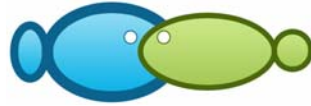


**AACL Bioflux, Volume 8(4)**  
**August 30, 2015**



**Contents**

Morsi A., Mimeche F., Biche M., 2015 Age structure and growth of Algerian barbel *Luciobarbus callensis* (Valenciennes, 1842) (Cyprinidae) in El-Harrach River (North of Algeria). AAAL Bioflux 8(4):475-484.

Saghaei A., Ghotbeddin N., Ghatrami E. R., 2015 Evaluation of growth performance and body composition of Oscar fish (*Astronotus ocellatus*) in response to the consumption of dietary intake of garlic (*Allium sativum*). AAAL Bioflux 8(4):485-490.

Wahyuningsih S., Effendi H., Wardiatno Y., 2015 Nitrogen removal of aquaculture wastewater in aquaponic recirculation system. AAAL Bioflux 8(4):491-499.

Alimina N., Wiryawan B., Monintja D. R. O., Nurani T. W., Taurusman A. A., 2015 Comparing different small-scale tuna fishery supplier: a case study on trolling line and pole and line in Southeast Sulawesi, Indonesia. AAAL Bioflux 8(4):500-506.

Lecera J. M. I., Pundung N. A. C., Banisil M. A., Flamiano R. S., Torres M. A. J., Belonio C. L., Requieron E. A., 2015 Fluctuating asymmetry analysis of trimac *Amphilophus trimaculatus* as indicator of the current ecological health condition of Lake Sebu, South Cotabato, Philippines. AAAL Bioflux 8(4):507-516.

Norouzi M., Bagheri M., 2015 The chemical composition of golden grey mullet *Liza aurata* in southern Caspian Sea during sexual rest and sexual ripeness. AAAL Bioflux 8(4):517-525.

Jalili P., Eagderi S., Mousavi-Sabet H., 2015 Descriptive osteology of the endemic spined loach *Cobitis linea* from Iran. AAAL Bioflux 8(4):526-534.

Arizo M. A. M., Simeon E. C., Layosa M. J. T., Mortel R. M. M., Pineda C. M. B., Lim J. J. E., Maningas M. B. B., 2015 Crude fucoidan from *Sargassum polycystum* stimulates growth and immune response of *Macrobrachium rosenbergii* against white spot syndrome virus (WSSV). AAAL Bioflux 8(4):535-543.

Ashari A. A., Merufinia E., Nohani E., 2015 Numerical investigation of velocity profiles in the lateral intakes using finite-volume method and comparison with experimental results in water distribution networks. AAAL Bioflux 8(4):544-555.

Qonita Y., Wardiatno Y., Butet N. A., 2015 Morphological variation in three populations of the pill ark cockle, *Anadara pilula* (Mollusca: Bivalve) of Java, Indonesia. *AACL Bioflux* 8(4):556-564.

Mueda R. T., 2015 Physico-chemical and color characteristics of salt-fermented fish sauce from anchovy *Stolephorus commersonii*. *AACL Bioflux* 8(4):565-572.

Tamparon R. J. C., Bayotas S. C., Cuadra B. E. S., Camama C., Abrenica-Adamat L. R., 2015 Dose-dependent effects of Abamectin in acute embryotoxicity and morphological defects of sea urchin (*Strongylocentrotus* sp.) gametes. *AACL Bioflux* 8(4):573-578.

Santoso J., Hanifa Y. N., Indariani S., Wardiatno Y., Mashar A., 2015 Nutritional values of the Indonesian mole crab, *Emerita emeritus*: are they affected by processing methods? *AACL Bioflux* 8(4):579-587.

Castaneto A. M. B., Lacuna M. L. D. G., 2015 Coastal zooplankton in the waters of Iligan City, Northern Mindanao, Philippines. *AACL Bioflux* 8(4):588-601.

Mocanu M. C., Vanghelie T., Sandu P. G., Dediu L., Oprea L., 2015 The effect of supplementary feeds quality on growth performance and production of common carp (*Cyprinus carpio* L.) at one summer of age, in ponds aquaculture systems. *AACL Bioflux* 8(4):602-610.

Mashar A., Wardiatno Y., Boer M., Butet N. A., Farajallah A., Ardika P. U., 2015 First record of *Albunea symmysta* (Crustacea: Decapoda: Albuneidae) from Sumatra and Java, Indonesia. *AACL Bioflux* 8(4):611-615.

