



NOTULAE SCIENTIA BIOLOGICAE

2017 Volume 9, Issue 2

*Published by AcademicPres on behalf of:
Horticulture and Forestry Society from Transylvania*

Abstracted and/or indexed:

- Centre for Agriculture and Biosciences International (CABI), <http://www.cabi.org>
- ProQuest, <http://www.proquest.co.uk>
- Elton B Stephens CCompany (EBSCO), <http://www.ebscohost.com>
- Chemical Abstracts Service (CAS), <http://www.cas.org>
- CrossRef, <http://www.crossref.org>
- Google Scholar, <http://scholar.google.com>
- Directory of Open Access Journals (DOAJ), <http://www.doaj.org>
- British Library Direct (BLD), <http://explore.bl.uk>
- Index Copernicus, <http://www.indexcopernicus.com>
- Russian Scientific and Technical Information Institute (VINITI), <http://www.viniti.ru>
- Bielefeld Academic Search Engine (BASE), <http://www.base-search.net>
- China Educational Publications Import and Export Corporation (SOCOLAR), <http://www.socolar.com>
- Genamics JournalSeek, <http://journalseek.net>
- The National Science Digital Library (NSDL), <http://nsdl.org>
- WorldCat, <http://www.worldcat.org>

Print ISSN 2067-3205, Electronic ISSN 2067-3264

www.notulaebiologicae.ro

Editorial Committee

| | | |
|----------------------------|-------------------------|-------------------------------|
| Editor-in-Chief: | Radu E. SESTRAŞ | rsestras@notulae.ro |
| Advisory Editors: | Cornel CĂTOI | cornel.catoi@usamvcluj.ro |
| | Viorel MITRE | mitre.viorel@usamvcluj.ro |
| | Ioan Gheorghe OROIAN | ioan.oroiian@usamvcluj.ro |
| | Doru PAMFIL | dpamfil@usamvcluj.ro |
| Executive Editors: | Cătălina DAN | editor5@notulae.ro |
| | Lucica MIHALTE (CRIŞAN) | lmihalte@notulae.ro |
| | Valentin SINGUREANU | editor3@notulae.ro |
| Associate Editors: | Sorana BOLBOACĂ | sbolboaca@umfcluj.ro |
| | Monica BOSCAIU | mobosnea@eaf.upv.es |
| | Vasile COZMA | vasile.cozma@usamvcluj.ro |
| | Bogdan GEORGESCU | bogdan.georgescu@usamvcluj.ro |
| | Ioan Ştefan GROZA | ioangroza@yahoo.com |
| | Liviu HOLONEC | liviu.holonec@usamvcluj.ro |
| | Lorentz JÄNTSCHI | lori@academicdirect.org |
| | Mihail KANTOR | catrisu@yahoo.com |
| | Felicia LOGHIN | floghin@umfcluj.ro |
| | Andrei Daniel MIHALCA | amihalca@usamvcluj.ro |
| | Vioara MIREŞAN | vmiresan@usamv.ro |
| | Sevastiţa MUSTE | smuste@usamvcluj.ro |
| | Ioana POP | popioana@usamvcluj.ro |
| | Ioan ROTAR | irotar@usamvcluj.ro |
| | Adriana F. SESTRAŞ | adriana.sestras@usamvcluj.ro |
| | Carmen SOCACIU | csocaciu@usamvcluj.ro |
| | Alina M. TRUȚA | alina_vilcan@yahoo.com |
| | Dan VODNAR | dan.vodnar@usamvcluj.ro |
| Journal Secretary: | Roxana L. STOIAN | editor6@notulae.ro |
| Linguistic editors: | Mihaela RUSU | miky1000ro@yahoo.com |
| | Rodica STAN | ro7si@yahoo.com |
| Technical support: | Adriana D. BACIU | ady.baciu@yahoo.com |
| | Diana MIRCEA | editor4@notulae.ro |
| | Maria GIURGEA | editor2@notulae.ro |
| | Dorottya DOMOKOS | ddomokos@usamvcluj.ro |
| | Oana PERNES | editor3@notulae.ro |
| | Ioana Maria PLEŞA | editor7@notulae.ro |

