

CURRICULUM VITAE
Stephen M. Shuster

Updated: 25 September 2012

Present Address:

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Education:

Ph.D. Department of Zoology, University of California, Berkeley, 1987.
M.S. Department of Biology, University of New Mexico, Albuquerque, 1979.
B.S. Department of Zoology, University of Michigan, Ann Arbor, 1976.

Academic Positions

2001-Present Professor of Invertebrate Zoology; Curator of Marine Invertebrates and Molluscs, Department of Biological Sciences, Northern Arizona University.
1995-2001 Associate Professor, Department of Biological Sciences, Northern Arizona University.
1990-95 Assistant Professor, Department of Biological Sciences, Northern Arizona University, Flagstaff, AZ.
1987-88 Visiting Assistant Professor, Department of Biology, University of California, Riverside, CA.
1979-81 Academic Instructor, Department of Biology, University of Albuquerque, Albuquerque, NM.
1979 Program Specialist and Instructor, Human Anatomy and Physiology, Presbyterian Hospital School of Nursing, Albuquerque, NM.

Postdoctoral Research Experience

1988-90 NIH grant GM 22523-14, Post-doctoral Research Associate with Dr. Michael J. Wade, "Evolution in structured populations." University of Chicago.
1987-88 NSF grant BSR 87-00112, Post-doctoral Research Associate with Dr. Clay A. Sassaman, "A genetic analysis of male alternative reproductive behaviors in a marine isopod crustacean," University of California, Riverside.

Fellowships and Grants (\$7.1M since 1990):

2012 NAU Interns to Scholars Program, One student supported.
2012 Global Course Development Support, "A Field Course in Saipan," Northern Arizona University, \$4.5K.
2011 Global Learning Initiative Grant, "Research Internships at the University of Bordeaux, France," Northern Arizona University, Co-PIs Patricia Frederick. \$10K.

- 2010-11 Hooper Undergraduate Research Grant, with L. Marks, "Patterns of infection by acanthocephalan and trematode parasites in the Montezuma Well Amphipod, *Hyalella Azteca*," \$3,310.
- 2008-09 Hooper Undergraduate Research Grant, with J. Copus, "The mating systems of tropical reef fish." \$3,200.
- 2007-09 NSF International Postdoctoral Fellowship, OISE-0700452, "Indirect genetic effects and the evolution of cannibalism," with B. Heather Bleakley (Indiana University), Allen J. Moore and John Hunt (Exeter University). \$140,689.
- 2007-09 NSF International Postdoctoral Fellowship, OISE-0701086, "Temporal variation in the genetic mating system of the Two-spotted Goby: A comparison of quantitative methods to estimate sexual selection," with Kenyon Mobley (Texas A&M University), Trond Amundsen and Elisabet Forsgren (Norwegian University of Science and Technology), \$180,540.
- 2006-08 NSF Grant DBI-0552644, "Research internships in behavioral and conservation sciences," Northern Arizona University, Flagstaff, AZ, Tina Ayers, CoPI. \$206,040, plus \$150,720 NAU match.
- 2006-07 Hooper Undergraduate Research Grant, with K. Sterling, "Asexual reproduction in sea stars," \$2,400.
- 2004 NSF grant IBN-0400867, "Behavior as a Way of Knowing Science." \$3,500.
- 2004 Animal Behavior Society, grant to support AAAS symposium, "Behavior as a Way of Knowing Science." \$1,900.
- 2004-10 NSF grant DEB-0425908, "Frontiers in Integrative Biological Research (FIBR), Community Genetics, Heritability & Evolution: Consequences of Extended Phenotypes, Tom Whitham (lead PI), Steve Shuster, Catherine Gehring, Gery Allan, Jane Marks, Steve Hart, & Paul Keim (NAU Biological Sciences), with other Co-PIs - Rick Lindroth, Univ. Wisconsin; Stephen DiFazio, Univ. Tennessee; Brad Potts, Univ. Tasmania. Total award: \$4.98M.
- 2003-04 Hooper Undergraduate Research Grant, with A. Shows, "The ultrastructure of calcareous sponge gonads and gametes." \$2,650.
- 2003-05 National Park Service grant, CA 1200-99-009, "A Faunal Inventory of Selected Glen Canyon Springs in Arizona & Utah," Northern Arizona University, Larry Stevens, CoPI. \$60,002.
- 2002-03 Foundation Fyssen, Paris, France, Postdoctoral fellowship with Jerome Moreau, 241,488 Euros. Declined.
- 2002-05 NSF Grant DBI-0243914, "Research internships in neural and behavioral sciences," Northern Arizona University, Virginia Blankenship (Psychology), CoPI. \$200,434, plus \$3,000 REU supplement in 2003-04.
- 2000-03 NSF grant DBI-9988009, "Research internships in the neural and behavioral sciences," Northern Arizona University, Virginia Blankenship (Psychology), CoPI. \$177,409, plus \$6,000 in REU supplements in 2002-03.

- 2000-01 Hooper Undergraduate Research Grant, with R. Ketner. \$1,500.
Hooper Undergraduate Research Grant, with S. Embry, \$1,500.
- 1999-01 Hooper Undergraduate Research Grant, with S. Embry, \$1,500.
Hooper Undergraduate Research Grant, with N. Zorich. \$1,500.
- 1998-01 NSF grant DEB-9726504, "The role of heritability, environment and mechanism in phenotypic expression of *Paracerceis sculpta* (Crustacea: Isopoda)." \$180,000, plus \$30,000 REU supplements in 1999-01.
- 1997 Hooper Undergraduate Research Grant, "Genetic variation among nine populations of the freshwater isopod, *Thermosphaeroma subequatum* in the Lower Canyons of Big Bend National Park," with J. Learned, \$500.
- 1998 Hooper Undergraduate Research Grant, "Population structure in a marine polychaete worm," with S. Vuturo, \$500.
- 1997-98 Organized Research grant, "Evolution of animal mating systems," \$1,800.
- 1997-00 New Mexico Department of Game and Fish grant, "Genetic diversity in native and captive populations of the Socorro Isopod (*Thermosphaeroma thermophilum*)," \$6,000.
- 1996 Computer Integration in Academic Instruction, "A UNIX workstation for Biological Sciences," with Drs. Ayers, Fritz, Koch, Nishikawa, Service and Whitham; Northern Arizona University.
- 1996-97 Organized Research grant, "Genetic divergence, geological time and the systematics of North American isopod crustaceans," \$8,195.
- 1995 Department of Biological Sciences/Office of Organized Research, Northern Arizona University, funds for thermal cyclor unit with Dr. T. Ayers, \$4,000.
- 1995-96 Finnish Academy of Science, "The resolution of sexual conflict: patterns of precopula in isopod Crustacea," with Postdoctoral Associate, Dr. Veijo Jormalainen, University of Turku, Finland, \$35,000.
- 1994-95 Organized Research grant, "The molecular systematics of the North American sphaeromatid Isopoda," \$11,195.
- 1994-96 Arizona Game and Fish Heritage grant I-94001, "Genetic comparisons among isolated populations of the northern leopard frog (*Rana pipiens*), Northern Arizona University, with Dr. Diana Kimberling, \$20,125.
- 1994-95 Organized Research grant, "Mapping genetic divergence onto geological time," \$7,375.
- 1993-94 Organized Research grant, "The inheritance and maintenance of genetic polymorphism," Northern Arizona University, Flagstaff, AZ, \$3,500.
- 1992-99 NSF Research Internships Program in Neural and Behavioral Sciences, Northern Arizona University, Flagstaff, AZ. \$57,500 per year.
- 1992-93 Organized Research grant, "A genetic analysis of male alternative reproductive strategies," Northern Arizona University, Flagstaff. \$5,500.
- 1991-95 NSF grant BSR-9106644, "The genetic basis of male alternative reproductive strategies in a marine isopod: organization, expression and frequency-dependent selection." Northern Arizona University, Flagstaff, AZ. \$174,000.
- 1991-92 Organized Research grant, "Chemical communication in a marine isopod crustacean," Northern Arizona University, Flagstaff. \$8,500.

Fellowships and Grants (\$73K before 1990):

- 1988-89 AAAS Fellowship for the Project on Liberal Education and the Sciences, Research Associate to Dr. John A. Moore, University of California, Riverside. \$5,000.
- 1987-88 NSF grant BSR 87-00112, Post-doctoral Research Associate with Dr. Clay Sassaman, "A genetic analysis of male alternative reproductive behaviors in a marine isopod crustacean," University of California, Riverside. \$53,000.
- 1984-86 NSF dissertation improvement grant, OCE 84-01067, The reproductive biology of *Paracerceis sculpta*, \$5,000.
- 1984-86 Alice Galloway Memorial Fellowship, University of California, Berkeley, CA, \$5,000.
- 1983 Department of Zoology Research Equipment Grant, University of California, Berkeley. \$500.
- 1983 Theodore Roosevelt Memorial Fund, Use of artificial reproductive habitat by marine isopods, \$500.
- 1982 Center for Latin American Studies Research Award (to the Republic of Panama), University of California, Berkeley, \$1,500.
- 1978 Graduate Student Research Allocations Committee Award, Department of Biology, University of New Mexico, \$500.
- 1977-1979 New Mexico Department of Game and Fish, Endangered Species Program, grants 516-65-19 and 513-66-03, "Life history characteristics of the Socorro Isopod, *Thermosphaeroma thermophilum*," University of New Mexico, \$2,100.

Awards and Honors

- 2012 Visiting Lecturer, Center for Ecological and Evolutionary Synthesis, University of Oslo, Norway, February 10-14, 2012.
- 2009 NAU Research and Creative Activity Award for Most Significant Scholarly Work ("Extending Genomics to Natural Communities and Ecosystems" *Science* 320: 492-494, 2008), Coauthors: T. G. Whitham, S.P. DiFazio, J.A. Schweitzer, G. J. Allan, J. K. Bailey, S. A. Woolbright.
- 2007 2nd Annual Darwin Day Speaker, the Department of Life Sciences at Indiana State University and the Department of Science & Mathematics a and Saint Mary-of-the-Woods College, Terre Haute, IN.
- 2004 Visiting Professor, IX Curso Bases Biologicas de La Conducta, Oaxaca, Mexico.
- 2003 Graduate Tutor, Wake Forest University, Winston-Salem, NC.
- 2001 Outstanding Professor of the Year, TriBeta, Northern Arizona University.
- 2001 Faculty Development Award, Northern Arizona University.
- 2000 Supervisor of the Year, Northern Arizona University.
- 1994 Visiting Lecturer and Opponent, University of Turku, Finland.

- 1992 Faculty Development Award, Department of International Studies, Northern Arizona University, to the Republic of Panama.
- 1991 Young Investigator Travel Award to the International Ethological Conference Kyoto, Japan; Animal Behavior Society.
- 1990 Faculty Development Award, Northern Arizona University.
- 1988 Research Fellow, American Association for the Advancement of Science.
- 1986 Outstanding Graduate Associate, Department of Genetics, University of California, Berkeley.
- 1982 Regents' Fellowship, University of California, Berkeley.
- 1976 Cum Laude, Department of Zoology, University of Michigan.

