Teresa Marie Yawn PhD*

Alachua, Florida teresamarieyawn@gmail.com

Entomologist for 23 years, experienced in biological control, insect identification and description, laboratory and field research, insect rearing, outreach, and managing volunteers. Editor and webmaster for 7 years, managing entomological and business websites. Instructor for 23 years on subjects including biology, entomology, field and laboratory research, rocket science, art, and photography. Artist for life, paintings, drawings, digital art, and harmonograph art.

*Previous name: Teresa Marie Cooper.

WORK HISTORY

2021 to Present: Orthopterists' Society, Editor/webmaster

Singing Insects of North America Website

- Editor and webmaster for the Singing Insects of North America website.
- Edit, update, and maintain website and act as contact person.
- Research, write content, and work with scientific contributors.
- Create graphics, maps, figures, and charts as supplementary material.

2018 to 2021: University of Florida, Webmaster

Entomology and Nematology Department, Gainesville, Florida

- Webmaster for Singing Insects of North America (SINA) website.
- Created and managed HTML, CSS, pdf, graphic, audio, and other files for SINA.
- Researched specimens on SINA and worked with scientific contributors.
- Transferred SINA website from University of Florida's server to the Orthopterists' Society's server.

2017 to present: teresamariedreams LLC, Artist

Self-employed, Newberry, Florida

- Create and display original fine art in galleries and art events.
- Create commissioned artwork and illustrations.
- Host workshops on creating art and professionally framing artwork.
- Maintain online shop for selling art.

2010 to 2016: University of Florida, Post-Doctoral Associate

Indian River Research and Education Center, Ft. Pierce, Florida

- Managed laboratory in a biological control research center with quarantine facility.
- Managed biological control program to control an invasive insect in Florida.
- Performed outreach with the community and interacted with the public and media.
- Initiated conservation movement to protect endangered bromeliads in Florida.

2001 to 2009: University of Florida, Graduate Research Assistant

Entomology and Nematology Department, Gainesville, Florida

- 2006-2009: PhD student, released biological control agent to control invasive insect.
- 2001-2006: Master's student, mapped and monitored an invasive insect in Florida.
- Maintained insect and plant colonies.
- Performed outreach with the community and interacted with the public and media.

2001 to 2006: Community Education, Digital Photography, Co-instructor

Santa Fe College, Gainesville, Florida

- Co-instructed 3 levels of digital photography classes.
- Prepared lessons for in-class lectures and field trips.
- Helped students with using computer software for downloading, managing, and editing photographs.
- Researched digital cameras and editing software.

1998 to 2001: University of Florida, Laboratory Assistant

Entomology and Nematology Department, Gainesville, Florida

- Reared insect and plant colonies for research purposes.
- Helped with research projects.
- Initiated field research on an invasive insect.

RESEARCH EXPERIENCE

Classical Biological control Program: worked with a classical biological control program to control an invasive bromeliad-eating weevil (*Metamasius callizona*) attacking native bromeliads in Florida.

- Mapped and monitored bromeliad and weevil populations for 4 years in 5 natural areas throughout central and south Florida. Trained and managed volunteers who helped with the project.
- Released and monitored biological control agent (*Lixadmontia franki*, a new genus and species of fly) to control *M. callizona* in Florida; >2000 flies were released in 4 natural areas over 2 years for doctoral dissertation; >5,000 flies released in 10 Natural Areas over 5 years as Post-doctoral Associate.
- Managed laboratory and fieldwork for 7 years overseeing the program to control *M. callizona* in Florida. Improved methods for rearing weevil and fly colonies. Designed and oversaw research on the weevil and *L. franki*. Traveled to Honduras to collect *L. franki* flies. When the fly proved incapable of surviving in Florida, switched tactics to study a variety of bromeliad in Belize that is resistant to the weevil. Collected weevil and bromeliad specimens from Belize and studied them in the quarantine facility in Ft. Pierce, Florida. Worked with permitting agents to bring specimens in and out of quarantine. Trained and managed volunteers to help with the projects.
- Described larval stages of *Lixadmontia franki*.

Save Florida's Bromeliads Conservation Project: 2 years initiating and managing a grass-roots project to conserve Florida's native bromeliads.

- Developed a conservation method primarily at the Enchanted Forest Sanctuary in Titusville, Florida to keep the bromeliad species *Tillandsia utriculata* from being extirpated by the invasive weevil *M. callizona*.
- Helped initiate like conservation methods at 3 other natural areas.
- Trained and worked with volunteers as well as land managers, permitting agents, and scientists to promote
 and extend this conservation work.
- Helped organize, prepare for, and participate in workshops to promote the conservation of Florida's bromeliads.

