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Projects: *Population Genetics of Surfgrass (Phyllospadix torreyi) for Use in Restoration*

Education: B.A. Biology, Smith College 1970
Ph.D. Zoology, University of California, Berkeley 1975

Positions: 1987-present Professor, Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara
1981-87 Associate Professor, Department of Biological Sciences, University of California, Santa Barbara
1975-81 Assistant Professor, Department of Biological Sciences, University of California, Santa Barbara

Selected Publications:

Holbrook, S.J. and R.J. Schmitt. 2005. Growth, reproduction and survival of a tropical sea anemone (actiniaria): benefits of hosting anemonefish. *Coral Reefs* (in press).

Bull, J.S., D.C. Reed, and S. J. Holbrook. 2004. An experimental evaluation of different methods of restoring *Phyllospadix torreyi* (Surfgrass). *Restoration Ecology* **12**:70-79.

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 color morphs in the coral reef three-spot damselfish (*Dascyllus trimaculatus*) species-complex. *Proceedings of the Royal Society of London B* **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 Science* **70**: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 mortality in damselfishes. *Ecology* **83**:2855-2868.

Holbrook, S.J., A. 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 Freshwater Research* **53**(7):1045-1053.

- Holbrook, S.J., D.C. Reed, and J.S. Bull. 2002. Survival experiments with outplanted seedlings of surfgrass (*Phyllospadix torreyi*) to enhance establishment on artificial structures. *ICES Journal of Marine Science* **59**:S350-S355 Supplement S.
- 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* **131**:391-401.
- Bernardi, G., S.J. Holbrook, and R.J. Schmitt. 2001. Gene flow in the coral reef three-spot dascyllus, *Dascyllus trimaculatus*, at three spatial scales. *Marine Biology* **138**:457-465
- 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., D.C. Reed, K. Hansen, et al. 2000. Spatial and temporal patterns of predation on seeds of the surfgrass *Phyllospadix torreyi*. *Marine Biology* **136**(4):739-747.
- Schmitt, R.J. and S.J. Holbrook. 2000. Habitat-limited recruitment of coral reef damselfish. *Ecology* **81**(12):3479-3494.
- Blanchette, C.A., S. Worcester, D. Reed, and S.J. Holbrook. 1999. Algal morphology, flow and spatially variable recruitment of surfgrass, *Phyllospadix torreyi*. *Marine Ecology Progress Series* **184**:119-128.
- Holbrook, S.J. and R.J. Schmitt. 1999. *In situ* nocturnal observations of reef fishes using infrared video. In: Proc. 5th Indo-Pac. Fish Conf., Nouméa, 1997 (Séret B. & J.-Y. Sire, eds), pp. 805-812. Paris: Soc. Fr. Ichtyol.
- Holbrook, S.J., G.E. Forrester, and R.J. Schmitt. 1999. Spatial patterns in abundance of a damselfish reflect availability of suitable habitat. *Oecologia*.
- Schmitt, R.J. and S.J. Holbrook. 1999. Mortality of juvenile damselfish: implications for assessing processes that determine abundance. *Ecology* **80**:35-50.
- 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. In: Proc. 5th Indo-Pac. Fish Conf., Nouméa, 1997 (Séret B. & J.-Y. Sire, eds), pp. 537-551. 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.
- Holbrook, S.J. and R.J. Schmitt. 1998. Have field experiments aided in the understanding of abundance and dynamics of reef fishes? Pp. 152-169 in: *Issues and Perspectives in Experimental Ecology*, W.J. Reseraris and J. Bernado eds. Oxford University Press.
- Reed, D.C., S.J. Holbrook, E. Solomon, and M. Anghera. 1998. Studies on germination and root development in the surfgrass *Phyllospadix torreyi*: Implications for habitat restoration. *Aquatic Botany* **62**:71-80.