Todd W. Anderson

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Education

Ph.D. Biology 1993 University of California, Santa Barbara

M.A. Biology 1983 Moss Landing Marine Laboratories

B.S. Plant Science 1978 California State University, Fresno

Professional Experience

2010-present Professor Department of Biology, San Diego State University

2008-present Director, Coastal & Marine Institute College of Sciences, San Diego State University

2005-2010 Associate Professor Department of Biology, San Diego State University

1999-2005 Assistant Professor Department of Biology, San Diego State University

1997-99 Research Associate Department of Zoology, Oregon State University

1996 Lecturer Huxley College of Environmental Studies, Western Washington University

1994-96 Postdoctoral Fellow Friday Harbor Laboratories, University of Washington

1994 Postgraduate Researcher University of California, Santa Barbara

1992-94 Lecturer Department of Biology, California State University, Northridge

Publications

Lewis, L.S., and T.W. Anderson. Top-down control of epifauna by fishes enhances seagrass production. Ecology (in press).

Hixon, M.A., T.W. Anderson, K.L. Buch, D. W. Johnson, J.B. McLeod, and C.D. Stallings. 2012. Density dependence and population regulation in marine fish: a large-scale, long-term field manipulation. Ecological Monographs (in press).

Hunsicker, M.E., L. Ciannelli, K.M. Bailey, J.A. Buckel, J.W. White, J.S. Link, T.E. Essington, S.Gaichas, T.W. Anderson, R.D. Brodeur, K.S Chan, K. Chen, G. Englund, K.T. Frank, V. Freitas, M.A. Hixon, T. Hurst, D.W. Johnson, J.F. Kitchell, D. Reese, G.A. Rose, H. Sjodin, W.J. Sydeman, H.W. van der Veer, K. Vollset, and S. Zador. 2011. Functional responses and scaling in predator–prey interactions of marine fishes: contemporary issues and emerging concepts. Ecology Letters 14:1288-1299.

DeMartini, E.E., T.W. Anderson, A.M. Friedlander, and J.P. Beets. 2011. Predator biomass, prey density, and species composition effects on group size in recruit coral reef fishes. Marine Biology 158:2437-2447.

DeMartini, E.E., T.W. Anderson, J.C. Kenyon, A.M. Friedlander, and J.P. Beets. 2010. Management implications of juvenile reef fish habitat preferences and coral susceptibility to stressors. Marine and Freshwater Research 61:1-9.

Deza, A.A., and T.W. Anderson. 2010. Habitat fragmentation, patch size, and the distribution and abundance of kelp forest fishes. Marine Ecology Progress Series 416:229-240.

Farlin, J.P., L.S. Lewis, T.W. Anderson, and C.T. Lai. 2010. Functional diversity in amphipods revealed by stable isotopes in an eelgrass ecosystem. Marine Ecology Progress Series 420:277–281.

Floyd, E.Y., and T.W. Anderson. 2010. Interactive effects of nutritional condition and refuge availability on survival of a temperate reef goby. Marine Ecology Progress Series 407:257-269.

O'Connor, K.C., and T.W. Anderson. 2010. Consequences of habitat disturbance and recovery to recruitment and the abundance of kelp forest fishes. Journal of Experimental Marine Biology and Ecology 386:1-10.

Galst, C.A., and T.W. Anderson. 2008. Fish-habitat associations and the role of disturbance in surfgrass beds. Marine Ecology Progress Series 365:177-186.

Anderson, T.W. 2007. Guide to identification and surveying of near shore fishes. In Sampling biodiversity in coastal communities -- NaGISA protocols for seagrass and macroalgal habitats (P.R. Rigby, K. Iken, and Y. Shirayama, eds.). Kyoto University Press, Kyoto p. 90-92.

Anderson, T.W., M.H. Carr, and M.A. Hixon. 2007. Patterns and mechanisms of variable settlement and recruitment of a coral reef damselfish, Chromis cyanea. Marine Ecology Progress Series 350:109-116.

Davenport , A.C., and T.W. Anderson. 2007. Positive indirect effects of reef fishes on kelp performance: the importance of mesograzers. Ecology 88:1548-1561.

DeMartini, E.E., and T.W. Anderson. 2007. Habitat associations and aggregation of recruit fishes on Hawai'ian coral reefs. Bulletin of Marine Science 81:139-152.