Editorial Board

| | |
|-------------------------|---|
| Ioan Vasile ABRUDAN | Transilvania University, 1 Sirul Beethoven St., 500123 Brasov, Romania; abrudan@unitbv.ro |
| Douglas D. ARCHBOLD | University of Kentucky, Lexington, KY 40546-0091, USA; darchbol@uky.edu |
| Omar BAGASRA | Claflin University, 400 Magnolia Street, Orangeburg, SC 29115, USA; obagasra@claflin.edu |
| Grigore BĂCIUȚ | University of Medicine and Pharmacy, 37 Cardinal Iuliu Hossu St., 400029 Cluj-Napoca, Romania; gbaciut@umfcluj.ro |
| Umberto BERNABUCCI | University of Tuscia, Via S. Camillo de Lellis 1-01100 Viterbo, Italy; bernab@unitus.it |
| Dimitrios BILALIS | Agricultural University of Athens, Department of Crop Science, Iera Odos 75, 11855 Athens, Greece; bilalisdimitrios@yahoo.gr |
| Rebecca BULLARD-DILLARD | Claflin University, 400 Magnolia Street, Orangeburg, SC 29115, USA; rdillard@claflin.edu |
| Anca Dana BUZOIANU | "Iuliu Hatieganu" University of Medicine and Pharmacy Cluj-Napoca, 8 Victor Babes, Cluj-Napoca, Romania; abuzoianu@umfcluj.ro |
| Gheorghe CIMPOIES | The State Agrarian University of Moldova, 44 Mircesti St., Chisinau, Moldova; cimpoies@uasm.md |
| Kamal CHOWDHURY | Claflin University, 400 Magnolia Street, Orangeburg, SC 29115, USA; kchowdhury@claflin.edu |
| Ioan COMAN | University of Medicine and Pharmacy, 13 Emil Isac, 400023, Cluj-Napoca, Romania; jcoman@yahoo.com |
| Vasile CRISTEA | Babes-Bolyai University, 44 Gh Bilascu St., 400015 Cluj-Napoca, Romania; cristea@grbot.ubbcluj.ro |
| Róbert FARKAS | Faculty of Veterinary Science, Szent István University, Budapest Pf. 2, Hungary; farkas.robert@aotk.szie.hu |
| László FODOR | Faculty of Veterinary Science, Szent István University, Budapest, Hungary; Fodor.Laszlo@aotk.szie.hu |
| Francisco FUENTES | Ernest Mario School of Pharmacy Rutgers, The State University of New Jersey, USA; francisco.fuentes@rutgers.edu |
| Marek GAJEWSKI | Warsaw Agricultural University, 166 Nowoursynowska, 02-787 Warsaw, Poland; marek_gajewski@sggw.pl |
| Stefano GREGO | University of Tuscia, Via S. Camillo de Lellis 1-01100 Viterbo, Italy; grego@unitus.it |
| Roman HOLUBOWICZ | Agricultural University of Poznań, Department of Horticultural Seed Science and Technology, Poland; rholubowicz@au.poznan.pl |
| Florin IORAȘ | Buckinghamshire New University, United Kingdom; Florin.Ioras@bucks.ac.uk |
| Alexandru IRIMIE | 'Ion Chiricuță' Cancer Institute, 34-36 Republicii St., 400015, Cluj-Napoca, Romania; office@iocn.ro |
| Stefania MASCI | University of Tuscia, Via S. Camillo de Lellis 1-01100 Viterbo, Italy; masci@unitus.it |
| Dan MIHU | University of Medicine and Pharmacy, 13 Emil Isac, 400023, Cluj-Napoca, Romania; dan.mihu@yahoo.com |
| Meena MISRA | Institute of Frontier Sciences and Biotechnology, Baramunda, Bhubaneswar-751004, India; meenamisra@yahoo.com |
| Neiva Izabel PIEROZZI | Instituto Agronômico de Campinas, CPDR Genéticos Vegetais, Brazil; pierozzi@iac.sp.gov.br |
| Jaime PROHENS | Instituto de Conservación y Mejora de la Agrodiversidad Valenciana Spain; jprohens@btc.upv.es |
| Chen QIN | School of Life Science, Shanghai Univ., 99 Shangda R., Baoshan District, Shanghai, 200436, China; chenqinc@yahoo.com.cn |
| Klaus SCHALLER | Research Center Geisenheim, P.O. Box 1158, D-65358 Geisenheim, Germany; k.schaller@fa-gm.de |
| Lei SHI | University Massachusetts, Sch Med, Department Neurobiol, Worcester, MA 01605 USA; shil@janelia.hhmi.org |
| Oscar VICENTE | IBMCUP Universidad Politécnica de Valencia, Camino de Vera s/n. 46022 Valencia, Spain; ovicente@ibmcup.upv.es |