Singing Insects of North America (SINA): research on katydids and crickets in North America, north of Mexico.

- Editor and webmaster of SINA.
- Research primary literature to determine ranges (and shifts in ranges), history, phylogeny, and characteristics of specimens on the SINA website.
- Monitor iNaturalist and BugGuide for new information about specimens on SINA.
- Work with authors of recently published revisions of genera on SINA as well as new species.

- Edit and incorporate images, photographs, audio, video, or other information about SINA species provided by professional and amateur entomologists.
- Photograph SINA specimens at the Florida State Collection of Arthropods to be used on SINA.

WEBSITES

- Singing Insects of North America (https://orthsoc.org/sina/index.htm)
- art by teresa marie yawn (https://artbyteresamarieyawn.com/index.html)
- Teresamarie-yawn (pixels) (https://teresamarie-yawn.pixels.com/)
- Save Florida's Bromeliads (https://savebromeliads.com/)

SKILL SETS

- Competent with Microsoft and Mac computers.
- Proficient in Adobe Photoshop, Dreamweaver, and Acrobat; Microsoft Word, Excel, and PowerPoint; Apple Pages, Numbers, and Keynote; Affinity Designer, Photo, and Publisher; Paint.net; Raven; Audacity; Pinnacle Studio; IrfanView; OBS Studio; Minitab; and more.
- Capable of quickly and efficiently learning new software.
- Good at troubleshooting and resolving computer problems.
- Proficient web designer using Hypertext Markup Language (HTML5) and cascading style sheets (CSS).
- Developing scientific methods: developed 4 complex, long-term (2-4 years) field methods, each which involved several locations and tens of people, as well as dozens of laboratory experiments, short and long-term.
- Insect and plant rearing: Improved method for rearing a weevil colony and maintained colony for 18 years; developed a method for rearing parasitoid fly and maintained colony for 5 years; maintained bromeliad collections for 18 years; maintained beetle, scale, and cycad colonies for 2 years.
- Managing volunteers: Instructed and managed more than 200 volunteers in groups ranging from 2 to 25 people on 12 projects over 16 years; volunteers ranged from 8 to >70 years old, education from 3rd grade to university, and duration of volunteer on the project ranging from 1 day to 4 years.
- Presenting: Very good at designing, creating, and giving presentations on a wide range of subjects to a
 wide range of audiences; over 25 professional presentations given over 15 years and more than 150
 presentations given at societies, board meetings, supporters, schools, universities, and community events
 over 17 years.
- Instructing: 15 years co-instructing rocket classes; 5 years co-instructing photography classes; 16 years instructing with volunteers and students in field and laboratory research; 6 years holding workshops on creating art and professionally framing artwork.
- Remote work: 4 years working remotely as the webmaster (and 3 years as editor) of the Singing Insects of North America (SINA) website; 6 years working remotely with scientists contributing information to be added to the SINA website; 16 years working with volunteers, land managers, and colleagues remotely between field trips, workshops, and conferences; 24 months working remotely with gallery personnel, business contact, and artists to prepare and set up art exhibits in a health facility, during a pandemic.

EDUCATION

University of Florida: Entomology and Nematology Department, Gainesville, Florida

2006 to 2009: Entomologist, PhD. 2001 to 2006: Entomology, MSc.

1998 to 2001: Entomology, BSc; graduated with honors.

Santa Fe Community College

1997 to 1998: Prerequisite classes for enrollment in University of Florida.

1993 to 1995: AA and AS.

Eastern Kentucky University

1989 to 1993: General studies.

PROFESSIONAL ACTIVITIES AND ASSOCIATIONS

2021 to Present: Orthopterists' Society (OS)

- Editor and webmaster for Singing Insects of North America (SINA) website.
- Write SINA Updates for the OS newsletter, Metaleptea.

2021 to Present: National Association of Rocketry

- Build and fly rockets.
- Guide students in building and flying rockets.

2020 to Present: Florida Department of Agriculture and Consumer Services

- Research Associate.
- Help maintain the Orthoptera collection in the Florida State Collection of Arthropods.

2018 to 2022: Gainesville Fine Arts Association (GFAA)

- Coordinated the GFAA-SIMED Art Exhibit in Gainesville, Florida from 2020 to 2022.
- Created virtual exhibits of SIMED Art Exhibits.

2004 to present: Rocket Classes

- Co-instructed classes teaching principles of rocket science and building and launching model rockets.
- Rocket classes were canceled from 2020 to 2022 due to the COVID pandemic but have restarted in 2023.
- Classes happen 2 -3 times per year.

2001 to Present: Florida Entomological Society

- Member at Large from 2012 to 2014.
- Helped maintain the Awards Pages on the Website for the Florida Entomological Society from 2013 -2014.

