

MICHAEL JOSEPH RYAN

Clark Hubbs Regents Professor in Zoology

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Education:

1977-1982	Cornell University, Neurobiology and Behavior	Ph.D.
1975-1977	Rutgers University, Zoology	M.S.
1971-1975	Glassboro State College, Biology	B.A.

Academic Honors and Awards:

2008	Joseph Grinnell Medal, Museum of Vertebrate Zoology, Univ. Calif., Berkeley
2007	Exemplar Award, Center for Integrative Studies in Animal Behavior, Univ. Indiana
2007	President-elect, <i>Animal Behavior Society</i>
2007	Selected as one of "25 Leaders in Animal Behavior" for forthcoming book
2006	Fellow of the Animal Behavior Society
2001	Outstanding Academic Title (Choice Magazine) for <i>Anuran Communication</i> , ed. by M.J. Ryan
2001	Fellow of the American Academy of Arts and Sciences
1997	Guggenheim Fellow
1997	Visiting Scholar, University of California, Berkeley
1997	Distinguished Visiting Professor, James Cook University, Townsville, Australia
1996	Distinguished Visiting Professor, University of Torino, Italy
1995	Distinguished Herpetologist, Herpetologists' League
1994	Erskine Fellow, University of Canterbury, Christchurch, New Zealand
1994	Distinguished Visiting Animal Behaviorist, University of Nebraska, Lincoln
1993-date	Clark Hubbs Regents Professor in Zoology, University of Texas, Austin
1993	Visiting Distinguished Professor, University of Miami, Miami
1989	Visiting Professor, Wake Forest University

1985-1987, 1990-1991	Reeder Fellowship in Ecology and Evolution, University of Texas, Austin
1985	Young Investigator Award, American Society of Naturalists
1982-1984	Miller Fellow, University of California, Berkeley
1981	Herpetologists' League Award, "Best Student Paper" - Evolution Category, Memphis, Tennessee
1980	Stoye Award, American Society of Ichthyologists & Herpetologists, "Best Student Paper" (Ecology, Ethology, Evolution), Fort Worth, Texas
1978	Herpetologists' League Award, "Best Student Paper", Tempe, Arizona
1975	Outstanding Biology Student Medallion, Glassboro State College

Academic Positions:

1982-date	Research Associate, Smithsonian Tropical Research Institute, Balboa, Panama
1993-1999	Graduate Advisor, Department of Zoology, University of Texas, Austin
1993-date	Clark Hubbs Regents Professor in Zoology
1993-date	Professor of Zoology, University of Texas, Austin
1988-1993	Associate Professor of Zoology, University of Texas, Austin
1984-1988	Assistant Professor of Zoology, University of Texas, Austin
1982-1984	Miller Fellow, University of California, Berkeley

Professional Activities:

2008	External review committee, Department of Biology, Texas A&M
2007-2008	President-elect, <i>Animal Behavior Society</i>
2007	Organizer, <i>Winter Animal Behavior Conference</i>
2007	External review committee, Department of Biology, University of Cincinnati
2006-date	Oversight Committee, Department of Organismic and Evolutionary Biology, Harvard University
2006- date	Editorial Board, <i>Journal of Experimental Zoology Part A: Comparative Experimental Biology</i>
2004-2007	Associate Board, <i>The American Naturalist</i>
2003-date	Advisory Committee, Department of Ecology and Evolution, Columbia University, New York, New York.
2003-date	Advisory Board, <i>Interaction Studies: Social Behaviour and Communication in Biological and Artificial Systems</i>
2002-2005	Editorial Board, <i>Annual Review of Ecology and Systematics</i>
2001	External review, School of Biological Sciences, University of California, Irvine
1997-1999	Editorial Board, <i>Behavioral Ecology and Sociobiology</i>
1997-2000	Editorial Board, <i>Evolution of Communication</i>
1994-1997	Secretary, <i>Society for the Study of Evolution</i>

1998	External review, Department of Biology, university of Minnesota
1993-1998	Board of Governors, <i>American Society of Ichthyologists and Herpetologists</i>
1993-1996	Associate Editor, <i>Evolution</i>
1988-1992	Council of the <i>Herpetologists League</i>
1986-1991	Board of Governors, <i>American Society of Ichthyologists and Herpetologists</i>

