

Curriculum Vitae
James Francis Anthony Traniello

Professor of Biology

Department of Biology
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Research Associate

Harvard University, Museum of Comparative Zoology

Editor-in-Chief

Behavioral Ecology and Sociobiology

Director

Undergraduate Concentration in Behavioral Biology, Boston University
Verde Foundation Program for the Teaching of Evolutionary Science

Education

1976-80 Ph.D., Organismal and Evolutionary Biology, Harvard University
Dissertation Mentors: Bert Hölldobler, Edward O. Wilson, Robert E.
Silberglie

1974-76 M.S., Entomology, University of Massachusetts, Amherst

1974 B.A., Biology *cum laude*, Boston University

Research

Behavior, neurobiology, ecology, and evolution of insects; social complexity and metabolic scaling; gene expression, genomics, and brain evolution; behavioral development; caste evolution and division of labor; senescence and aging; ecological immunology; disease and sociality; social immunity; population genetics; biodiversity; community ecology; socioecology; foraging behavior; search strategy; chemical communication and defense; parental care

Courses Taught

Boston University

Behavioral Biology (BI 225, 2011 – present)
Ecology, Evolution, and Behavior (BI 107, Principles of Biology I, 1983-2013)
Sociobiology (BI 119, 1982 – 2018)
Seminar in Behavioral Biology (BI 224, 2009 – 2013)
Animal Behavior (Bio E22c, Harvard Extension School, 1982 – 2002)
Core Curriculum (1988-1991)
Insect Biology (BI 501, 1982 – 1985)
Behavioral Ecology (BI 508, 1986 – 1989)
Experimental Insect Sociobiology (BI 580, 1983 – 1984)

Graduate Seminars (Behavioral ecology, Socioecology, Foraging Theory)
Harvard University

Ethology (1980)

Social Insects Seminar (1980; with E.O. Wilson)

Program and Curriculum Development

Revision of Introduction to Biology I (BI 107) content to reflect current concepts in organismal and evolutionary biology (1988)

Revision of required related chemistry requirements for the Concentration in Biology (1986)

Designed multi-week laboratory exercises for Introduction to Biology I (BI 107), funded by National Science Foundation education grant (1992-1995)

Developed Concentration in Ecology and Conservation Biology (1998)

Developed Concentration in Behavioral Biology (2009), a major uniquely integrating the curricula of the Departments of Biology, Anthropology, and Psychology and Brain Sciences

Developed curriculum for the Verde Foundation for the Teaching of Evolutionary Science Program (2009-present)

Science Outreach

Development of high school science curricula with the Laboratory Schools of the University of Chicago and Cambridge Rindge and Latin High School. In both

Participation in GROW, RISE, SURF, Upward Bound, and BIOBUGS programs.

Contributor of exhibits for museums and libraries

Teacher professional development

Recognition of Research, Mentoring, Advising, and Teaching

Elected Fellow, American Association for the Advancement of Science, 2018

Elected Fellow, Animal Behavior Society, 2017

Outstanding Mentor Award, Undergraduate Research Opportunities Program, Boston University, 2018

Templeton Prize for Excellence in Student Advising, 2012. College of Arts and Sciences

Nominee, Undergraduate Academic Advising Award, Office of the Provost, 2018 (unable to pursue nomination due to sabbatical)

Outstanding Teaching Award, College Honors Program, 1996. College of Arts and Sciences

Departmental nominee, College of Arts and Sciences Teaching Excellence Award, 2001, 2003, 2011, 2012, 2016

Nominee and twice finalist, Metcalf Award for Teaching Excellence; nominee in 2020

Outstanding Graduate Student Award, Harvard University, Department of Organismal and Evolutionary Biology, 1978

Academic Positions

1981-present: Professor of Biology, Boston University (promotion to Associate Professor with tenure, 1987; promotion to Full Professor, 1994)

1981-present: Research Associate in Entomology, Museum of Comparative Zoology, Harvard University

1980-81 Lecturer on Biology, Harvard University. Courses taught: Biology 22, *Ethology*; Biology 241, *The Social Insects* (with E.O. Wilson)

1983-2002 Instructor, Harvard University Extension. Course taught: Animal Behavior

1987-2003 Director of Undergraduate Studies, Department of Biology, Boston University

1998-present Program Developer, Concentration in Biology with Specialization in Ecology and Conservation Biology, Department of Biology, Boston University

2009-present Program Developer and Director, Concentration in Biology with Specialization in Behavioral Biology, Department of Biology, Boston University

2018-present Director, Verde Foundation for the Teaching of Evolution Program

1984-1986 Instructor, Boston University Metropolitan College. Courses taught: Principles of Biology I; Sociobiology

Editorial Service

Editor-in-Chief, *Behavioral Ecology and Sociobiology* (2011- present)

Associate Editor, *Behavioral Ecology and Sociobiology* (2006-2011)

Member, Advisory/Editorial Board, *Journal of Insect Behavior* (1998- present)

Member, Advisory/Editorial Board, *Ethology, Ecology and Evolution* (1996-present)

Member, Advisory/Editorial Board, *Journal of Insect Science* (2006-2011)

Member, Advisory/Editorial Board, *Psyche* (1985- 2011)

Awards and Grants (past 20 years)

2019-2023. IOS-1953393 National Science Foundation Collaborative Research: Brain Size, Metabolism, and Sociality in Ants. (with coPIs M. Muscedere, J. Harrison, and J. Waters) \$1,459,601

2020-2021. Genomic Science Institute, Boston University. Genomic analysis of brain evolution and complex social behavior: leveraging the power of single-cell RNA sequencing to understand functional neuroplasticity. (with CoPI S. Mullen). \$11,000

2014-2019. National Science Foundation. IOS-1354291 Collaborative Research: Collective intelligence and social brain evolution in ants. (with CoPIs W. Gronenberg and C. Moreau). \$1,440,000

2019-2022. Fondo Nacional de Desarrollo Científico, Tecnológico y de Innovación Tecnológica (FONDECYT). Evolutionary neurobiology of predatory ants: Diet, social complexity and brain evolution. (with Frank Azorsa PI). \$27,722

2019-2020. Verde Foundation. Evolutionary Biology Summer Workshop. \$15,000 (J. Finnerty, S. Mullen, F. Wasserman, J. Traniello, instructors)

2015-2018. Marie Skłodowska-Curie Cofund. Project 660976 Evolution of the social brain: how social complexity affects individual cognition in ants. (with co-sponsor Martin Giurfa, University of Toulouse). €246,668

2012-2015. National Institutes of Health/National Institute of Aging 50201113. Senescence, Neurodegeneration and Sensory/Motor Decline in a Social Invertebrate. \$89,099

2007-2013. National Science Foundation. IOB-0725013, 0724591. Behavioral Neuroscience Program. Social organization, behavioral development and functional neuroplasticity in the ant genus *Pheidole*. (with Wulfila Gronenberg, coPI) \$480,000. (plus annual Research Experiences for Undergraduates supplements, \$6000/award).