Lewallen, E.A., T.W. Anderson, and A.J. Bohonak. 2007. Genetic structure of leopard shark (Triakis semifasciata) populations in California waters. Marine Biology 152:599-609.

Reed, D.C., S.C. Schroeter, D. Huang, and T.W. Anderson. 2006. Quantifying the performance of different artificial reef designs in mitigating losses to kelp bed fishes. Bulletin of Marine Science 78:133-150.

Steele, M.A. and T.W. Anderson. 2006. Predation. In Ecology of marine fishes: California and adjacent waters (L.G. Allen, M.H. Horn, and D.J. Pondella II, eds.). University of California Press, Berkeley, p. 428-448.

Andrews, K.S., and T.W. Anderson. 2004. Habitat-dependent recruitment of two temperate reef fishes at multiple spatial scales. Marine Ecology Progress Series 277:231-244.

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

Carr, M.H., T.W. Anderson, 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.

Anderson, T.W. 2001. Predator responses, prey refuges, and density-dependent mortality of a marine fish. Ecology 82:245-257.

Anderson, T.W. and B.M. Sabado. 1999. Effects of kinship on growth of a live-bearing reef fish. Marine Biology 133:115-121.

Anderson, T.W. and M.H. Carr. 1998. BINCKE: A highly efficient net for collecting reef fishes. Environmental Biology of Fishes 51:111-115.

Reed, D.C., T.W. Anderson, A.W. Ebeling, and M. Anghera. 1997. The role of reproductive synchrony in the colonization potential of kelp. Ecology 78:2443-2457.

Reed, D.C., A.W. Ebeling, T.W. Anderson, and M. Anghera. 1996. Differential reproductive responses to fluctuating resources in two seaweeds with different reproductive strategies. Ecology 77:300-316.

Anderson, T.W. and B.M. Sabado. 1995. Correspondence between food availability and growth of a planktivorous temperate reef fish. Journal of Experimental Marine Biology and Ecology 189:65-76.

Anderson, T.W. 1994. Role of macroalgal structure in the distribution and abundance of a temperate reef fish. Marine Ecology Progress Series 113:279-290.

Ambrose, R.F. and T.W. Anderson. 1990. The influence of an artificial reef on the surrounding infaunal community. Marine Biology 107:41-52.

Anderson, T.W., E.E. DeMartini and D.A. Roberts. 1989. The relationship between habitat structure, body size, and distribution of fishes at a temperate artificial reef. Bulletin of Marine Science 44:681-697.

Davis, G.E. and T.W. Anderson. 1989. Population estimates of four kelp forest fishes and an evaluation of three in situ assessment techniques. Bulletin of Marine Science 44:1138-1151.

DeMartini, E.E., D.A. Roberts and T.W. Anderson. 1989. Contrasting patterns of fish density and abundance at an artificial rock reef and a cobble-bottom kelp forest. Bulletin of Marine Science 44:881-892.

Williams, S.L., V.A. Breda, T.W. Anderson and B.B. Nyden. 1985. Growth and sediment disturbances of Caulerpa spp. (Chlorophyta) in a submarine canyon. Marine Ecology Progress Series 21:275-81.

Symposia

Anderson, T., L. Lewis, and C. Jones. 2009. The role of fishes in ecosystem function and evaluating habitat quality in eelgrass beds. 1st Annual San Diego Bay Symposium, San Diego, CA

DeMartini, E., T. Anderson, A. Friedlander. 2007. Habitats and social groupings of recruit reef fishes in Hawaii. Joint Hawaii Institute of Marine Biology -- Pacific Islands Fisheries Science Center Mini-Symposium, Honolulu, HI

Schroeter, S., D. Huang, T. Anderson, and R. Grove. 2005. Quantifying the performance of different reef designs on kelp bed fish and benthic community development at the San Clemente experimental artificial reef. Southern California Academy of Sciences, Los Angeles, California

Steele, M.A., and T.W. Anderson. 2003. The role of predation in the ecology of California's marine fishes. Western Society of Naturalists, Long Beach, California

Anderson, T.W. 2000. Ecology of fishes in kelp canopies. Western Society of Naturalists, Portland , Oregon

Hixon, M.A., V. Dufour, T.W. Anderson, and P.J. Doherty. 2000. Delivery mechanisms limit larval supply in coral reef fishes. Fourth International Larval Biology Conference, University of California , Santa Cruz , California