Research Grants and Fellowships:

2006-2010	National Science Foundation: Eavesdroppers and signal evolution (sole PI)
2005-2006	National Science Foundation- cDNA microarray for studies of sexual communication (sole PI)
2006-2008	National Science Foundation- The role of multimodal cue assessment in sexual selection (PI; R. Taylor, Co-PI)
2005-2010	National Science Foundation- Neural basis for elaborate male traits (Co-PI; S. Burmeister, PI)
2002-2004	Texas Applied Research Program- Ultraviolet communication in swordtails (sole PI)
2001-2002	National Science Foundation- Ultraviolet communication in swordtails (sole PI)
2001-2005	National Science Foundation- The phylogenetic and functional integration of complex phenotypes regulating social/reproductive interactions (IRCEB) (Co-PI; D. Cannatella PI; W. Wilczynski Co-PI)
2000-2004	National Science Foundation- The evolution of acoustic signals of frogs (Co-PI; D. Cannatella PI; D. Hillis Co-PI)
1998-2001	National Science Foundation- Historical effects on the evolution of female mating preferences (PI; A.S. Rand Co-PI)
1998-1999	Smithsonian Institution Scholarly Studies Program - The evolution of female mating preferences in the túngara frog (Co-PI; A.S. Rand PI)
1998-1999	NATO- Maintenance of female sexual preferences in the unisexual molly (Co-PI; J. Páezfal, PI)
1996-1999	National Science Foundation- Fish TV: Unraveling the effects of female preferences on correlated characters in pygmy swordtails. (sole PI)
1995-1997	National Institute of Mental Health- Neuroethology of social communication. (Co-PI; W. Wilczynski PI)
1995-1996	Smithsonian Institution Scholarly Studies Program- The evolution of communication in frogs of the genus <i>Physalaemus</i> . (Co-PI; D. Cannatella Co-PI, A. Cardoso Co-PI; A.S. Rand PI)
1994-1998	National Science Foundation- The evolution of female mating preferences in the túngara frog (PI; A.S. Rand Co-PI)
1994-1995	Smithsonian Institution Scholarly Studies Program- The evolution of female mating preferences in the túngara frog (Co-PI; A.S. Rand PI)
1994	University Research Institute (Univ. Texas)- Video animation in studies of sexual selection. (sole PI)
1993-1994	National Science Foundation- The evolution of female mating preferences in swordtails.

- (sole PI)
- 1991-1994 National Science Foundation- Microevolution of acoustic communication in the cricket frog (PI; W. Wilczynski, Co-PI)
- 1991 National Institute of Mental Health Symposium Grant- American Society of Zoology Symposium- Mechanisms of mate choice (Co-PI; W. Wilczynski, PI)
- 1990 University Research Institute (Univ. Texas). Faculty Research Leave- Sexual selection and communication in the *Physalaemus pustulosus* species group. (sole PI)
- 1990 University Research Institute (Univ. Texas)- Sexual selection and communication in the *Physalaemus pustulosus* species group. (sole PI)
- 1989 National Geographic Society- Biogeography of body size polymorphism in *Xiphophorus nigrensis*. (sole PI)
- 1988-1989 Smithsonian Institution Scholarly Studies Program- The sensory basis of sexual selection (Co-PI; A.S. Rand, PI)
- 1987 University Research Institute (Univ. Texas)- Sexual selection and sound localization in the túngara frog. (sole PI)
- 1987 Smithsonian Institution Visiting Researcher Fellowship- Sexual selection and sound localization in the túngara frog. (sole PI)
- 1986 University Research Institute (Univ. Texas)- Sexual selection in swordtails (*Xiphophorus*). (sole PI)
- 1986-1989 National Science Foundation- Microevolution of acoustic communication in the cricket frog (PI; W. Wilczynski, Co-PI)
- 1985 University Research Institute (Univ. Texas)- Environmental bioacoustics in anurans
- 1985 Texas - Peru Partnership (Washington D.C.)- Field collection of bats (*Trachops cirrhosus*) for studies of sound localization (PI; G. Pollak Co-PI).
- 1985 University Research Institute (Univ. Texas)- Acoustical foraging in an Australian bat. (sole PI)
- 1984 University Research Institute (Univ. Texas)- Sound localization in non-tympanic frogs. (sole PI)
- 1983 National Geographic Society- Environmental influences on the evolution of frog vocalizations. (sole PI)
- 1983 National Geographic Society- Bat-frog interactions in Africa (Co-PI, M. Tuttle PI)
- 1982 American Philosophical Society- Synchronized calling in a Neotropical treefrog: mechanisms and evolution. (sole PI)
- 1981-1982 National Institute of Mental Health traineeship- Animal communication and neurophysiology
- 1981 National Geographic Society- Bat-frog interactions (PI, M. Tuttle Co-PI)
- 1979-1980 Smithsonian Institution Predoctoral Fellowship- Sexual selection and communication in a Neotropical frog.
- 1979-1980 National Science Foundation Doctoral Dissertation Improvement Grant- Sexual selection and communication in a Neotropical frog
- 1979 Gaige Fund, American Society of Ichthyologists and Herpetologists- Sexual selection and communication in a Neotropical frog. (sole PI)

