

NEMATROPICA Vol. 49, No. 2, 2019
EDITORIAL COMMITTEE – COMITÉ EDITORIAL

Editors-in-Chief – Editores en Jefe:

Louise-Marie Dandurand, University of Idaho, Moscow, ID, USA – lmd@uidaho.edu
Inga Zasada, USDA-ARS, Corvallis, OR, USA – inga.zasada@usda.gov

Past Editor-in-Chief – Ex Editor en Jefe

Brent S. Sipes, University of Hawaii at Manoa, Department of Plant and Environmental Protection Sciences, Honolulu, HI, USA – sipes@hawaii.edu

Senior Editors – Editores Adjuntos:

Danny Humphreys-Pereira, University of Costa Rica, San Jose, Costa Rica – danny.humphreys@ucr.ac.cr
Claudio Marcelo Oliveira, Instituto Biologico, Campinas, Sao Paulo, Brazil – marcelonematologia@gmail.com

Associate Editors – Editores Asociados:

Johan Desaeger, University of Florida, Wimauma, FL, USA – jad@ufl.edu
Travis Faske, University of Arkansas, Lonoke, AR, USA – tfaske@uark.edu
Tristan Watson, Louisiana State University, Baton Rouge, LA, USA – twatson@agcenter.lsu.edu

Coordinator of the Electronic Version of Nematropica:

Larry Duncan, University of Florida, Institute of Food and Agricultural Science, Citrus Research and Education Center, Lake Alfred, FL USA – lwduccan@ufl.edu

NEMATROPICA (ISSN 2220-5608/ISSN 2220-5616) is published biannually by ONTA, the ORGANIZATION OF NEMATOLOGISTS OF TROPICAL AMERICA. The organization meets once a year for the presentation of papers on tropical and subtropical nematology and for the transaction of business. Interested persons can apply for membership at the ONTA homepage, <http://www.ontaweb.org/>. Annual membership is \$40.00 U.S. for regular members and \$500 U.S. for sustaining members. Payment can be made with a check in U.S. currency drawn on a USA bank or by VISA and MasterCard; however, a fee of \$7.00 U.S. will be added for credit card orders. Membership form and other information regarding ONTA and Nematropica can be found at the ONTA website: <http://ontaweb.org>.

NEMATROPICA (ISSN 2220-5608/ISSN 2220-5616) es la publicación bianual de ONTA, la ORGANIZACIÓN DE NEMATÓLOGOS DE LOS TRÓPICOS AMERICANOS. La organización se reúne una vez al año para presentar trabajos en nematología tropical y subtropical y para discutir asuntos administrativos. Las personas interesadas en pertenecer a la ONTA deben hacerlo en la página web de la organización: <http://www.ontaweb.org/>. El costo de la membresía anual es de \$40.00 USD para miembros ordinarios y \$50.00 USD para miembros patrocinadores. Los pagos pueden hacerse con cheque de banco en EEUU o con tarjeta de crédito VISA o MasterCard. Se cobra un costo adicional de \$7.00 USD a las transacciones hechas con tarjeta de crédito. El formato de membresía y otra información acerca de la ONTA puede encontrarse en la página web de la organización: <http://ontaweb.org>

OFFICERS OF ONTA FOR 2019-2020 – FUNCIONARIOS DE ONTA PARA 2019-2020

President – Presidente: *Martin Augusto Delgado Junchaya*, Universidad Privada Antenor Orrego, Trujillo, La Libertad, Peru. Email: mdelgadoj@upao.edu.pe

Vice-President – Vicepresidente: *Fabio Chaverri Fonseca*, IRET-UNA, Universidad Nacional, apartado postal 86-3000, Heredia, Costa Rica. Tel: (506) 22773584, (506) 22773587; FAX: (506) 22773583; email: fabio.chaverri@una.cr

Secretary – Secretaria: *Maria de Lourdes Mendes*, Department of Entomology and Nematology, University of Florida, P.O. Box 110620, Gainesville FL 32611-0620, USA; e-mail: mlmendes@ufl.edu

Treasurer-Tesorero: *Renato N. Inserra*, Florida Department of Agriculture & Consumer Services, Division of Plant Industry, P.O. Box 147100, Gainesville FL 32614-7100 USA. Tel: 1-352-395-4755, FAX: 1-352-395-4614; e-mail: renato.inserra@fdacs.com

Business Manager – Administradora: *Janete A. Brito*, Florida Department of Agriculture & Consumer Services, Division of Plant Industry, 1911 SW 34th Street, Gainesville, FL 32608 USA. Tel: 352-395-4752, FAX: 352 395-4614; e-mail: janete.brito@fdacs.com

Members-at-Large - Miembros Generales: *Mayra G. Rodríguez Hernández*; Departamento de Protección Vegetal, Centro Nacional de Sanidad Agropecuaria (CENSA), San José de las Lajas, Provincia Mayabeque, Cuba, e-mail: mriguez@censa.edu.cu or mayrag2531961@gmail.com; *Daniel L. Coyne*, International Institute of Tropical Agriculture (IITA), Nairobi, Kenya; e-mail: d.coyne@cgiar.org

NEMATROPICA

Una Revista Científica Internacional de Nematología Tropical y Subtropical Publicada por ONTA
An International Scientific Journal of Tropical and Subtropical Nematology Published by ONTA

Nematropica (ISSN 2220-5608) is an international scientific journal of tropical and subtropical nematology. Manuscripts will not be considered for publication unless at least one author is a member of ONTA at the time the manuscript is submitted. There are no page charges for publication in Nematropica. Beginning in 2011 with Volume 41, Nematropica has been exclusively an on-line journal available via the ONTA website <http://www.ontaweb.org/> and <http://journals.fcla.edu/nematropica/issue/current>.

NOTICE TO CONTRIBUTORS/NOTAPARA LOS COLABORADORES

<http://ontaweb.org/>

VOL. 49, No. 2

Diciembre-2019-December

Online Publication Prepared by:
Cathy Howard
Operations Manager/Copy Editor
Email: nematropica@gmail.com