

## CURRICULUM VITAE

### PAUL CARL SIKKEL

Department of Biology  
Murray State University  
Blackburn Hall 334  
Murray, KY 42071  
Tel (270) 762-6331, Fax: 762-2788  
e-mail: [paul.sikkel@murraystate.edu](mailto:paul.sikkel@murraystate.edu)

### Education

UC San Diego, BA in Biology (Behavior, Ecology, and Evolution) 1985  
Oregon State University, MS in Fisheries, 1990  
Oregon State University, Ph.D. in Zoology, 1993

### Research Interests

Behavior and Ecology of Fishes and Invertebrates Associated with Temperate and Tropical Reefs :  
Reproductive and life history strategies; host-parasite interactions; cleaning symbiosis; habitat choice.

### Teaching Experience

Animal Behavior, Ichthyology, Population Biology, Evolution, Scientific Diving, Marine Biology, Tropical Marine Ecology, Hawaiian Marine Field Experience (non majors), Senior Science Seminar, Advanced Oceanography, Biological Inquiry and Analysis, General Ecology, Field Biology (non majors), Honors Science Seminar, Biological Concepts (non majors), General Biology/Zoology Laboratory, Directed Independent Studies. Biological Ethics

### Employment History

1999-     *Research Assistant Professor*, Murray State University -  
2004     *Visiting Scholar* – University of Technology, Sydney, Australia.  
2000-02   *Program Director*, Study abroad program in Puerto Rico, Kentucky Institute for International Studies.  
2002     *Visiting Scholar* – University of Technology, Sydney, Australia.  
1997-99   *Postdoctoral Fellow*, Bellairs Research Institute of McGill University, Barbados  
1994-97   *Visiting Assistant Professor*, Division of Science and Mathematics and Marine Science Program, University of the Virgin Islands  
1994     *Visiting Lecturer of Marine Biology* - Summer, University of Hawaii at Hilo  
1993-94   *Postdoctoral Fellow*, Friday Harbor Laboratories, University of Washington.  
1986-92   *Graduate Teaching Assistant*, Oregon State University  
1985-86   *Research Assistant*, Smithsonian Tropical Research Institute, Panama  
1982-84   *PADI Scuba Instructor*  
1981- 84   *Research Assistant*, A. J. Kalmijn and A.P. Klimley, Scripps Institution of Oceanography.