Invited Lectures

- 2012 Darwin Day Symposium Speaker, Center for Ecological and Evolutionary Synthesis, University of Oslo, Norway, February 13, 2012.
- 2011 European Union FoResTTraC Conference: "The Genetics of Foundation Species as Drivers of Ecological Processes," February 16-18, 2011, Flagstaff, Arizona.
- 2010 Laura Randall Schweppe Endowed Lecture Series in Marine Science, The University of Texas at Austin Marine Science Institute, Port Aransas, TX.
- 2009 National Academy of Sciences Colloquium: "In the Light of Evolution III: Two Centuries of Darwin," NAS Beckman Center, Irvine, CA.
Symposium Speaker, Indirect Genetic Effects, 46th Animal Behavior Society Meeting, Pirenopolis, Brazil.
- 2008 Department of Animal Ecology, Uppsala University, Sweden (declined).
- 2007 Department of Biology, Arizona State University, West, Phoenix, AZ.
Department of Biology, Southern Utah University, Cedar City, UT.
Keynote Speaker, the 11th European Society for Evolutionary Biology (ESEB) symposium "Mating Competition and Sex-Role Dynamics." Uppsala, Sweden.
The Wenner-Gren Foundation Symposium on "Mating System Evolution," Kristineberg Marine Research Station, Gothenburg, Sweden.
The 5th Okazaki Biology Conference: "Speciation and Adaptation - Ecological Genomics of Model Organisms and Beyond "National Institute for Basic Biology, Okazaki, Japan.
- 2006 Department of Biology, Indiana University, Bloomington, IN.
Department of Biology, University of Oregon, Eugene, OR.
33rd Annual Natural Areas Conference, Conservation Biology and Genetic Analysis Symposium, Flagstaff, AZ.
- 2005 Scripps Institute of Oceanography, La Jolla, CA.
Keynote Speaker, Center for Ecology and Evolutionary Biology, University of Kentucky, Lexington, KY.
Keynote Speaker, International Ethological Conference, Budapest, Hungary, Sex and Gender Symposium.
- 2004 Department of Biological Sciences, University of Idaho, Moscow, ID.
IX Curso Bases Biologicas de La Conducta, Oaxaca, Mexico.
Department of Biological Sciences, University of Nebraska, Lincoln, NE.

- Department of Biological Sciences, University of Toronto, Mississauga, Canada.
- 2003 Department of Biology, University of Nevada, Reno.
Department of Department of Biology, Wake Forest University, Winston-Salem, NC.
- 2001 Department of Biology, Indiana University, Bloomington, IN.
Keynote Speaker, Symposium on Alternative Mating Strategies, Midwest Animal Behavior Society, St. Louis, MO.
Symposium on Female Mate Choice, Animal Behavior Society, Corvallis, OR
Symposium on Frequency-Dependent Selection, European Society for Evolutionary Biology, Aarhus, Denmark.
- 2000 Department of Biology, University of Montana, Missoula, MT.
Department of Biology, Syracuse University, New York.
James Wick Reunion Symposium, Department of Biological Sciences, Northern Arizona University, Flagstaff
Department of Biology, University of Nevada, Las Vegas.
Department of Biological Sciences, Northern Arizona University.
- 1999 Department of Biology, University of New Mexico, Albuquerque, NM
Department of Biology, Indiana University, Bloomington, IN
- 1998 Department of Biology, University of California, Santa Cruz.
Department of Biology, Indiana University, Bloomington, IN
Biosphere2, Columbia University at Oracle, AZ
- 1997 Department of Biology, Oregon State University, Corvallis, OR.
- 1997 Animal Behavior Society Western Division Symposium, Jackson, WY.
Department of Biology, University of Texas, El Paso, TX.
- 1996 Animal Behavior Society Western Division Symposium, Jackson Hole, WY.
Department of Biological Sciences, Arizona State University West, Phoenix, AZ
- 1995 American Society of Science Teachers Convention, Mesa AZ.
Tri-Beta Association, Northern Arizona University
- 1994 Department of Zoology, University of Kentucky, Lexington, KY.
Institute of Ecology, University of Turku, Turku Finland
Department of Zoology, University of Helsinki, Helsinki, Finland
- 1993 Department of Biology, New Mexico State University, Las Cruces, NM
Department of Biological Sciences, Northern Arizona University
- 1992 Department of Zoology, Oxford University, Oxford, England.
- 1991 Department of Zoology, Arizona State University, Tempe, AZ.
Department of Biological Sciences, Northern Arizona University
Tri-Beta Association, Northern Arizona University.
- 1990 Department of Biological Sciences, Northern Arizona University
Department of Ecology and Evolutionary Biology, University of Arizona.
- 1989 Department of Biological Sciences, DePaul University.
Department of Zoology, University of Wisconsin.
Kellogg Biological Station, Michigan State University.
Department of Biological Sciences, Florida State University.
- 1988 Department of Biology, University of Chicago

1987 Department of Biology, University of New Mexico
Department of Biology, University of California, Santa Cruz.
Department of Zoology, University of California, Berkeley
Department of Biology, University of California, San Diego
Department of Biological Sciences, University of California, Santa Barbara.

Presentations at Professional Meetings

- 2011 Animal Behavior Society, International Ethological Society joint meeting, Bloomington, IN, 1 paper presented
Arizona Nevada Academy of Sciences, Glendale, AZ, 1 co-authored paper presented.
2011 Cottonwood Symposium, Flagstaff, AZ 1 paper presented.
European Union FoResTTraC Conference, Flagstaff, Arizona, 1 invited paper presented
Society for Integrative and Comparative Biology, Salt Lake City, UT, 3 posters presented.
- 2010 2010 Cottonwood Symposium, Flagstaff, AZ 2 papers presented.
Arizona Nevada Academy of Sciences, Flagstaff, AZ, 1 posters, 1 paper presented.
Science Foundation Arizona: Grand Challenges Conference, Phoenix, AZ, 2 posters presented.
European society for Evolutionary Developmental biology, 1 poster presented.
- 2009 Society for Integrative and Comparative Biology, Boston, MA, 1 poster presented.
Andrew M. Sackler Colloquium of the National Academy of Sciences: In Light of Evolution III: Two Centuries of Darwin. 1 invited paper presented.
Science Foundation Arizona: Graduate Fellows Conference, Biosphere 2, Oracle, AZ, 1 poster presented.
2009 Cottonwood Symposium, Flagstaff, AZ, 4 papers presented.
46th Animal Behavior Society meeting, Pirenopolis, Brazil, 1 symposium paper presented.
- 2008 Animal Behavior Society, Snowbird, UT, two posters presented
Society for the Study of Evolution, Madison, WI, 1 paper presented
Arizona Nevada Academy of Sciences, Phoenix, AZ, two posters presented.
- 2007 Animal Behavior Society, Burlington, VT, one poster presented.
Ecological Society of America, one paper presented
Society for Integrative and Comparative Biology, Phoenix, AZ, two posters presented.
Western Animal Behavior Conference, Steamboat Springs, CO, one paper presented.
- 2006 Frontiers in Biological Research (FIBR) Program, Awardee Meeting, National Science Foundation, Washington, DC. one paper, one poster presented.
Society for the Study of Evolution, Stony Brook, NY, one paper presented.
Animal Behavior Society, Snowbird, UT, one paper, one poster presented.

- 33rd Annual Natural Areas Conference, Flagstaff, AZ, one symposium paper presented.
- 2005 2006 Cottonwood Symposium, Flagstaff, AZ two papers presented.
Society for Integrative and Comparative Biology, San Diego, CA, one poster presented.
Western Animal Behavior Conference, Steamboat Springs, CO, one paper presented.
Western Malacological Society Meeting, Asilomar, CA, one poster presented.
XXIX International Ethological Conference, Budapest, Hungary, one paper presented.
International Ethological Conference, Budapest, Hungary, one invited paper presented.
- 2004 Society for Integrative and Comparative Biology, New Orleans, LA, one poster presented, three papers presented.
American Association for the Advancement of Science, Seattle, WA, symposium organizer, "Behavior as a Way of Knowing Science," one symposium lecture presented.
Animal Behavior Society, Oaxaca, Mexico, one paper presented.
Gulf of California Conference, Tucson, AZ, one poster presented.
10th International Conference for Behavioral Ecology, Jyväskylä, Finland, one poster presented.
- 2003 Society for Integrative and Comparative Biology, Toronto, Canada, one poster presented.
Arizona-Nevada Academy of Science, Flagstaff, AZ, 3 papers, 3 posters presented.
Animal Behavior Society, Boise, ID, one symposium paper, two posters presented.
- 2002 Society for Integrative and Comparative Biology, Anaheim, CA, three papers, one poster presented.
Arizona-Nevada Academy of Science, Glendale, NV, 4 papers presented.
Animal Behavior Society, Bloomington, IN, 3 papers submitted.
- 2001 Arizona-Nevada Academy of Science, Las Vegas, NV, eight papers presented.
Animal Behavior Society, Corvallis, OR, Symposium on Female Mate Choice.
European Society of Evolutionary Biology, Aarhus, Denmark, Symposium on Frequency-Dependent Selection.
- 2000 Arizona-Nevada Academy of Science, Tucson, AZ, nine papers presented.
- 1999 Arizona-Nevada Academy of Science, Flagstaff, AZ, six papers presented.
The Crustacean Society, Lafayette, LA, one paper presented
Animal Behavior Society, Bucknell, PA, one paper presented
- 1998 Undergraduate Biology Research Program Conference, Tucson, AZ
Arizona-Nevada Academy of Science, Glendale, AZ, three papers presented.
Second International Isopod Conference, Amsterdam, Netherlands, three papers presented.
- 1997 Arizona-Nevada Academy of Science, Las Vegas, NV, 2 papers presented
Western Animal Behavior Society Meeting, Jackson Hole, WY

- 1996 Animal Behavior Society, Flagstaff, AZ, one paper presented
Society for the Study of Evolution, St. Louis, MO, one paper presented
International Ethological Congress, Brisbane, Australia, on poster presented
- 1995 Keystone Symposium on Molecular and Cellular Biology, Santa Fe, NM, one
paper presented
Arizona-Nevada Academy of Science, three papers presented.
- 1994 Society for the Study of Evolution, Symposium: Evolutionary Biology
and Feminism, Athens, GA.
- 1993 Arizona-Nevada Academy of Science, one poster presented.
Society for the Study of Evolution, Snowbird, UT, two papers presented
European Society for the Study of Evolution, Montpellier, France, three
papers presented.
- 1992 Society for the Study of Evolution, Berkeley, CA, one paper presented
- 1991 Society for the Study of Evolution, Hilo, HI, one paper presented
22nd International Ethological Conference, Kyoto, Japan, one paper presented
- 1990 American Society of Zoologists, San Antonio, TX, two papers presented
Southwestern Association of Biologists, Portal, AZ
International Conference of Systematic and Evolutionary Biologists IV,
College Park MD, one paper presented
Animal Behavior Society, Binghamton, NY, one paper presented
- 1989 Animal Behavior Society, Highland Heights, KY, one paper presented
- 1988 Society for the Study of Evolution, Asilomar, CA, one paper presented
Animal Behavior Society, Missoula, MT, one paper presented
American Society of Zoologists, San Francisco, CA, one paper presented
- 1987 American Society of Zoologists, New Orleans, LA, one paper presented
- 1985 Society for the Study of Evolution, Chicago, IL, one paper presented
- 1984 Animal Behavior Society, Cheney, WA, one paper presented
- 1982 American Society of Zoologists, Nashville, TN, one paper presented
- 1978 Rocky Mountain Guild of Population Biologists, Boulder, CO, one paper
presented

Teaching Experience

2001-present Professor of Invertebrate Zoology, Department of Biological Sciences, NAU.

