

## Curriculum Vitae

MARK A. STEELE

### Personal Data

Address: Department of Biology  
California State University  
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Northridge, CA 91330-8303

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### Education

B.A.                    1989. University of California, San Diego. Major: Ecology, Behavior, and Evolution;  
Cum Laude

Ph.D.                    1995. University of California, Santa Barbara. Biology

### Academic Positions

2006 – present    Visiting Assistant Professor, Department of Biology, California State University,  
Northridge

2002 – present    Assistant Research Biologist, Marine Science Institute, University of California, Santa  
Barbara

2003 – present    Adjunct Assistant Professor, Department of Natural Resources Science, University of  
Rhode Island

1998 – present    Faculty, East/West Marine Biology Program, Northeastern University

2002–2003        Adjunct Assistant Professor, Department of Biological Sciences, University of Rhode  
Island

1999–2001        Assistant Professor (Research), Department of Biological Sciences, University of  
Rhode Island

2000                Lecturer, Department of Organismic Biology, Ecology and Evolution, University of  
California, Los Angeles

1999–2000        Postdoctoral Associate, Department of Organismic Biology, Ecology and Evolution,  
University of California, Los Angeles, with Rick Vance

1995–1999        Postdoctoral Associate, Department of Organismic Biology, Ecology and Evolution,  
University of California, Los Angeles, with Graham Forrester

1991, 1995        Research Assistant, Department of Biological Sciences, University of California, Santa  
Barbara

1990-1995        Teaching Assistant, Department of Biological Sciences, University of California, Santa  
Barbara

1987-1989        Teaching Assistant, Biology Department, University of California, San Diego

**Teaching Experience**

- 2006-present Marine Ecology (Visiting Assistant Professor, California State University, Northridge)
- 1998-present Biology of Fishes (Instructor, East/West Marine Biology Program, Northeastern University)
- 2000-2001 Ecology; Marine Ecology; and Biology of Fishes (Guest Lecturer, Department of Biological Sciences, University of Rhode Island)
- 2000 Ecology (Lecturer, Department of Organismic Biology, Ecology and Evolution, University of California, Los Angeles)
- 1997-1998 Ecology (Guest Lecturer, Department of Biology, University of California, Los Angeles)
- 1990-1995 Ecology; Ecology Lab; General Biology (Teaching Assistant, Department of Biological Sciences, University of California, Santa Barbara)
- 1987-1989 Organismic Biology; Human Nutrition (Teaching Assistant, Biology Department, University of California, San Diego)

**Awards, Fellowships, and Honors**

- 1997 Mildred Mathias Award for best natural science proposal submitted to the UC MEXUS program
- 1995 UCSB General Affiliates Graduate Dissertation Fellowship
- 1994 Regent's Fellowship, University of California, Santa Barbara
- 1994 Graduate Student Fee Fellowship, University of California, Santa Barbara
- 1993 Graduate Student Fee Fellowship, University of California, Santa Barbara
- 1992 Graduate Student Fee Fellowship, University of California, Santa Barbara
- 1991 Honorable Mention, National Science Foundation Graduate Fellowship
- 1990 Regent's Fellowship, University of California, Santa Barbara
- 1988 President's Undergraduate Fellowship, University of California, San Diego

**Grants and Scholarships**

- 2004-2005 California Coastal Commission. San Onofre Nuclear Generating Station Mitigation Project Monitoring Program. \$2,388,957. (co-PI with 3 others)
- 2004-2006 Caribbean Marine Research Center, National Undersea Research Program, National Oceanic and Atmospheric Administration (CMRC-03-NRME-01-04A). Density dependence in exploited marine fish: an experimental test and theoretical exploration of the implications for fisheries enhancement via marine protected areas. \$57,983. (PI)
- 2002-2007 National Science Foundation (OCE 0222087). A test for shelter limitation of reef fish populations at large spatial scales: an integrated empirical and theoretical approach. \$549,167. (co-PI; G. Forrester PI)