Delis P. C., Effendi H., Krisanti M., Hariyadi S., 2015 Treatment of aquaculture wastewater using *Vetiveria zizanioides* (Liliopsida, Poaceae). *AACL Bioflux* 8(4):616-625.

**International Standard Serial Number**  
**Online ISSN 1844–9166; Print ISSN 1844-8143**

**Published by Bioflux – six issues/year (bimonthly); in cooperation with New England Aquarium (USA) and Natural Sciences Museum Complex (Constanta, Romania)**

The journal includes original papers, short communications, and reviews on Aquaculture (Biology, Technology, Economy, Marketing), Fish Genetics and Improvement, Aquarium Sciences, Fisheries, Ichthyology, Aquatic Ecology, Conservation of Aquatic Resources and Legislation (in connection with aquatic issues) from wide world.

**Editor-in-Chief:**

Petrescu-Mag I. Valentin: USAMV Cluj, Cluj-Napoca; University of Oradea, Oradea (Romania)  
Gavriloaie Ionel-Claudiu (reserve): SC Bioflux SRL, Cluj-Napoca (Romania)

**Editor-in-Chief:**

Petrescu-Mag I. Valentin: USAMV Cluj, Cluj-Napoca, University of Oradea (Romania)  
Gavriloaie Ionel-Claudiu (reserve): SC Bioflux SRL, Cluj-Napoca (Romania)

**Journal Secretary:**

Nowak Michal: University of Agriculture in Krakow (Poland)

**Editors:**

Adascalitei Oana: Maritime University of Constanta (Romania)  
Arockiaraj A. Jesu: SRM University, Chennai (India)  
Bavaru Adrian: Ovidius University, Constanta (Romania)  
Botha Miklos: Bioflux SRL, Cluj-Napoca (Romania)  
Breden Felix: Simon Fraser University (Canada)  
Brezeanu Gheorghe: Romanian Academy of Science, Bucharest (Romania)  
Bud Ioan: USAMV Cluj (Romania)  
Burny Philippe: Universite de Liege (Belgium)  
Caipang Cristopher M.A.: Temasek Polytechnic (Singapore)  
Codreanu Mario: USAMV Bucuresti, Bucharest (Romania)  
Cosma Dorin: West University of Timisoara (Romania)  
Creanga Steofil: USAMV Iasi, Iasi (Romania)  
Cristea Victor: Dunarea de Jos University of Galati (Romania)  
Dimaggio Matthew A.: University of Florida (USA)  
Dutu Mircea: The Ecological University of Bucharest (Romania)  
Gaina Viorel: University of Craiova (Romania)  
Gal Denes: Research Inst. for Fisheries, Aquaculture & Irrigation, Szarvas (Hungary)  
Georgescu Bogdan: USAMV Cluj, Cluj-Napoca (Romania)  
Grozea Adrian: USAMVB Timisoara (Romania)  
Hermosilla Joepette J., Tokyo Univ. of Marine Sci. & Tech., Minato, Tokyo (Japan)  
Mehrad Bahar: Gorgan University of Agricultural Sciences and Nat. Res. (Iran)  
Miclaus Viorel: USAMV Cluj, Cluj-Napoca (Romania)  
Molnar Kalman: Hungarian Academy of Sciences, Budapest (Hungary)  
Muchlisin Zainal Abidin: Universiti Sains (Malaysia), Syiah Kuala University (Indonesia)  
Murariu Dumitru: Grigore Antipa Museum of Natural History, Bucharest (Romania)  
Olivotto Ike: Universita Politecnica delle Marche, Ancona (Italy)  
Oroian Ioan: USAMV Cluj, Cluj-Napoca (Romania)  
Papadopol Nicolae: Natural Sciences Museum Complex, Constanta (Romania)  
Parvulescu Lucian: West University of Timisoara (Romania)  
Pasarin Benone: USAMV Iasi, Iasi (Romania)  
Petrescu-Mag Ruxandra Malina: Babes-Bolyai University, Cluj-Napoca (Romania)  
Petrovici Milca: West University of Timisoara (Romania)  
Rhyne Andrew: Roger Williams University; New England Aquarium, Boston (USA)  
Sima Nicusor Flaviu: USAMV Cluj, Cluj-Napoca (Romania)  
Tlusty Michael F.: New England Aquarium, Boston (USA)  
Vesa Stefan Cristian: Iuliu Hatieganu UMF, Cluj-Napoca (Romania)  
Wittenrich Matthew L.: University of Florida (USA)