2012. National Science Foundation EAPSI OISE-1209967. Neural basis of individual behavior and collective action in a superorganism, the weaver ant. (Summer Institute Grant for doctoral student J. Frances Kamhi) \$8,300.00

2007-2010. Whitmire Microgen Corporation. Unrestricted grant in aid of research. \$30,000

2003-2004. Boston University SPRnG Grant. Neural correlates of aging, size, individual development and social plasticity in the ant *Pheidole dentata*. (with Christine Li and Kristen Harris, CoPIs). \$20,000

2001-2007. FMC Corporation. Unrestricted grant in aid of research. \$30,000

2001-2006. National Science Foundation. Animal Behavior Program. Social behavior, immunity and disease resistance in termites. (with R. Rosengaus, CoPI). \$290,744

NSF Panelist

2003, 2006, 2009, 2016

Professional Society Memberships

American Association for the Advancement of Science
Animal Behavior Society
International Society for Neuroethology
International Union for the Study of Social Insects

Invited Symposia and Seminars

Symposium on Interindividual Differences in Social Insect Behavior, Entomological Society of America National Meeting, Hollywood, Florida, 1985
Fondation Les Treilles Workshop, 1986: "From Individual Characteristics to Collective Organization: The Example of Social Insects." Salernes, France
Fondation Les Treilles Workshop, 1996: Self-Organization in Insect Societies
Symposium on Foraging Behavior, 10th International Congress of the IUSI, Munich, Germany, 1986
Symposium on the Ecology of Learning, Animal Behavior Society Regional Meetings, Burlington, Vermont, 1986
Keynote Speaker, Massachusetts Association of Science Teachers, Boston, MA, 1986
Simmons College, 1987
Student Symposium on Animal Behavior, Museum of Science, Boston, MA, 1987
Amos Fortune Forum, Jaffrey, NH, 1987 (lectures in honor of the first freed slave in America)
Michener Lecturer in Social Biology, University of Kansas, 1988
Kansas State University, 1988
Symposium on Invertebrate Behavior, Eastern Psychological Association, Boston, MA, 1989
University of Massachusetts, Amherst, 1989
Invited Symposium Speaker, Foraging Strategy in Social Insects, Termite Evolution, Caste Evolution, 11th International Congress of the IUSI, Bangalore, India, 1990
Darwin Festival, Salem State College, Salem, MA, 1990
University of New Hampshire, 1991
Schnierla Symposium on Insect Behavior, Lawrence, Kansas, 1993
National Conference on Urban Entomology, 1994
International Congress on Social Insect Biology (IUSI), Paris, 1994
University of Cincinnati, 1997
Cornell University, 1998
International Congress on Social Insect Biology (IUSI), Adelaide, 1998
International Conference on Social Learning, Naples, 1998
University of Connecticut, 2000
University of Massachusetts, Amherst, 2001
Tufts University, 2002
DARPA/DSO Endogenous Defense Workshop, Fairfax, Virginia, 2004
International Congress of Entomology, Brisbane, Australia, 2004
University of Arizona, 2005

Cambridge Entomological Club, 2005
University of Vermont, 2006
International Congress of the IUSI, invited symposium speaker, 2006
University of Utah, 2007
University of Massachusetts, 2009
University of Arizona, 2009
Colorado State University, 2009
Invited Instructor, the Ant Course, Portal, Arizona, 2009
Invited Symposium Speaker, Celebration of the Social Insects, Entomological Society of America National Meeting, Indianapolis, Indiana, 2010
Distinguished Speaker, Louisiana State University, 2010
University of Illinois at Urbana-Champaign, 2010
McGill University, 2012
Invited Symposium Speaker, Social Networks, Entomological Society of America National Meeting, Knoxville, Tennessee, 2012
University of Bonn, 2012
Wesleyan University, 2013
Arizona State University, 2013
University of New Hampshire, 2013
Symposium Coorganizer, Integrative Analysis of Division of Labor, International Congress of the IUSI, Cairns, Australia, 2014
Invited speaker, International Neuroscience Doctoral Programme workshop, Champalimaud Neuroscience Programme, Lisbon, Portugal, 2014
Tufts University, 2016
Arizona State University Workshop on Brain Miniaturization, 2020
Gutenberg Workshop on Aging in Social Insects, Mainz, Germany, 2020
Arizona State University, Social Insects Research Group, 2021

Publications

Traniello, J.F.A. 1977. Recruitment behavior, orientation, and the organization of foraging in the carpenter ant *Camponotus pennsylvanicus* DeGeer. *Behav. Ecol. Sociobiol.* 2: 61-79.

Traniello, J.F.A. 1978. Caste in a primitive ant: absence of age polyethism in *Amblyopone*. *Science* 202: 770-772.

Traniello, J.F.A. 1980a. Colony specificity in the trail pheromone of an ant. *Naturwissenschaften* 67: 360.

Holldobler, B. and Traniello, J.F.A. 1980b. The pygidial gland and chemical recruitment communication in *Pachycondyla* (= *Termitopone*) *laevigata*. *J. Chem. Ecol.* 6: 883-893.

Holldobler, B. and Traniello, J.F.A. 1980c. Tandem running pheromone in ponerine ants. *Naturwissenschaften* 67: 360.

- Traniello, J.F.A. 1981a. Enemy deterrence in the recruitment strategy of a termite: soldier-organized foraging in *Nasutitermes costalis*. Proc. Nat. Acad. Sci. USA 78: 1976-1979.
- Traniello, J.F.A. and Jayasuriya, A.K. 1981b. The sternal gland and recruitment communication in the primitive ant *Aneuretus simoni*. Experientia 37: 46.
- Traniello, J.F.A. and Jayasuriya, A.K. 1981c. Chemical communication in the primitive ant *Aneuretus simoni*: the role of the pygidial and sternal glands. J. Chem. Ecol. 7: 1023-1033.
- Adams, E.A. and Traniello, J.F.A. 1981d. Chemical interference competition in *Monomorium minimum*. Oecologia 51: 265-270.
- Levings, S.C. and Traniello, J.F.A. 1982a. Territoriality, nest dispersion, and community structure in ants. Psyche 88: 265-319.
- Traniello, J.F.A. 1982b. Population structure and social organization in *Amblyopone pallipes*. Psyche 89: 65-80.
- Traniello, J.F.A. 1982c. Recruitment and orientation components in a termite trail pheromone. Naturwissenschaften 69: 343-344.
- Traniello, J.F.A. 1983a. Social organization and foraging success in *Lasius neoniger* (Hymenoptera: Formicidae): behavioral and ecological aspects of recruitment communication. Oecologia 59: 94-100.
- Calabi, P., Traniello, J.F.A. and Werner, M. 1983b. Age polyethism: its occurrence in the ant *Pheidole hortensis* and some general consideration. Psyche 90: 395-412.
- Traniello, J.F.A., Fujita, M.S. and Bowen, R.V. 1984a. Ant foraging behavior: ambient temperature influences prey selection. Behav. Ecol. Sociobiol. 15: 65-68.
- Traniello, J.F.A. and Holldobler, B. 1984b. Chemical communication during tandem running in *Pachycondyla obscuricornis* (Hymenoptera: Formicidae). J. Chem. Ecol. 10: 783-794.
- Traniello, J.F.A., Thorne, B.L. and Prestwich, G.D. 1984c. Chemical composition and efficacy of the cephalic gland secretion of *Armitermes chagresi*. J. Chem. Ecol. 10: 531-543.
- Traniello, J.F.A. and Busher, C. 1985a. Chemical regulation of foraging in the Neotropical termite *Nasutitermes costalis*. J. Chem. Ecol. 11: 319-332.