Hixon, M.A., V. Dufour, and T.W. Anderson. 1998. Western Society Effective barriers to dispersal of the larvae of coral-reef fishes. Western Society of Naturalists, San Diego , California

Reed, D.C., D.R. Laur, and T.W. Anderson. 1996. The golden years: the ecology of kelp colonization. Western Society of Naturalists, Port Townsend , Washington

Anderson , T.W., M.A. Hixon, D.R. Laur, and D.J. Stouder. 1996. Al Ebeling and surfperches: exceptions to the rule. Western Society of Naturalists, Port Townsend , Washington

Invited Seminars

Anderson, T.W. 2010. Linking individual condition and performance to population processes in temperate reef fishes. Bodega Marine Laboratory, University of California, Davis

Anderson, T.W. 2007. Population processes and individual performance in recruitment success of reef fishes. Scripps Institution of Oceanography, University of California, San Diego, California

Anderson, T.W. 2003. Population and community ecology of reef fishes. University of Southern California Wrigley Marine Science Center, Santa Catalina Island, California

Anderson, T.W. 2002. Interactive effects of habitat structure and predation on recruitment success of reef fishes. University of Southern California Wrigley Marine Science Center Santa Catalina Island , California

Anderson, T.W. 2002. Recruitment success and population dynamics of reef fishes. Moss Landing Marine Laboratories, Moss Landing, California

Anderson, T.W. 2002. Processes influencing recruitment success of reef fishes. American Institute of Fisheries Research Biologists, San Juan Capistrano , California

Anderson, T.W. 2001. Recruitment processes and population dynamics of reef fishes. California State University, Long Beach

Anderson, T.W. 2000. Population dynamics and regulation in temperate and tropical reef fishes. Scripps Institution of Oceanography, University of California, San Diego, California

Anderson, T.W. 2000. Population ecology of reef fishes: examples from temperate and tropical systems. University of Southern California Wrigley Marine Science Center , Santa Catalina Island , California

Anderson, T.W. 1999. Exploring population dynamics in reef fishes: Patterns, processes, and mechanisms. Department of Biology, San Diego State University , San Diego , California

Anderson, T.W. 1997. Density-dependent processes and population consequences for a temperate reef fish. Department of Zoology, Oregon State University , Corvallis , Oregon

Anderson , T.W. 1996. Population dynamics and recruitment success in reef fishes: looking for answers and finding more questions Department of Marine Science, University of Otago, Dunedin, New Zealand

Anderson , T.W. 1996. The role of macroalgal structure in recruitment success of a temperate reef fish. School of Fisheries, University of Washington , Seattle, Washington

Anderson, T.W. 1996. Density-dependent processes and population consequences for a temperate reef fish. Shannon Point Marine Center, Western Washington University, Anacortes, Washington

Anderson , T.W. 1996. Density-dependent processes and their consequences for a marine temperate reef fish. Department of Biology, University of Wisconsin, Stevens Point , Wisconsin

Anderson, T.W. 1995. Consequences of density-dependent processes in a marine reef fish. Department of Zoology, University of Washington , Seattle, Washington

Contributed Papers

Wheeler, S.G., T.W. Anderson, and S.G. Morgan. 2011. Biological and oceanographic drivers of variation in recent settlement of copper rockfish. Western Society of Naturalists, Vancouver, WA

Jones, C.L., and T.W. Anderson. 2011. Evaluating eelgrass habitat quality by fish settlement, performance, and survival. Benthic Ecology Meetings, Mobile, AL

Morton, D.N., and T.W. Anderson. 2011. Spatial patterns of invertebrate settlement in a giant kelp forest. Benthic Ecology Meetings, Mobile, AL

Compton, V.M., T.W. Anderson, S.G. Morgan, and G.N. Cherr. 2010. Understanding the role of habitat in mediating predation risk of larval fish exposed to the pyrethroid insecticide esfenvalerate. Society of Environmental Toxicology and Chemistry North America, Portland, OR

Compton, V.M., T.W. Anderson, S.G. Morgan, and G.N. Cherr. 2010. Understanding the role of habitat in mediating predation risk of larval fish exposed to a pyrethroid insecticide. Western Society of Naturalists, San Diego, CA

Jones, C.L., and T.W. Anderson. 2010. Evaluating eelgrass habitat quality by fish settlement, performance, and survival. Western Society of Naturalists, San Diego, CA