- 1979 Sigma Xi, Cornell Univ. chapter- Sexual selection and communication in a Neotropical frog. (sole PI)
1978 Graduate Student Research Appointment, Smithsonian Institution- Sexual selection and communication in a Neotropical frog.
1978 Smithsonian Institution Scholarly Studies Program- Lizard thermoregulation. (sole PI)
1975 Theodore Roosevelt Memorial Fund, American Museum of Natural History- Reproductive behavior of the bullfrog. (sole PI)

Teaching Experience:

University of Texas, Austin

- 2008 Graduate Seminar: Principles of Brain Evolution
2006 Graduate Seminar: Sexual Conflict
2005-2008 Introduction to Ecology, Evolution and Behavior
2002 Graduate Seminar- Recognition Mechanisms in Plants and Animals
2001 Graduate Seminar- Sensory Ecology
2000 Graduate Seminar- Cognition, Evolution and Behavior
1997 Graduate Seminar- Human Language and Animal Communication
1993, 1995 Behavioral Ecology
1992 Graduate Seminar- Evolution of Behavior
1990-1994, Animal Behavior
1996, 1998,
1999
1989, 1993, Herpetology
1997
1987-1988 Graduate Seminar- Advanced Topics in Animal Behavior
1994
1986 Graduate Seminar- Graduate Student Seminar in Ecology
1985, 1987, Animal Communication
1991, 1996
1998, 2001-
2008
1985-1988 Vertebrate Natural History
1984 Ecology, Evolution and Society (non-majors)

Other

- 1983 Graduate seminar- Sexual Selection Theory, University of California, Berkeley
1977-1979 Teaching assistant- General Biology, Cornell University
1976-1977 Teaching assistant- General Biology, Rutgers University
1975 Student teacher- General Biology, Glassboro High School, New Jersey
1975 Dual certification- Biology high school, Science high school, New Jersey

Invited Lectures:

2008- Harvard University, Cambridge, Massachusetts (Department of Evolution and Organismic Biology); Smithsonian Tropical Research Institute, Balboa, Panama; Texas A&M (Department of Biology), College Station; Winter Animal Behavior Conference, Steamboat Springs, Colorado

2007—University of Massachusetts, Amherst (Biology Department); University of Kansas, Lawrence (Department of Ecology and Evolutionary Biology); Winter Animal Behavior Conference, Steamboat Springs, Colorado; Barro Colorado Island, Smithsonian Tropical Research Institute, Panama; Department of Biology, Florida State University, Tallahassee; Department of Biology, Indiana University, Bloomington, Indiana; Department of Ecology & Evolution, University of California, Los Angeles; Winter Animal Behavior Conference, Steamboat Springs, Colorado; Department of Biology, University of North Carolina, Chapel Hill; Department of Ecology, Evolution and Behavior, University of Minneapolis, St. Paul

2006— Boston University (Biology Department), Boston, Massachusetts; University of Memphis, (Biology Department), Memphis, Tennessee; University of Montana, (Biology Department), Missoula, Montana; Institute in Neuroscience, Princeton University, Princeton, New Jersey; Purdue University (Biology Department), West Lafayette, Indiana; Winter Animal Behavior Conference, Steamboat Springs, Colorado