- Traniello, J.F.A., Rosengaus, R.B. and Levy, C.K. 1985b. Single and double isotope labeling of social insect colonies: gamma-emitting radionuclides as individually identifiable markers. *Entom. exp. appl.* 38: 87-92.
- Leibensperger, L., Traniello, J.F.A. and Fraser, J. 1985c. Olfactory cues utilized by female *Gromphadorhina portentosa* (Dictyoptera: Blaberidae) during mate choice. *Ann. Ent. Soc. Am.* 78: 629-634.
- Busher, C., Calabi, P. and Traniello, J.F.A. 1985d. Polymorphism and division of labor in the Neotropical ant *Camponotus sericeiventris* Guerin. *Ann. Ent. Soc. Am.* 78: 221-228.
- Hall, P. and Traniello, J.F.A. 1985e. Behavioral bioassays of termite trail pheromones. Recruitment and orientation effects of cembrene-A in *Nasutitermes costalis* (Isoptera: Termitidae) and discussion of factors affecting termite response in experimental contexts. *J. Chem. Ecol.* 11: 1503-1573.
- Traniello, J.F.A. and Beshers, S.N. 1985f. Species-specific alarm/recruitment responses in a Neotropical termite. *Naturwissenschaften* 72: 491-492.
- Jayasuriya, A.K. and Traniello, J.F.A. 1985g. The biology of the primitive ant *Aneuretus simoni* (Emery). I: Distribution, abundance, colony structure, and foraging ecology. *Insectes Sociaux* 32: 363-374.
- Traniello, J.F.A. and Jayasuriya, A.K. 1986h. The biology of the primitive ant *Aneuretus simoni* (Emery). II: The social ethogram and division of labor. *Insectes Sociaux* 32: 375-388.
- Rosengaus, R.B., Traniello, J.F.A. and Levy, C.K. 1986i. Social transfer, elimination, and biological half-lives of gamma-emitting radionuclides in the termite *Reticulitermes flavipes*. *Z. ang. entom.* 101: 287-294.
- Traniello, J.F.A. and Levings, S.C. 1986j. Intra- and intercolony patterns of nest dispersion in the ant *Lasius neoniger*: correlations with territoriality and foraging ecology. *Oecologia* 69: 413-419.
- Traniello, J.F.A. 1987a. Individual and social modification of behavior in response to environmental factors. In: *From Individual to Collective Behavior in Social Insects.* (J.M. Pasteels and J.-L. Deneubourg, eds.).
- Traniello, J.F.A. 1987b. The evolution of individual and social strategies of foraging in the ant *Formica schaufussi*. pp. 511- 12. In: *Chemistry and Biology of Social Insects.* (J. Eder and H. Rembold, eds.). J. Peperny Verlag.
- Traniello, J.F.A. 1987c. Foraging strategies of social insects. pp. 499-500 In: *Chemistry and Biology of Social Insects.* (J. Eder and H. Rembold, eds.). J. Peperny Verlag.

Beshers, S.N. and Traniello, J.F.A. 1987d. Determinants of social structure in the ant *Novomessor albisetosus*. *Ibid*, p. 133

Calabi, P. and Traniello, J.F.A. 1987e. Ecological correlates of physical and age caste ratios in the ant *Pheidole dentata*. In: *Chemistry and Biology of Social Insects*. (J. Eder and H. Rembold, eds.). J. Peperny Verlag.

Scott, M.P. and Traniello, J.F.A. 1987f. Behavioral cues trigger rapid ovarian development in the burying beetle *Nicrophorus tomentosus*. *J. Insect Physiol.* 33: 693-696.

Traniello, J.F.A. 1987g. Comparative foraging ecology of North Temperate ants: the role of worker size and cooperative foraging in prey selection. *Insectes Sociaux* 34: 118-130.

Scott, M.P., Traniello, J.F.A. and Fetherston, I.A. 1987. Competition between ants and burying beetles (*Nicrophorus spp.*) for prey: differences between northern and southern temperate sites. *Psyche* 94: 325-332.

Traniello, J.F.A. 1988a. Variation in foraging behavior among workers of the ant *Formica schaufussi*: ecological correlates of search behavior and the modification of search pattern. pp. 91-112 In: *Interindividual Behavioral Variability in Social Insects* (R.L. Jeanne, ed.). Westview Press, Boulder, CO.

Kozol, A.J., Scott, M.P. and Traniello, J.F.A. 1988b. The American burying beetle *Nicrophorus americanus*: Studies on the natural history of a declining species. *Psyche* 95: 167-176.

Traniello, J.F.A. 1989a. Foraging strategies of ants. *Ann. Rev. Entomol.* 34: 191-210.

Calabi, P. and Traniello, J.F.A. 1989b. Social organization in the ant *Pheidole dentata*: physical and age caste ratios lack ecological correlates. *Behav. Ecol. Sociobiol.* 24: 69-78.

Traniello, J.F.A. 1989c. Chemical trail systems, orientation, and territoriality in the ant *Lasius neoniger*. *J. Insect Behavior.* 2: 339-354.

Calabi, P. and Traniello, J.F.A. 1989d. Behavioral flexibility in the age castes of the ant *Pheidole dentata*. *J. Insect Behavior.* 2: 663-677.

Scott, M.P. and Traniello, J.F.A. 1989e. Insect guardians of the underworld. *Natural History* (June) pp. 32-37.

Scott, M.P. and Traniello, J.F.A. 1990a. Behavioral and ecological correlates of male and female parental care and reproductive success in burying beetles (*Nicrophorus spp.*). *Animal Behaviour* 39:274-283.

Rosengaus, R. and Traniello, J.F.A. 1990b. Studies on the evolution of monogamy and eusociality in termites. pp. 31-32 in *Social Insects and the Environment* (G.K. Veeresh, B. Mallick and C.A. Viraktamath, eds.). Oxford and IBH Publishing Co.

Beshers, S.N. and Traniello, J.F.A. 1990c. Colony demography and fitness in *Trachymyrmex septentrionalis*. *Ibid.*, pp. 340-341.

Traniello, J.F.A., Beshers, S.N., Fourcassie, V., Loh, H.S. and Hennemann, L. 1990d. Search behavior in the ant *Formica schaufussi*: social organization and ecology of individual patterns. *Ibid.*, pp. 543-544.

Fetherston, I., Scott, M.P. and Traniello, J.F.A. 1990e. Parental care in burying beetles: male and female roles and the organization of brood care behaviors. *Ethology* 85:177-190.

Traniello, J.F.A., Fourcassie, V. and Graham, T. 1991a. Search behavior and foraging ecology of the ant *Formica schaufussi*: colony-level and individual patterns of organization. *Ethology, Ecology, and Evolution* 3:35-47.

