MICHAEL JOSEPH RYAN

Clark Hubbs Regents Professor in Zoology, University of Texas

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Education:

1982-1984	Miller Fellow, University of California, Berkeley	Postdoc
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:

2022	*Mike Ryan Fellowship Endowment,* Smithsonian Tropical Research Institute (endowed by Drs. Doug and Susan Morrison)
2017	*Distinguished Animal Behaviorist*, Animal Behavior Society
2013	*Eminent Ecologist*, Kellogg Biological Station, Michigan State University
2012	*Fellow of the American Association for the Advancement of Science*
2011	*Fellow Wissenschaftskolleg* (Institute for Advanced Studies), Berlin
2011	College of Natural Sciences *Teaching Excellence Award*, University of Texas
2011	ING *Professor of Excellence*, University of Texas
2010	*E.O. Wilson Naturalist Award,* American Society of Naturalists
2008	*Joseph Grinnell Medal*, Museum of Vertebrate Zoology, Univ. Calif., Berkeley
2007	*Exemplar Award*, Center for Integrative Studies in Animal Behavior, Indiana U.
2007	Presidential sequence, *Animal Behavior Society*
2007	Selected as one of 25 "*Leaders in Animal Behavior*" (Cambridge Univ. Press. 2010)
2006	*Fellow of the Animal Behavior Society*
2001	*Outstanding Academic Title* (Choice Magazine) *Anuran Communication* (ed. 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:

2020-2023	Associate Chair for Graduate Education, Department of Integrative Biology, University of Texas, Austin
2019-2022	Graduate Advisor, Ecology, Evolution and Behavior Program, University of Texas, Austin
2010-date	Senior Research Associate, Smithsonian Tropical Research Institute, Balboa, Panama
1993-date	Clark Hubbs Regents Professor in Zoology
2000-date	Professor, Department of Integrative Biology, University of Texas, Austin
1993-2000	Professor, Department of Zoology, University of Texas, Austin
1993-1999	Graduate Advisor, Department of Zoology, University of Texas, Austin
1988-1993	Associate Professor, Department of Zoology, University of Texas, Austin
1984-1988	Assistant Professor, Department of Zoology, University of Texas, Austin
1982-1984	Miller Fellow, University of California, Berkeley
1982-2010	Research Associate, Smithsonian Tropical Research Institute, Balboa, Panama

Professional Activities:

2022-date	Vice Chairman- Board of Directors, *Merlin Tuttle's Bat Conservation*
2020-2022	Scientific Advisory Board (Chair), *Max Planck Institute for Ornithology*, Seeweisen, Germany (continuous since 2011, see below)
2018-2020	Scientific Advisory Board (Chair), *Max Planck Institute for Ornithology*, Seeweisen, Germany
2017	Organizing Committee, *XXVI International Bioacoustics Council*, Uttarakhand, India

2016	Organizing Committee, *8th World Congress of Herpetology*, Hangzhou, China
2014-2021	Board of Directors, *Merlin Tuttle's Bat Conservation*
2014-2017	Scientific Advisory Board, *Max Planck Institute for Ornithology*, Seeweisen, Germany
2013	External review committee, Biology Department, Indiana University
2012	External review committee, Biology Department, University of Kentucky
2012	National Science Foundation Panel
2012	Guest Editor, *Proceedings of the National Academy of Sciences*
2011	co-organizer National Science Foundation workshop- *The Future of Animal Behavior*
2011-date	Board of Reviewing Editors, *Science*
2011-2015	Advisory Board, *Program in Cognition and Communication*, University of Vienna
2011-2017	Associate Editor, *Biology Letters*
2011-2014	Editorial Board, *Interaction Studies, Social Behaviour and Communication in Biological and Artificial Systems*
2011-2013	Scientific Advisory Board, *Max Planck Institute for Ornithology*, Seeweisen, Germany
2009	President, *Animal Behavior Society*
2009	Script Consultant, *Bronx Born Film Productions*
2009	Science Fair judge, Brykerwoods Elementary, Austin, Texas
2009	External review committee, Biology Department, University of Utah
2008	External review committee, Department of Biology, Texas A&M
2007-2008	President-elect, *Animal Behavior Society*
2007	Organizer, *Winter Animal Behavior Conference*
2007	External review committee, Department of Biology, University of Cincinnati
2006	Oversight Committee, Department of Organismic and Evolutionary Biology, Harvard University
2006-2008	Editorial Board, *Journal of Experimental Zoology Part A: Comparative Experimental Biology*
2004-2007	Associate Editor, *The American Naturalist*
2003-2004	Advisory Committee, Department of Ecology and Evolution, Columbia University, New York, New York.
2003-2004	Advisory Board, *Interaction Studies: Social Behaviour and Communication in Biological and Artificial Systems*
2002-2005	Editorial Board, *Annual Review of Ecology and Systematics*
2001	External review, School of Biological Sciences, University of California, Irvine
1997-1999	Editorial Board, *Behavioral Ecology and Sociobiology*
1997-2000	Editorial Board, *Evolution of Communication*
1994-1997	Secretary, *Society for the Study of Evolution*
1998	External review, Department of Biology, University of Minnesota
1993-1998	Board of Governors, *American Society of Ichthyologists and Herpetologists*
1993-1996	Associate Editor, *Evolution*
1988-1992	Council of the *Herpetologists League*
1986-1991	Board of Governors, *American Society of Ichthyologists and Herpetologists*