- 2002-2004 Caribbean Marine Research Center, National Undersea Research Program, National Oceanic and Atmospheric Administration (CMRC-01-NRME-01-02A). Source-sink dynamics, density dependence, and the efficacy of marine protected areas. \$59,028. (PI)
- 2001-2002 Caribbean Marine Research Center, National Undersea Research Program, National Oceanic and Atmospheric Administration (CMRC-01-PRGF-01-01A). Population dynamics of coral reef fishes at multiple scales: an integrated empirical and theoretical approach. \$7,475. (PI)
- 1997-2001 National Science Foundation (OCE 96-18011). Local population dynamics of temperate and tropical reef fishes at multiple scales. \$403,000. (co-author; G. Forrester PI)
- 1997-1998 UC MEXUS Grant. Assessment of artisanal fisheries of the east coast of Baja California Sur, Mexico. \$12,500. (co-author; G. Forrester PI)
- 1995 University of California Travel Grant
- 1994 International Women's Fishing Association Scholarship
- 1993 Sigma Xi Grant-in Aid of Research
- 1993 Lerner-Gray Fund for Marine Research
- 1993 International Women's Fishing Association Scholarship
- 1992 Sigma Xi Grant-in Aid of Research
- 1992 Lerner-Gray Fund for Marine Research
- 1992 International Women's Fishing Association Scholarship

### **Professional Memberships**

American Society of Ichthyologists and Herpetologists  
 California Estuarine Research Society  
 Ecological Society of America  
 Estuarine Research Federation  
 Sigma Xi  
 Southern California Academy of Sciences  
 Western Society of Naturalists

### **Publications**

- Steele, M. A. 1995. The contributions of predation, competition, and recruitment to population regulation of two temperate reef fishes. Ph.D. Dissertation. University of California, Santa Barbara, California, USA.
- Steele, M. A. 1996. Effects of predators on reef fishes: separating cage artifacts from effects of predation. *Journal of Experimental Marine Biology and Ecology* 198:249-267.
- Steele, M. A. 1997. The relative importance of processes affecting recruitment of two temperate reef fishes. *Ecology* 78:129-145.
- Steele, M. A. 1997. Population regulation by post-settlement mortality in two temperate reef fishes. *Oecologia* 112:64-74.