Traniello, J.F.A. and Beshers, S.N. 1991b. Size-pairing and polymorphism in the ant *Pogonomyrmex badius*: a test of the ecological release hypothesis. *Insectes Sociaux* 38:121-128.

Rosengaus, R.B. and Traniello, J.F.A. 1991c. Biparental care in incipient colonies of the dampwood termite *Zootermopsis angusticollis*. *J. Insect Behav.* 4:633-647.

Traniello, J.F.A. and Beshers, S.N. 1991d. Maximization of foraging efficiency and resource defense by cooperative retrieval in the ant *Formica schaufussi*. *Behav. Ecol. Sociobiol.* 29: 283-289.

Fourcassie, V., Coughlin, D., and Traniello, J.F.A. 1992a. Fractal analysis of search behavior in ants. *Naturwissenschaften* 79: 87-89.

Traniello, J.F.A., Kozol, A.J., and Fournier, M.A. 1992b. Resource-related spatial patterns of search in the ant *Formica schaufussi*: a field study. *Psyche* 99: 87-93.

Fourcassie, V., and Traniello, J.F.A. 1993a. Effects of experience on food-searching behavior in the ant *Formica schaufussi* (Hymenoptera: Formicidae) *J. Insect Behav.* 6: 287-299.

Rosengaus, R.B., and Traniello, J.F.A. 1993b. Temporal polyethism in incipient colonies of the termite *Zootermopsis angusticollis*: a single multiage caste. *J. Insect Behav.* 6: 237-252.

Rosengaus, R.B., and Traniello, J.F.A. 1993c. Disease risk as a cost of outbreeding in the termite *Zootermopsis angusticollis*. *Proc. Natl. Acad. Sci. USA* 90: 6641-6645.

Featherston, I., Scott, M.P., and Traniello, J.F.A. 1994a. Behavioral compensation for mate loss in the burying beetle *Nicrophorus orbicollis*. *Anim. Behav.* 47: 777-785.

Traniello, J.F.A., and Robson, S.K. 1994b. Asymmetries in recruitment behavior and recruitment response in the ant *Formica schaufussi*. p. 148 in *Les Insectes Sociaux* (A. Lenoir, G. Arnold, and M. Lepage, eds.). Universite Paris Nord.

Robson, S.K., and Traniello, J.F.A. 1994c. Cooperative prey retrieval in the ant *Formica schaufussi*: group behavior based upon individual complexity rather than simplicity. *IBID*, p. 233.

Rosengaus, R.B., and Traniello, J.F.A. 1994d. Pathogens and termite population biology. *IBID*, p. 189.

Fourcassie, V., and Traniello, J.F.A. 1994e. Food-searching behavior in the ant *Formica schaufussi* (Hymenoptera: Formicidae): response of naive foragers to protein and carbohydrate food. *Anim. Behav.* 48: 69-79.

Beshers, S.N., and Traniello, J.F.A. 1994f. The adaptiveness of demographic distributions of colonies of the fungus-growing ant *Trachymyrmex septentrionalis*. *Ecology* 75: 763-775.

Kozol, A.J., Traniello, J.F.A., and Williams, S. M. 1994g. Genetic variation in the endangered American burying beetle. *Ann. Entomol. Soc. Am.* 87: 928-935.

Traniello, J.F.A., and Robson, S. 1995a. Trail and territorial pheromones in the social insects. Chapter 7 (pp 241-285) in: *Chemical Ecology of Insects, Vol. II* (W.J. Bell and R. Carde. eds).

Fourcassie, V.J.L., and Traniello, J.F.A. 1995b. Ant search behavior analysis with a video frame grabber. *Insectes Sociaux* 42: 249-254.

Ferster, B., and Traniello, J.F.A. 1995c. Polymorphism and foraging behavior in *Pogonomyrmex badius* (Hymenoptera: Formicidae): worker size, foraging distance, and load size associations. *Environmental Entomology* 24: 673-678.

Robson, S.K., Lesniak, M.G., Kothandapani, R., Traniello, J.F.A., Thorne, B.L., and Fourcassie, V. 1995d. Nonrandom search geometry in subterranean termites. *Naturwissenschaften* 82: 526-528.

Beshers, S.N., and Traniello, J.F.A. 1996a. Polyethism and the adaptiveness of worker size variation in the attine ant *Trachymyrmex septentrionalis*. *J. Insect Behavior* 9:61-84.

Thorne, B.L., Russek-Cohen, B., Forschler, B., Breisch, N., and Traniello, J.F.A. 1996b. Evaluation of mark-release-recapture methods for estimating forager population size of subterranean termite colonies. *Env. Entomol.* 25: 939 - 951.

Traniello, J.F.A. 1997a. Ecology, Colony Demography, and Social Organization in Ants. In: *Comparative Psychology of Invertebrates: The Field and Laboratory Study of Insect Behavior* (Greenberg, G. and Tobach, E., eds.). Garland Publishing, N.Y.

Traniello, J.F.A., and Rosengaus, R.B. 1997b. Ecology, evolution, and division of labour in social insects. *Animal Behaviour* 53: 209-213.

Traniello, J.F.A. 1997c. Olfaction and Chemical Communication. Chapter 18, pp. 167-186 in Glaser, J., ed., *Tested Studies for Laboratory Teaching*. Cornell Univ. Press, Ithaca, NY.

Thorne, B.L., Breisch, N.L., and Traniello, J.F.A. 1997d. Incipient colony development in the subterranean termite *Reticulitermes flavipes* (Kollar) (Isoptera:Rhinotermitidae). *Sociobiology* 30: 145-159.

Crosland, M.W.J., and Traniello, J.F.A. 1997e. Behavioral flexibility in division of labor in the lower termite *Reticulitermes fukiensis*. *Naturwissenschaften* 84: 208-211.

Rosengaus, R.B. and Traniello, J.F.A. 1997f. Pathobiology and disease transmission in dampwood termites [*Zootermopsis angusticollis* (Isoptera: Termopsidae)] infected with the fungus *Metarhizium anisopliae*. *Sociobiology* 30: 185-195.

Crosland, M.W.J., Lok, C.M., Wong, T.C., Shakarad, M., and J.F.A. Traniello. 1997 g. Division of labour in a lower termite: most tasks performed by older workers. *Animal Behaviour* 54: 999-1012.

Crosland, M.W.J., and J.F.A. Traniello. 1998a. Studies of division of labour in termites using monocaste colonies. *Ethology* 104: 57-67.

Brown, J.J. and Traniello, J.F.A. 1998b. Regulation of brood care in the dimorphic castes of the ant *Pheidole morrisi* (Hymenoptera:Formicidae): effects of caste ratio, colony size and colony needs. *J. Insect Behav.* 11: 209-219.

Robson, S.K. and Traniello, J.F.A. 1998c. Resource assessment, recruitment behavior and the organization of cooperative foraging in the ant *Formica schaufussi*. *J. Insect Behav.* 11:1-22.

