RUSSELL J. SCHMITT

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Projects: *Population Trends and Trophic Dynamics in Pacific OCS Ecosystems: What Can Monitoring Data Tell us?*
Advancing Marine Biotechnology: Use of OCS Oil Platforms as Sustainable Sources of Marine Natural Products

Education:

B.A.	Environmental Biology, University of Colorado	1972
M.S.	Marine Science, University of the Pacific	1975
Ph.D.	Biology, University of California, Los Angeles	1979

Positions:

1995-present	Professor, Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara
1994-present	Program Director, Coastal Marine Institute, University of California, Santa Barbara
1991-present	Program Director, Coastal Toxicology Program, UC Toxic Substances Research and Teaching Program
1989-2005	Program Director, Southern California Educational Initiative, University of California, Santa Barbara
1987-present	Director, Coastal Research Center, Marine Science Institute, University of California, Santa Barbara
1993-1995	Associate Professor, Department of Biology and Environmental Studies Program, University of California, Santa Barbara
1987-1992	Associate Research Biologist, Marine Science Institute, University of California, Santa Barbara
1981-1987	Assistant Research Biologist, Marine Science Institute, University of California, Santa Barbara

Distinctions: 1989 George Mercer Award for 1989, Ecological Society of America (best published research in field of Ecology by a scientist under age 40; Awarded for "Indirect interactions between prey: apparent competition, predator aggregation and habitat selection," *Ecology* **68**:1887-1897)

Selected Publications:

Holbrook, S.J. and R.J. Schmitt. Growth, reproduction and survival of a tropical sea anemone (actiniaria): benefits of hosting anemonefish. *Coral Reefs* (in press).

Holbrook, S. J. and R. J. Schmitt. 2004. Population dynamics of a damselfish: effects of a competitor that also is an indirect mutualist. *Ecology* **85**:979-985.

Schmitt, R. J. and S. J. Holbrook. 2003. Mutualism can mediate competition and promote coexistence *Ecology Letters* **6**:898-902.

Bernardi, G., S.J. Holbrook, R.J. Schmitt, and N.L. Crane. 2003. Genetic evidence for two distinct clades in a French Polynesian population of the coral reef three-spot damselfish *Dascyllus trimaculatus*. *Marine Biology* **143**:485-490.

Holbrook, S.J. and R. J. Schmitt. 2003. Spatial and temporal variation in mortality of newly settled damselfish: patterns, causes and co-variation with settlement. *Oecologia* **135**:532-541.

Bernardi, G., S.J. Holbrook, R.J. Schmitt, N.L. Crane, and E. DeMartini. 2002. Species boundaries, populations and colour morphs in the coral reef three-spot damselfish (*Dascyllus trimaculatus*) species complex. *Proceedings of the Royal Society of London Series B Biological Sciences* **269**(1491):599-605.

Bolker, B.M., C.M. St Mary, C.W. Osenberg, R.J. Schmitt, and S.J. Holbrook. 2002. Management at a different scale: Marine ornamentals and local processes. *Bulletin of Marine Sciences* **70**(2):733-748.

Brooks, A.J., R.J. Schmitt, and S.J. Holbrook. 2002. Declines in regional fish populations: have species responded similarly to environmental change? *Marine and Freshwater Research* **53**(2):189-198.

Holbrook, S.J. and R.J. Schmitt. 2002. Competition for shelter space causes density-dependent predation mortality in damselfishes. *Ecology* **83**(10):2855-2868.

Holbrook, S.J., A.J. Brooks, and R.J. Schmitt. 2002. Predictability of fish assemblages on coral patch reefs. *Marine and Freshwater Research* **53**(2):181-188.

Holbrook, S.J., A.J. Brooks, and R.J. Schmitt. 2002. Variation in structural attributes of patch-forming corals and in patterns of abundance of associated fishes. *Marine and Freshwater Research* **53**(7):1045-1053.

Osenberg, C.W., C.M. St Mary, R.J. Schmitt, S.J. Holbrook, P. Chesson, and B. Byrne. 2002. Rethinking ecological inference: density dependence in reef fishes. *Ecology Letters* **5**(6):715-721.

Schmitt, R.J. and S.J. Holbrook. 2002. Correlates of spatial variation in settlement of two tropical damselfishes. *Marine and Freshwater Research* **53**(2):329-337.

Schmitt, R.J. and S.J. Holbrook. 2002. Spatial variation in concurrent settlement of three damselfishes: relationships with near-field current flow. *Oecologia* **13**(3):391-401.

Bernardi, G., S.J. Holbrook, and R.J. Schmitt. 2001. Gene flow at three spatial scales in a coral reef fish, the three-spot dascyllus, Dascyllus trimaculatus. *Marine Biology* **138**(3):457-465.

Buko, A.M., C. Beckner, D. Hepp, N. Helias, F. Zhu, T. Nemcek, R.J. Schmitt, and J. Hochlowski. 2001. Stability testing of chemical diversity in liquid DMSO storage. *Abstracts of Papers of the American Chemical Society* **222**:210-ANYL Part 1.

Schmitt, R.J. and S.J. Holbrook. 2001. Habitat-limited recruitment of coral reef damselfish. *Ecology* **81**(12):3479-3494.

Holbrook, S.J., G.E. Forrester, and R.J. Schmitt. 2000. Spatial patterns in abundance of a damselfish reflect availability of suitable habitat. *Oecologia* **122**(1):109-120.

Holbrook, S.J. and R.J. Schmitt. 1999. *In Situ* Nocturnal Observations of Reef Fishes Using Infrared Video. Pp. 805-812 in Proc. 5th Indo-Pacific Fish Conf., Noumea, 1997. B Seret and J-Y Sire, eds. Paris: Soc. Fr. Ichtyol.

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Schmitt, R.J. and S.J. Holbrook. 1999. Settlement and recruitment of three damselfish species: larval delivery and competition for shelter space. *Oecologia* **118**:76-86.

Schmitt, R.J. and S.J. Holbrook. 1999. Temporal patterns of settlement of three species of damselfish of the genus *Dascyllus* (Pomacentridae) in the coral reefs of French Polynesia. Pp. 537-551 *in* Proc. 5th Indo-Pacific Fish Conf., Noumea, 1997. B Seret and J-Y Sire, eds. Paris: Soc. Fr. Ichtyol.

Schmitt, R.J., S.J. Holbrook, and C.W. Osenberg. 1999. Quantifying the effects of multiple processes on local abundance: A cohort approach for open populations. *Ecology Letters* **2**:294-303.