Courses taught:

- 2011-12 **Fall:** BIO 666 (Animal Behavior), guest lectures by guest lectures by Cathy Propper and Tom Whitham; 2 lectures each); 4 students; BIO 599 (Genes to Environments) with Tom Whitham, Cathy Propper; Paul Beier; Gery Allan; Amy Whipple; Nancy Johnson and Rich Hofstetter; 8 students; Current Parasitology Research (BIO 499), 1 student; Intertidal Studies (BIO 499), 2 students; Assistant Curatorships in Invertebrate Zoology (BIO 499), 2 students; Independent Study (BIO 485), 7 students; Graduate research (BIO 685), 3 students; Graduate Independent Study (BIO 697) 1 student.
- Spring:** BIO 222 (Higher Invertebrate Zoology), and coordinate 2 sections of BIO 222L (Invertebrate Zoology Laboratory); Current Parasitology Research (BIO 499), 1 student; Intertidal Studies (BIO 499), 2 students; Assistant Curatorships in Invertebrate Zoology (BIO 499), 2 students; Independent Study

(BIO 485), 7 students; Graduate research (BIO 685), 3 students; Graduate Independent Study (BIO 697) 1 student.

Summer: Invertebrates in Film, (BIO 499), 2 sections, 12 students; this course was conducted entirely online.

2010-11 **Fall:** BIO 599 (Genes to Environments) with Tom Whitham, Cathy Propper; Paul Beier; Gery Allan; Amy Whipple; Nancy Johnson and Rich Hofstetter; 5 students; Current Parasitology Research (BIO 499), 1 student; Intertidal Studies (BIO 499), 2 students; Assistant Curatorships in Invertebrate Zoology (BIO 499), 2 students; Independent Study (BIO 485), 1 student; Graduate research (BIO 685), 3 students; Graduate Independent Study (BIO 697) 1 student;

Spring: Parasitology (BIO 475), 30 students; Parasitology Laboratory (BIO 475L) 30 students; BIO 698 (Community Genetics: Tools of the Trade) with Tom Whitham, 5 students; Undergraduate research (BIO 485) 2 students; Current Parasitology Research (BIO 499), 1 student; Assistant Curatorships in Invertebrate Zoology (BIO 499) 4 students; Intertidal Studies (BIO 499), 1 student; Graduate Independent Study (BIO 697), 1 student;

Summer: Invertebrates in Film, (BIO 499), 2 sections, 13, 11 students; this course was conducted online.

Graduate Advisor: Postdoctoral Associates: 1 (Faith Walker); Ph.D. Advisor: 5 Ph.D. students (David Smith, Ben Jaffe, Dana Ikeda, Becky Beresic-Perrins, and Bill Briggs; M.S Advisor: 3 students (Rachel Durben [graduated], Eric North, Patricia Dennis)

Graduate Committees: Ph.D. dissertation committees: 6 (Luke Evans, Helen Bothwell, Laura Haegenauer, Jamie Lamit, Bryce Marshall, Robert Miranda). M.S. thesis committees: 3 (Brandy Pyzyna; Nyo Me; Melanie Schroer).

2009-10 BIO 666 (Animal Behavior) with Con Slobodchikoff (guest lectures by Lee Drickamer, Cathy Propper and Tom Whitham), 13 students; BIO 599, (Genes to Environments), 10 students; BIO 499, Current Parasitology Research, 1 student; BIO 499, Assistant Curatorships in Invertebrate Zoology, 1 student; BIO 499, Intertidal studies, 2 students; BIO 685, Graduate Research, 2 students; MS thesis research (BIO 699), 2 students; Ph.D. dissertation research (BIO 799), 2 students; BIO 221 (Lower Invertebrate Zoology), coordinated 2 sections of BIO 221L (Invertebrate Zoology Laboratory II), 31 students; BIO 227 (Intertidal Invertebrates of the Sea of Cortez I), 10 students; BIO 682 (Quantitative Biology, with P. Service and S. Hempleman), 11 students; BIO 698 (Sexual Selection and Mating Systems), 7 students; Intertidal studies (BIO 499), 4 students; BIO 697, Independent Graduate Research, 1 student; Graduate Resarch BIO 685, 2 students; BIO 799, dissertation research, 2 students; BIO 300, Invertebrates in Film:Spiders, 14 students; BIO 300 Invertebrates in Film: Insects, and (A, E) BIO 300, Invertebrates in Film: Monsters; 3 MS advisory committees (Brandy Pyzyna, Bill Briggs, Patricia Dennis); 6 Ph.D. advisory committees (Luke Evans, Helen Bothwell, Laura Haegenauer, Jamie Lamit, Bryce Marshall, Robert Miranda); Postdoctoral Associates: 3 (Heather Bleakley, Kenyon Mobley, Faith Walker); Ph.D. Students: 3 (David S. Smith; Benjamin Jaffe, Bryce Marshall); M.S. students: 3 (Becky Beresic-Perrins, Rachel Durben, Eric North).

- 2008-09 Intertidal Studies (BIO 499a, BIO 599), 3 students; Assistant Curatorships in Invertebrate Zoology (BIO 499) 3 students; Independent Study (BIO 485), 1 student; Parasitology (BIO 475), 27 students; Parasitology Laboratory (BIO 475L) 27 students; Quantitative Biology (BIO 682), 12 students; Graduate Seminar: Sex, Food and Family: Concepts in Animal Behavior (BIO 698), 8 students; Assistant Curatorships in Invertebrate Zoology (BIO 499) 3 students; Intertidal Studies (BIO 499, 599) 4 students; M.S. thesis committees: 2 (Jamie Lamit, Laura Haegenauer); Ph.D. dissertation committees: 5 (Luke Evans, Helen Bothwell, Russell Benford, Jamie Lamit, Bryce Marshall). Postdoctoral Associates: 3 (Heather Bleakley, Kenyon Mobley, Faith Walker); Ph.D. Students: 3 (David S. Smith; Brian Cardall; Benjamin Jaffe); M.S. students: 5 (Raena Cota, Becky Beresic-Perrins, Rachel Curmi, Brian Tritle, Eric North).
- 2007-08 Animal Behavior (BIO 666), course director, 12 students; Tools of the Trade in Community Genetics (BIO 698), 20 students; Invertebrate Zoology "Higher Invertebrates" (BIO 222), Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories; Intertidal Invertebrates of the Sea of Cortez (BIO 227), 12 students; Undergraduate research (BIO 499), 10 students; M.S. thesis committees: 2 (Jamie Lamit, Laura Haegenauer); Ph.D. dissertation committees: 5 (Luke Evans, Art Keith, Helen Bothwell, Bryce Marshall; Stacy Stumpf). Postdoctoral Associates: 3 (Heather Bleakley, Kenyon Mobley, Faith Walker); Ph.D. Students: 3 (David S. Smith; Brian Cardall; Benjamin Jaffe); M.S. students: 5 (Raena Cota, Becky Beresic-Perrins, Rachel Curmi, Brian Tritle, Eric North).
- 2006-07 Invertebrate Zoology "Lower Invertebrates" (BIO 221), 20 students; Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories; Intertidal Invertebrates of the Sea of Cortez (BIO 227), 12 students; Undergraduate research (BIO 499), 3 students; Parasitology (BIO 475), 24 students; Parasitology Laboratory (BIO 475L) 24 students; Quantitative Biology (BIO 682), 15 students; Grant Writing (BIO 698), 8 students; M.S. thesis committees: 6 (Luke Evans, Jamie Lamit, Art Keith, Barbara Honshack; Stacy Stumpf; Laura Haegenauer); Ph.D. dissertation committees: 3 (Christine Clark, Bryce Marshall, Russell Benford). I supervised 1 postdoctoral associate (Eric Lonsdorf). Ph.D. Students: David S. Smith; M.S. students: Raena Cota, Becky Beresic-Perrins, Brian Tritle, Eric North.
- 2005-06 Sabbatical semester, Fall 2005; Animal Behavior (BIO 666), course co-director, 14 students; Graduate Seminar in Community Genetics (BIO 698), 20 students; Marine Invertebrates (BIO 499), 7 students; Quantitative Biology (BIO 682), 12 students; Animal Behavior (BIO 666), course director, 12 students; Master's thesis committees: 4, Ph.D. dissertation committees: 3; I supervised 1 postdoctoral associate (Eric Lonsdorf); Ph.D. Students: David S. Smith; M.S. students: Brian Tritle; Eric North, Raena Cota.
- 2004-05 Invertebrate Zoology "Higher Invertebrates" (BIO 222), 25 students; Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories; Advanced Invertebrate Zoology (BIO 599), 2 students; Intertidal Invertebrates of the Sea of Cortez (BIO 227), 12 students; lecturer in Graduate College Teaching (BIO 795), 16 students; Master's thesis committees: 5 Ph.D. dissertation committees: 3; M.S.

- students: Emily Omana (completed Fall 04), Brian Tritle; Eric North; Raena Cota.
- 2003-04 Invertebrate Zoology "Lower Invertebrates" (BIO 221), 30 students; Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories; Invertebrates in Film (BIO 300) 8 students; Parasitology (BIO 475), 40 students; Parasitology Laboratory (BIO 475L) 40 students; Graduate Seminar (BIO 698), 6 students Undergraduate research (BIO 485), 2 students; Undergraduate independent study (BIO 497), 3 students; Master's thesis committees: 5 Ph.D. dissertation committees: 2; M.S. students: Herbert Wildey (completed Summer 04); Steven Vuturo (completed Summer 04); Jennifer Learned (completed Summer 04), Emily Omana, Brian Tritle; Eric North.
- 2002-03 Invertebrate Zoology "Higher Invertebrates" (BIO 222), 45 students; Invertebrate Zoology Laboratory (BIO 222L), 2 laboratories; Advanced Invertebrate Zoology (BIO 599), 3 students; Intertidal Invertebrates of the Sea of Cortez (BIO 227), 15 students; Invertebrate Lunch Seminar (BIO 698), 5 students; Independent study (BIO 497), 2 students, Intertidal Studies (BIO 499), 4 students; Graduate Sea Research (BIO 599), 1 student; lecturer in Graduate College Teaching (BIO 795), 16 students. Quantitative Biology (BIO 682), 12 students; Animal Behavior (BIO 666), course co-director, 8 students; Marine Invertebrates (BIO 499), 9 students Undergraduate research (BIO 485), 2 students; Master's thesis committees: 2, Ph.D. dissertation committees: 4; M.S. students: Herbert Wildey; Steven Vuturo; Jennifer Learned, Emily Omana, Brian Tritle; Eric North.
- 2001-02 Invertebrate Zoology "Lower Invertebrates" (BIO 221), 33 students; Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories; Intertidal Invertebrates of the Sea of Cortez (BIO 227), 12 students; Graduate Seminar, "Mating Systems and Alternative Mating Strategies (BIO 698), 8 students; Graduate Seminar (BIO 698); Parasitology (BIO 475), 45 students; Parasitology Laboratory (BIO 475L) 45 students; Graduate Seminar (BIO 698), 6 students Undergraduate research (BIO 485), 5 students; Undergraduate independent study (BIO 497), 2 students; Master's thesis committees: 5 Ph.D. dissertation committees: 1; M.S. students: Herbert Wildey; Steven Vuturo; Jennifer Learned, Emily Omana.
- 1996-2001 Associate Professor, Department of Biological Sciences, NAU.**
Courses taught:
- 2000-01 Invertebrate Zoology "Higher Invertebrates" (BIO 222), 18 students; Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories; Intertidal Invertebrates of the Sea of Cortez (BIO 227), 13 students; lecturer in Graduate College Teaching (BIO 795), 16 students. Master's thesis committees: 3, Ph.D. dissertation committees: 0; M.S. students: Kevin M. Johnson (graduated fall 2000), Herbert Wildey; Steven Vuturo; Jennifer Learned, Emily Omana.
- 1999-00 Invertebrate Zoology "Lower Invertebrates" (BIO 221), 35 students; Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories; Intertidal Invertebrates of the Sea of Cortez (BIO 227), 10 students; Quantitative Biology (BIO 682), course director, 14 students; Animal Behavior (BIO 666), course co-director, 15 students; Marine Invertebrates (BIO 499), 9 students Undergraduate research