- Rosengaus, R.B., Maxmen, A., Coates, L., and Traniello, J.F.A. 1998d. Disease resistance: a benefit of sociality in the dampwood termite *Zootermopsis angusticollis*. *Behav. Ecol. Sociobiol.* 44: 125-134.
- Rosengaus, R.B., Guldin, M. R., and Traniello, J.F.A. 1998e. Inhibitory effect of fecal pellets on fungal spore germination in the dampwood termite *Zootermopsis angusticollis*. *J. Chem. Ecol.* 24: 1697-1706.
- Thorne, B.L., Traniello, J.F.A., Adams, E.A. and Bulmer, M. 1999a. Reproductive organization of colonies of subterranean termites, *Reticulitermes*. *Ethology, Ecology and Behavior* 11: 149-169.
- Rosengaus, R.B., Traniello, J.F.A., Chen, T. Lefebvre, M. and Karp, R.D. 1999b. Immunity in a social insect. *Naturwissenschaften* 86: 588-591.
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Editorials

Torres, M.A., Delva, S., Fried, E.N., Gomez, J.A., Nguyen, N., Przekop, K.A., Shelton, E.F., Stolberg, K.C., Wyszynski, S.I., Yaffa, L.S., Broitman, S., Traniello, J.F.A. 2021. Undergraduate behavioral biologists keep science careers in focus through pandemic challenges – but need support. *Behav. Ecol. Sociobiol.* 75:46.

Bakker T.C.M. and Traniello J.F.A. 2020. Ensuring data access, transparency, and preservation: mandatory data deposition for *Behavioral Ecology and Sociobiology*. *Behav. Ecol. Sociobiol.* 74: 132

Traniello J.F.A and Bakker T.C.M. 2020. Social behavior and disease: supporting science during the pandemic. *Behav. Ecol. Sociobiol.* 74: 99.

Bakker T.C.M. and Traniello J.F.A. 2019. Peer-review reciprocity and commitment to manuscript evaluation. *Behav. Ecol. Sociobiol.* 73: 38.

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Traniello J.F.A and Bakker T.C.M. 2017. Behavioral ecology and sociobiology in post-truth society. *Behav. Ecol. Sociobiol.* 71: 76

Traniello J.F.A and Bakker T.C.M. 2016. Intellectual theft: the perils and consequences of plagiarism. *Behav. Ecol. Sociobiol.* 70: 1789–1791.

Bakker T.C.M. and Traniello J.F.A. 2016. Behavioral Ecology and Sociobiology at 40. *Behav. Ecol. Sociobiol.* 70: 1991–1993.

Traniello J.F.A. and Bakker T.C.M. 2015. Minimizing observer bias in behavioral research: blinded methods reporting requirements for *Behavioral Ecology and Sociobiology*. *Behav. Ecol. Sociobiol.* 69: 1573-1574.

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Traniello J.F.A. and Bakker T.C.M. 2013. Editorial fairness: speed, accuracy and awareness benefit authors. *Trends Ecol. Evol.* 29: 68–69.

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Commentaries

Traniello J.F.A. 2016. Do polygamous marriages among liberal arts disciplines produce better scientists? *The Conversation* <http://theconversation.com/do-polygamous-marriages-among-liberal-arts-disciplines-produce-better-scientists-53779>

Obituaries

Wagner, D.L., Tschinkel, W.R., Traniello, J.F.A., Thorne, B.L., Shuster, S.M. 2020. In Memoriam, Eldridge S. Adams (1957 – 2019).

Invited Symposium Organizer

The Ecology of Communication, at Northeast Regional Meeting of the Animal Behavior Society, October 1982 (with F. Wasserman).

Foraging Strategies of Social Insects, at the 10th International Congress of the International Union for the Study of Social Insects, Munich, August 1986.

Foraging Strategies of Social Insects, at the 11th International Congress of the International Union for the Study of Social Insects, Bangalore, India, 1990.

Foraging Biology of Social Insects, at the 13th International Congress of the International Union for the Study of Social Insects, Adelaide, Australia, 1998. (with D. Gordon and B. Forschler).

Integrative Analysis of Division of Labor, at the 16th International Congress of the International Union for the Study of Social Insects, Cairns, Australia, 2014. (with Simon Robson).

Abstracts and Presentations at Professional Meetings

Traniello, J.F.A., Bowen, R.V. and Fujita, M.S. 1982a. Prey selection by the ant *Formica schaufussi*. In: *The Biology of Social Insects* (Breed, M., Michener, C., Evans, H., eds.). p. 42.

Traniello, J.F.A. 1982b. The social organization of foraging and defense in *Nasutitermes costalis*. *Ibid.*, p. 42.

Traniello, J.F.A. 1982c. Foraging behavior in *Lasius neoniger* and *Monomorium minimum*: ecological consequences of recruitment. *Ibid.*, p. 41.

Fraser, J. and Traniello, J.F.A. 1982d. Sexual selection in a blaberid cockroach. *Ibid.*, Supplement, p. 4.

- Calabi, P. and Traniello, J.F.A. 1982e. Age-based division of labor in *Pheidole hortensis*: continuous or discrete? *Ibid.*, Supplement p. 3.
- Fraser, J. and Traniello, J.F.A. 1982f. Female choice and male dominance hierarchies in the cockroach *Gromphadorhina portentosa*. Proceedings Animal Behavior Society Meeting. Duluth, MN.
- Traniello, J.F.A., Fujita, M.S. and Bowen, R.V. 1982g. The effect of ambient temperature on prey selection by the ant *Formica schaufussi*. Northeast Regional Meeting of the Animal Behavior Society, October. p. 27.
- Traniello, J.F.A. 1982h. The effect of competition on prey selection by the ant *Formica schaufussi*. *Ibid.*, p. 26.
- Fraser, J. and Traniello, J.F.A. 1982i. Sexual selection in the cockroach *Gromphadorhina portentosa*. *Ibid.*, p. 13.
- Traniello, J.F.A. 1984a. Foraging costs, interspecific competition, and prey selection in the ant *Formica*. Program of the Foraging Behavior Conference, p. 7, June 17-20, Brown University, Providence, RI.
- Traniello, J.F.A. 1984b. Foraging in an unpredictable and competitive environment: prey selection in the ant *Formica* as a model system. Presentation at the Entomological Society of America National Meeting, San Antonio, TX, December 1984.
- Traniello, J.F.A. and Ferster, B. 1985a. Variation in foraging strategy among workers of the ant *Formica*: persistent and non-persistent foraging specializations correlate with persistent and non-persistent resources. Animal Behavior Society, Northeast Regional Meeting, Albany, NY.
- Scott, M.P. and Traniello, J.F.A. 1985b. The evolution of male parental care and monogamy in silphid beetles. *Ibid.*
- Beshers, S.N. and Traniello, J.F.A. 1985c. Defensive recruitment of workers to foreign termites in *Nasutitermes costalis*. *Ibid.*
- Traniello, J.F.A. 1985d. Individual differences in foraging specializations and learning capabilities in the ant *Formica*. Invited Symposium presentation, ESA National Meeting, Hollywood, FL.
- Scott, M.P. and Traniello, J.F.A. 1986. Behavioral cues trigger rapid ovarian development in the burying beetle *Nicrophorus tomentosus*. Poster, Animal Behavior Society National Meeting, Tucson, AZ. (Awarded honorable mention in First Founder's Memorial Award Competition.)