**Publications** (All are field studies: \* = undergraduate author)

## Refereed Journals

- Sikkel, P.C. 1986. Interspecific cleaning by juvenile salema, *Xenestius californiensis* (Pisces: Haemulidae). *California Fish and Game* 72: 170-172.
- Sikkel, P.C. 1988. Factors influencing spawning site choice by female garibaldi, *Hypsypops rubicundus*, (Pisces: Pomacentridae). *Copeia* 1988: 710-718.
- Sikkel, P.C. 1989. Egg presence and developmental stage influence spawning-site choice by female garibaldi. *Animal Behaviour* 38: 447-456.
- Sikkel, P.C. 1990. Social organization and spawning in the Atlantic sharpnose puffer, *Canthigaster rostrata* (Tetraodontidae). *Environmental Biology of Fishes* 27: 243- 254 .
- Sikkel, P.C. and Hardison, P.D. 1992. Feeding associations between the goatfish *Mulloidops martinicus* and a possible aggressive mimic, the snapper *Ocyurus chrysurus* (Lutjanidae). *Copeia* 1992: 914-917.
- Sikkel, P.C. 1993. Changes in plasma androgen levels associated with changes in male reproductive behavior in a brood-cycling marine fish. *General and Comparative Endocrinology* 89: 229-237.
- Sikkel, P.C. 1994. Filial cannibalism in a paternal - caring marine fish: the influence of egg developmental stage and position in the nest. *Animal Behaviour* 47: 1149-1158.
- Sikkel, P.C. 1994. Why female garibaldi prefer males with young eggs: a test of the parental investment hypothesis. *Ethology Ecology & Evolution* 6: 191-211.
- \*Alcalay, O.M. and Sikkel, P.C. 1994. Diel periodicity of hatching of demersal eggs in the temperate damselfish, *Hypsypops rubicundus*. *Bulletin of Marine Science* 54: 565-569.
- Knapp, R.A. Sikkel, P.C. and Vredenberg, V.T\*. 1995. Age of clutches in nests and within-nest spawning site preference of three damselfish species (Pomacentridae). *Copeia* 1995: 78-88.
- Sikkel, P.C. 1995. Diel periodicity of spawning activity in a permanently territorial damselfish: a test of adult feeding hypotheses. *Environmental Biology of Fishes* 42: 241-251.
- Sikkel, P.C. 1995. Effects of nest quality on male courtship and female spawning-site choice in an algal-nesting damselfish. *Bulletin of Marine Science* 57: 682-689.
- Sikkel, P.C. and Petersen, C.W. 1995. Reproductive ecology of damselfishes: Introduction to the symposium. Pages 565-568. In: Sikkel, P.C. and Petersen, C.W (Eds): Proceedings of the Reproductive Ecology of Damselfish Symposium -- *Bulletin of Marine Science* Vol. 57(3)
- Sikkel, P.C. 1998. The influence of food competitors on mate-search tactics in a territorial marine fish. *Behavioral Ecology* 9: 439-444.
- Sikkel, P.C., Fuller, C.A. and Hunte, W. 2000. Habitat/sex differences in time at cleaning stations and ectoparasite loads in a Caribbean reef fish. *Marine Ecology Progress Series* 193: 191-99.
- \*Chambers, S.D., and Sikkel, P.C. 2002. Diel emergence patterns of ecologically important, fish parasitic, Gnathiid isopod larvae on Caribbean coral reefs. *Caribbean Journal of Science* 38: 37-43.
- Sikkel, P.C., Cheney, K.L. and Côté, I.M. 2004. In situ evidence for ectoparasites as a proximate cause of cleaning interactions in marine reef fish. *Animal Behaviour* 68: 241-247.
- Sikkel, P.C., Herzlieb, S.E.\*, & Kramer, D.L. (2005) Diel activity changes in female yellowtail damselfish (*Microspathodon chrysurus*): Implications for a tradeoff between reproduction and cleaning. *Marine Ecology Progress Series*. 296: 1-11. (Feature article).
- Sikkel, P.C. and Kramer, D.L. (in press). Territory revisitation reduces intrusion during spawning trips by female yellowtail damselfish *Animal Behaviour*.

## Manuscripts in preparation

Schaumburg, C.\*, Mathenia, J.\*, & Sikkel, P.C. Diel infestation patterns of gnathiid isopod larvae on

Caribbean reef fishes. (to be submitted to *Coral Reefs*).

Invited book chapters:

DeMartini, E.E. and Sikkel, P.C. (in press) Reproductive Ecology. *In: Allen et al. (Eds) Ecology of California Marine Fishes.* University of California Press.

Invited Popular Articles

Sikkel, P.C. "Honey I ate the Kids". *Natural History*. December, 1994: 47-50.

Sikkel, P.C. "Female Fish Go for Algae-mat Mate". *National Geographic – Geographica*. January, 1997.

Sikkel, P.C. "Surf, Turf, and Eggs". *ZooGoer\**, January/February, 1997: 13-20.