- (BIO 485), 6 students; Parasitology (BIO 475), 32 students; Parasitology Laboratory (BIO 475L) 32 students Graduate Seminar (BIO 698), 3 students Undergraduate research (BIO 485), 6 students; Undergraduate independent study (BIO 497), 2 students; Master's thesis committees: 8 Ph.D. dissertation committees: 0; M.S. students: Kevin M. Johnson, Herbert Wildey; Steven Vuturo; Jennifer Learned.
- 1998-99 Sabbatical year; (BIO 698), 3 students; Undergraduate research (BIO 485), 2 students; Undergraduate independent study (BIO 497), 2 students; M.S. students: Kevin M. Johnson, Herbert Wildey, Ph.D. student: Peter A. Nelson (graduated Spring 99).
- 1997-98 Invertebrate Zoology "Lower Invertebrates" (BIO 221), 35 students; Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories Intertidal Invertebrates of the Sea of Cortez (BIO 227), 13 students; Sabbatical year; (BIO 698), 3 students; Undergraduate research (BIO 485), 2 students; Undergraduate independent study (BIO 497), 2 students; M.S. students: Kevin M. Johnson, Herbert Wildey Ph.D. student: Peter A. Nelson, Postdoctoral students: Dr. Bonnie Bain, Dr. Veijo Jormalainen.
- 1996-97 Invertebrate Zoology "Higher Invertebrates" (BIO 222), 38 students; Invertebrate Zoology Laboratory (BIO 222L), 2 laboratories Intertidal Invertebrates of the Sea of Cortez (BIO 227), 13 students; Quantitative Biology (BIO 682), course director, 14 students Parasitology (BIO 475), 32 students; Parasitology Laboratory (BIO 475L) 32 students Graduate Seminar (BIO 698), 2 students Undergraduate research (BIO 485), 8 students; Undergraduate independent study (BIO 497), 2 students Master's thesis committees: 8; Ph.D. dissertation committees: 7; M.S. students: Kevin M. Johnson, Gregory S. Davis (graduated Fall 96) Ph.D. student: Peter A. Nelson; Postdoctoral students: Dr. Diana Kimberling Dr. Veijo Jormalainen.
- 1990-95 Assistant Professor, Department of Biological Sciences, NAU.**
Courses taught:
- 1995-96 Invertebrate Zoology "Lower Invertebrates" (BIO 221, 299), 48 students; Invertebrate Zoology Laboratory (BIO 221L, 299L), 2 laboratories Intertidal Invertebrates of the Sea of Cortez (BIO 299), 13 students Undergraduate research (BIO 485), 8 students; Undergraduate independent study (BIO 497), 2 students; Undergraduate advisees: 35; Quantitative Biology (BIO 682), course director, 14 students Animal Behavior (BIO 666), course director, 12 students Graduate Seminar (BIO 698), 9 students; Master's thesis committees: 8; Ph.D. dissertation committees: 7; M.S. students: Kevin M. Johnson, Gregory S. Davis; Ph.D. student: Peter A. Nelson; Postdoctoral students: Dr. Diana Kimberling, Dr. Veijo Jormalainen.
- 1994-95 Invertebrate Zoology "Higher Invertebrates" (BIO 221, 299), 48 students; Invertebrate Zoology Laboratory (BIO 221L, 299L), 2 laboratories Intertidal Invertebrates of the Sea of Cortez (BIO 299), 13 students Undergraduate research (BIO 485), 2 students; Undergraduate independent study (BIO 497), 4 students; Undergraduate advisees: 63; Quantitative Biology (BIO 682), course director, 22 students Concepts in Ecology (BIO 599), course director, 26

- students Experimental Marine Ecology (BIO 574) w/ W. L. Montgomery, 9 students; Graduate seminar (BIO 698), codirected w/ P. Service, 6 students Graduate research (BIO 685), 2 students; Graduate seminar (BIO 698), 2 students M.S. Committees at NAU: 8.; Ph.D. Committees at NAU: 7. Ph.D. Committees at other universities, Opponent for V. Jormalainen, University of Turku, Finland.; M.S. students: Kevin M. Johnson; Gregory S. Davis; Ph.D. students: Peter A. Nelson; Postdoctoral student: Dr. Diana Kimberling.
- 1993-94 Animal Biology (BIO 190), 92 students; Invertebrate Zoology, "Lower Invertebrates" (BIO 221), 43 students Invertebrate Zoology Laboratory (BIO 221L), 2 laboratories Undergraduate research (BIO 485), 5 students; Undergraduate independent study (BIO 497), 6 students Undergraduate advisees: 61; Quantitative Biology (BIO 682), course director, 24 students Animal Behavior (BIO 666), course director, 16 students Graduate Research (BIO 685), 1 student; Graduate Seminar (BIO 698), 2 students Master's thesis committees: 8; Ph.D. dissertation committees: 7; M.S. students: Kevin M. Johnson, Gregory S. Davis; Ph.D. student: Peter A. Nelson.
- 1993-95 Animal Biology (BIO 190), 72 students; Invertebrate Zoology (BIO 221), students; Invertebrate Zoology Laboratory (BIO 221L), students Undergraduate research (BIO 485) 2 students Undergraduate independent study (BIO 497) 9 students Undergraduate advisees: 30 Quantitative Biology (BIO 682), 16 students; Graduate seminar (Grant Writing, BIO 698), 8 students Graduate independent study (BIO 697) 1 student Graduate independent study (MBI 697) 1 student Master's thesis committees: 7; Ph.D. dissertation committees: 4.
- 1991-92 Invertebrate Zoology (BIO 221, 299, spring), 31 students; Invertebrate Zoology Laboratory (BIO 221L) Undergraduate independent study (BIO 497), 5 students Invertebrate Zoology (BIO 221, fall), 42 students Invertebrate Zoology Laboratory (BIO 221L), 2 sections Undergraduate advisees: 21; Animal Behavior (BIO 666), presented 4 lectures Graduate independent study (BIO 697) 1 student; Master's thesis committees: 3 Ph.D. dissertation committees: 4.
- 1990-91 Concepts in Physiological Ecology (BIO 540) 15 students; presented guest lectures on behavioral ecology and evolutionary biology. Graduate journal club in Evolution, 8 students.
- 1988-90 Postdoctoral Associate, Department of Ecology and Evolution, University of Chicago. Supervised two undergraduate students conducting independent research in population genetics using *Tribolium* beetles as experimental animals.
- 1987-88 Visiting Assistant Professor, Department of Biology, University of California, Riverside, CA, courses taught: Biology for Non-Majors, one quarter, enrollment: 63 students. Organismal Biology, one quarter, enrollment: 364 students. Supervisor, Independent Study, three quarters; 5 undergraduate students.
- 1986 Graduate Student Instructor, Departments of Genetics and Zoology, University of California, Berkeley, CA; courses: Population Genetics, Introductory Zoology.
- 1981-83 Teaching Assistant, Department of Zoology, University of California, Berkeley; courses: Introduction to Human Biology, Biology: A Behavioral View,

- 1979-81 Animal Behavior Laboratory, Biology for Non-Majors, Parasitology.
Academic Instructor, Department of Biology, University of Albuquerque,
Albuquerque, NM, courses taught; General Biology; six semesters; enrollment
20-40; Human Anatomy and Physiology; two semesters; enrollment 30-250
Invertebrate Zoology; one semester; enrollment 18
Biology for Non-Majors; two semesters; enrollment 30-50; Field Course in
Marine Ecology; one semester; enrollment 16 Seminar in Evolutionary
Ecology; one semester; enrollment 14.
- 1979 Program Developer and Instructor, Presbyterian Hospital School of Nursing,
Albuquerque, NM. Human Anatomy and Physiology; one semester; enrollment;
265.
- 1977-79 Teaching Assistant, Department of Biology, University of New Mexico courses:
General Biology, Invertebrate Zoology, Health Science.

Postdoctoral Associates (12):

- David S. Smith (2012-present), Teaching Associate, funding pending
Faith Walker, Ph.D. (2008-12) from Monash University; Research Associate
Kenyon Mobley, Ph.D. (2008-10), Research Associate, Umea University, Sweden.
B. Heather Bleakley, Ph.D. (2008-10), Assistant Professor, Stonehill College, Eaton, MA.
Matt Bowker, Ph.D. (2009) USGS Research Ecologist, Flagstaff, AZ.
Eric. V. Lonsdorf, Ph.D. (2005-06) Director, Urban Wildlife Institute, Lincoln Park Zoo, Chicago, IL.
Fredric Govedich, Ph.D. (2004-06), Assistant Professor, Southern Utah University
Bonnie Bain, Ph.D. (2004-06), Research Scientist, Southern Utah University
Jerome Moreau, Ph.D. (2002), Foundation Fyssen, Paris, France, declined.
Bonnie Bain, Ph.D. (1997-98), Research Scientist, University of Western Australia.
Veijo Jormalainen, Ph.D. (1994-97), Research Associate Professor, University of Turku,
Finland.
Diana Kimberling, Ph.D. (1994-96), Research Scientist; University of Washington.

Doctoral Associates (9):

- Bill Briggs (2012-present) Northern Arizona University
Kimberly Whitely (2012-present) Northern Arizona University
Dana Ikeda (2010-present) Northern Arizona University
Becky Beresic-Perrins (2010-present) Northern Arizona University.
Benjamin Jaffe (2007-present) Northern Arizona University.
David Solance Smith (2005-2012), Northern Arizona University.
Brian Cardall (2007-09) Northern Arizona University – deceased.
Steven A. Vuturo, M.S. (currently on leave of absence), Tucson Unified School District.
Peter A. Nelson, Ph.D. (1993-99), Research Scientist, University of California, Davis.

Master of Science Associates (14):

- Dannielle Jensen (2012 – present) Northern Arizona University
Bill Briggs (2010 – 2012) Northern Arizona University
Patricia Dennis (2010 – present) Northern Arizona University
Eric North (2003-present) Northern Arizona University.
Becky Beresic-Perrins (2007-10) Northern Arizona University.