**Editorial cancellor:**

Velter Victor: UEFISCDI, Bucharest (Romania)

**Scientific Reviewers:**

Abdullah Khalid: Agricultural Research Institute Ratta Kulachi (Pakistan)  
Adewolu Morenike A.: Lagos State University, Ojo (Nigeria)  
Aftabuddin Sheikh: University of Chittagong (Bangladesh)  
Al-Qutob Mutaz: Al-Quds University (Palestinian Authority)  
Alves-Vianna Rafael: Federal University of Vicosa (Brazil)  
Antone Veronica: Natural Sciences Museum Complex, Constanta (Romania)

Berkesy Corina: ICPE Bistrita (Romania)  
Boaru Anca: USAMV Cluj, Cluj-Napoca (Romania)  
Brunio Erwin O.: Tokyo University of Marine Science & Technology (Japan)  
Calado Ricardo J. G.: University of Aveiro, Aveiro (Portugal)  
Celik Meryem Yesim: University of Sinop (Turkey)  
Chiorean Adriana: Natural Sciences Museum Complex, Constanta (Romania)  
Cocan Daniel: USAMV Cluj, Cluj-Napoca (Romania)  
Cosier Viiorica: USAMV Cluj, Cluj-Napoca (Romania)  
Costa Daniel Ribeiro: Federal Rural University of Amazon, Belem (Brazil)  
Costea Ramona Ioana: "Stefan cel Mare" University of Suceava, (Romania)  
Cotutiu Mihaela Ioana: Technical College INFOEL, Bistrita (Romania)  
Covaciu-Marcov Severus D.: University of Oradea (Romania)  
Covrig Ilie: USAMV Cluj, Cluj-Napoca (Romania)  
Csep Laszlo: Bioflux, Cluj-Napoca (Romania)  
Curlisca Angelica: Natural Sciences Museum Complex, Constanta (Romania)  
Dediu Lorena: Dunarea de Jos University of Galati (Romania)  
Docan Angela: Dunarea de Jos University of Galati (Romania)  
Dragan Alina-Aida - Technical University, Cluj-Napoca (Romania)  
Galca Valerica: USAMV Iasi, Iasi (Romania)  
Gavrilovic Ana: University of Dubrovnik, Dubrovnik (Croatia)  
Gorgan Lucian Dragos: UAIC Iasi, Iasi (Romania)  
Hajirezaee Saeed: University of Teheran, Karaj (Iran)  
Hoha Gabriel: USAMV Iasi, Iasi (Romania)  
Kabir Milad: Gorgan University of Agricultural Sciences and Nat. Res. (Iran)  
Kamali Sanzighi Mehrdad, Islamic of Azad University (Iran)  
Karayucel Ismihan: University of Sinop, Sinop (Turkey)  
Kosco Jan: Presov University, Presov (Slovakia)  
Luangpirom Ampa: Khon Kaen University, Khon Kaen (Thailand)  
Malos Cristian: Babes-Bolyai University, Cluj-Napoca (Romania)  
Manko Peter: Presov University, Presov (Slovakia)  
Monwar Mohammad M.: University of Chittagong (Bangladesh)  
Muntean Octavian Liviu: UBB Cluj-Napoca (Romania)  
Munteanu Florin: Natural Sciences Museum Complex, Constanta (Romania)  
Murray Joanna: CEFAS, Lowestoft (England)  
Musuka Confred G.: The Copperbelt University, Kitwe (Zambia)  
Ndimele Prince Emeka: Lagos State University, Ojo, Lagos (Nigeria)  
Nita Victor: Nat. Inst. Marine Research & Dev. Gr. Antipa, Constanta (Romania)  
Norma-Rashid Y.: University of Malaya, Kuala Lumpur (Malaysia)  
Oprea Lucian: Dunarea de Jos University, Galati (Romania)  
Oroian Teofil: USAMV Cluj, Cluj-Napoca (Romania)  
Pacioglu Octavian: Roehampton University, London (England)  
Palm Harry: University of Rostock, Rostock (Germany)  
Parsaeimehr Ali: National Academy of Science, Yerevan (Republic of Armenia)  
Perdikaris Costas: Technological Educational Institute of Epirus (Greece)  
Peteiro Cesar: Spanish Institute of Oceanography (IEO), Santander (Spain)  
Petrescu Dacinia Crina: Babes-Bolyai University, Cluj-Napoca (Romania)  
Popescu Irinel Eugen: UAIC Iasi, Iasi (Romania)  
Rahman Mohammed Mahabubur: Kochi University, Kochi (Japan)  
Rahmati-holasoo Hooman: University of Tehran, Tehran (Iran)  
Rosioru Corina: UBB Cluj-Napoca (Romania)  
Rus Vasile: USAMV Cluj, Cluj-Napoca (Romania)  
Sakkaravarthi Karuppiyah: Annamalai University, Tamil Nadu (India)  
Sas Istvan: University of Oradea, Oradea (Romania)  
Suteu Mihai: Independent researcher, Cluj-Napoca (Romania)  
Taati M. Mehdi: Gorgan University of Agricultural Sciences and Nat. Res. (Iran)  
Talu Stefan: Technical University of Cluj (Romania)  
Turcu Mihaela Claudia: University of Turku, Turku (Finland)  
Udoh James P.: University of Uyo, Uyo (Nigeria)  
Ustaoglu Tiril Serap: University of Sinop, Sinop (Turkey)  
Vintila Iuliana: "Dunarea de Jos" University Galati (Romania)  
Zamfirescu Stefan: UAIC Iasi, Iasi (Romania)