- Traniello, J.F.A., Kozol, A.K., Beshers, S. and Graham, T. 1987a. Behavioral and ecological aspects of search tactics in the ant *Formica*. Poster at the 20th International Ethological Conference, Madison, WI.
- Kozol, A.K. and Traniello, J.F.A. 1987b. Olfactory conditioning of local search effort in *Camponotus pennsylvanicus*. Entomological Society of America National Meeting, Boston, MA.
- Traniello, J.F.A. 1987c. Search behavior in the ant *Formica*: resource-related patterns and learning rules. Ibid.
- Fetherston, F.A., Scott, M.P. and Traniello, J.F.A. 1987d. Latitudinal differences in competition for prey between ants and burying beetles (*Nicrophorus spp.*). Ibid.
- Rosengaus, R.B. and Traniello, J.F.A. 1987e. Division of labor in founding pairs of the dampwood termite *Zootermopsis angusticollis*. Ibid.
- Scott, M.P. and Traniello, J.F.A. 1987f. Parental care and monogamy in burying beetles. Ibid.
- Traniello, J.F.A. 1989a. Resource-related search tactics in the ant *Formica schaufussi*. Symposium on Social Behavior in Invertebrates, Eastern Psychological Society, Boston, MA.
- Traniello, J.F.A. and Beshers, S.N. 1989b. Cooperative foraging in the ant *Formica*: the role of energetics and competition. Northeast Regional Animal Behavior meetings, Brown University, Providence, RI.
- Beshers, S.N. and Traniello, J.F.A. 1989c. Individual search patterns in ants: sensitivity to social organization and resource distributions. Ibid.
- Traniello, J.F.A., Beshers, S.N., Fourcassie, V., and Henneman, L. 1990. Search behavior and division of labor during foraging in the ant *Formica*. Presentation at the Entomological Society of America National Meeting, New Orleans, LA, December 1990.
- Traniello, J.F.A., and Rosengaus, R.B. 1992a. Outbreeding and mate mortality in the termite *Zootermopsis angusticollis*. Presentation at the Entomological Society of America National Meeting, Baltimore, MD, December, 1992.
- Beshers, S.N., and Traniello, J.F.A. 1992b. Why social organization and division of labor are not determined by caste distributions: studies with *Trachymyrmex*. Invited symposium presentation; Ibid.
- Thorne, B.L., and Traniello, J.F.A. 1992c. Search and foraging behavior of eastern subterranean termites (*Reticulitermes*). Ibid.

- Robson, S.K., and Traniello, J.F.A. 1992d. Individual and group processes of patch utilization in the ant *Formica schaufussi* Ibid.
- Traniello, J.F.A., Robson, S.K., Kothandapani, R., Lesniak, M., Thorne, B.L. 1994. Adaptive search geometry in the subterranean termite *Reticulitermes flavipes*. Entomological Society of America National Meeting, Dallas, Texas.
- Robson, S.K., and Traniello, J.F.A. 1994. The organization of cooperative prey retrieval in the ant *Formica schaufussi*. IBID.
- Traniello, J.F.A. and Rosengaus, R.B. 1996a. Disease and social evolution in termites. Entomological Society of America Annual Meeting, Louisville, KY.
- Rosengaus, R.B. and Traniello, J.F.A. 1996b. Mechanisms of disease response in termites. IBID.
- Brent, C.S. and Traniello, J.F.A. 1997a. The effect of social cues on reproductive maturation in the dampwood termite *Zootermopsis angusticollis*. North American Section of the International Union for the Study of Social Insects, Boulder CO Conference, September, 1997.
- Bulmer, M. and Traniello, J.F.A. 1997b. Colony structure in the subterranean termite *Reticulitermes flavipes*. IBID.
- Traniello, J.F.A. 1999. The ecology and evolution of individual and colony learning in ants. Internat. J. Comp. Psych.
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- Rosengaus, R.B., Traniello, J.F.A. and Karp, R.D. 1998c. Socially transmitted disease, immunity and inbreeding in termites. Ibid, p. 399.
- Bulmer, M., Traniello, J.F.A. and Adams, E.A. 1998d. Variation in colony structure in the subterranean termite *Reticulitermes* Ibid, p. 86.
- Brent, C.S. and Traniello, J.F.A. 1999a. Effect of social cues on the sexual maturation of primary and secondary reproductives of the dampwood termite *Zootermopsis angusticollis*. Presentation at the Entomological Society of America National Meetings, Atlanta, GA, December 3-8.
- Bulmer, M., Traniello, J.F.A. and Adams, E.A. 1999b. Variation in colony structure in the subterranean termite *Reticulitermes* Ibid.

Moustakas, J., Traniello, J.F.A., and Rosengaus, R.B. 1999c. Pathogen load, nesting ecology and disease resistance in termites. Poster. *Ibid.*

Seid, M. and Traniello, J.F.A. 1999d. Serotonin and ant behavior. *Ibid.*

Rosengaus, R.B. and Traniello, J.F.A. 1999e. Demography and disease resistance in termites. *Ibid.*

Traniello, J.F.A. and Rosengaus, R.B. 1999f. Immunity and sociality in the dampwood termite *Zootermopsis angusticollis*. *Ibid.*

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Traniello, J.F.A., Rosengaus, R.B., and Pie, M. 2001. Comparative pathobiology of ants and termites. Entomological Society of America National Meetings, San Diego, CA.

Rosengaus, R.B., Traniello, J.F.A. and Savoie K. 2001. The development of immunity in a social insect: evidence for the group facilitation of disease resistance. *IBID.*

Pie, M., Sorensen, M., and Traniello, J.F.A. 2001. Molecular phylogeny of the ant tribe Pheidolini. *IBID.*

Seid, M., Harris, K., and Traniello, J.F.A. 2001. Ultrastructure of the mushroom bodies of the ant *Pheidole dentata*. *IBID.*

Jez, K., Seid, M., Li, C., Lin, J., and Traniello, J.F.A. 2001. *IBID.*

Rosengaus, R.B., Traniello, J.F.A. and Savoie K. 2002. The development of immunity in a social insect: evidence for the group facilitation of disease resistance. International Society of Behavioral Ecology. Université du Québec à Montréal, Montreal, Canada.

Calleri, D.V. II, Rosengaus, R.B., Traniello, J.F.A. 2003. Does immune challenge to primary reproductives during colony foundation influence long-term colony fitness? Trade-off between disease resistance and reproduction in the dampwood termite *Zootermopsis angusticollis*. Entomological Society of America national meeting, Cincinnati, OH.

Calleri, D.V. II, Rosengaus, R.B., Traniello, J.F.A. 2004. Inbreeding and disease resistance in primary pairs of the dampwood termite *Zootermopsis angusticollis*. Invited symposium presentation, International Congress of Entomology, Brisbane, Australia.