Rachel Durben (2007-10) Northern Arizona University.
Brian Tritle (2003-09) – withdrawn, USFS, Utah.
Raena Cota (2004-09), Molecular Biologist, Louisiana State University.
Emily Omana (2000-04), Conservation Biologist, Grand Canyon Wildlands Council,
Flagstaff, AZ.
Steven Vuturo (1999-04), Master Instructor, Pima Unified School District, AZ.
Jennifer Learned (1998-04), Group Leader, Greenfuel, Cambridge, MA.
Herbert Wildey, (1997-04), Instructor, Mesa Community College, Mesa, AZ.
Kevin M. Johnson, (1992-00) Master Instructor, Hawai'i Unified School District, Kauai, HI.
Gregg Davis, M.S. (1992-95) Ph.D. Candidate University of Michigan School of Public
Health.

Books:

Shuster, S. M. and M. J. Wade. 2003. *Mating Systems and Strategies*. Princeton University Press, Princeton, NJ. 522 pp.
Brusca, R. C., W. Moore, and S. M. Shuster. *Invertebrates, 3rd ed.* Sinauer Associates, Sunderland MA. (for release in 2013).

Refereed Publications (N=70; undergraduate co-authors underlined, 10/70)

In Press:

70. Bleakley, B. H., S. M. Welter, K. McCauley-Cole, S. M. Shuster, and A. J. Moore. Cannibalism as an interacting phenotype: Pre-cannibalistic aggression is influenced by social partners in the endangered Socorro Isopod (*Thermosphaeroma thermophilum*). *Journal of Evolutionary Biology*.
69. Mungia, P. and S. M. Shuster. Established populations of *Paracerceis sculpta* (Isopoda) in the Northern Gulf of Mexico. *Journal of Crustacean Biology*.
68. Shuster, S. M., W. R. Briggs and P. A. Dennis. How multiple mating by females affects sexual selection. *Philosophical Transactions of the Royal Society B*.

In Print:

67. Lang, B. K., S. M. Shuster and R. Houtman. 2012. Controlled propagation of the Socorro Isopod. *World Association of Zoos and Aquariums Magazine* 13: 39-41.
66. Smith, D. S., J. A. Schweitzer, P. Turk, J. K. Bailey, S. M. Shuster, S. C. Hart, and T. G. Whitham. 2012. Positive, intraspecific plant-soil feedbacks regulate seedling survival and performance. *Plant and Soil* 352: 243 - 251.
65. Shuster, S. M. 2011. Differences in relative fitness among alternative mating tactics might be more apparent than real. *Journal of Animal Ecology* 80: 905–907.
64. Krakauer, A. H., M. S. Webster, E. H. DuVal, A. G. Jones and S. M. Shuster. 2011. The opportunity for sexual selection: Not mismeasured, just misunderstood. *Journal of Evolutionary Biology* 24: 2064–2071.
63. Smith, D. S., J. K. Bailey, S. M. Shuster, T. G. Whitham. 2011. A geographic mosaic of a community phenotype: Variation in trophic interactions and selection regimes. *Journal of Evolutionary Biology* 24: 422–429.
62. Allan, G. J., S. M. Shuster, S. Woolbright, F. Walker, N. Meneses, A. Keith, J. Bailey and T. G. Whitham. 2011. Interspecific indirect genetic effects (IIGEs): Linking genetics and genomics to community ecology and ecosystem processes. In: *Ecology and Evolution of*

- Trait-mediated Indirect Interactions: Linking Evolution, Community, and Ecosystem.***” (T. Ohgushi, O. Schmitz & R. D. Holt, eds.) Cambridge University Press).
61. Sterling, K. A. and S. M. Shuster. 2011. Rates of fission in *Aquilonastra corallicola* Marsh (Echinodermata:Asteroidea) as affected by population density. ***Journal of Experimental Marine Biology and Ecology*** 55 (1): 1–5.
 60. Shuster, S. M. 2010. Alternative mating strategies. In: C. Fox and D. F. Westneat (eds), ***Evolutionary Behavioral Ecology***, Cambridge University Press. Pp. 434-450.
 59. Wade, M. J. and S. M. Shuster. 2010. Bateman (1948): Pioneer in the measurement of sexual selection. ***Heredity*** advance online publication, 10 February 2010; doi:10.1038/hdy.2010.8.
 58. Shuster, S. M. 2010. Sexual selection and mating systems. In: J. Avise and F. Ayala (eds), ***In the Light of Evolution III: Two Centuries of Darwin***. National Academy of Sciences Press.
 57. Gitlin, A. R., B. L. Cardall. S. M. Shuster, G. J. Allan and T. G. Whitham. 2009. Genetic diversity of cottonwood (*Populus* sp.), before during and after establishment of Tamarix. ***Arizona Riparian Council Newsletter*** 22: 1-10.
 56. Shuster, S. M. 2009. Sexual selection and mating systems. ***Proceedings of the National Academy of Sciences*** 106: 10009-10016.
 55. Evans, L. M., G. E. Allen, S. M. Shuster, S. A. Woolbright and T. G. Whitham. 2008. Tree hybridization and genotypic variation drive cryptic speciation of a specialist mite herbivore. ***Evolution***. 62: 3027–3040.
 54. Whitham, T. G., S. P. DeFazio, J. A. Schweitzer, S. M. Shuster, G. J. Allen, J. K. Bailey, S. A. Woolbright. 2008. Extending genomics to natural communities and ecosystems. ***Science*** 320: 492-495.
 53. Shuster, S. M. 2008. Behavioral ecology: Mating systems. In: S. E. Jorgensen (ed.), ***Encyclopedia of Ecology***, Elsevier Press.
 52. Shuster, S. M. 2008. The expression of crustacean mating strategies. In: Oliveira R, Taborsky M & Brockmann HJ (eds) ***Alternative Reproductive Tactics***. Cambridge Univ Press.
 51. Bangert, R. K., E. V. Lonsdorf, G. M. Wimp, S. M. Shuster, D. Fischer, J. A. Schweitzer, G. J. Allan, J. K. Bailey, and T. G. Whitham. 2008. Genetic structure of a foundation species: scaling community phenotypes from the individual to the region. ***Heredity*** 100: 121-131.
 50. Shuster, S. M and E. M. Arnold. 2007. The effect of females on male-male competition in atypical breeding habitats in the marine isopod, *Paracerceis sculpta*: A reaction norm approach to behavioral plasticity. ***Journal of Crustacean Biology*** 27(3): 417-424.
 49. Shuster, S. M. 2007. Sex allocation and sexual selection. In: M. Denny and S. Gaines (eds), ***Encyclopedia of the Rocky Intertidal***. University of California Press.
 48. Shuster, S. M. 2007. The evolution of crustacean mating systems. In: E. J. Duffy and M. Thiel (eds), ***Evolutionary Ecology of Social and Sexual Systems: Crustaceans as Model Organisms***. Oxford University Press.
 47. Shuster, S. M. 2006. Evolution's rainbow. Diversity, gender, and sexuality in nature and people. *History and Philosophy of the Life Sciences*. 28: 271-273.
 46. Benford, R; Christian, N; Shuster, S; Keim, P; Balda, R. 2006. Population structure of a metapopulation of Pinyon Jays. ***Journal of Ornithology*** 147: 137-137.

45. Shuster, S. M., Lonsdorf, E. V., Wimp, G. M., Bailey, J. K. and Whitham, T. G. 2006. Community heritability measures the evolutionary consequences of indirect genetic effects on community structure. *Evolution* 60, 991–1003.
44. Lang, B. K., D. A. Kelt and S. M. Shuster. 2006. The role of controlled propagation on an endangered species: demographic effects of habitat heterogeneity among captive and native populations of the Socorro Isopod (Crustacea: Flabellifera). *Biodiversity and Conservation*
43. Whitham, T. G., J. K. Bailey, J. A. Schweitzer, S. M. Shuster, R. K. Bangert, C. J. LeRoy, E. V. Lonsdorf, G. J. Allan, S. P. DiFazio, B. M. Potts, D. G. Fischer, C. A. Gehring, R. L. Lindroth, J. Marks, S. C. Hart, G. M. Wimp and S. C. Wooley. 2006. A framework for community and ecosystem genetics: from genes to ecosystems. *Nature Reviews Genetics* 7: 510-523.
42. Wade, M. J. and S. M. Shuster. 2005. Don't throw Bateman out with the bathwater! *Integrative and Comparative Biology* 45:261-268.
41. Whitham, T. G., E. L. Lonsdorf, J. A. Schweitzer, J. K. Bailey, D. G. Fischer, S. M. Shuster, R. L. Lindroth, S. C. Hart, G. J. Allan, C. A. Gehring, P. Keim, B. M. Potts, J. Marks, B. J. Rehill, S. P. DiFazio, C. J. LeRoy, G. M. Wimp, and S. Woolbright. 2005. All effects of a gene on the world. *Ecoscience* 12: 5-7.
40. Shuster, S.M., M. P. Miller, B. K. Lang, N. Zorich, L. Huynh and P. Keim. 2005. The effects of controlled propagation on an endangered species: Genetic differentiation and divergence in body size among native and captive populations of the Socorro Isopod (Crustacea: Flabellifera). *Conservation Genetics* 6: 355-368.
39. Bailey, J. K., R. K. Bangert, J. A. Schweitzer, R. T. Trotter, III, S. M. Shuster, and T. G. Whitham. 2004. Fractal geometry is heritable in trees. *Evolution* 58: 2100–2102.
38. Wade, M. J. and S. M. Shuster. 2004b. Estimating the strength of sexual selection from Y chromosome and mitochondrial DNA diversity. *Evolution* 58: 1613-1616.
37. Wade, M. J. and S. M. Shuster. 2004a. Sexual selection: Harem size and the variance in male reproductive success. *American Naturalist* 164: E83-E89.
36. Shuster, S. M. 2004. Mating strategies in marine isopods. In: M. Bekoff (ed), *Encyclopedia of Animal Behavior*, Greenwood Publishing Group, Westport, CT.
35. Moline, A. B., S. M. Shuster, D. A. Hendrickson, and J. C. Marks. 2004. Genetic variation in a desert aquatic snail (*Nymphophilus minckleyi*) from Cuatro Ciénegas, Coahuila, México. *Hydrobiologia* 522: 179-192.
34. Shuster, S. M. 2004. Reproductive biology of invertebrates. *Ethology* 109: 1023-1025.
33. Wade, M. J., S. M. Shuster and J. P. Demuth. 2003. Sexual selection favors female-biased sex ratios: The balance between the opposing forces of sex-ratio selection and sexual selection. *American Naturalist* 162: 403-414.
32. Garcia, K., S. Embry, D. Grossblat, A. Holbrook, W. McLaren, S. Reed, H. Wildey and S. Shuster. 2003. A comparison of two methods for sampling the Gulf of California mud shrimp, *Neotrypaea uncinata* (Crustacea: Thallasinidea). *Journal of Natural History* 37: 1847-1854.
31. Whitham, T. G., W. Young, G. D. Martinsen, C. A. Gehring, J. A. Schweitzer, S. M. Shuster, G. M. Wimp, D. G. Fischer, J. K. Bailey, R. L. Lindroth, S. Woolbright, and C. R. Kuske. 2003. Community and ecosystem genetics: A consequence of the extended phenotype. *Ecology* 84: 559-573.

