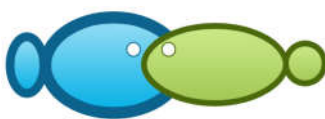


AACL Bioflux, Volume 13(6)

December 30, 2020



Contents

Tokpan S. S., Shabdarbaeva G. S., Shalmenov M. S., Ibazhanova A. S., Akibekov O. S., Balgimbayeva A. I., 2020 The parasite fauna in fish from the Kazakhstan portion of the Caspian Sea. *AACL Bioflux* 13(6):3251-3258.

Widiana R., Dahelmi, Zakaria I. J., Syaifullah, 2020 Reproductive biology of *Cyclocheilichthys armatus* in Diatas Lake, Solok, West Sumatra, Indonesia. *AACL Bioflux* 13(6):3259-3278.

Ihsan, Kasmawati, Asni A., Ernaningsih, Asbar, Asmidar, Adimu H. E., 2020 Aquaculture management of blue swimming crab (*Portunus pelagicus*) using integrated submerged net cage in Pangkep Regency waters, South Sulawesi, Indonesia. *AACL Bioflux* 13(6):3279-3286.

Dinh Q. M., Lam T. T. H., Nguyen T. T. K., Nguyen T. M., Tran D. D., 2020 Population biology of *Butis koilomatodon* in the Mekong Delta. *AACL Bioflux* 13(6):3287-3299.

Sulistiyawan A. Y., Indarti E., Sularto R. B., 2020 Legal enforcement approach by the Indonesia's Minister of Maritime Affairs and Fisheries (period 2014-2019) in combating illegal fishing in Indonesia: a legal philosophy study. *AACL Bioflux* 13(6):3300-3308.

Sjafrie N. D. M., Oktaviyani S., Kurniawan W., 2020 Domestic utilization of shark and ray: An example from Muncar Subdistrict, Banyuwangi Regency, East Java Province, Indonesia. *AACL Bioflux* 13(6):3309-3321.

Lestari D., Saade E., Achmad M., 2020 The biological evaluation of mud crabs (*Scylla olivacea*) in fattening activities using seaweed *Kappaphycus alvarezii* in ponds. *AACL Bioflux* 13(6):3322-3329.

Macale A. B., Candelaria A. P., Dioneda Sr. R. R., 2020 Catch and fishing effort statistics of fisheries in Albay Gulf, Philippines. *AACL Bioflux* 13(6):3330-3337.

Nugraha E., Despriawan Q., Jaenudin A., Suharto, Kusmedy B., Syamsudin S., Kusdinar A., Sutisna D. H., Sudrajat D., Purwanto Y., 2020 Comparison of Gilltong Sweeping Methods in South Sorong Waters, West Papua, Indonesia. *AACL Bioflux* 13(6):3338-3347.