Notice

To be cited **Notulae Scientia Biologicae** or abbreviated title **Not Sci Biol**.

The Editorial Board of Not Sci Biol is not responsible for statements and opinions published; they represent the views of the authors or persons to whom they are credited. Publication of research information does not constitute a recommendation or endorsement of products involved.

Aims and scope

Notulae Scientia Biologicae is a quarterly peer-reviewed journal aimed at disseminating significant research and original papers, critical reviews and short reviews on life sciences and medicine, development of new methodologies that can be of interest to a wide audience of scientists in all areas of biology sciences. The journal encourages authors to frame their research questions and discuss their results in terms of the major questions of biology, agriculture, horticulture, forestry, biotechnology and medicine, thereby maximizing the impact, spreading and value of their research. The papers must be of potential interest to a significant number of scientists and, if specific to a local situation, must be relevant to a wide body of knowledge in life and medical sciences. Articles should make a significant contribution to the advancement of knowledge or toward a better understanding of existing biological, agricultural and medical concepts. An international Editorial Board advises the journal. The total content of the journal may be used for educational, non-profit purposes without regard to copyright. The distribution of the material is encouraged with the condition that the authors and the source (**Notulae Scientia Biologicae** or **Not Sci Biol**) are mentioned.

Submission

The journal offers to authors a fully web-enabled online manuscript submission, instructions for authors and review system available at <http://www.notulaebiologicae.ro>

Papers are published in English (British spelling) and the authors are fully responsible for the originality of their papers and for the correctness of their subject-matter, language and formal attributes. Authors whose mother tongue is not English are strongly urged to have their manuscripts reviewed linguistically before submission.

Manuscripts submitted must be edited, for clarity and conformity purposes according to Authors guidelines, and must not have been previously published or simultaneously submitted elsewhere.

The papers can be submitted online by the “senior author” (the main author, or the person who takes responsibility for the integrity of the work as a whole, from submission to the published article). The submission process is described on the web site.

An Author Statement, available on the website, should be enclosed by “senior author” declaring that the paper has not been published anywhere else, permission to reproduce the material, authorship credit, contributors and creditors for the integrity of the work as a whole, to avoid the conflicts of interest and scientist fraud, and respecting the ethical principles of publishing, research and scientific rights.

Publication Ethics and Publication Malpractice Policy

The journal respects the publication ethics norms, based on internationally accepted best practice guidelines for journal editors, notably the Committee on Publication Ethics ([COPE](#)), the World Association of Medical Editors Ethics ([WAME](#)), the International Committee of Medical Journal Editors ([ICMJE](#)) and Consolidated Standards of Reporting Trials ([Consort](#)).