**Contact Publisher**

SC Bioflux SRL, 54 Ceahlău Street, Cluj-Napoca, 400488, Romania, European Union.  
Ioan Valentin Petrescu-Mag, e-mail: zoobiomag2004@yahoo.com  
Alternate Journal Contact:  
Ionel-Claudiu Gavriloaie, e-mail: ionelclaudiu@yahoo.com

**Journal Secretary:**

Michał Nowak, Department of Ichthyobiology and Fisheries, University of Agriculture in Kraków, ul. T. Spiczakowa 6, 30-199 Kraków, Poland, European Union, e-mail: mikhael.nowak@gmail.com

---

Note that there is also an electronic version of the journal. You may download the fulltext version of AACL Bioflux – Volume 8/2015 from <http://www.bioflux.com.ro/aacl/> -open access.

All articles included in AACL Bioflux are peer reviewed (single blind peer-review is used). Each published article was seen before by two reviewers; the two peer-reviews are made independently.

**AACL Bioflux has a publishing agreement, or is indexed, abstracted or fulltext reproduced by/in the following scholar/scientific databases, search engines, libraries, publishers (over 100):**

ISI Web of Knowledge – via CABI and Zoological Record (not yet WoS)  
Thomson Reuters Scientific - Master Journal List (via Zoological Record)  
Zoological Record (direct submission/coverage)  
Scopus - Elsevier; Sciverse  
Scimago - Journal Rank  
CAB International - CAB Abstracts  
China Educational Publications Import & Export Corporation - SOCOLAR  
Ulrich's Periodicals Directory  
EBSCO – EBSCOhost Online Research Databases  
CAB Direct (as part of CABI)  
Wolters Kluwer - Ovid LinkSolver  
CNCSIS Romania (Rank: B+)  
Polish Ministry of Science and Higher Education – 2.00 pts/article  
The National Science Digital Library - NSDL  
The University of Hong Kong Libraries – HKUL Database  
Deutsche Nationalbibliothek - ZDB Database  
State Library of Ohio - OhioLINK Database  
Smithsonian Institution Libraries  
Biblioteka Główna Uniwersytetu Medycznego w Poznaniu  
Google Scholar, Academic  
Google (search engine)  
Athabasca University - ICAAP Database  
University of Southampton - ROAR  
Georgetown University Library - NewJour  
Università degli Studi di Modena e Reggio Emilia – SBA, Risorse Elettroniche  
Simon Fraser University - PKP  
University of Tsukuba - Tulips Database  
Teikyo Scientific University- NTU Database  
LIS Links: Link Library of Open Access English Language Journals  
Fayetteville State University - Charles W. Chesnutt Library  
Vrije Universiteit Brussel - VUB e-journal list  
Russian CJDB  
Universität Giessen - Digitale Bibliothek  
Pace University Library  
Tel Aviv University. Gitter-Smolarz Library of Life Sciences and Medicine  
MALMAD – Israel Center for Digital Information Services  
California State University – Monterey Bay Library  
Réseau des Bibliothèques de l'Université Joseph Fourier et de l'Institut National Polytechnique de Grenoble  
University of Saskatchewan – University Library (Electronic Journals)  
YanXue Resource – YXRES  
Feng Chia University – Electronic Library  
Main Library of the University of Agriculture in Krakow  
SUMMON Database  
uOttawa Library  
Università di Roma Tor Vergata - Digital Library  
UTC Lupton Library  
University of Notre Dame - Hesburgh Libraries  
Guilford College - Hege Library  
Eastern Michigan University Library - Periodicals locator  
Universiteitsbibliotheek Gent - Tijdschriften  
Chung Yuan Christian University Library  
ArgosBiotech  
Ecole Polytechnique Federale de Lausanne - Library  
Rowan University – Library Services  
James Cook University Library – Australia  
Ministerstwo Nauki i Szkolnictwa Wyższego Warszawa  
Kun Shan University Library  
CCG-IBT Biblioteka  
Reference Zone – Nigeria  
Dayang Journal System  
Riley-Hickingbotham Library