2005— Columbia University (Dept. Ecology and Evolution) New York, New York; University of California, Berkeley (Dept. Integrative Biology), Berkeley, California

2004— Bucknell University (Biology Dept.), Lewisburg, Pennsylvania; Max Plank Institute, Plön Germany; Trinity University (Biology Dept.), San Antonio, Texas; University of Washington (joint Biology and Psychology Depts.), Seattle, Washington; University of Alberta (Psychology Depts.), Edmonton, Canada; Winter Animal Behavior Meetings, Breckenridge, Colorado

2003— Georgia State University (Neuroscience Group), Athens, Georgia; University of Florida, (Dept. of Zoology), Gainesville, Florida; University of Texas (Artificial Intelligence Group, Computer Sciences Dept.), Austin Texas; University of Louisiana (Dept. of Biology), Lafayette, Louisiana

2002— Virginia Tech University (Biology Dept.), Blacksburg, Virginia; University of Zurich (Biology Dept.), Zurich, Switzerland; Cornell University (Dept. of Ecology and Evolution), Ithaca, New York; McMaster University (Dept. of Psychology), Toronto, Canada

2001— Simon Fraser University (Dept. of Ecology and Evolution), Vancouver, Canada; Smithsonian Tropical Research Institute, Balboa, Panama; University of California- Los Angeles (Behavioral Ecology Symposium Series), Los Angeles, California; University of Tennessee (Dept. of Ecology, Evolution and Behavior), Knoxville, Tennessee; University of Wurzburg (Biocentrum), Wurzburg,

Germany

2000— University of California- Davis (Animal Behavior Program), Davis, California; University of California (Depts. of Psychology and Ecology & Evolution), La Jolla, California; University of California (Dept. of Ecology, Evolution and Marine Biology), Santa Barbara, California; University of Pittsburgh (Dept. of Biological Sciences), Pittsburgh, Pennsylvania; Florida International University (Dept. of Biology), Miami, Florida; Michigan State University (Dept. of Zoology), East Lansing, Michigan; Southwestern University (Biology Dept.), Georgetown, Texas; Texas A&M (Dept. of Fisheries and Wildlife) College Station, Texas

1999— Baylor University (Biology Dept.), Waco, Texas; Institute of Science (Biology Dept.), Bangalore, India; University of Arizona (Dept. of Ecology and Evolution), Tucson, Arizona; Harvard University (Dept. of Organismal and Evolutionary Biology), Cambridge, Massachusetts; University of Maryland (Dept. of Biology), College Park, Maryland; University of North Carolina (Dept. of Zoology), Chapel Hill, North Carolina

1998— Arizona State University (Biology Dept.), Phoenix, Arizona; Indiana University (Center for Integrative Studies in Animal Behavior), Bloomington, Indiana; University of Texas (Nonlinear Dynamics Group, Physics Dept.), Austin, Texas; University of Texas (Biology Dept.), Brownsville, Texas

1997— Cairns University (Biology Dept.), Cairns, Australia; James Cook University (Dept. of Zoology and Tropical Biology), Townsville, Australia; University of California- Davis (Center for Animal Behavior), Davis, California; University of California- Berkeley (Museum of Vertebrate Zoology), Berkeley, California; University of Chicago (Dept. of Ecology and Evolution), Chicago, Illinois; University of Oregon (Dept. of Zoology), Corvallis, Oregon

1996— University of Chicago (Dept. of Ecology and Evolutionary Biology), Chicago, Illinois; Museo Specola, University of Florence, Florence, Italy

1995— Michigan State University (Kellog Biological Station), Hickory Corners, Michigan; Southeastern Louisiana University (Dept. of Biology), Hammond, Louisiana; University of Washington (Dept. of Biology), St. Louis, Missouri

1994— University of Canterbury (Dept. of Zoology), Christchurch, New Zealand; Florida State University (Dept. of Biological Sciences), Tallahassee, Florida; University of Otago (Dept. of Zoology), Dunedin, New Zealand; Royal Society of New Zealand, Christchurch, New Zealand; University of Texas (Dept. of Zoology), Arlington, Texas; University of Utah (Biology Dept.), Salt Lake City, Utah