- Steele, M. A. 1998. The relative importance of predation and competition in two reef fishes. *Oecologia* 115:222-232.
- Steele, M. A., G. E. Forrester, and G. R. Almany. 1998. Influences of predators and conspecifics on recruitment of a tropical and a temperate reef fish. *Marine Ecology Progress Series* 172:115-125.
- Steele, M. A. 1999. Effects of shelter and predators on reef fishes. *Journal of Experimental Marine Biology and Ecology* 233:65-79.
- Malone, J. C., G. E. Forrester, and M. A. Steele. 1999. Effects of subcutaneous microtags on the growth, survival, and vulnerability to predation of small reef fishes. *Journal of Experimental Marine Biology and Ecology* 237:243-253.
- Forrester, G. E. and M. A. Steele. 2000. Variation in the presence and cause of density-dependent mortality in three species of reef fishes. *Ecology* 81:2416-2427
- Forrester, G. E., R. R. Vance, and M. A. Steele. 2002. Simulating large scale population dynamics using small-scale data. In: P. F. Sale (ed) *Coral reef fishes: dynamics and diversity in a complex ecosystem*. Academic Press, San Diego, p 275-301.
- Steele, M. A. and G. E. Forrester. 2002. Early post-settlement predation on three reef fishes: effects on spatial patterns of recruitment. *Ecology* 83: 1076-1091.
- Steele, M. A., J. C. Malone, A. M. Findlay, M. H. Carr, and G. E. Forrester. 2002. A simple method for estimating larval supply in reef fishes and a preliminary test of limitation of population size by larval supply in the kelp bass, *Paralabrax clathratus*. *Marine Ecology Progress Series* 235:195-203.
- Steele, M. A. and G. E. Forrester. 2002. Variation in the relative importance of sublethal effects of predators and competitors on growth of a temperate reef fish. *Marine Ecology Progress Series* 237:233-245.
- Forrester, G. E., B. I. Fredericks, D. Gerdeman, B. Evans, M. A. Steele, K. Zayed, L. E. Schweitzer, I. H. Suffet, R. R. Vance, R.F. Ambrose. 2003. Growth of estuarine fish is associated with the combined concentration of sediment contaminants and shows no adaptation of acclimation to past conditions. *Marine Environmental Research* 56:423-442.
- Swearer, S. E., G. E. Forrester, M. A. Steele, A. J. Brooks, and D. W. Lea. 2003. Spatio-temporal and interspecific variation in otolith trace-elemental fingerprints in a temperate estuarine fish assemblage. *Estuarine, Coastal and Shelf Science* 56:1111-1123.
- Forrester, G. E. and M. A. Steele. 2004. Predators, prey refuges, and the spatial scaling of density-dependent prey mortality. *Ecology* 85:1332-1342.
- Steele, M. A. and G. E. Forrester. 2005. Small-scale field experiments accurately scale up to predict density dependence in reef fish populations at large scales. *Proceedings of the National Academy of Sciences* 102:13513-13516.
- Steele, M. A. and T. W. Anderson. 2006. Predation. In: L. G. Allen, M. H. Horn, D. J. Pondella II (eds) *Ecology of California Marine Fishes*, U.C. Press, p. 428-448.
- Forrester, G. E., Evans, B., M. A. Steele, and R. R. Vance. Assessing the magnitude of intra- and interspecific competition in two coral-reef fishes using a response surface experiment. *Oecologia*, in press.

**Papers in review and in preparation**

- Steele, M. A., S. C. Schroeter, and H. M. Page. An experimental evaluation of biases associated with sampling estuarine fishes with seines. In revision: *Estuaries*
- Steele, M. A., S. C. Schroeter, and H. M. Page. Sampling characteristics and biases of enclosure traps for sampling fishes in estuaries. In review: *Estuaries*
- Steele, M. A., S. C. Schroeter, H. M. Page, and D. C. Reed. Dominant scales of spatial and temporal variation in estuarine fish abundance and diversity: implications for sampling design. In prep., target journal: *Marine Ecology Progress Series*
- Maheigan, M. E. and M. A. Steele. Coral reef recovery from macroalgal phase shift does not affect reef-fish communities. In prep., target journal: *Coral Reefs*
- Forrester, G. E. and M. A. Steele. Density dependence in a coral-reef fish scales up in space but not time. In prep., target journal: *Ecology Letters*
- Steele, M. A. and G. E. Forrester. A test for coherent spatial variation in growth rates of three tropical gobies. In prep., target journal: *Marine Biology*
- Steele, M. A. Age and growth of three tropical gobies and validation of daily-growth increments in their otoliths. In prep., target journal: *Journal of Fish Biology*
- Steele, M. A., S. S. Anderson, and M. Ramirez R. A preliminary study of age, growth, and maturity in groupers and snappers of the Gulf of California. In prep., target journal: *Fishery Bulletin*

**Solicited Book Reviews**

- Steele, M. A. 1998. Life and Death of Coral Reefs. *The Quarterly Review of Biology* 73:367

**Papers Presented at Scientific Meetings**

37 total:

23 first author: 21 talks; 2 posters

14 co-author: 12 talks; 1 poster

**Invited Seminar Presentations**

17 first author

**Journal Peer Reviews**

*Ecology, Ecological Monographs, Ecological Applications, Oecologia, Marine Ecology Progress Series, Journal of Experimental Marine Biology and Ecology, Marine Biology, Coral Reefs, Bulletin of Marine Science, Estuaries, Behavioral Ecology and Sociobiology*

**Grant Proposal Peer Reviews**

*National Science Foundation, Minerals Management Service-UC Coastal Marine Institute*