Politechnika Wroclawska  
Universite Paris Diderot – Revues Electroniques  
ERSA – Chinese Library, and many others.

## Our collaborators



SciVerse Scopus is the world's largest abstract and citation database of peer-reviewed literature and quality web sources. Contains 41 million records, 70% with abstracts; Nearly 18,000 titles from 5,000 publishers worldwide; 70% of content is pulled from international sources; Includes over 3 million conference papers; Provides 100% Medline coverage; Offers sophisticated tools to track, analyze and visualize research.

### Socolar

The free scholastic search engine is established by China Educational Publications Import and Export Corporation (CEPIEC). Under the leadership of China Ministry of Education, CEPIEC is the only company dealing with publication exam business in the education field. CEPIEC has been serving colleges and universities, research institutions and public libraries in China for more than 20 years, providing them with excellent academic resources from all over the world. Contact: No 41 Zhong Guan Cun Street, Haidian District, Beijing, P.R.China 100080. Tel: +86 (0)10 6251 4068; e-mail: [li\\_yanxia@cepiec.com.cn](mailto:li_yanxia@cepiec.com.cn) Fax: +86 (0)10 6251 4068 [www.cepiec.com.cn](http://www.cepiec.com.cn)



CABI is a not-for-profit international organization that improves people's lives by providing information and applying scientific expertise to solve problems in agriculture and the environment. Their mission and direction is influenced by their member countries who help guide the activities they undertake. These include scientific publishing, development projects and research, and microbial services. 2010 marked 100 years of CABI. Since its beginnings as an entomological committee in 1910, it then developed into a Commonwealth organization before becoming a truly international service in agricultural information, pest identification and biological control in the mid 1980s.

EBSCOhost® databases are the most-used, premium online information resources for tens of thousands of institutions worldwide, representing millions of end-users.

Address: 10 Estes Street  
Ipswich, MA 01938 USA  
Phone: (978) 356-6500  
Toll Free: (800) 653-2726 (USA & Canada)  
Fax: (978) 356-6565  
E-mail: [information@ebscohost.com](mailto:information@ebscohost.com)



### Zoological Record (part of Biosis)

ION contains the organism names related data gathered from the scientific literature for Thomson Reuters' *Zoological Record*® database. Viruses, bacteria and plant names will be added from other Thomson Reuters databases such as *BIOSIS Previews*® and *Biological Abstracts*®



THOMSON REUTERS

### Index to Organism Names (ION)



## ELSEVIER PRODUCTS

Elsevier B.V., Bibliographic Databases, Radarweg 29, 1043 NX Amsterdam, The Netherlands.





Ulrichsw eb    Ulrich's Serial Analysis System

 **ULRICHSWEB™**  
GLOBAL SERIALS DIRECTORY

University of London - Royal Holloway

Search    Workspace    Ulrich's Update    Admin

Enter a Title, ISSN, or search term to find journals or other periodicals:

[▶ Advanced Search](#)

Ulrichsw eb is an easy-to-search source of detailed information on more than 300,000 periodicals (also called serials) of all types: academic and scholarly journals, e-journals, peer-reviewed files, popular magazines, newspapers, newsletters, and more. Ulrichsw eb covers more than 900 subject areas. Ulrich's records provide data points such as ISSN, publisher, language, subject, abstracting & indexing coverage, full-text database coverage, table of contents, and reviews written by librarians. If your organization has enabled linking options, you can also use Ulrichsw eb to explore your library's catalog or other locations where your library subscribes to serials resources.