Morton, D.N., and T.W. Anderson. 2010. Spatial patterns of invertebrate settlement in a giant kelp forest. Western Society of Naturalists, San Diego, CA

Farlin, J.P., L.S. Lewis, T.W. Anderson, and C.T. Lai. 2009. Stable isotope analysis of amphipods in an eelgrass food web. Western Society of Naturalists, Monterey, CA

Hixon, M., T. Anderson, K. Buch, D. Johnson, and C. Stallings. 2008. Recruitment and population dynamics of a coral-reef fish: a large-scale long-term field experiment. 11th International Coral Reef Symposium, Fort Lauderdale, FL

Pondella, D.J. II, T. Anderson, M. Bergen, M. Carr, J. Carroll, J. Caselle, M. Edwards, and D. Schroeder. 2008. The nearshore rocky-reef fishes of the Southern California Islands. 7th California Islands Symposium, Oxnard, CA

Anderson, T.W., A.A. Deza, and K.C. O'Connor. 2007. Predator size and recruitment success in kelp-associated fishes: implications for marine reserves? Western Society of Naturalists, Ventura, CA

Deza, A.A., and T.W. Anderson. 2007. Effects of habitat fragmentation and patch size on recruitment and the abundance of kelp forest fishes. Western Society of Naturalists, Ventura, CA

Lewis, L.S., and T.W. Anderson. 2007. Predation in eelgrass beds: do trophic manipulations result in cascading effects? Western Society of Naturalists, Ventura, CA

O'Connor, K.C., and T.W. Anderson. 2007. Consequences of habitat disturbance and recovery to recruitment and the abundance of kelp forest fishes. Western Society of Naturalists, Ventura, CA

Galst, C.J., and T.W. Anderson. 2006. Habitat loss and fish assemblages in surfgrass beds. Western Society of Naturalists, Redmond, WA

Davenport, A.C, and T.W. Anderson. 2005. Are there differential effects of reef fishes on giant kelp performance? Western Society of Naturalists, Seaside, CA

Floyd, E.Y., and T.W. Anderson. 2005. Relative importance of nutritional condition and refuge availability for survival of the blackeye goby, Rhinogobiops nicholsii. Western Society of Naturalists, Seaside, CA

Sharfi, S., T.W. Anderson, D.C. Reed, and S.C. Schroeter. 2005. Habitat structure and fish production at an experimental artificial reef. 8th Conference on Artificial Reefs and Artificial Habitats, Biloxi, Mississippi

Davenport, A.C., and T.W. Anderson. 2004. Positive indirect effects of reef fishes on giant kelp performance. Western Society of Naturalists, Rohnert Park, California

Gregor, C.A., and T.W. Anderson. 2004. Relative importance of habitat attributes to predation risk in a temperate reef fish. Western Society of Naturalists, Rohnert Park, California

Lipski, D.M., and T.W. Anderson. 2004. Structural complexity of seagrass influences patterns of recruitment of fishes in San Diego Bay . Western Society of Naturalists, Rohnert Park, California

Anderson, T.W., and A.C. Davenport. 2003. Predator-mediated recruitment of kelp-associated fishes. Western Society of Naturalists, Long Beach, California

Anderson, T.W., M.A. Hixon, and M.H. Carr. 2002. Variation in settlement and post-settlement processes in patterns of recruitment of a coral reef damselfish. Western Society of Naturalists, Monterey , California

Andrews, K.S., and T. W. Anderson. 2002. Habitat structure and recruitment of two near-shore reef fishes at multiple scales. Western Society of Naturalists, Monterey, California

Hixon, M.A., V. Dufour, T.W. Anderson, and P.J. Doherty. 2000. Delivery mechanisms limit larval supply in coral reef fishes. Ninth International Coral Reef Symposium, Bali, Indonesia

Anderson, T.W. 1999. Relative importance of current flow and habitat structure to recruitment success of a temperate reef fish. Western Society of Naturalists, Monterey, California

Anderson, T.W., M.H. Carr, and M.A. Hixon. 1998. Both predators and competitors are required to cause density-dependent mortality of a coral-reef fish. Western Society of Naturalists, San Diego, California

Reed, D.C., T.W. Anderson, A.W. Ebeling, and M. Anghera. 1997. Role of reproductive synchrony in the colonization potential of kelp. Fourth International Temperate Reef Symposium, Santiago, Chile