30. Wade, M. J. and S. M. Shuster. 2002. The evolution of parental care in the context of sexual selection: A critical reassessment of parental investment theory. *American Naturalist* 160: 285-292.
29. Shuster, S. M. 2002. Mating strategies, alternative. M. Pagel et al. (eds) *Encyclopedia of Evolution*, Oxford University Press, Oxford, UK, pp. 688-693.
28. Shuster, S. M. J. O. W. Ballard, G. Zinser, C. Sassaman and P. Keim. 2001. The influence of genetic and extrachromosomal factors on population sex ratio in *Paracerceis sculpta*. In: *Isopod Systematics and Evolution*, R. C. Brusca and B. Kensley (eds), Crustacean Issues, Vol. 13, pp. 313-326, Balkema Press, Amsterdam.
27. Jormalainen, V., S. M. Shuster and H. Wildey. 1999. Reproductive anatomy, sexual conflict and paternity in *Thermosphaeroma thermophilum*. *Marine and Freshwater Behavior and Physiology* 32: 39-56.
26. Jormalainen, V. and S. M. Shuster. 1999. Female reproductive cycles and sexual conflict over precopulatory mate-guarding in *Thermosphaeroma* isopods. *Ethology* 105: 233-246.
25. Shuster, S. M. and L. Levy. 1999. Sex-linked inheritance of a cuticular pigmentation marker in a marine isopod, *Paracerceis sculpta* Holmes (Crustacea: Isopoda: Sphaeromatidae). *Journal of Heredity* 90: 304-307.
24. Shuster, S. M. and E. E. Guthrie. 1999. The effects of temperature and food availability on adult body length in natural and laboratory populations of *Paracerceis sculpta* (Holmes), a Gulf of California isopod. *Journal of Experimental Marine Biology and Ecology* 233: 269-284.
23. Jormalainen, V. and S. M. Shuster. 1997. Microhabitat segregation and cannibalism in an endangered freshwater isopod, *Thermosphaeroma thermophilum*. *Oecologia* 111: 271-279.
22. Shuster, S. M. and C. Sassaman. 1997. Genetic interaction between male mating strategy and sex ratio a marine isopod. *Nature* 388: 373-376.
21. Shuster, S. M. and M. J. Wade. 1997. Hiring selection. In: *Feminism and Evolutionary Biology*, P. A. Gowaty, ed. Chapman & Hall, NY. Pp. 153-183.
20. Kimberling, D., A. Ferreria, S. M. Shuster and P. Keim. 1996. RAPD marker estimation of genetic structure among isolated northern leopard frog populations in the south-western USA. *Molecular Ecology* 5: 521-529.
19. Wade, M. J., S. M. Shuster and L. Stevens. 1996. Bottlenecks, founder events and inbreeding: Experimental studies of the response to selection with *Tribolium*. *Evolution* 50: 723-733.
18. Shuster, S. M. 1995. Female reproductive success in artificial cavities in *Paracerceis sculpta* (Crustacea: Isopoda). *Journal of Experimental Marine Biology and Ecology* 191: 19-27.
17. Shuster, S. M. 1992. The reproductive behaviour of α , β -, and γ -males in *Paracerceis sculpta*, a marine isopod crustacean. *Behaviour* 121: 231-258.
16. Shuster, S. M. 1992. The use of artificial cavities as breeding habitat by *Paracerceis sculpta* (Crustacea: Isopoda). *Journal of Experimental Marine Biology and Ecology* 165: 75-89.
15. Shuster, S. M. 1992. Stress and Evolution. *Evolution* 46: 1248.
14. Shuster, S. M. 1991. Changes in female anatomy associated with the reproductive molt in *Paracerceis sculpta* (Holmes), a semelparous isopod crustacean. *Journal of Zoology (London)* 225: 365-379.

13. Shuster, S. M. & M. J. Wade. 1991. Female copying and sexual selection in a marine isopod crustacean. *Animal Behaviour* 42: 1071-1078.
12. Shuster, S. M. & M. J. Wade. 1991. Equal mating success among male reproductive strategies in a marine isopod. *Nature* 350: 606-610.
11. Shuster, S. M. 1991. The ecology of breeding females and the evolution of polygyny in *Paracerceis sculpta*, a marine isopod crustacean. In: R. Bauer and J. Martin, *Crustacean Sexual Biology*, Columbia University Press. pp 91-110.
10. Shuster, S. M. 1990. Predation and sexual dimorphism in a marine isopod crustacean. *Trends in Ecology and Evolution* 5: 238-240.
9. Shuster, S. M. 1990. Courtship and female mate selection in a semelparous isopod crustacean (*Paracerceis sculpta*). *Animal Behaviour* 40: 390-399.
8. Shuster, S. M. 1989. Male alternative reproductive behaviors in a marine isopod crustacean (*Paracerceis sculpta*): The use of genetic markers to measure differences in fertilization success among α -, β - and γ -males. *Evolution* 34: 1683-1698.
7. Shuster, S. M. 1989. Female sexual receptivity associated with molting and differences in copulatory behavior among the three male morphs in *Paracerceis sculpta*, (Crustacea: Isopoda). *Biological Bulletin* 177: 331-337.
6. Shuster, S. M. and R. L. Caldwell. 1989. Male defense of the breeding cavity and factors affecting the persistence of breeding pairs in the stomatopod, *Gonodactylus bredini* (Crustacea: Hoplocarida). *Ethology* 82: 192-207.
5. Caldwell, R. L., G. K. Roderick and S. M. Shuster. 1989. Studies of predation by *Gonodactylus bredini*. In: E. A. Farraro (ed.) {R. B. Manning, M. L. Reaka, W. Wales. co-eds.}, *Biology of Stomatopods, Collana UZI: Selected Symposia and Monographs*, Mucci Editore, Moderna (Italy).
4. Shuster, S. M. 1987. Alternative reproductive behaviors: Three discrete male morphs in *Paracerceis sculpta*, an intertidal isopod from the northern Gulf of California. *Journal of Crustacean Biology* 7: 318-327.
3. Shuster, S. M. 1987. Male body size, not reproductive habitat characteristics predicts polygyny in a sexually dimorphic intertidal isopod crustacean, *Paracerceis sculpta* (Crustacea: Isopoda). In: Malagrino, G. & H Santoyo (eds), *Mem. V Simp. Biol. Mar. Univ. Auton. Baja California Sur, 24-26 Octubre de 1984, La Paz B.C.S., Mexico*: 71-80.
2. Shuster, S. M. 1981. Life history characteristics of *Thermosphaeroma thermophilum*, the Socorro Isopod (Crustacea: Peracarida). *Biological Bulletin* 161: 291-302.
1. Shuster, S. M. 1981. Sexual selection in the Socorro Isopod, *Thermosphaeroma thermophilum* (Cole and Bane)(Crustacea: Peracarida). *Animal Behaviour* 29: 698-707.

In Review:

- Smith, D. S., S. M. Shuster and T. G. Whitham. Microevolutionary divergence changes local communities and ecosystem processes. *Oikos*.
- Shuster, S. M., S. J. Embry and C. R. Hargis. The inheritance of autosomal and sex-linked cuticular pigmentation patterns in the marine isopod, *Paracerceis sculpta* Holmes (Crustacea: Isopoda: Sphaeromatidae). *Journal of Heredity*.
- Lonsdorf, E. V., S. M. Shuster, M. Lau and T. G. Whitham. How tangled is the bank? Effective community diversity and the opportunity for selection in a community context. *Evolution*.

- Wooley, S. C. E. V. Lonsdorf; S. C. Brown, T. G. Whitham; S. M. Shuster; R. L. Lindroth. Rapid evolution in aphids in response to genetic interactions with their cottonwood hosts. *Evolutionary Ecology*.
- Mobley, K. B., S. Wacker, E. Forsgren and S. M. Shuster. Seasonal and inter-yearly variation in the genetic mating system of the two-spotted goby. *Behavioral Ecology*.

Published Abstracts (N=66; undergraduate coauthors underlined, 38/66)

66. Delph, R. S. Shuster, C. Brothers, R. Paulk, and G. Pollard. 2009. Micro-invertebrate community dynamics on algae in the mid-intertidal zone of the Gulf of California. *J. Ariz. Nev. Acad. Sci.* 44: 32.
65. Copus, J., R. H. Reavis and S. M. Shuster. 2009. The Tahitian Butterflyfish. A bay specialist and territorial omnivore. The Society for Integrative and Comparative Biology, 2008 Annual meeting, Boston, MA (USA).
64. Beresic-Perrins, R. and S. M. Shuster. 2009. Parental care in leeches: Brood size, gestation duration, juvenile survival, and parent/offspring interactions in two Arizona populations of *Helobdella stagnalis* (Hirudinea: Glossiphoniidae). The Society for Integrative and Comparative Biology, 2008 Annual meeting, Boston, MA (USA).
63. Rodriguez, E. I., K. Saunders, G. Davis, S. M. Shuster, and T. J. Ayers. 2009. A Molecular Phylogeny for the *Thermosphaeroma* Species Complex (Sphaeromatidae: Isopoda). The Society for Integrative and Comparative Biology, 2008 Annual meeting, Boston, MA (USA).
62. Dorr, S., C. Hall, C. Santella, R. Paulk, J. Copus, K. Mead and S. Shuster. 2008. Global warming reduces the opportunity for selection and eliminates female mimicry in a marine isopod. *J. Ariz. Nevad. Acad. Sci.* 43: 26.
61. Copus, J., R. H. Reavis and S. M. Shuster. 2008. The Tahitian butterflyfish: A bay specialist and territorial omnivore. *J. Ariz. Nevad. Acad. Sci.* 43: 24-25.
60. Saunders, K. and S. M. Shuster. 2007. Evolutionary relationships within *Paracerceis*, a sphaeromatid genus with invasive populations. The Society for Integrative and Comparative Biology 2007 Annual Meeting, Phoenix, AZ (USA).
59. Arnold, E. A. and S. M. Shuster. 2005. Use of chemical cues by marine isopods (*Paracerceis sculpta*) in the location and selection of mates. The Society for Integrative and Comparative Biology 2005 Annual Meeting, San Diego, CA (USA).
58. Arnold, E. A. and S. M. Shuster. 2004. Sexual selection in a northern Gulf of California mud shrimp, *Neotrypaea uncinata*. The Society for Integrative and Comparative Biology 2004 Annual Meeting, New Orleans, LA (USA).
57. Omana, E. C. and S. M. Shuster. 2004. The reproductive biology of *Paradella diana*. The Society for Integrative and Comparative Biology 2004 Annual Meeting, New Orleans, LA (USA).
56. Learned, J. K. and S. M. Shuster. 2004. The genetic population structure of *Thermosphaeroma* isopods in the Lower Canyons of Big Bend National Park. The Society for Integrative and Comparative Biology 2004 Annual Meeting, New Orleans, LA (USA).
55. Vuturo, S. A. and S. M. Shuster. 2003. Is *Ophiodromus pugettensis* androdioecious? *J. Ariz. Nevad. Acad. Sci.* 38: 58-59.
54. Omana, E. C. and S. M. Shuster. 2003. A morphological comparison of two populations of *Paradella diana* (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 38: 54-55.