1993— State University of New York (Dept. of Biological Sciences), Albany, New York; University of Houston (Biology Dept.), Houston, Texas; Universidad Automico de Mexico (Centro de Ecologia), Mexico City, Mexico; University of Washington (Zoology Dept.), Seattle, Washington

1992— Cornell University (Section of Neurobiology and Behavior), Ithaca, New York; University of California- Davis (Animal Behavior Program) Davis, California; University of North Carolina (Biology Dept.), Chapel Hill, North Carolina; University of Toronto (Biology Dept.), Toronto, Ontario

1991— Smithsonian Tropical Research Institute, Balboa, Panama; University of Basil (Zoology Institute), Basil, Switzerland; University of Bern (Zoology Institute), Bern, Switzerland; Marine Science Institute, University of Texas, Port Aransas, Texas; University of Zurich (Zoology Institute), Zurich, Switzerland

1990— Harvard University (Organismal and Evolutionary Biology Dept.), Cambridge, Massachusetts; Princeton University (Biology Dept.), Princeton, New Jersey; Universidad de Católica (Biology Dept.), Quito, Ecuador

1989— Duke University (Zoology Dept.), Durham, North Carolina; Memphis State University (Zoology Dept.), Memphis, Tennessee; Rhodes College (Biology Dept.), Memphis, Tennessee; University of Wyoming (Zoology Dept.), Larimie, Wyoming; Wake Forest University, Winston-Salem, North Carolina

1988— Arizona State University (Zoology Dept.), Tempe, Arizona; Creighton University (Biology Dept.), Omaha, Nebraska; Kansas State University (Zoology Dept.), Manhattan, Kansas; Max Planck Institute, Seeweisen, West Germany; University of Missouri (Biology Dept.), Columbus, Missouri; Texas Christian University (Biology Dept.), Dallas, Texas.

1987— Baylor University (Biology Dept.), Waco, Texas; National Institutes of Health (Brain Evolution and Behavior Section), Poolesville, Maryland; University of California- Santa Barbara (Dept. of Biological Sciences), Santa Barbara, California; University of Kentucky (Zoology Dept.), Lexington, Kentucky; University of Oklahoma (Zoology Dept.), Norman, Oklahoma; Smithsonian Tropical Research Institute, Balboa, Panama; State University of New York (Biology Dept.), Stony Brook, New York

1986— Princeton University (Biology Dept.), Princeton, New Jersey; University of California- Riverside (Biology Dept.), Riverside, California; University of Munich (Zoology Institute), Munich, West Germany; Technical University of Munich (Zoology Institute), Munich, West Germany

1985— Harvard University (Biology Dept.), Cambridge, Massachusetts; Rice University (Biology Dept.), Houston, Texas; Savannah River Ecology Lab, Aiken, South Carolina

1984— California Academy of Sciences, San Francisco, California; Cambridge University (Sub-dept. Animal Behaviour), Cambridge, England; University of California- Berkeley, (Museum of Vertebrate Zoology), Berkeley, California; University of Washington (Zoology Dept.), Seattle, Washington; University of Kansas (Museum of Natural History), Lawrence, Kansas; University of Houston (Biology

Dept.), Houston, Texas

1983— San Francisco State University (Biology Dept.), San Francisco, California; Sonoma State University (Biology Dept.), Rohnert Park, California; University of California- Davis (Zoology Dept.), Davis, California; University of Chicago (Biology Dept.), Chicago, Illinois; University of Illinois (Dept. Ecology, Ethology, Evolution), Urbana, Illinois; University of Missouri (Biology Dept.), Columbia, Missouri

1982— Arizona State University (Zoology Dept.), Tempe, Arizona; Cornell University (Neurobiology and Behavior), Ithaca, New York; University of California- Berkeley (Zoology Dept.), Berkeley, California; University of California- Berkeley (Museum of Vertebrate Zoology), Berkeley, California; University of California- Los Angeles (Biology Dept.), Los Angeles, California; University of Texas- Austin, (Zoology Dept.), Austin, Texas

1981— National Zoological Park, Washington, D.C.; Rockefeller University Field Research Center, Millbrook, New York; Rutgers University (Zoology and Physiology Dept.), Newark, New Jersey; Rutgers University (Institute of Animal Behavior), Newark, New Jersey; Syracuse University (Biology Dept.), Syracuse, New York

1980— Audubon Society, Balboa, Panama; Cornell University (Neurobiology and Behavior), Ithaca, New York; Sienna College (Biology Dept.), Albany, New York; Smithsonian Tropical Research Institute, Balboa, Panama; State University of New York- Albany (Biology Dept.), Albany, New York; U.S. National Museum of Natural History, Washington, D.C.