Sikkel, P.C. "Who's watching the kids?" *ZooGoer*, January/February, 1997: 21

Sikkel, P.C. "The facts of Amazonia Fish Life". *ZooGoer*, November/December, 1998: 26-27

**Grants and Fellowships**

| <u>Year</u> | <u>Source</u>                                                          | <u>Amount (\$)</u>   |
|-------------|------------------------------------------------------------------------|----------------------|
| 1986        | Drown Foundation                                                       | 3,700                |
| 1986-87     | Sigma Xi                                                               | 750                  |
| 1987-89     | Raney Fund for Ichthyology                                             | 1,184                |
| 1987-91     | Lerner-Gray Fund for Marine Research                                   | 2,075                |
| 1992        | National Geographic Society                                            | 4,000                |
| 1992-94     | Friday Harbor Postdoctoral Fellowship                                  | 35,000               |
| 1994-95     | NIH MBRS Faculty Enrichment                                            | 7,000                |
| 1997-99     | Bellairs Postdoctoral Fellowship                                       | 28,000               |
| 2002        | Visiting Scholar Award, University of Technology, Sydney Aus.          | 3,000                |
| 2002-04     | Institutional Research and Scholarship awards, Murray State University | 8,000                |
| 2002-04     | Earthwatch Institute (co PI w/C. Fuller)                               | 49,000               |
| 2004-05     | Guana Island Marine Program                                            | 10,000 (waived fees) |
| 2005        | Visiting Scholar Award, University of Technology, Sydney Aus.          | 3,000                |
| 2004-06     | University of Technology Research Excellence Grant                     |                      |
|             | (D. Booth, P.Sikkel, W. Figuera)                                       | 20,000               |
| 2005-06     | Virgin Islands NSF EPSCoR                                              | 10,000               |
| 2004-05     | Earthwatch Institute (Co PI w/C. Fuller)                               | 18,000               |

**Academic Awards and Recognition**

Research

1992 *Zoology Department Nominee*: Yerex Award for outstanding graduate student in science at Oregon State University

Teaching

1987 - 92 Letter of recognition for outstanding teaching, Zoology Department, Oregon State University (14 quarters).

1994 - 95 and 95 - 96: Rating of “*Excellent*” for annual performance at the University of the Virgin Islands (not evaluated for 96-97 due to leave of absence for research).

**Academic and Community Service**

Invited Lectures and Volunteer Activities

**1986-Present**: Over 40 guest lectures to elementary schools, and academic and non-academic clubs and organizations (e.g., Catalina Elderhostel, NSF Minorities in Marine Science Program, Antilles School, USVI); **1999-2000**: Volunteer Educational Assistant - Murray Elementary School

Predocctoral Committee Service

1989-92 *Graduate Student Welfare Committee*, and *Graduate Student President*, Dept. of Zoology, Oregon State University

Postdoctoral Committee Service

1992-93 *Organizer*: Weekly seminar series, Friday Harbor Laboratories

1994-95 *Faculty Advisor*: Pre-Professional Science Club, *Division Secretary*, *Chair of Programs Committee*, University of the Virgin Islands

1995-96 *Division Secretary*, Science and Mathematics, and *Faculty Representative to Athletic Board*, University of the Virgin Islands.

1996-97 *Search Committee*, UVI Lecturer position

2000- 01 *Faculty advisor*: Student Environmental Action Coalition (Murray State Chapter)

2003-Present *Member, Board of Directors*: Environmental Protection in the Caribbean (EPIC : [www.epicislands.org](http://www.epicislands.org)).

Curriculum Development

1994-95 Contributed to development of upper-division, interdisciplinary, course on the natural resources of islands and their management at the University of the Virgin Islands.

1995-96 Developed upper-division special-topics course in animal behavior at UVI using inquiry-based teaching techniques.

2000 Developed field course in tropical marine biology for the Kentucky Institute for International Studies (KIIS).

2003 Attended workshop on marine education in the Caribbean

Student Mentoring

- 1994-97 University of the Virgin Islands: Supervised or co-supervised 6 undergraduate independent studies projects in ecology and evolution (A. Adams, L. Eisenhardt, M. Fatzinger, M. Hastings, K. Heikila, S. Herzlieb, I. Joseph).
- 1999-04 Murray State University: Supervisor for 6 completed or in progress undergraduate projects on fish and parasite ecology (S. Chambers, P. O'Rourke, A. Poulson, M. Powers (Honors thesis), J. Methenia,, C. Schaumberg, and N. Sutton) and served/am serving on four M.S. thesis committees (A. Benson – Conservation Biology, J. Waller – water snake ecology, C. Eden – Salamander ecology, J. Doyle – Salamander life history).
- 2002-2005 University of Technology, Sydney, Aus. Co-supervisor for one Honors project on fish behavior (A. Cadic) and external reviewer of two doctoral thesis (A. West and M. Silberschrieber).