Prof. dr. Radu E. SESTRAŞ

Table of Contents - Vol 9, No 2 (2017)

| | |
|--|---------------------|
| Editorial | |
| Introduction Pages | PDF |
| Radu E. SESTRAS | I-VI |
| Review articles | |
| Effect of Quail Egg Administration on Some Liver Function Related Parameters | PDF |
| Patrick Emeka ABA | 149-152 |
| A Principal Component Analysis (PCA) Approach to Seasonal and Zooplankton Diversity Relationships in Fishing Grounds of Mannar Gulf, India | PDF |
| Selvin J. PITCHAIKANI, A.P. LIPTON | 153-160 |
| Food and Feeding Habits of the Deep-Water Mud Shrimp (<i>Solenocera melantha</i>) of Visakhapatnam Coast, India | PDF |
| Rama Chandra Ganesh PATURI, Sarvabhowma Chakravarty MYLA | 161-168 |
| Plankton Abundance and Physico-chemical Water Quality of Effluent Impacted Waterbodies in Ile-Ife, Nigeria | PDF |
| Adebukola Adenike ADEDEJI, Joshua Seun OLAJIDE, Tolulope Israel ALUKO, Iysa Olorunshina MUHIBBU-DIN | 169-176 |
| Detection of Extended Spectrum Beta-Lactamases Among Gram Negative Bacilli Recovered from Cattle Feces In Benin City, Nigeria | PDF |
| Helen Oroboghae OGEEFERE, Salome O. AGBE, Ephraim Ehidiamen IBADIN | 177-181 |
| Methanolic Extracts of <i>Cochorous olitorous</i> (L.) and <i>Adansonia digitata</i> (L.) Leaves Against Irradiation-Induced Atherosclerosis in Male Wistar Rats | PDF |
| Kabir O. BELLO, Sarah O. NWOZO, Johnson OLADELE, Kabir K. MUSTAPHA, Lukman A. QUADRI | 182-187 |
| Assessment of the Water Quality of Saba River, Osogbo, Nigeria | PDF |
| Oluwafisayo A. YUSUF, Henry A. ADEWOLE, Victor F. OLALEYE | 188-195 |
| Green Synthesis and Antimicrobial Activities of Silver Nanoparticles using Cell Free-Extracts of <i>Enterococcus</i> species | PDF |
| Iyabo C. OLADIPO, Agbaje LATEEF, Musibau A. AZEEZ, Tesleem B. ASAFA, Taofeek A. YEKEEN, Akeem AKINBORO, Abiola S. AKINWALE, Evariste B. GUEGUIM-KANA, Lorika S. BEUKES | 196-203 |
| Amino Acids Sequence Based in Silico Analysis of RuBisCO (Ribulose-1, 5 Bisphosphate Carboxylase Oxygenase) Proteins in Some <i>Carthamus</i> L. ssp. | PDF |
| Emre SEVİNDİK | 204-208 |
| Usefulness of a Locus LE21085 in the Genetic Differentiation of Tomato Varieties | PDF |
| Elizabeta MISKSOKA-MILEVSKA, Zoran T. POPOVSKI, Tome NESTOROVSKI | 209-213 |
| Growth and Photosynthetic Pigments Accumulation of Jute Mallow (<i>Corchorus olitorius</i> Linn.) in Response to Different Levels of Magnesium Application | PDF |
| Ezekiel Dare OLOWOLAJU, Olarewaju Gideon OKUNLOLA, Alimat Ololade AYODELE | 214-218 |
| Exogenous Salicylic Acid-Mediated Physiological Responses and Improvement in Yield by Modulating Antioxidant Defense System of Wheat under Salinity | PDF |
| Jannatul FARDUS, Md. Abdul MATIN, Md. HASANUZZAMAN, Md. Shahadat HOSSAIN, Sheymol Dev NATH, Md. Amzad HOSSAIN, Md. Motiar ROHMAN, Mirza HASANUZZAMAN | 219-232 |
| Yield and Yield Attributes Responses of Soybean (<i>Glycine max</i> L. Merrill) to Elevated CO₂ and Arbuscular Mycorrhizal Fungi Inoculation in the Humid Transitory Rainforest | PDF |
| Nurudeen ADEYEMI, Olalekan SAKARIYAWO, Muftau ATAYESE | 233-241 |