Plenary/Distinguished Lectures, Invited Symposia, and Workshops:

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| 2008 | <i>Plenary Lecture, VII Latin American Herpetological Congress</i> , Havana, Cuba |
| 2008 | <i>Integrative Studies in Animal Communication</i> , International Congress in Zoology, Paris, France |
| 2008 | <i>Information and Representation in Signaling using Sound</i> , Center for Behavioral Neuroendocrinology, Atlanta |
| 2008 | <i>Dean's Scholars Lecture</i> , University of Texas, Austin |
| 2008 | <i>Signature Lecture</i> , University of Texas, Austin |
| 2008 | <i>Grinnell Medal Lecture</i> , University of Californian, Berkeley |
| 2008 | <i>Sinauer Lecture</i> , University of Massachusetts, Amherst |
| 2007 | <i>Keynote Address</i> Konnevesi Research Retreat, Univesirty of Javaskala, Finalnd |
| 2007 | <i>Keynote Address BENELUX Zoological Congress</i> , Amsterdam, The Netherlands |
| 2007 | <i>Keynote Address 10th Annual Biology Research Symposium</i> , University of California, Los Angeles, California |
| 2007 | <i>Keynote Address, Center for Integrative Studies in Animal Behavior Symposium</i> , University of Indiana, Bloomington, Indiana |
| 2006 | <i>Symposium-- Sensory Ecology</i> , Animal Behavior Society, Snowbird, Utah |
| 2004 | <i>Symposium-- Sexual Selection in Túngara Frogs</i> , Animal Behavior Society, Oaxaca, |

- 2004 Mexico (symposium organizer)
2004 *Plenary Lecture: Phylogenies and Behavior*, Association for the Study of Animal Behaviour, London
- 2004 *Allen L. Edwards Endowed Lectureship in Psychology*, University of Washington, Seattle
- 2004 *Distinguished Scholar Lecture Series in Psychology*, University of Alberta, Canada
- 2003 *The Swordtail Alphabet: From P to U to V. First European Meeting of Poeciliid Biologists*, Zurich, Switzerland
- 2003 *Perspective in Biology*, Wake Forest University, Winston-Salem, North Carolina
- 2003 *Tinbergen Symposium*. Leiden, The Netherlands
- 2002 *Lang Memorial Lecture in Neuroscience*. Woods Hole, Massachusetts
- 2001 *CAST: A Science Odyssey (Science Teachers Association of Texas)*
- 2001 *University of Texas Outreach Lecture Series: Sexual Selection*. Austin, Texas
- 2000 *A Symposium in Honor of W.D. Hamilton*. University of California, Berkeley
- 2000 *Eminent Biologist Lecture Series*. Carnegie Museum, Pittsburgh, Pennsylvania
- 2000 *Annual Darwin Lecture*. University of Calgary, Calgary, Canada
- 1999 *Plenary Lecture: The Ethology and Evolution of Female Mating Preferences*, International Ethological Congress, Bangalore, India
- 1999 *Plenary Lecture: Reproductive Behavior in Anurans*, International Ethological Congress, Bangalore, India
- 1998 *Recent Advances in Anuran Communication, Herpetologists' League*, Guelph, Ontario (symposium organizer)
- 1997 *Sexual Selection and Phylogenetics*, Animal Behavior Society, College Park, Maryland (with D. McLennan)
- 1996 *Experimental Approaches to Evolution*, Japanese Research Development Corporation, Tokyo, Japan
- 1996 *Associates Meeting*, Institute of Neurosciences, La Jolla, California
- 1995 *Recognition: from Cell to Species*. Research NSF Training Grant Workshop, University of California, Davis, California
- 1995 *Distinguished Ecologist Lecture*. Louisiana Ecology Consortium. Hammond, Louisiana
- 1995 *Distinguished Herpetologist Lecture*. Herpetologists' League, Edmonton, Canada
- 1995 *Plenary Lecture: Historical Studies of Communication Systems*. (European) Animal Behavior Society, Leiden, The Netherlands
- 1995 *Gompertz Lecture*. Department of Integrative Biology, University of California, Berkeley
- 1994 *Phylogenetics in the Study of Behavior*. Animal Behavior Society, Seattle, Washington
- 1994 *Cognitive Ethology*. Animal Behavior Society, Seattle, Washington
- 1994 *Distinguished Animal Behaviorist Lecture*. Nebraska Behavioral Biology Group, Omaha, Nebraska
- 1993 *Sexual Selection in Ectotherms* (organizer). American Society of Ichthyologists and Herpetologists, Austin, Texas
- 1993 *Biology of Latin American Fishes*. American Society of Ichthyologists and

