

MARK H. CARR
Department of Biology
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Project: *Ecological Consequences of Alternative Abandonment Strategies for POCS Offshore Facilities and Implications for Policy Development*

Education	B.A.	Biology, University of California, Santa Cruz	1976
	M.S.	San Francisco State University	1983
	Ph.D.	University of California, Santa Barbara	1991

Positions:	1997-present	Assistant Professor III, Department of Biology, University of California, Santa Cruz, CA.
	1994-1997	Assistant Research Biologist IV, Deputy Director, SCEI and CMI, Marine Science Institute, University of California, Santa Barbara, CA.
	1992-94	Post-doctoral Research Associate, Department of Zoology, Oregon State University
	1993-94	Lecturer, Department of Zoology, Oregon State University
	1984-1991	Graduate Research Assistant, Department of Biological Sciences, University of California, Santa Barbara
	1981-1983	Research Technician, California Institute of Technology

Distinctions:	1989	Outstanding Student Paper Award, Western Society of Naturalists
	1988	EPRI Fellowship, Sport Fishing Institute
	1987	Joseph Drown Fellowship, University of Southern California, Oceanographic Associates

Research Interests:

- Population and community ecology of marine reef fishes
- Application of behavioral and ecological research to marine fisheries and conservation problems.

Selected Publications:

Carr, M.H. and C. Syms. "Recruitment: the replenishment of demersal fish populations" chapter *In*: Allen, L. (ed.) *The Ecology of California Marine Fishes*. U.C. Press. (in press)

Carr, M.H., Neigel, J.E., Estes, J.A., Andelman, S.J., Warner, R.R., and J.L. Largier. Comparing marine and terrestrial ecosystems: implications for principles of reserve design in coastal marine ecosystems. *Ecological Applications* (in press)

Shanks, A.L., Grantham, B., and M.H. Carr. Propagule dispersal distance and the size and spacing of marine reserves. *Ecological Applications* (in press)

Anderson, T.W., Bartels, C.T., Hixon, M.A., Bartels, E., Carr, M.H., and J.M. Shenker. 2002. Current flow and catch efficiency in sampling settlement-stage larvae of coral-reef fishes. *Fishery Bulletin* **100**: 404-413.

Carr, M.H. and C. Syms. 2002. Marine reserves in the Monterey Bay National Marine Sanctuary: what we do and don't know. Pp. 51-72 *In*: Starr, R.M., M.H. Carr, J. Caselle, J.A. Estes, C. Pomeroy, C. Syms, D. VenTresca, and M.M. Yoklavich. A review of the ecological effectiveness of subtidal marine reserves in Central California. Part I: Synopsis of scientific investigations. A Report to the Monterey Bay National Marine Sanctuary.

Carr, M.H., Anderson, T.W., and M.A. Hixon. 2002. Biodiversity, population regulation, and the stability of coral-reef fish communities. *Proceedings of the National Academy of Sciences* **99**: 11241-11245.

- Starr, R.M., Carr, M.H., Caselle, J., Estes, J.A., Pomeroy, C., Syms, C., VenTresca, D., and M.M. Yoklavich. 2002. A review of the ecological effectiveness of subtidal marine reserves in Central California. Part II: Summary of existing marine reserves in Central California and their potential benefits. A Report to the Monterey Bay National Marine Sanctuary. 12 pp.
- Steele, M.A., Malone, J.C., Findlay, A.M., Carr, M.H., and G.E. Forrester. 2002. A simple method for estimating larval supply in reef fishes and a preliminary test of population limitation by larval delivery in the kelp bass, *Paralabrax clathratus*. *Marine Ecology Progress Series* **235**: 195-203.
- Syms, C. and M.H. Carr. 2002. International Clearinghouse for MPA Effectiveness Measures: a Conceptual Design. Report prepared for the North American Commission for Environmental Cooperation.
- Carr, M.H. 2000. Marine protected areas: challenges and opportunities for understanding and conserving coastal marine ecosystems. *Environmental Conservation* **27**: 106-109.
- Carr, M.H. and A.A. Ammann. 2000. Contrasting effects of La Nina and El Nino on recruitment of juvenile rockfishes. Ecosystem Observations, Monterey Bay National Marine Sanctuary: 11-12.
- Holbrook, S.J., Ambrose, R.F., Botsford, L., Carr, M.H., Raimondi, P.T., and M.J. Tegner. 2000. Ecological Issues Related to Decommissioning of California's Offshore Production Platforms. A Report to the University of California Marine Council by The Select Scientific Advisory Committee on Decommissioning, University of California.
- Reed, D.C., Raimondi, P.T., Carr, M.H., and L. Goldwasser. 2000. The role of dispersal and disturbance in determining spatial heterogeneity in sedentary kelp-forest organisms. *Ecology* **81**: 2011-2026.
- Carr, M.H. and P.T. Raimondi. 1999. Marine protected areas as a precautionary approach to management. *California Cooperative Oceanic Fisheries Investigations Reports* **40**: 71-76.
- Murray, S.N., Ambrose, R.F., Bohnsack, J.A., Botsford, L.W., and M.H. Carr. 1999. No-take reserve networks: sustaining fishery populations and marine ecosystems. *Fisheries* **24**: 11-25
- Allison, G., Lubchenco, J., and M.H. Carr. 1998. Marine reserves are necessary but not sufficient for marine conservation. *Ecological Applications* **8**: S79-S92.
- Anderson, T.W. and M.H. Carr. 1998. BINCKE: A highly efficient net for collecting reef-associated fishes. *Environmental Biology of Fishes* **51**: 111-115.
- Carr, M.H. 1998. Effects of spatial structure on the relationship between larval supply, habitat availability and recruitment of reef fishes. pp. 215-218 In: Jones, G.P., Doherty, P.J., Mapstone, B.D., and Howlett, L. (eds.) *ReeFish '95: Recruitment and Population Dynamics of Coral Reef Fishes*. CRC Reef Research Centre, Townsville, Australia, 297 pp.
- Carr, M.H. and P.T. Raimondi. 1998. Concepts relevant to the design and evaluation of harvest reserves. In: Proceedings of the Marine Harvest Refugia for West Coast Rockfish: A Workshop. M. Yoklavich, ed. *NOAA-NMFS Technical Memo SWFC-255*, pp. 27-31.
- Carr, M.H., Hourigan, T., Ito, D., McArdle, D., Morgan, L., Palsson, W., Parrish, R., Ralston, S., Reilly, P., Sladek, J., and R. Starr. 1998. "Working group on design considerations" pp. 143-148 In: M.M. Yoklavich (ed.) *Marine Harvest Refugia for West Coast Rockfish: A Workshop*. *NOAA/NMFS Technical Memo SWFC-255*.
- Caley, M.J., Carr, M.H., Hixon, M.A., Hughes, T.P., Jones, G.P., and B.A. Menge. 1997. Recruitment and the population dynamics of open marine populations. *Annual Review of Ecology and Systematics* **27**: 477-500.
- Carr, M.H. and M.A. Hixon. 1997. Artificial reefs: the importance of comparisons with natural reefs. *Fisheries* **22**: 28-33.