53. May, M. A., E. C. Omana, J. Rapier, M. Robins, A. Buff, R. M. Curmi, K. M. Atkins, R. L. Ketner, K. M. Serrato, M. White, H. V. Yarbrough, J. Learned and S. M. Shuster. 2003. Distribution, abundance and orientation of the intertidal barnacle, *Tetraclita squamosa* and its influence on invertebrate diversity at Pelican Point in Puerto Penasco, Sonora, Mexico. *J. Ariz. Nevad. Acad. Sci.* 38: 54.
53. Serrato, K. M. and S. M. Shuster. 2003. Effects of temperature on female reproductive condition in a marine isopod, *Paracerceis sculpta* Holmes. *J. Ariz. Nevad. Acad. Sci.* 38: 14.
52. Ketner, R. L., E. C. Omana and S. M. Shuster. 2003. Colonization of artificial cavities at Biosphere2. *J. Ariz. Nevad. Acad. Sci.* 38:10-11.
51. Arnold, E. M., H. C. Dyer, L. D. Galati, N. S. Ireland, S. A. Vuturo, C. E. Wilson and S. M. Shuster. 2003. Sexual selection in a Gulf of California mud shrimp, *Neotrypaea uncinata*. *J. Ariz. Nevad. Acad. Sci.* 38: 7.
50. Bly, B. M., S. T. Flint, B. L. Stafford, N. M. Zwebti and S. M. Shuster. 2003. Morphological variation in allopatric populations of the Unicorn Snail, *Acanthina angelica*, in the northern Gulf of California. *J. Ariz. Nevad. Acad. Sci.* 38: 6.
49. Arnold, EM; Vuturo, SA; Shuster, SM. 2003. Sexual selection in a Gulf of California mud shrimp, *Neotrypaea uncinata*. *Integrat. Compar. Biology.* 43: 855-855.
48. Moline, A. B. S. M. Shuster, J. C. Marks and D. A. Hendrickson. 2002. Geographic distribution and population genetics of a freshwater hydrobiid snail, *Nymphophilus minckleyi*, from Cuatro Ciénegas, Coahuila, Mexico. 2002 Annual Meeting of the North American Benthological Society, Pittsburgh, PA (USA), 28 May-Jun 1 2002. (World Meeting Number 000 5892).
47. Robbins, M., A. Buff, M. May, J. Rapier, E. C. Omana and S. M. Shuster. 2002. Distribution, abundance and orientation of the intertidal barnacle, *Tetraclita squamosa* at Pelican Point, Puerto Peñasco, Sonora, Mexico. *J. Ariz. Nevad. Acad. Sci.* 37:11.
46. Omana, E.C. and S. M. Shuster. 2002. Life history characteristics of *Paradella diana* (Crustacea: Isopoda) in the northern Gulf of California. *J. Ariz. Nevad. Acad. Sci.* 37:37.
45. Ketner, R. L. , S. M. Shuster and B. Lang. 2002. The effects of cannibalism on life history characteristics in the endangered Socorro Isopod, *Thermosphaeroma thermophilum* (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 37:6-7.
44. Curmi, R. M., K. M. Adkins, R. L. Ketner, K. M. Serrato, M. White, H. V. Yarborough, J. Learned and S. M. Shuster. 2002. Species diversity within tests of the barnacle, *Tetraclita squamosa*, at Pelican Point, Puerto Peñasco, Sonora, Mexico. *J. Ariz. Nevad. Acad. Sci.* 37:10-11.
43. Willey, H. C. and S. M. Shuster. 2002. Measures of sexual selection in a Northern Gulf of California mud shrimp (Decapoda: Thalassinidea). The Society for Integrative and Comparative Biology 2002 Annual Meeting, Anaheim, CA (USA), 2-6 Jan 2002. (World Meeting Number 000 5809).
42. Vuturo, S. A. and S. M. Shuster. 2002. Sex change and cannibalism in Gulf of California populations of a commensal polychaete. The Society for Integrative and Comparative Biology 2002 Annual Meeting, Anaheim, CA (USA), 2-6 Jan 2002. (World Meeting Number 000 5809).
41. Omana, E. C. and S. M. Shuster. 2002. Ecology and reproductive biology of *Paradella diana* (Crustacea: Isopoda) The Society for Integrative and Comparative Biology 2002

- Annual Meeting, Anaheim, CA (USA), 2-6 Jan 2002. (World Meeting Number 000 5809).
40. Agosta, A., H. C. Wildey, S. A. Vuturo, and S. M. Shuster. 2002. Distribution of the mud shrimp, *Neotrypaea uncinata*, on horizontal, vertical and geographic scales within estero morua, Sonora, Mexico. The Society for Integrative and Comparative Biology 2002 Annual Meeting, Anaheim, CA (USA), 2-6 Jan 2002. (World Meeting Number 000 5809).
 39. Vuturo, S. A. and S. M. Shuster. 2001. Sex change and cannibalism in populations of a commensal polychaete. *J. Ariz. Nevad. Acad. Sci.* 36:9-10.
 38. Wildey, H. C. and S. M. Shuster. 2001. The mean crowding and sex ratio of a northern Gulf of California mud shrimp (Thalassinidea: Decapoda). *J. Ariz. Nevad. Acad. Sci.* 36:11.
 37. Omana, E. C. and S. M. Shuster. 2001. The effects of food availability on molting rate and intermolt size in *Paracerceis sculpta* Holmes (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 36:11-12.
 36. Learned, J. K. and S. M. Shuster. 2001. *Thermosphaeroma bowmani*, a new species of sphaeromatid isopod from Casas Grandes, Chihuahua, Mexico. *J. Ariz. Nevad. Acad. Sci.* 36:12.
 35. Grossblat, D. and S. M. Shuster. 2001. The inheritance of *Reticulated (Ret)* in *Paracerceis sculpta* and the significance of variation in cuticular pigmentation in the isopod Crustacea. *J. Ariz. Nevad. Acad. Sci.* 36:9.
 34. Garcia, K. E. and S. M. Shuster. 2001. The effects of juvenile environment, female reproductive condition and satellite males on breeding site selection in a marine isopod, *Paracerceis sculpta* (Holmes). *J. Ariz. Nevad. Acad. Sci.* 36:9.
 33. Embry, S. J. and S. M. Shuster, 2001. The frequency of multiple insemination in a natural population of marine isopods. *J. Ariz. Nevad. Acad. Sci.* 36: 8.
 32. Agosta, A., E. Burke, S. J. Embry, K. E. Garcia, M. Kelly, R. Ketner, S. A. Vuturo, H. C. Wildey, and S. M. Shuster. 2001. The distribution and abundance of mud shrimp in a Mexican estero. *J. Ariz. Nevad. Acad. Sci.* 36: 10.
 31. Zorich, N., S. Shuster and B. Lang. 2000. The effects of cannibalism on natural and captive populations of the endangered Socorro Isopod. *J. Ariz. Nevad. Acad. Sci.* 35: 5.
 30. Wildey, H. C. and S. M. Shuster. 2000. Analysis and discussion of eleven monthly samples of the Gulf of California mud shrimp, *Neotrypaea uncinata* (Crustacea: Thalassinidea). *J. Ariz. Nevad. Acad. Sci.* 35: 4.
 29. Vuturo, S. and S. Shuster. 2000. Evidence of simultaneous hermaphroditism with a protandrous phase in the commensal polychaete, *Ophiodromus pugettensis*. *J. Ariz. Nevad. Acad. Sci.* 35: 7.
 28. Omana, E. K. Johnson, S. Embry, J. Learned, S. Vuturo and S. Shuster. 2000. The effects of food availability on adult phenotype in *Paracerceis sculpta* Holmes (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 35: 6-7.
 27. Perry, K. and S. M. Shuster. 2000. The effects of linkage and selection on allozyme variation in a marine isopod, *Paracerceis sculpta* Holmes (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 35: 6.
 26. Learned, J. and S. Shuster. 2000. An analysis of genetic differences among nine populations of the freshwater isopod, *Thermosphaeroma subequalum* Cole and Bane. *J. Ariz. Nevad. Acad. Sci.* 35: 7.

25. Garcia, K., S. Embry, D. Grossblat, A. Holbrook, W. McLaren, S. Reed, H. Wildey and S. Shuster. 2000. A comparison of two methods for sampling the Gulf of California mud shrimp, *Neotrypaea uncinata* (Crustacea: Thallasinidea). *J. Ariz. Nevad. Acad. Sci.* 35: 4.
24. Embry, S. and S. M. Shuster. 2000. The effects of mating order on female fecundity in a marine isopod, *Paracerceis sculpta* Holmes (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 35: 5-6.
23. Embry, S. and S. Shuster. 2000. Inheritance of two cuticular pigmentation patterns in a marine isopod, *Paracerceis sculpta* Holmes (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 35: 46.
22. Zorich, N., S. M. Shuster, P. Keim and B. Lang. 1999. The evolution of body size differences in natural and captive populations of the endangered Socorro Isopod (*Thermosphaeroma thermophilum*). *J. Ariz. Nevad. Acad. Sci.* 34: 14.
21. Vuturo, S. and S. Shuster. 1999. Genetic differences between two Pacific populations of the commensal polychaete, *Ophiodromus pugettensis*. *J. Ariz. Nevad. Acad. Sci.* 34: 12.
20. Sitarek, D. and S. Shuster. 1999. Sire and dam effects on gestation duration in *Paracerceis sculpta* Holmes (Crustacea: Isopoda). *J. Ariz. Nevad. Acad. Sci.* 34: 12.
19. Shuster, S. D. Sitarek, L. Helbling, J. Learned and C. Hargis. 1999. Another sex-linked cuticular pigmentation marker in the marine isopod, *Paracerceis sculpta* Holmes (Crustacea: Isopoda: Sphaeromatidae) *J. Ariz. Nevad. Acad. Sci.* 34: 14.
18. Learned, J. and S. Shuster. 1999. Genetic variation among nine populations of the freshwater isopod, *Thermosphaeroma subequalum* in the Lower Canyons of Big Bend National Park. *J. Ariz. Nevad. Acad. Sci.* 34: 13.
17. Johnson, K. and S. Shuster. 1999. The genetic population structure of *Paracerceis sculpta* in the Gulf of California. *J. Ariz. Nevad. Acad. Sci.* 34: 14
16. Shuster, S. M. and L. Levy. 1998. Sex-linked inheritance of a cuticular pigmentation marker in the marine isopod, *Paracerceis sculpta* Holmes (Crustacea: Isopoda: Sphaeromatidae). *J. Ariz. Nevad. Acad. Sci.* 33: 11.
15. Vuturo, S. and S. Shuster. 1998. The potential for reduced gene flow in the polychaete, *Ophiodromus pugettensis*. *J. Ariz. Nevad. Acad. Sci.* 33: 15.
14. Sitarek, D. J. Armstrong, J. Learned, S. Vuturo, S. Duffy, S. Helton, R. Beresic, J. Moser, T. Fisher, M. Sturtevant, S. Shuster. 1998. Sexual dimorphism and breeding synchrony in a Sea of Cortez mud shrimp. *J. Ariz. Nevad. Acad. Sci.* 33: 11.
13. Anamaet, E., J. DiMiceli, S. Jaacks, C. Kinzel, J. Pike, R. Renaud, T. Shepherd, S. Vuturo, S. Wallace, M. Ziady and S. Shuster. 1997. The distribution of intertidal invertebrates on rocky substrates in the northern Gulf of California. *J. Ariz. Nevad. Acad. Sci.* 32: 15.
12. Guthrie, E. and S. M. Shuster. 1995. Seasonal variation in body size correlates negatively with sea surface temperature in a marine isopod (*Paracerceis sculpta*). *J. Ariz. Nevad. Acad. Sci.* 30:7.
11. Jackson, J., K. Swiney, and S. M. Shuster. 1995. The effects of bopyrid parasite infection on sexual dimorphism in the mud shrimp, *Upogebia dawsoni* Williams (Decapoda: Thalassinoidea). *J. Ariz. Nevad. Acad. Sci.* 30: 6.
10. Kimberling, D., A. Ferreria, S. M. Shuster and P. Keim. 1995. Genetic variation among northern leopard frog (*Rana pipiens*) populations in Arizona and southern Utah. *J. Ariz. Nevad. Acad. Sci.* 30: 4-5.
9. Shuster, S. M. 1995. Measuring population subdivision in marine species: the importance of spatial scale. *J. Cell. Biochem.* 19B: 337.