- Herpetologists, Austin, Texas
- 1993 *Short Course on Anuran Reproductive Behavior*. Latin American Herpetology Congress, Campinas, Brazil
- 1993 *Plenary Lecture: Why We Should Know More not Less Biology when Studying Behavioral Adaptations*. Second World Congress of Herpetology, Adelaide, Australia
- 1992 *Molecular Genetics and Evolution: Speciation*. American Society for the Advancement of Science, Chicago, Illinois
- 1992 *The Evolution and Design of Animal Signaling Systems*. The Royal Society, London, England
- 1992 *Behavioural Mechanisms in Evolutionary Perspective*. Instituto Juan March de Estudios e Investigaciones, Madrid, Spain
- 1991 *Sewall Wright Lecture*. Department of Biology, University of Chicago.
- 1991 *The Evolution of Geographic Variation in Behavior*. Animal Behavior Society, Wilmington, North Carolina
- 1991 *Species and Speciation*. Linnean Society, Cardiff, England
- 1991 *Plenary Lecture: Sexual Selection and Mating Systems*. International Ethological Congress, Kyoto, Japan
- 1990 *Does Sensory Biology Bias or Constrain the Direction of Evolution?* Vice Presidential Symposium, American Society of Naturalists, College Park, Maryland
- 1990 *The Role of Systematics in Behavior*. Society for the Study of Evolution, College Park, Maryland
- 1990 *Plenary Lecture: Sensory Systems and Sexual Selection*. Third International Conference of Behavioral Ecology, Uppsala, Sweden
- 1990 *Mechanisms of Mate Choice*. American Society of Zoologists, San Antonio, Texas
- 1989 *Sexual Selection and Communication in Amphibians and Reptiles*. International Herpetological Congress, Canterbury, England
- 1989 *Systematics and Phylogeny*. International Herpetological Congress, Canterbury, England
- 1988 *New Trends in Ichthyology*. Munich, West Germany
- 1986 *Energetic Constraints and Animal Behavior*. American Society of Zoologists, Nashville, Tennessee
- 1986 *The Evolution of the Amphibian Auditory System*. Bielefeld, West Germany
- 1985 *Common Principles in the Neuroethology of Acoustic and Electric Communication*. International Society of Neuroethology, Austin, Texas
- 1985 *Loftus-Hills Symposium*. American Society of Naturalists, Chicago, Illinois
- 1984 *Bioacoustics*. American Association for the Advancement of Science- Western Region, San Francisco, California
- 1983 *Acoustic Behavior of Anurans*. XVIIIth International Ethological Congress, Brisbane, Australia
- 1982 *The Ecology of Animal Communication*. Northeast Regional Animal Behavior Society, Boston, Massachusetts
- 1979 *Behavior, Ecology and Evolution of Iguanine Lizards*. Society for the Study of Amphibians and Reptiles, Knoxville, Tennessee

Reviewer for:

journals: American Naturalist, Animal Behaviour, Biological Journal of the Linnean Society, Copeia, Ecology, Evolution, Herpetologica, Journal of Herpetology, Nature, Oxford University Press, Philosophical Transactions of the Royal Society, Princeton University Press, Proceedings of the National Academy of Sciences, Science, Systematic Zoology, University of Chicago Press

granting institutions: National Science Foundation, National Geographic, Smithsonian Institution Scholarly Studies Program

prizes: AAAS- Cosmos Prize (government of Japan); Cleveland Prize (American Association for the Advancement of Science); Craawford Prize (government of Sweden)