| | |
|---|---------------------|
| Phytotoxicity of Chitosan and SiO₂ Nanoparticles to Seed Germination of Wheat (<i>Triticum aestivum</i> L.) and Barley (<i>Hordeum vulgare</i> L.) Plants | PDF |
| | 242-249 |
| Faride BEHBOUDI, Zeinalabedin TAHMASEBI SARVESTANI, Mohamad Zaman KASSAEE, Seyed Ali Mohamad MODARES SANAVI, Ali SOROOSHZADEH | |
| Chemotaxonomic Study of Six Nigerian <i>Ficus</i> Species (Moraceae) | PDF |
| Olaniran T. OLADIPO, Bolajoko A. AKINPELU, Abayomi E. FOLORUNSO, Anyim GODWIN, Segun E. OMOTOSO, Oluwatosin A. DOSUNMU, Winnie A. JOSEPH | 250-255 |
| Effects of Leaf Extracts of Selected Plants on Quality of Stored <i>Citrus sinensis</i> (Sweet Orange) Juice | PDF |
| Oluwagbenga Oluwasola ADEOGUN, Adedotun A. A. ADEKUNDLE, Erute M. M. ADONGBEDE | 256-262 |
| Correlative Evaluation of the Impact of Adaptive Plant Morphology on Bioactive Accumulation Based on Micro-Morphological Studies in <i>Andrographis serpyllifolia</i> (Rottler ex Vahl) Wight | PDF |
| Suma KRISHNASWAMY, Bopaiyah A. KUSHALAPPA | 263-273 |
| The Enhancement of Soybean Growth and Yield in a Field Trial through Introduction of Mixtures of <i>Bradyrhizobium japonicum</i>, <i>Bacillus</i> sp. and <i>Pseudomonas chlororaphis</i> | PDF |
| Renata M. ILIĆ, Radmila N. PIVIĆ, Zoran S. DINIĆ, Dragana S. LATKOVIĆ, Slobodan A. VLJAJIĆ, Dragana Lj. JOŠIĆ | 274-279 |
| Physiological Growth and Yield of Two Groundnut Varieties as Influenced by Light and Boron | PDF |
| Md. QUAMRUZZAMAN, Md. Jafar ULLAH, Md. Fazlul KARIM, Nazrul ISLAM, Md. Jahedur RAHMAN, Md. Dulal SARKAR | 280-286 |
| Timing of Reproductive Organs Maturity in Proterandrous <i>Malva sylvestris</i> L. | PDF |
| Aslıhan ÇETİNBAŞ-GENÇ, Meral ÜNAL | 287-295 |
| Pinna Growth and Development in Relation to Venation in <i>Nephrolepis</i> Species | PDF |
| Aina Arinola FAJUKE, A. M. MAKINDE, F.A. OLOYEDE, M.O. ISA | 296-300 |
| Morphological Variations in Caryopses and Seedlings of Two Grass Species of the Genus <i>Dactyloctenium</i> Willd. | PDF |
| Ajai Kumar SINGH, Ayush Kumar SINGH, Manish Kumar SRIVASTAVA | 301-306 |

Journal Contact

Mailing Address

[Notulae Scientia Biologicae](#)

Radu E. SESTRAS, Editor-in-Chief
 University of Agricultural Sciences and Veterinary Medicine
 3-5 Manastur St., 400372 Cluj-Napoca, Romania
 Phone: +40 264 596 384; Fax: +40 364 819 182
 Email: rsestras@notulae.ro

Technical Support Contact

Email: editor1@notulae.ro

Journal Sponsorship

Publisher

- [Horticulture and Forestry Society from Transylvania](#) by AcademicPres

Sponsors

- [Horticulture and Forestry Society from Transylvania](#)
- [University of Agricultural Sciences and Veterinary Medicine \(UASVM\)](#)
- [Romanian Academy of Agricultural and Forestry Sciences](#)

Sources of Support

Additional agencies or organizations that provide financial or in-kind support:

- SC TOPOCADPRO SRL