## Professional Societies

Association of Marine Laboratories of the Caribbean  
Animal Behavior Society  
International Society for Reef Studies  
International Society for Behavioral Ecology

## Professional Activities

### Symposia Organized

1988 *Co-Organizer*: Second Annual Oregon State University Biology Graduate Symposium, Newport Oregon

1994 *Principal Organizer*: American Society of Ichthyologists and Herpetologists Symposium on the Reproductive Ecology of Damselfishes, Los Angeles, CA

### Editorial Experience:

*Co-Editor* (w/ C. W. Petersen) for peer-reviewed proceedings of the Symposium on the Reproductive Ecology of Damselfishes: *Bulletin of Marine Science* 1995 : 57(3)

Reviewer for Journals (average of 6 reviews per year over past 5 years): *Animal Behaviour*, *Behavioral Ecology*, *Behavioral Ecology and Sociobiology*, *Bulletin of Marine Science*, *Copeia*, *Current Biology*, *Ecology*, *Environmental Biology of Fishes*, *Evolution*, *Journal of Animal Ecology*, *General and Comparative Endocrinology*, *Journal of Fish Biology*, *Marine Biology*, *Marine Ecology Progress Series*

### Grant Proposals Reviewed (average of 3 proposals per year over past 5 years):

*Australian Research Council*, *Natural Environment Research Council (United Kingdom)*, *Earthwatch Institute*, *National Geographic Society*, *National Oceanic and Atmospheric Administration - Sea Grant and NURP*, *National Science Foundation*.

### Scientific Consulting

*Howard Hall Productions* - Consultant for BBC film "Seasons in the Sea"  
*Japanese Broadcasting Corporation* – Consultant for documentary on marine life of Santa Catalina Island.

*State of California* - Consultant for legislation concerning the protection of garibaldi damselfish in southern California.

*Government of the Virgin Islands* – Expert witness for the potential effects of a proposed emergency housing development on a population of endangered snake.

*Aquarium of the Pacific* - Consultant for captive rearing of garibaldi damselfish

## **Invited Institutional Seminars and Symposium Presentations**

1992-94: Four invited presentations

### 1995-Present

1995 *Department of Integrative Biology, University of California, Berkeley,*  
*National Zoological Park, Smithsonian Institution,*  
*Symposium on the Ethology of Coral Reef Fishes: International Ethological Conference,*  
Honolulu, HI

1997 *Department of Biology, University of Texas, El Paso*

2000 *Dept. of Biology, Murray State University*

2001 *Dept. of Biology, University of Memphis*

2002 *Dept. of Environmental Sciences, University of Technology, Sydney Aus.*  
*Earthwatch Institute Conference, Boston, MA*

2003 *Symposium on the Ecology of California Marine Fishes, Long Beach, CA*

2004 *Earthwatch Institute Conference, Boston, MA*

## **Contributed Papers**

1983-94: 11 presentations at regional, national, and international meetings

### 1995-Present:

1995 *Association of Marine Laboratories of the Caribbean, St. Thomas, USVI;*  
*Gilbert Ichthyological Society, Eatonville, WA*

1997 *Western Society of Naturalists, La Paz, B.C.S., Mexico.*

1998 *Western Society of Naturalists, San Diego, CA*

2000 *Ethology, Evolutionary Ecology, and Conservation of fishes, Athens, GA*

2001 *Association of Marine Laboratories of the Caribbean, La Parguera, Puerto Rico*

2003 *Gulf and Caribbean Fisheries Institute, Tortola, British Virgin Islands*

## **Professional References**

Individuals most familiar with the quality and impact of my field research.