AWARDS AND RECOGNITION

2019: Florida Native Plant Society

Grant for Save Florida's Bromeliads Conservation Project at the Enchanted Forest Sanctuary, Titusville, Florida.

2014 to 2017: Florida Council of Bromeliad Societies

Funded operation costs for research on *Metamasius callizona*, an invasive insect in Florida.

2014: Florida Council of Bromeliad Societies and University of Florida

Funded trip to Belize to collect weevil and bromeliad specimens to help research biological control efforts to control the invasive weevil *M. callizona* in Florida.

2012: Caribbean Food Crops Society

Funded trip to attend and present at the TSTAR Invasive Species Symposium in Mexico.

2008: Florida Entomological Society Annual Meeting

Won 1st place in presentation competition.

2003: Florida Entomological Society Annual Meeting

Won 3rd place in presentation competition.

2000: Coca Cola

Granted \$2,000.00 for tuition.

1994: Santa Fe Community College, Environmental Science Department

Award for excellent achievement.

PUBLICATIONS

- Cooper TM, Cave RD, Frank JH. 2024. Potential bottom-up control of *Metamasius callizona* in Florida, USA. Entomologia Experimentalis et Applicata doi.org/10.1111/eea.13420
- Cooper TM, Cave RD. 2019. *Metamasius callizona* (Coleoptera: Curculionidae): fertility and larval survival to the third instar in the laboratory. Florida Entomologist 102(2): 413-417.
- <u>Cooper TM, Cave RD. 2016</u>. Effect of temperature on growth, reproductive activity, and survival of the invasive bromeliad-eating weevil *Metamasius callizona* (Coleoptera: Curculionidae). Florida Entomologist 99(3): 451-455.
- Cooper TM, Frank JH, Cave RD. 2014. Loss of phytotelmata due to an invasive bromeliadeating weevil and its potential effects on faunal diversity and biogeochemical cycles. Acta Oecologica 54: 51-56.
- Cooper TM, Frank JH. 2014. Description of the larval instars of *Lixadmontia franki* (Diptera: Tachinidae). Florida Entomologist 97(3): 1002-1014.
- Cooper TM, Frank JH, Cave RD, Burton MS, Dawson JS, Smith BW. 2011. Release and monitoring of a potential biological control agent, *Lixadmontia franki*, to control an invasive bromeliad-eating weevil, *Metamasius callizona*, in Florida. Biological Control 59: 319-325.
- <u>Cooper TM. 2009</u>. An assessment of a biological control agent, *Lixadmontia franki* (Diptera: Tachinidae), to control *Metamasius callizona* (Coleoptera: Curculionidae), an invasive herbivore destroying Florida's native bromeliads. Doctoral Dissertation, University of Florida, Gainesville, FL. 104 pp.

- <u>Cooper TM. 2008</u>. Seasonality and abundance of *Metamasius callizona* (Coleoptera: Dryophthoridae), an invasive insect herbivore, on two species of *Tillandsia* (Bromeliaceae) in Florida. Journal of Natural History 42(43-44): 2721-2734.
- <u>Frank JH, Cooper TM, Larson BC. 2006</u>. *Metamasius callizona* (Coleoptera: Dryophthoridae): longevity and fecundity in the laboratory. Florida Entomologist 89(2): 208-211.
- <u>Cooper TM. 2006</u>. Ecological and demographic trends and patterns of *Metamasius callizona* (Chevrolat), an invasive bromeliad-eating weevil, and Florida's native bromeliads. Master's Thesis, University of Florida, Gainesville, FL. 69 pp.

PROFESSIONAL PRESENTATIONS

- Cooper TM. 21 Mar 2018. Bromeliads and mosquitoes. 15th Annual Arbovirus Surveillance and Mosquito Control Workshop. St. Augustine, Florida.
- Cooper TM. 5 Apr 2017. Florida Bromeliad Conservation Working Group. Sarasota, Florida.
- Cooper TM. 6 Apr 2017. Rare Plant Task Force meeting. Sarasota, Florida.
- Cooper TM. 10 Dec 2015. GAP 2015: saving the giant airplant in Florida. Giant Airplant Workshop. Venice, Florida.
- Cooper TM. 22 Sep 2015. New tactics for saving Florida's native bromeliads. Brevard County Environmentally Endangered Lands Program, Selection and Management Committee. Titusville, Florida.
- Cooper TM. 14 Jan 2015. History and update of the Mexican bromeliad weevil. Giant Air Plant Workshop. Venice, Florida.
- Cooper TM, Cave RD. 5 Aug 2014. Growth, survival, and reproductive behavior of *Metamasius callizona* (Chevrolat) (Coleoptera: Curculionidae) on different host bromeliads. Florida Entomological Society Annual Meeting. Jupiter, Florida.
- Cooper TM, Frank JH, Cave RD. 22 Jan 2014. The invasive species *Metamasius callizona* (Mexican Bromeliad Weevil): problems and prospects. South West Florida Invasive Species Workshop. Ft. Myers, Florida.
- Cooper TM, Frank JH, Cave RD. 7 Nov 2013. The invasive species *Metamasius callizona* (Mexican Bromeliad Weevil): problems and prospects. Big Cypress Research Symposium. Ochopee, Florida.
- Cooper TM, Cave RD, Frank JH. 16 Jul 2013. Growth and development of *Metamasius callizona* on different host bromeliads. Florida Entomological Society Annual Meeting. Naples, Florida.