Anderson, T.W. 1994. The role of macroalgal structure in the distribution and abundance of a temperate reef fish. Ecological and Evolutionary Ethology of Fishes, Victoria, British Columbia , Canada

Anderson, T.W. 1991. Predatory effects on a temperate reef fish. Western Society of Naturalists, Santa Barbara , CA

Anderson, T.W. 1990. Density-dependent growth in a planktivorous temperate reef fish: a potential determinant of aggregation size. Western Society of Naturalists, Monterey, California

Anderson, T.W., E.E. DeMartini, and D.A. Roberts. 1987. The relationship between habitat structure, body size, and distribution of fishes at a temperate artificial reef. Fourth International Conference on Artificial Habitats for Fisheries, Miami, Florida

Anderson, T.W. 1981. Identification and development of juvenile rockfishes (genus Sebastes) in central California kelp forests Western Society of Naturalists, Santa Barbara, California

Posters

Wheeler, S.G., C.M. Muir, and T.W. Anderson. 2012. Evaluating patterns of larval growth and pelagic larval duration between winter and spring spawning rockfishes (Sebastes spp.). 46th Annual Meeting, Cal-Neva Chapter, American Fisheries Society, San Diego, CA

Brower, J.P., and T.W. Anderson. 2011. Nonlethal consequences of predator-induced stress in a macrophyte-associated fish. Western Society of Naturalists, Vancouver, WA

Wheeler, S.G., T.W. Anderson, S.G. Morgan, and J.A. Hobbs. 2011. The influence of parturition date, larval condition, and upwelling on recruitment success of copper rockfish (Sebastes caurinus). 45th Annual Cal-Neva Conference, American Fisheries Society, Folsom, CA

Wheeler, S.G., T.W. Anderson, S.G. Morgan, and J.A. Hobbs. 2010. The influence of parturition date, larval condition, and upwelling on recruitment success of copper rockfish. Western Society of Naturalists, San Diego, CA

Compton, V.M., T.W. Anderson, S.G. Morgan, and G.N. Cherr. 2009. Understanding the role of habitat in mediating predation risk of larval fish exposed to an insecticide. Western Society of Naturalists, Monterey, CA

DeMartini, E.E., J.C. Kenyon, T.W. Anderson, A.M. Friedlander, and J.P. Beets. 2009. Management-conservation implications of species differences in juvenile reef fish habitat electivity and coral susceptibility to anthropogenic stressors. 8th Indo-Pacific Fish Conference, Fremantle, Western Australia

DeMartini, E.E., T.W. Anderson, A.M. Friedlander, and J.P. Beets. 2008. Density effects on grouping behavior and habitat associations of recruit reef fishes in Hawaii: contrasts between years and among species. 11th International Coral Reef Symposium, Fort Lauderdale, FL

Lewis, L.S., and T.W. Anderson. 2007. Predation in eelgrass beds: do trophic manipulations result in cascading effects? Southern California Academy of Sciences, Fullerton, CA

Suk, S.H., T.W. Anderson, and J.A. Seminoff. 2006. Feeding ecology and trophic status of pelagic sharks from the eastern north Pacific inferred from d13C and d15N. Fifth International Conference on Applications of Stable Isotope Techniques to Ecological Studies, Belfast, Northern Ireland

Webber, J.D., and T.W. Anderson. 2006. Can growth history influence swimming performance in marine fishes? Western Society of Naturalists, Redmond, WA

Lewallen, E., A. Bohonak, and T.W. Anderson. 2005. Population genetic structure and dispersal of leopard sharks inferred from genetic and geospatial data. Western Society of Naturalists, Seaside, CA

Professional Associations

American Association for the Advancement of Science

Ecological Society of America

Southern California Academy of Sciences

Western Society of Naturalists

Review Panels / Advisory Committees

California Dept. Fish & Game Nearshore Fishery Management Plan Advisory Committee

California Dept. Fish & Game Ocean Resources Enhancement and Hatchery Program Panel

California Ocean Science Trust, Expert Advisory Committee, Oil Platform Decommissioning Study

National Science Foundation, Biological Oceanography Panel

National Science Foundation, International Research Fellowship Program Panel

National Oceanic and Atmospheric Administration, National Undersea Research Center Panel, West Coast & Polar Regions

U.S. Fish and Wildlife, Advisory Committee, South San Diego Bay Restoration Project