Calleri, D.V. II, Rosengaus, R.B., Traniello, J.F.A. 2004. Trade offs between disease resistance and reproduction in incipient colonies of the dampwood termite *Zootermopsis*

angusticollis. Invited symposium presentation, International Congress of Entomology, Brisbane, Australia.

Robson, S.K., Sumpter, D., Traniello, J.F.A. 2004. Reconciling individual simplicity with group complexity: an experimental and simulation study of search behavior in the subterranean termite *Reticulitermes flavipes*. International Congress of Entomology, Brisbane, Australia.

Fefferman, N.H. and Traniello, J.F.A. 2004. Social insects as models in human epidemiology. Invited presentation, DARPA/DSO Endogenous Defense Workshop, July 13-15, 2004, Fairfax, VA.

Traniello, J.F.A. 2005. Insects as model systems in socioecology. Cambridge Entomological Club.

Ryder-Wilkie, K. T., Mertl, A.L., and Traniello, J.F.A. 2006a. Tropical subterranean biodiversity: a new method for studying an understudied ant fauna. Proceedings of the XV Congress of the International Union of the Study of Social Insects, Washington, D. C. p. 213-214. poster presentation.

Willey, T., Muscedere, M.L. and Traniello, J.F.A. 2006b. Age and brood care in the ant *Pheidole dentata*: are callows really specialists? IBID. p. 244-245.

Traniello, J.F.A., Calleri, D.V., Reid, E.M., Vargo, E.L. and Rosengaus, R.B. 2006c. Inbreeding, outbreeding and infection resistance in the termite *Zootermopsis angusticollis*. IBID. p. 63. invited presentation, Termite Life Histories Symposium.

Mertl, A.L. and Traniello, J.F.A. 2006d. Subcaste morphology and behavioral plasticity in a community of tropical *Pheidole*. p. 113. invited presentation, Caste Interactions and Social Reproduction Symposium

Muscedere, M.L. and Traniello, J.F.A. 2006e. Comparative neuromorphology of North American *Pheidole*: evidence for the evolution of a mosaic brain. IBID. p. 261-262. poster presentation.

Berglund, J.L., Genuardi, M., Muscedere, M.L. and Traniello, J.F.A. 2006f. Polymorphism and division of labor in the leaf-cutter ant *Acromyrmex octospinosus* during cycles of foraging and gardening. IBID. p. 242-243. poster presentation.

Rosengaus, R.B., Postava-Davignon, M. and Traniello, J.F.A. 2006c. Social transmission of immunity: nestmate interactions, the upregulation of immune proteins and the development of colony-level immunocompetence in the termite *Zootermopsis angusticollis*. IBID. pp. 67-68. Invited presentation, The Immune System of Social Insects: Challenges of a Colonial Life Symposium.

- Muscudere, M.L., Seid, M., Johnson, N., Willey, T., Gillis, B. and Traniello, J.F.A. 2009. Brains, neurotransmitters, nursing, and foraging in the ant *Pheidole dentata*. Oral presentation, National Integrative and Comparative Biology meeting, Boston, MA Jan. 2009.
- Djermoun, A., Muscudere, M.L., and Traniello J.F.A. 2009. Behavioral development in a complex social invertebrate: does experience influence nursing competence in the ant *Pheidole dentata*? Poster presentation, Boston Undergraduate Research Symposium, April 11, 2009. Harvard University, Cambridge, MA.
- Djermoun, A., Muscudere, M.L., and Traniello J.F.A. 2009. Behavioral development in a complex social invertebrate: does experience influence nursing competence in the ant *Pheidole dentata*? Poster presentation, Boston University Undergraduate Research Symposium, October, 2009. Boston University, Boston, MA.
- Giraldo, Y., Gronenberg, W. and Traniello, J.F.A. 2009. Comparative anatomy of a mushroom body serotonergic neuron in the subcastes of the ant *Pheidole dentata*: is there a relationship to division of labor? Poster presentation, Annual National Entomological Society of America Meeting, Indianapolis, Indiana. Dec. 2009.
- Giraldo, Y., Wong, A., Rusakov, A. and Traniello, J.F.A. 2010. Subcaste and age-related patterns of behavioral development and neurodegeneration in the ant *Pheidole dentata*. Oral presentation, Proceedings of the XVI Congress of the International Union of the Study of Social Insects, Copenhagen.
- Muscudere, M.L. and Traniello, J.F.A. 2010. Intra- and interspecific neuroanatomical variation among behaviorally differentiated workers in the ant genus *Pheidole*. Oral presentation, Proceedings of the XVI Congress of the International Union of the Study of Social Insects, Copenhagen.
- Muscudere, M.L., Gronenberg, W. and Traniello, J.F.A. 2011. The ant genus *Pheidole* as a model system in socioneuroethology. Poster presentation, Gordon Research Conference on Neuroecology, Stonehill College, August 13-20.
- Giraldo, Y., Rusakov, A., Gronenberg, W. and Traniello, J.F.A. 2011. Sociality, behavioral performance and neurosenescence in the ant *Pheidole dentata*. Poster presentation. IBID.
- Kamhi, J.F., Giraldo, Y.M., Nunn K., Patel E., Walker C.L., Gronenberg W, Traniello J.F.A. (2012) Brain structure and division of labor in ants: the neuroecology of social complexity. 500.14/EEE9. Society for Neuroscience Conference, New Orleans, LA.
- Giraldo, Y.M., Rusakov A., Kordek A., Traniello J.F.A. 2012. Aging ant brains: behavioral senescence, social stimuli, and apoptotic cell death in the ant *Pheidole dentata*. Tenth International Congress of Neuroethology. College Park, MD.

Muscedere, M.L., Waxman H., Traniello J.F.A. 2012. Is afferent sensory information required for development of central input and processing regions of the insect olfactory system in the ant *Pheidole dentata*? IBID. 501.03.

Kamhi, J.F., Gordon, D., Ronk, K., Gronenberg, W., Traniello, J.F.A. 2013. Social role, age, experience, and synaptic remodeling in the Australian weaver ant, *Oecophylla smaragdina*. Poster presentation, Gordon Research Conference on Neuroecology. Stowe, Vermont.

Giraldo, Y.M., Rusakov A., Kordek A., Wimberly, L., Traniello J.F.A. 2013. Aging miniature brains and elderly labor: ant workers do not senesce. Poster presentation, Gordon Research Conference on Neuroecology. Stowe, Vermont.

Kamhi, J.F., Robson S.K.A., Gronenberg W., and Traniello J.F.A. 2014. The neuroecology of social organization in the Australian Weaver Ant. International Union for the Study of Social Insects 14th International Congress, Cairns, Australia

Muscedere, M., Giraldo Y., Gordon, D., Waxman H. and Traniello J.F.A. 2014. The development of task performance across the worker lifespan. International Union for the Study of Social Insects 14th International Congress, Cairns, Australia

Kamhi, J.F. and J.F.A. Traniello. 2014. Neuromodulation and social organization in the Australian weaver ant *Oecophylla smaragdina*. Social Insects in the Northeast Regions Meeting. Cornell University, Ithaca, New York.