- Cooper TM, Cave RD, Frank JH. 14 Nov 2012. Growth and development of *Metamasius callizona* on four host plants. Entomological Society of America Annual Meeting. Knoxville, Tennessee.
- Cooper TM, Cave RD, Frank JH. 25 Jul 2012. Morphology of the larval stages of the weevil parasitoid *Lixadmontia franki*. Florida Entomological Society Annual Meeting. Jupiter Beach, Florida.
- Cooper TM, Frank JH, Cave RD. 23 May 2012. The invasive species *Metamasius callizona* (Mexican bromeliad weevil): problems and prospects. TSTAR Invasive Species Symposium, Caribbean Food Crops Society Annual Meeting. Playa del Carmen, Mexico.
- Cooper TM. 15 Feb 2012. Mexican bromeliad weevil project. Colloquium on Plant Pests of Regulatory Significance. University of Florida. Gainesville, Florida.
- Cooper TM, Frank JH, Cave RD. 22 Nov 2011. Loss of bromeliad-contained waters in the Enchanted Forest Sanctuary (Florida, USA) due to an invasive bromeliad-eating weevil and the impact on forest ecosystems. Biolief 2011, Grupo de Investigación y Educación en Temas Ambientales. Mar del Plata, Argentina. [Poster presentation.]
- Cooper TM. 15 Nov 2011. Effect of temperature on survival, development, and oviposition behavior of *Metamasius callizona* (Coleoptera: Curculionidae). Entomological Society of America Annual Meeting. Reno, Nevada.
- Cooper TM, Cave RD, Frank JH. 16 Dec 2010. Morphology of the larval stages of the weevil parasitoid *Lixadmontia franki* (Diptera: Tachinidae). Entomological Society of America Annual Meeting. San Diego, California.
- Cooper TM, Cave RD, Frank JH. 10 Nov 2010. Controlling the Mexican bromeliad weevil in the Everglades. Big Cypress Research Symposium. Everglades City, Florida.
- Cooper TM, Cave RD, Frank JH. 11 Oct 2010. Bromeliad-eating weevils as pests of bromeliads. Potential Invasive Pests Workshop. Everglades City, Florida.
- Cooper TM, Cave RD, Frank JH. 27 Jul 2010. The effects of two host bromeliad species on a bromeliad-eating weevil, *Metamasius callizona*. Florida Entomological Society Annual Meeting. Jupiter Beach, Florida.
- Cooper TM. 13 Jul 2010. The Mexican bromeliad weevil (*Metamasius callizona*): changing Florida's canopy. Greater Everglades Ecosystem Restoration. Naples, Florida.
- Cooper TM. 14 Jul 2008. Post-release monitoring of a biological control agent, *Lixadmontia franki*, in Florida. Florida Entomological Society Annual Meeting. [Competition: won 1st place.] Jupiter Beach, Florida.

- Cooper TM. 25 Jul 2006. Ecological interactions between an invasive bromeliad-eating weevil, *Metamasius callizona*, and two host bromeliads in south Florida, *Tillandsia fasciculata* and *T. utriculata*. Florida Entomological Society Annual Meeting. Jupiter Beach, Florida.
- Cooper TM. 25 Jul 2005. *Metamasius callizona*, an immigrant bromeliad-eating weevil, and Florida's native bromeliads. Florida Entomological Society Annual Meeting. Ft. Myers, Florida.
- Cooper TM. 27 Jul 2004. Effect of the immigrant weevil *Metamasius callizona* (Chevrolat) on the mortality of native bromeliads in Myakka River State Park, Sarasota County, Florida. Florida Entomological Society Annual Meeting. Ft. Lauderdale, Florida.
- Cooper TM. 7 Aug 2003. Geographical and temporal distribution of *Metamasius callizona* and its host plants in Myakka River State Park, Sarasota County, Florida. Florida Entomological Society Annual Meeting. [Competition: won 3rd place.] Ft. Lauderdale, Florida.