Research Grants and Fellowships:

2024-2025	National Science Foundation: Conference: Energetics, selection for mating, and ecological innovation (PI J.C. Havird, Co-PI M.J. Ryan)
2021-2024	Fonds de Recherche Nature et Technologies (Quebec): Examining universals in music and animal communication to reveal biological foundations of music. (PIs S. Woolley, J. Sakata, I. Peretz, T. O'Donnell, Collaborators: M. Ryan, S. Mehr)
2019-2024	National Science Foundation: IOS: Collaborative Research: RUI: Cognitive overload versus enhanced performance: Is more information always better? (PIs R. Taylor, Kim Hunter, M.J. Ryan, R.A. Page)
2018	VPR Research & Creative Grant, University of Texas: The creative role of dopamine in the evolution of sexual beauty (PI)
2017-2019	Smithsonian Institution Scholarly Studies Program: Multimodal signal evolution: Is more information always better? (PIs R.A. Page, M.J. Ryan, R.C. Taylor, K. Hunter)
2012-2016	National Science Foundation: Supplement to Multimodal communication and sexual selection (PIs M.J. Ryan, R.A. Page, R. Taylor)
2012-2012	National Science Foundation: Meeting: The Future of Animal Behavior. (PIs J. Strassman, D. Rubenstein)
2011-2017	National Science Foundation: Multimodal communication and sexual selection (PIs M.J. Ryan, R.A. Page, R. Taylor; date includes one year no-cost extension)
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. Wilczynksi 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. Parezefal, 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 *Physalaemus*. (Co-PI; D. Cannatella Co-PI, A. Cardosa 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

2014-2022	Animal Behavior
2017	Graduate Seminar: Cognitive Ecology
2016	Graduate Seminar: Acoustic Communication
2012	Graduate Seminar: Sexual Selection and the Brain
2009	Signature (Freshman) Course, Sex in the Wild
2008	Graduate Seminar: Principles of Brain Evolution
2006	Graduate Seminar: Sexual Conflict
2005-2014, 2017-2020, 2023	Fundamentals of Integrative Animal 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, 1996, 1998, 1999	Animal Behavior

1989, 1993, 1997	Herpetology
1987-1988	Graduate Seminar- Advanced Topics in Animal Behavior
1994	
1986	Graduate Seminar- Graduate Student Seminar in Ecology
1985, 1987, 1991, 1996 1998, 2001-2008, 2010-2012, 2014	Animal Communication
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:

2024— Smithsonian Tropical Research Institute, celebration of the 100th anniversary of Barro Colorado Island

2023—Dartmouth College (Department of Anthropology), Symposium, Human Evolution 150 Years After Darwin, Hanover, New Hampshire; Darwin Day, Duquesne University (Dept. Biological Sciences), Pittsburg, Pennsylvania; University of Chicago, Illinois (Department of Biological Science); University of Wyoming, Laramie (Department of Zoology and Physiology)

2022— Brown Symposium, Attraction: The Science and Art of Sex and Romance, Southwestern University, Georgetown, Texas (webinar); Department of Anthropology, Dartmouth University, Hanover, New Hampshire (webinar); Transparent Eyeball – Life Discussions, Center for Contemporary Art, Prague (webinar); Frontiers in Social Evolution (FINE) (webinar)

2021— Darwin Day, Central Washington University (Biology Department), Wellington (webinar); Speciation Seminar Series, University of California, Berkeley (webinar); University of Toronto (Biology Department) (webinar); XXVI International Course, Biological Bases of Behavior, Tlaxcala, Mexico (webinar); International Conference on Herpetological Biodiversity and Conservation in Eurasian Countries along the Belt and Road, Chengdu, China (webinar)