8. Jackson, J. B. C., S. M. Shuster, A. H. Cheetham, and A. Herrera. 1993. Shifting Balance, founder events and bryozoan speciation. *Cong. Europ. Soc. Evol. Biol. IV*: 45.
7. Shuster, S. M. and P. M. Service. 1993. Population subdivision and considerations of scale. *Cong. Europ. Soc. Evol. Biol. IV*: 127.
6. Shuster, S. M. 1993. Female copying and sexual selection in a marine isopod crustacean (*Paracerceis sculpta*). *Cong. Europ. Soc. Evol. Biol. IV*: 132.
5. Shuster, S. M. 1990. Changes in female anatomy associated the reproductive molt in a semelparous marine isopod. *Amer. Zool.* 30: 125A.
4. Shuster, S. M. 1990. Female copying in a marine isopod. *Amer. Zool.* 30: 142A.
3. Baitoo, H., S. M. Shuster and C. Sassaman. 1988. Polymorphic male molting and growth schedules in a marine isopod crustacean. *Amer. Zool.* 28:134A.
2. Shuster, S. M. 1987. Female reproductive biology and the evolution of animal mating systems. *Amer. Zool.* 27: 29A.
1. Shuster, S. M. and R. L. Caldwell. 1982. Cavity defense by pairs in the stomatopod, *Gonodactylus bredini*. *Amer. Zool.* 22: 973.

Publications in Popular Liturature

- Shuster, S. M. 1994. Toebiters...or worse! *CEDO News* 15: 23-24.
Shuster, S. M. 1994. Cannonball jellyfish. *CEDO News* 16: 22-24.

Manuscripts in Preparation

- Rodriguez, E., Davis, G., R.Scott, P. Keim and S. M. Shuster. Molecular systematics of *Thermosphaeroma* isopods and calibration of a molecular clock. *Journal of Crustacean Biology*.
- Slobodchikoff, C. N. and S. M. Shuster. Genetic relatedness and the evolution of social behavior. *Evolution*.
- Shuster, S. M., A. L. Tuitupou & S. Parker. Female aggregations at breeding sites in a marine isopod crustacean: copying or cueing? *Anim. Behav.*
- Vuturo, S. & S. M. Shuster. Genetic population structure of a marine polychaete, *Ophiodromus pugettensis*. *Mar. Biol.*
- Shuster, S. M. & V. Jormalainen. Genetic variation in two species of endemic freshwater isopods, *Thermosphaeroma thermophilum* and *T. milleri* (Crustacea: Isopoda: Sphaeromatidae) *Heredity*.
- Shuster, S. M., Floate, K., E. Wiltenmuth and V. Gilbert. Explosive breeding aggregations in a melyrid beetle (Coleoptera: Melyridae).
- Shuster, S. M. and P. M. Service. Population subdivision and considerations of scale.
- Kimberling, D. N., T. A. Grudzien and S. M. Shuster. A comparison between allozyme and RAPD variation among northern leopard frog (*Rana pipiens*) populations in the southwest.

Membership in Professional Societies

American Association for the Advancement of Science
Animal Behavior Society (*ABS Secretary* 1999-2002)
Arizona-Nevada Academy of Science (*Chair, High School Science Fellowships Committee* 2000-present; *Regional Director, Northern Arizona* 2001-06)
The Crustacean Society

International Society for the Study of Invertebrate Reproduction
Society for the Study of Evolution
Western Society of Naturalists

Referee for Professional Publications (updated 09-12-12)

Journals: *Animal Behaviour* (15); *American Naturalist* (17); *Annales Zoologici Fennici* (1); *Behaviour* (2); *Behavioral Ecology and Sociobiology* (13); *Behavioral Ecology* (12); *Biodiversity and Conservation* (1); *Biological Bulletin* (2); *Biological Reviews* (2); *Canadian Journal of Zoology* (5); *Copeia* (1); *Ecology* (1); *Ecology Letters* (5); *Ecological Entomology* (1); *Ethology* (4); *Evolution* (17); *Evolution and Human Behavior* (2); *Functional Ecology* (1); *Invertebrate Biology* (3); *Genetica* (1); *Invertebrate Reproduction and Development* (3); *Kuwait Journal of Science and Engineering* (1); *Journal of Crustacean Biology* (1); *Journal of experimental Marine Biology and Ecology* (1); *Journal of Evolutionary Biology* (4); *Journal of Natural History* (1); *Marine Biology* (2); *Marine and Freshwater Physiology and Behavior* (1); *Nature* (14); *Nature Reviews Genetics* (1); *Philosophical Transactions of the Royal Society* (1); *Proceedings of the National Academy of Science* (5); *Proceedings of the Royal Society of London* (6); *Readers' Digest* (1); *Science* (6); *Trends in Ecology and Evolution* (3); *Trends in Genetics* (1); *Western North American Naturalist* (2); *Wildlife Biology* (2); *Wildlife Research* (1); *Zoological Science* (1).

Books: *The Liberal Art of Science*, 1990, AAAS; *Crustacean Sexual Biology*, 1991, R. Bauer & J. Martin, eds. *Quantitative Genetics and Animal Behavior* 1992, C. Boake, ed. *Invertebrate Zoology, 6th ed.*, 1994, R. D. Barnes & E. E. Ruppert. *Feminism and Evolutionary Biology*, 1997, P. A. Gowaty, ed. *Foundations of Parasitology*, 1996, 1998, L.S. Roberts & J. Janovy; *The Biology of Caridea*, 2001, R. S. Bauer; *Invertebrate Zoology, 7th Ed.*, 2001, 8th Ed, 2004; E.E. Ruppert R. S. Fox and R. D. Barnes. J. Alcock, *Animal Behavior*, 8th ed. 2005; M. Crump, *Headless Males Make Better Lovers*, J. Roughgarden, 2005, *Evolution's Rainbow. Diversity, Gender, and Sexuality in Nature and People*. M. Crump, 2006, *From Love to Murder: More Unusual Relationships and Natural Histories*; 2007: J. Mateo and D. Maestriperi, *Maternal Effects in Mammal*; M. Crump, 2008. *Sexy Orchids Make Poor Lovers*; P. W. Price 2008, *Insect Ecology*.

Grant proposals: National Science Foundation proposals reviewed by year: 1991: 4; 1992: 3; 1993: 1; 1994: 2; 1996: 2; 1997: 3; 1998: 3; 1999: 2; 2000: 2; Panel member Fall 2000; 2001: 4; 2002: 2; Panel member Fall 2002; 2003: 6; 2004: 6; 2005: 3; Panel member Spring 2006; 2006: 4; 2007: 6; 2008: 2; 2009: 4; 2010: 1; 2011: 6; Guggenheim Foundation (1997: 1); MacArthur Foundation (2000: 1); NSERC, Canada (1999: 1, 2000: 2; 2007: 1); NERC-UK (2007: 2); Austrian Academy of Science (2009: 1), Agence Nationale de la Recherche (France), 2012: 1.

Service to Professional Societies

2000-present Arizona-Nevada Academy of Sciences Chair, High School Science Fellowships Committee.
2002-07 Arizona-Nevada Academy of Sciences, Co-Director, Northern Arizona.
1999-02 Animal Behavior Society, Secretary, member Executive Committee.
1999-00 Arizona-Nevada Academy of Sciences; session chair at annual meetings.

- 1995 Coordinating Committee, 1996 Animal Behavior Society Meeting at Northern Arizona University, Flagstaff, AZ.
- 1992 Evolution, Berkeley, CA, session chair.
- 1991 Society for the Study of Evolution, Hilo, HI, session chair; Delegate, U.S.A. 22nd International Ethological Society meeting, Kyoto, Japan
- 1990 Animal Behavior Society, Binghamton, NY, session chair
- 1989 Animal Behavior Society, Highland Heights, KY, session chair
- 1988-89 AAAS Fellow, the Project on Liberal Education and the Sciences, Research Associate to John A. Moore, University of California, Riverside.
- 1987 American Society of Zoologists, New Orleans, LA, Co-chair, presented paper session

Departmental Service

- 2012-present Graduate Selection Committee, Department of Biological Sciences, NAU.
- 2009-11 Faculty Status Committee, Department of Biological Sciences, NAU
- 2006-present Collections Committee, Department of Biological Sciences, NAU.
- 2006 Promotion and Tenure Criteria Committee, Department of Biological Sciences, NAU.
- 2003-present Advisory Committee, Department of Biological Sciences, NAU.
- 2001-03 Faculty Status Committee, Department of Biological Sciences, NAU
- 2000-01 Academic Excellence Committee, Department of Biological Sciences
- 1999-2000 Advisory Committee, Department of Biological Sciences
- 1995-2005 Chair, Seminar Committee, Department of Biological Sciences, NAU
- 1996-97 Committee on Faculty Status, Department of Biological Sciences, NAU
- 1992-95 Student Advising Committee, Department of Biological Sciences, NAU.
- 1992-95 Facilities Committee, Department of Biological Sciences, NAU.
- 1991-92 Seminar Committee, Department of Biological Sciences, NAU.

University Service

- 2011-present Dissertation Defense Subcommittee; Graduate College.
- 2010-present Executive Committee, Merriam-Powell Center for Environmental Research
- 2010 Office of Vice President for Research, Hooper Undergraduate Research Panelist
- 2007-08 Office of Vice President for Research, Internal Grant Proposal Panelist.
- 1993-96 University Student-Athlete Advising Committee, NAU.
- 1994 President's Environmental Scan Committee, Presentation: University Planning Retreat, July 1994.
- 1992-94 Faculty Senate, Northern Arizona University; Student Policy Committee, Chair, 1993-94.

Other Professional Service

- 1999-present Research Board, Centro Intercultural de Estudios de Desiertos y Océanos, (CEDO) in Puerto Peñasco, Sonora, Mexico.
- 1998-present Scientific Research Board, Prescott College Kino Bay Marine Laboratory in Kino Bay, Sonora Mexico.

Flagstaff Community Service

- 2011-present Site Council, Mount Elden Middle School.
- 2007- 11 Site Council, Eva Marshall Elementary School.
- 2007-09 Arts Council, Eva Marshall Elementary School.
- 2007 Principal Search Committee, Eva Marshall Elementary School.