T = Individuals most familiar with my teaching and mentoring performance.

### Primary References

Dr. Mark Hixon, Professor (Chair, Doctoral Committee) **R**

Department of Zoology, Cordley 3029

Oregon State University

Corvallis, OR 97331-2914

(541) 737-5364; [hixonm@bcc.orst.edu](mailto:hixonm@bcc.orst.edu)

Dr. Donald Kramer, Professor (Primary postdoctoral sponsor) **R, T**  
Department of Biology  
McGill University  
1205 Docteur Penfield Ave.  
Montreal, Quebec H3A 1B1, Canada  
(514) 398-6466; [don.kramer@mcgill.ca](mailto:don.kramer@mcgill.ca)

Dr. Teresa Turner, Associate Professor (Former Dept. Chair and teaching colleague at UVI) **R, T**  
Division of Science and Mathematics  
University of the Virgin Islands  
St. Thomas, USVI 00802  
(340) 693 -1382; [tturner@uvi.edu](mailto:tturner@uvi.edu)

Dr. David Booth, Associate Professor (Research collaborator) **R**  
Dept. of Environmental Sciences  
University of Technology, Sydney  
Westbourne Street, Gore Hill NSW  
Australia 2065; [David.Booth@uts.edu.au](mailto:David.Booth@uts.edu.au)

Dr. Howard Whiteman (Evolutionary ecologist/MSU colleague) **T**  
Associate Professor  
Department of Biology  
Murray State University  
Murray, KY 42071  
(270) 762-6753; [howard.whiteman@murraystate.edu](mailto:howard.whiteman@murraystate.edu)

Dr. Isabelle M. Côté (Research Collaborator) **R**  
Senior Lecturer  
Center for Ecology, Evolution, and Conservation  
School of Biological Sciences  
University of East Anglia,  
Norwich NR4 7TJ  
United Kingdom  
[i.cote@uea.ac.uk](mailto:i.cote@uea.ac.uk)

Dr. Todd W. Anderson (Research colleague at Santa Catalina Island) **R**  
Assistant Professor  
Department of Biology  
San Diego State University  
San Diego, CA 92182-4614  
(619) 594-0995; [todda@sunstroke.sdsu.edu](mailto:todda@sunstroke.sdsu.edu)

#### Other references

Dr. Robert Warner, Professor (Member, Doctoral Committee) **R**  
Department of Biological Sciences  
University of California at Santa Barbara  
Santa Barbara, CA 93106

(805) 893-2914; [warner@lifesci.lscf.ucsb.edu](mailto:warner@lifesci.lscf.ucsb.edu)

Dr. James Battey, Associate Professor (Former Director of Marine Science and teaching colleague at UVI) **T**

1740 Laurel Ridge Dr.

Conyers, GA 30094 (770) 918-9197; [jbattey901@aol.com](mailto:jbattey901@aol.com)

Dr. George Barlow, Professor Emeritus **R**

Department of Integrative Biology

University of California

Berkeley, CA 94720-3140

(510) 642-2947; [barlowgw@socrates.berkeley.edu](mailto:barlowgw@socrates.berkeley.edu)

Dr. Brian Tissot, Associate Professor (Teaching colleague at UH Hilo) **T**

Coordinator, Science Programs

Department of Environmental Science and Regional Planning

Washington State University, Vancouver

14204 NE Salmon Creek Ave.

Vancouver, WA 98686-9600

(360) 546-9611; [tissot@globalecology.net](mailto:tissot@globalecology.net)

Drs. Bert H. and Lucy B. Williams (Experts on Caribbean fish parasites) **T,R**

Dept. of Marine Sciences

University of Puerto Rico

P.O. Box 908

Lajas, PR 00667-0908

Ph: (787) 899-2048 x 264; [fishparasite@centennialpr.net](mailto:fishparasite@centennialpr.net)