2020— Australian National University (Biology Department) (webinar); University of Nebraska (Biology Department) (webinar)

2019— Smithsonian Tropical Research Institute, Gamboa, Panama; University of California, Santa Barbara (Institute for the Mind); Lone Star College (Writers, Speakers and Ideas & Women's History Month), Kingwood, Texas; University of Arizona (Department of Ecology and Evolutionary Biology)

2018— Book People (bookstore), Austin Texas; Labyrinth (bookstore), Princeton, New Jersey; Houston Museum of Natural Sciences, Houston, Texas; Pacific Science Center, Seattle, Washington; Oregon Museum of Science, Portland, Oregon; Princeton University Press, Princeton, New Jersey; Princeton University (Department of Ecology and Evolution), Princeton, New Jersey; Politics and Prose (bookstore), Washington DC; Animal Sentience workshop, University of Québec, Canada

2017— University of Toronto (Biology Department) Mississauga, Canada; Texas A&M (Ecology Evolution and Behavior Program) College Station

2015— East Carolina University (Biology Department), Greenville, North Carolina; Edinburgh University (Zoology/Institute of Evolutionary Biology), Scotland, UK; Latin American Herpetology Congress, Cartagena, Colombia; McGill University (Biology Department), Montreal, Canada; Simon Fraser University (Biology Department), Vancouver, Canada; University of British Colombia (Biology Department), Vancouver, Canada; St. Andrews University (Center for Biodiversity), Scotland UK University of Texas at Arlington (Biology Department), Arlington; Winter Animal Behavior Meeting (Steamboat Springs, Colorado).

2014— Cornell University (Department of Neurobiology and Behavior), Ithaca NY; James Madison University (Biology Department), Harrisonburg VA; Max Planck Institute, Seewiesen, Germany; North Carolina State University (Keck Center), Raleigh; University of Central Florida (Biology Graduate Student Association-Invited Speaker), Orlando; University of Ghent, Belgium; University of Oklahoma (Biology Department), Norman

2013— Colorado State University (Biology Department), Fort Collins; Kellogg Station, Michigan State University, Battle Creek; Nottingham University (School of Biology), Nottingham, United Kingdom; University of Montana, Missoula (Biology Department); University of Texas, Austin (Section of Neurobiology); Uppsala University (Biology Department), Sweden; Winter Animal Behavior Conference, Steamboat, Colorado

2012— Bielefeld University (Biology Department) Bielefeld, Germany; Louisiana State University (Museum of Zoology), Baton Rouge, Louisiana; McMaster's University (Biology Department), Toronto; Smithsonian Tropical Research Institute, Panama; St. Edwards University (Biology Department), Austin, Texas; Salisbury University (Biology Department), Salisbury, Maryland; Universidad de los Andes (Biology Department), Bogota, Colombia; University of Zurich (Biology Department), Zurich, Switzerland; Winter Animal Behavior Conference, Steamboat, Colorado

2011— Animal Behavior Symposium of Mexico, Tlaxcala, Mexico; Baylor University (Biology Department), Waco, Texas; Kellogg Biological Station, East Lansing, Michigan; Michigan State

University (Department of Biology), Lansing; Museum für Naturkunde, Berlin, Germany; Trinity University (Biology Department), San Antonio, Texas; University of Californian (Department of Integrative Biology), Berkeley; University of Californian (Museum of Vertebrate Zoology), Berkeley; University of Kentucky (Department of Biology), Lexington; Univeristy of Vienna (Communication and Cognition Program), Vienna; Winter Animal Behavior Conference, Steamboat, Colorado

2010— University of Missouri (Department of Biological Sciences), Columbus; Universidad Nacional Autonomica (Institute of Ecology), Mexico City, Mexico; University of California, Santa Barbara (Department of Ecology, Evolution and Marine Biology), Oklahoma State University (Department of Biology), Stillwater; Winter Animal Behavior Conference, Steamboat, Colorado

2009— Cornell University (Department of Neurobiology and Behavior), Ithaca New York; Laboratory of Ornithology, Cornell University, Ithaca New York; University of Texas (Biology Department), San Antonio; University of Illinois (Biology Department), Champaign-Urbana; University of Vienna (Biology Department), Austria; Max Planck Institute, Seeweisen, Germany

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; University of Oklahoma (Zoology Dept.), Norman

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 (Kellogg 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:

2023 *Darwin and Human Evolution Symposium*, Dartmouth College
2022 Brown Symposium, *Attraction: The Science and Art of Sex and Romance*, Southwestern University, Georgetown Texas
2021 *International Conference on Herpetological Biodiversity and Conservation in Eurasian Countries along the Belt and Road,* Chengdu, China (webinar)
2019 *Writers, Speakers and Ideas & Women's History Month*, Lone Star College, Kingwood
2019 *Institute for the Mind*, University of California, Santa Barbara
2018 *Hot Science Cool Talks*, University of Texas, Austin
2018 *Institute for Cognitive Sciences*, Animal Sentience Symposium, Montréal, Canada
2017 *Carl Gans Memorial Lecture*, Joint Meeting of Ichthyologists and Herpetologist, Austin, Texas
2017 *Cognitive Ecology Symposium*, Animal Behavior Society, Toronto, Canada
2015 *International Bioacoustics Congress*, Murnau, Germany
2015 *Burroughs Wellcome Lecture*, East Carolina University, Greenville, North Carolina
2015 *Marsden Lecture*, McGill University, Montreal, Canada
2014 *Symposium—Sensory Exploitation and Cultural Attractors*, University of Ghent, Ghent, Belgium
2014 *Symposium—Frog Communication*, International Society for the Study of Behavioral Ecology, New York City
2014 *Keck Institute- Distinguished Speaker*, North Carolina State University, Raleigh
2013 *Renaissance Weekend*, Strange Attractions, Monterrey CA
2012 *Immelman Lecture*, University of Bielefeld, Germany
2011 *Symposium (organizer) What Do Animal Signals Mean?* Joint Meeting of Animal Behavior Society & International Ethology Congress, Bloomington IN
2011 *Symposium—Neuroecology*, Society for Integrative and Comparative Biology, Salt Lake City, Utah
2011 *Southwest Association of Naturalist*, after-dinner lecture, *The Natural History of Natural Beauty*, Denton, Texas
2010 *Storer Lecture*, University of California, Davis
2009 *Animal Communication Workshop*, Atlanta, Georgia
2009 *First Friday's—Darwin's Revolution*, LA County Museum, Los Angeles
2009 *Atwood Lecture*, University of Toronto, Toronto, Canada
2008 *Plenary Lecture, VII Latin American Herpetological Congress*, Havana, Cuba
2008 *Integrative Studies in Animal Communication*, International Congress in Zoology, Paris, France
2008 *Information and Representation in Signaling using Sound*, Center for Behavioral Neuroendocrinology, Atlanta
2008 *Dean's Scholars Lecture*, University of Texas, Austin
2008 *Signature Lecture*, University of Texas, Austin
2008 *Grinell Medal Lecture*, University of Californian, Berkeley
2008 *Sinauer Lecture*, University of Massacusetts, Amherst
2007 *Keynote Address* Konnevesi Research Retreat, Univesirty of Javaskala, Finland

2007 *Keynote Address BENELUX Zoological Congress*, Amsterdam, The Netherlands
2007 *Keynote Address 10th Annual Biology Research Symposium*, University of California, Los Angeles, California
2007 *Keynote Address, Center for Integrative Studies in Animal Behavior Symposium*, University of Indiana, Bloomington, Indiana
2006 *Symposium-- Sensory Ecology*, Animal Behavior Society, Snowbird, Utah
2004 *Symposium-- Sexual Selection in Túngara Frogs*, Animal Behavior Society, Oaxaca, 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)

external reviews: Biology Department, Univerist of California, Irvine; Biology Department, Univeristy of Minnesota; Biology Department, University of Utah; Biology Department, Texas A&M University; Biology Department, University of Cincinnati; Department of Organismic and Evolutionary Biology, Harvard University; Max Planck Institute for Ornithology, Seeweisen, Germany; Center for Integrative Studies of Animal Behavior, Indiana University

Research Interests:

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

Publications:

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,

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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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23. Rand, A.S.; Ryan, M.J.; Troyer, K. 1983. A population explosion in a tropical frog: *Hyla rufitela*. *Biotropica* 15:72-73.

24. Waldman, B.; Ryan, M.J. 1983. Thermal advantages of communal egg deposition in *Rana sylvatica*. *Journal of Herpetology* 17:70-72.

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52. Ryan, M.J.; Drewes, R.C. 1990. Vocal morphology of the *Physalaemus pustulosus* species group (Family Leptodactylidae): morphological response to sexual selection for complex calls. *Biological Journal of the Linnean Society* 40:37-52.

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