsi*, census in California, May-June 1990. NOAA/NMFS SWFC Admin. Rpt. LJ-91-05. March 1991. 68 pages.

Hanan, D. A., 1990. Harbor seal, *Phoca vitulina richardsi*, census in California, 1989. NOAA/NMFS SWFC Admin. Rpt. LJ-90-10. April 1990. 63 pages.

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- Hanan, D. A., 1989. Harbor porpoise, *Phocoena phocoena*, aerial surveys, September 1988 to November 1988. Final Rpt. Cooperative agreement No. NA-86-ABH-00018. Submitted NOAA/NMFS SWR, March 1989. 30 pages.
- Hanan, D. A., L. M. Jones, and R. B. Read. 1989. California sea lion interaction and depredation rates with the commercial passenger fishing vessel fleet near San Diego. *California Cooperative Oceanic Fisheries Investigations Reports*. 30:122-126.
- Hanan, D. A., J. P. Scholl, and S. L. Diamond. 1989. Harbor seal, *Phoca vitulina richardsi*, census in California, May-June 1988. January 1989. NOAA/NMFS SWFC Admin. Rpt. LJ-89-13. 53 pages.
- Boveng, P. L., A. A. Hohn, D. P. DeMaster, A. E. Dizon, D. A. Hanan, and J. P. Scholl. 1989. Tracking harbor seals in Southern California. *Proc. 1989 North Amer. Argos users conf. and exhibit*. Service Argos, Inc. 1801 McCormick Dr., Suite 10, Landover, Md. 20785. pp 205-217.
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- Hanan, D. A., and S. L. Diamond. 1989. Estimates of sea lion, harbor seal, and harbor porpoise mortalities in California set net fisheries for the 1986-87 fishing year. Final Rpt. Cooperative agreement No. NA-86-ABH-00018. NOAA/NMFS SWR, January 1989. 10 pages.
- Hedgecock, D., E. S. Hutchinson, G. Li, N. C. H. Lo, and D. A. Hanan. 1989. Genetic and morphometric variation in the Pacific sardine, *Sardinops sagax caerulea*: comparisons and contrasts with historical data and with variability in the northern anchovy, *Engraulis mordax*. *Fish. Bull.*, U.S. 87:653-671.
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- Hanan, D. A., and L. M. Jones. 1988. Harbor porpoise, *Phocoena phocoena*, aerial surveys, October 26, 1987 to November 20, 1987. Final Rpt. Cooperative agreement No. NA-86-ABH-00018. NOAA/NMFS SWR, January 1988. 29 pages.
- Hanan, D. A., J. P. Scholl, and S. L. Diamond. 1988. Harbor seal, *Phoca vitulina richardsi*, census in California, May - June 1987. NOAA/NMFS SWR Admin. Rpt. SWR-88-2, 41 pages.
- Herrick, S. F., Jr., and D. Hanan. 1988. A review of California entangling net fisheries, 1981-1986. US Dep. Com. NOAA Tech. Memoranda No. NOAA-TM-NMFS-SWFC-108, 38 pages.
- Hanan, D. A. 1987. Harbor porpoise, *Phocoena phocoena*, aerial surveys, September 9, 1986 to October 21, 1986. Final Rpt. Cooperative agreement No. NA-86-ABH-00018. Submitted NOAA/NMFS SWR, January 1987. 41 pages.

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- Hanan, D. A. and J. P. Scholl. 1987. Acoustic harassment testing in the San Francisco Bay Pacific herring, *Clupea harengus*, gill net and purse seine fisheries. Pages 56-57 in B. R. Mate and J. T. Harvey, eds. *Acoustical deterrents in marine mammal conflicts with fisheries*. Oregon State University. Sea Grant College Program. Publication No. ORESU-W-86-001. 116 pages.
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- Hanan, D. A., S. L. Diamond, J. P. Scholl. 1987. An estimate of harbor porpoise mortalities in California set net fisheries, April 1, 1985 through March 31, 1986. NOAA/NMFS SWR Admin. Rpt. SWR-87-5, 9 pages.
- Diamond, S. L., J. P. Scholl, and D. A. Hanan. 1987. Drift gill net observations for the 1985-86 fishing season. NOAA/NMFS SWR Admin. Rpt. SWR-87-4, 21 pages.
- Scholl, J. P., and D. A. Hanan. 1987. Effects of cracker shells on California sea lions, *Zalophus californianus*, interacting with the southern California partyboat fishery. Page 65 in B. R. Mate and J. T. Harvey, eds. *Acoustical deterrents in marine mammal conflicts with fisheries*. Oregon State University. Sea Grant College Program. Publication No. ORESU-W-86-001. 116 pages.
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- Hanan, D. A., J. P. Scholl, and S. L. Diamond. 1986. Harbor seal, *Phoca vitulina richardsi*, census in California, June 25-30, 1984. Pages 2-7 and 38- 53 in Doyle A. Hanan, California Department of Fish and Game coastal marine mammal study annual report for the period July 1, 1983-June 30, 1984. NOAA/NMFS SWFC Admin. Rpt. LJ-86-16.

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