Research Interests:

Evolution and Mechanisms of Animal Behavior, especially Animal Communication and Sexual Selection

Publications:

Research Papers:

1. Ryan, M.J. 1978. A thermal property of the *Rana catesbeiana* (Amphibia, Anura, Ranidae) egg mass. *Journal of Herpetology* 12:295-297.
2. Ryan, M.J. 1978. Mirror image versus conspecific stimulation in adult male zebra finches. *Wilson Bulletin* 90:295-297.
3. Ryan, M.J. 1978. Parental care in salamanders. *Bulletin of the New York Herpetological Society* 13:23-27.
4. Anderson, J.D.; Hawthorne, K.; Galandak, J.; Ryan, M. 1978. A report on the endangered reptiles and amphibians of New Jersey. *Bulletin of the New Jersey Academy of Science* 23:26-33.
5. Prieto, A.A; Ryan, M.J. 1978. Some observations on the social behavior of the Arizona chuckwalla, *Sauromalus obesus tumidus* (Reptilia, Lacertilia, Iguanidae). *Journal of Herpetology* 12:327-336.
6. Ryan, M.J. 1980. Female mate choice in a Neotropical frog. *Science* 209:523-525.
7. Ryan, M.J. 1980. The reproductive behavior of the bullfrog, *Rana catesbeiana*. *Copeia* 1980:108-114.

8. Ryan, M.J.; Tuttle, M.D.; Taft, L.K. 1981. The costs and benefits of frog chorusing behavior. *Behavioral Ecology and Sociobiology* 8:273-278.
9. Barclay, R.M.R.; Fenton, B.; Tuttle, M.D.; Ryan, M.J. 1981. Echolocation calls produced by *Trachops cirrhosus* (Chiroptera: Phyllostomatidae) while hunting for frogs. *Canadian Journal of Zoology* 59:750-753
10. Rand, A.S.; Ryan, M.J. 1981. The adaptive significance of a complex vocal repertoire in a Neotropical frog. *Zeitschrift fur Tierpsychologie* 57:209-214.
11. Tuttle, M.D.; Ryan, M.J. 1981. Bat predation and the evolution of frog vocalizations in the Neotropics. *Science* 214:677-678.
12. Ryan, M.J. 1982. Variation in iguanine social organization: mating systems in chuckwallas (*Sauromalus*). In: G. Burghardt, A.S. Rand, editors, *Iguanas of the World: Their Behavior, Ecology and Conservation*. pp. 380-390. Noyes Press, Park Ridge, New Jersey.
13. Ryan, M.J.; Tuttle, M.D.; Rand, A.S. 1982. Sexual advertisement and bat predation in a Neotropical frog. *American Naturalist* 119:136-139.
14. Bucher, T.L.; Ryan, M.J.; Bartholomew, G.W. 1982. Oxygen consumption during resting, calling and nest building in the frog *Physalaemus pustulosus*. *Physiological Zoology* 55:10-22.
15. Tuttle, M.D.; Ryan, M.J. 1982. The roles of synchronized calling, ambient noise, and ambient light in the anti-bat-predator behavior of a treefrog. *Behavioral Ecology and Sociobiology* 11:125-131.
16. Tuttle, M.D.; Taft, L.K.; Ryan, M.J. 1982. Acoustical location of calling frogs by philander opossums. *Biotropica* 13:233-234.
17. Tuttle, M.D.; Taft, L.K.; Ryan, M.J. 1982. Evasive behaviour of a frog in response to bat predation. *Animal Behaviour* 30:393-397.
18. Ryan, M.J. 1983. Frequency modulated calls and species recognition in a Neotropical frog. *Journal of Comparative Physiology* 150:217-221.
19. Ryan, M.J. 1983. Sexual selection and communication in a Neotropical frog, *Physalaemus pustulosus*. *Evolution* 39:261-272.
20. Ryan, M.J.; Bartholomew, G.W.; Rand, A.S. 1983. Reproductive energetics of a Neotropical frog, *Physalaemus pustulosus*. *Ecology* 64:1456-1462.
21. Ryan, M.J.; Tuttle, M.D. 1983. The ability of the frog eating bat to distinguish among palatable and potentially poisonous prey using acoustic cues. *Animal Behaviour* 31:827-833.

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