Gordon, D.G. and Traniello J.F.A. 2016. Behavioral repertoire, sensory input, and synaptic organization in *Pheidole rhea*. Poster at the XII Congress of the International Society for Neuroethology in Montevideo, Uruguay 3/30-4/3

Muscedere, M.L., Waxman, H., Bao, Y., Pluimer, B., Traniello, J.F.A. 2016. Resilience in a miniature nervous system: olfactory impairment minimally affects task performance in ant workers. Oral presentation, Society for Integrative & Comparative Biology Meeting, March, 2016. Integrative and Comparative Biology 56 Supplement: 1 pp. E158-E158 Meeting Abstract: 52-5, March 2016

Razdan, E., Hoadley, A., Traniello, J.F.A. 2016. Sensory ecology and subcaste variation: eye structure and brain organization in the leafcutter ant *Atta cephalotes*. SINNERS summer 2016 conference at Pennsylvania State University

Arganda, S., Arganda-Carreras, I., Gordon D.G., Beaudoin M., Kamhi, J.F., Hoadley, A.P., Traniello J.F.A. 2016. Statistical brain atlases illuminate the evolution of brain structure. European Congress of the International Union for the Study of Social Insects, Helsinki.

Arganda-Carreras, I., Arganda, S., Gordon, DG, Beaudoin, M, Traniello, J.F.A. 2017. Group-wise 3D registration based templates to study the evolution of ant worker neuroanatomy. International Symposium on Biomedical Imaging, Melbourne, Australia

Shen, R., Arganda, S., Traniello, JFA. 2017. Physical caste and behavioral specialization in two polymorphic ant species: does division of labor and neuromodulators regulate motor activity? Undergraduate Research Opportunities Program Symposium, Boston University, October, 2017.

Arganda S., Razdan E.S., Hoadley, A.P., Muratore, I., and Traniello, J.F.A. 2018. Division of labor in darkness and in light: adaptive visual system evolution in *Atta cephalotes*. XVIII IUSSI International Congress of the IUSSI, Guarujá, Brazil. August 5-10.

Muratore, I.B., Goolsby, B., Fandozzi, E., Arganda-Carreras, S., Mullen, S.P., Traniello, J.F.A. 2018. Division of labor, neuroanatomy, and brain gene expression in fungus-growing ants. Biology and Genomics of Social Insects, Cold Spring Harbor Labs, N.Y.

Ye, D., Arganda, S., Coto, Z., Waters, J.S., Tipping, M., Traniello, J.F.A. 2018. Diet, nutritional stress, and brain metabolism in ants. Entomological Society of America, Vancouver, B.C.

Goolsby, B., Muratore, I.B., Muscedere, M.L., Traniello, J.F.A. 2018. Neurobiological consequences of worker isolation in a eusocial insect. Undergraduate Research Opportunities Program Symposium, Boston University, October, 2018.

Fandozzi, E., Muratore, I.B., Coto, Z., Traniello, J.F.A. 2018. Brain structure, metabolism, gene expression, and division of labor in *Atta cephalotes*. Undergraduate Research Opportunities Program Symposium, Boston University, October, 2018.

Gillette, S., Fandozzi, E., Muratore, I.B., Coto, Z., Traniello, J.F.A. 2018. Developmental changes in neuroanatomy and brain gene expression in workers of the ant *Camponotus floridanus*. Undergraduate Research Opportunities Program Symposium, Boston University, October, 2018.

Goolsby, B., Muratore, I.B., Muscedere, M.L., and Traniello, J.F.A. 2019. Neurobiological consequences of worker isolation in a eusocial insect. Scientista Symposium (SciSymp19), Harvard Medical School. March 29, 2019.

Zaidi, F.H., Muratore, I.B., Traniello, J.F.A. 2019. Division of labor and synaptic plasticity in the leafcutter ant *Atta cephalotes*. Undergraduate Research Opportunities Program Symposium, Boston University, October, 2019.

Coto, Z., Fandozzi, E., Hunter, E., Azorsa, F., Muratore, I., Arganda, S., Arganda-Carreras, I., Kamhi, J.F., Waters, J., Harrison, J., Muscedere, M., Traniello, J.F.A. 2021.

Social complexity and brain metabolism in ants. Animal Behavior Society Conference, August, 2021.

Azorsa, F., Muscedere, M., Traniello, J.F.A. 2021. Diet, social complexity, and brain evolution of predatory ants. Animal Behavior Society Conference, August, 2021.

Muratore, I.B., Fandozzi, E., Ilies, I., Zaidi, F.H., Mullen, S.P., Traniello, J.F.A. 2021. Adaptive brain mosaicism and transcriptomics of division of labor in a socially complex ant. Animal Behavior Society Conference, August, 2021.

Coto, Z.N., Fandozzi, E., Azorsa, F., Mashimo, B., Riley, J., Muratore, I.B., Waters, J.S., Harrison, J.F., Perl, C.D., Kamhi, J.F., Muscedere, M., Traniello, J.F.A. 2022. Brain size, metabolic scaling, and social complexity in ants. Oral presentation, Causal Mechanisms of Metabolic Scaling Symposium, Society for Interactive and Comparative Biology Annual Meeting, Tempe, AZ. January 3-5.

Coto, Z.N., Fandozzi, E., Mashimo, B., Riley, J., Azorsa, F., Harrison, J.F., Traniello, J.F.A. 2022. Polymorphism and brain metabolic scaling in ants. XIX International Congress of the International Union for the Study of Social Insects, July 3-7, San Diego, CA, oral presentation

Azorsa, F., Muscedere, M., Traniello, J.F.A. 2021. Diet, social complexity and brain evolution of predatory ants. XIX International Congress of the International Union for the Study of Social Insects, July 3-7, San Diego, CA, oral presentation

Smith, E.J., Muratore, I.B., Ilies, I., Mullen, S.P., Traniello, J.F.A. 2022. Taste and task: gustation and division of labor in the fungus-growing ant *Atta cephalotes*. XIX International Congress of the International Union for the Study of Social Insects, July 3-7, San Diego, CA, oral presentation

Muratore, I.B., Fandozzi, E., Ilies, I., Zaidi, F.H., Mullen, S.M., Traniello, J.F.A. 2022. Morphology, neuroanatomy, and transcriptomics of division of labor in agricultural ants. XIX International Congress of the International Union for the Study of Social Insects, July 3-7, San Diego, CA, poster presentation

Manuscript and Research Proposal Review

Acta Oecologica Apidologie American Naturalist Animal Behaviour Annals of the Entomological Society of America American Midland Naturalist Behaviour Behavioral Ecology Behavioral Ecology and Sociobiology Biology Letters Biotropica Breviora Canadian Journal of Zoology Current Biology eLife Entomologia Experimentalis et Applicata Ecology Ecological Entomology Ecotropicos eLife Environmental Entomology Ethology, Ecology and Evolution Evolution Frontiers in Neuroscience Hormones and Behavior Insectes Sociaux Journal of Chemical Ecology Journal of Comparative Neurology Journal of Experimental Biology Journal of Insect Behavior Journal of the Kansas Entomological

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