- Kusmini I. I., Kurniawan K., Putri F. P., Radona D., Kristanto A. H., Gustiano R., 2020 Analysis of growth and nutritional values of three generations of Asian redbtail catfish (*Hemibagrus nemurus*). *AACL Bioflux* 13(6):3348-3359.
- Nawareg M. M., Bahnasawy M. H., El-Sisy D. M., Abdel-Rahim M. M., 2020 Does the polyculture system of thinlip grey mullet, *Chelon ramada* (Risso, 1827) have positive impacts on water quality, fish performance, and hematological analyses of hybrid red tilapia, *Oreochromis mossambicus* x *O. urolepis* reared in concrete tanks with underground brackish water? *AACL Bioflux* 13(6):3360-3376.
- Manoppo H., Tumbol R. A., Sumaraw J., 2020 Oral administration of probiotic improve survival of common carp (*Cyprinus carpio*) against *Aeromonas hydrophila* infection. *AACL Bioflux* 13(6):3377-3383.
- Omar S. B. A., Kariyanti, Yanuarita D., Umar M. T., Lawi Y. S. A., 2020 Length-weight relationship and condition factor of the Celebes rainbowfish *Marosatherina ladigesii*, endemic to the Maros karst region, South Sulawesi, Indonesia. *AACL Bioflux* 13(6):3384-3396.
- Imron M., Haq R. S. Q., Iskandar B. H., 2020 Local wisdom of "Jukung" boat design in Cilacap district, Central Java, Indonesia. *AACL Bioflux* 13(6):3397-3406.
- Erwiantono, Darmansyah O., Saleha Q., Zulkarnain, Sulistianto E., Fahrizal W., Maryanto F., Susilo H., 2020 Impact of shrimp-fish polyculture practices on small-scale farmers' income in Indonesia. *AACL Bioflux* 13(6):3407-3419.
- Nopiana M., Yulianda F., Sulistiono, Fahrudin A., Yulianto G., 2020 Evaluation of the rehabilitation implementation for addressing coastal erosion in the coastal area of Karawang Regency, Indonesia. *AACL Bioflux* 13(6):3420-3429.
- Sepri, Hartoko A., Hutajulu J., Prayitno H., Husen E. S., Santoso H., Nugraha E., Danapraja S., Syam M. Y., 2020 The relationship between sea surface temperature and catching time of skipjack tuna (*Katsuwonus pelamis*) in FMA-715, Seram Sea, Indonesia. *AACL Bioflux* 13(6):3430-3440.
- Maulidevi I., Andriyani N., Salfarino R., Aprilia V., 2020 The residue of formalin in catfish (*Clarias gariepinus*) after processing and storage for short periods. *AACL Bioflux* 13(6):3441-3446.
- Rifardi, Mubarak, Elizal, Nurhuda A., Aristi F., 2020 Sediment transport model from Dumai River estuary to the Rupat Strait, Riau Province, Indonesia. *AACL Bioflux* 13(6):3447-3458.
- Ayuningrum D., Muchlissin S. I., Sabdono A., Trianto A., Radjasa O. K., 2020 Antibacterial potential of hard coral-associated bacteria against human pathogenic multidrug resistant bacteria. *AACL Bioflux* 13(6):3459-3469.
- Imron M., Tawaqal M. I., Yusfiandani R., Baskoro M. S., Susanto A., 2020 Analysis of spot-tailed shark and Indo-Pacific sailfish landed at Palabuhanratu fishing port as longline bycatch in the Eastern Indian Ocean. *AACL Bioflux* 13(6):3470-3481.
- Kusmedy B., Hutajulu J., Husen E. S., Santoso H., Prayitno H., Mualim R., Hermawan M., Kusumo T. E., Nugraha E., Oktavildy A., 2020 Study of tunas (*Thunnus spp.*) swimming layer using tuna longliner in the Northern Indian Ocean, Indonesia. *AACL Bioflux* 13(6):3482-3492.

Marzuki I., Daris L., Yunus S., Riana D. A., 2020 Selection and characterization of potential bacteria for polycyclic aromatic biodegradation of hydrocarbons in sea sponges from Spermonde Islands, Indonesia. *AACL Bioflux* 13(6):3493-3506.

Sabilu K., Supriyono E., Nirmala K., Jusadi D., Widanarni W., 2020 Production performance and physiological responses of sea cucumber (*Holothuria scabra*) reared using *Penaeus vannamei* pond sediment as a source of nutrients. *AACL Bioflux* 13(6):3507-3519.

Ansyari P., Slamet, Ahmadi, 2020 Food habits and biolimnology of snakehead larvae and fingerlings from different habitats. *AACL Bioflux* 13(6):3520-3531.

Suharyanto, Arifin M. K., Hutajulu J., Waluyo A. S., Yusrizal, Handri M., Saputra A., Basith A., Nugraha E., Sepri, 2020 The effect of moon phases upon purse seine pelagic fish catches in fisheries management area (FMA) 716, Indonesia. *AACL Bioflux* 13(6):3532-3541.

Solihin L., Kusumastanto T., Fauzi A., Yulianda F., 2020 Institutional arrangement of conservation areas for sustainable marine tourism in Gili Matra Water Tourism Park, Indonesia. *AACL Bioflux* 13(6):3542-3555.

Efendi D.S., Adrianto L., Yonvitner, Wardiatno Y., Muis, 2020 The economic performance of grouper (Serranidae) and snapper (Lutjanidae) fisheries in Saleh Bay, Indonesia. *AACL Bioflux* 13(6):3556-3565.

Hastuti S., Subandiyono S., 2020 Blood serum biochemistry responses and digestive enzyme activities of tilapia (*Oreochromis niloticus*) according to different dietary protein level consumption. *AACL Bioflux* 13(6):3566-3573.

Danish-Daniel M., Sung Y. Y., Tan M. P., Wong L. L., Mok W. J., Ahmad A., Usup G., 2020 Shotgun sequencing analysis of a metagenome library derived fosmid clone from bacterial community associated with toxic dinoflagellate *Alexandrium tamiyavanichii*. *AACL Bioflux* 13(6):3574-3582.

Kurniasih R. A., Darmanto Y. S., Herawati V. E., Anggo A. D., Riyadi P. H., 2020 Effects of different farming locations on biocalcium of Mozambique tilapia (*Oreochromis mossambicus*) bones. *AACL Bioflux* 13(6):3583-3592.

Wan Hussin W. M. R., Ab Lah R., 2020 Community structure and taxonomic diversity of macrobenthic communities in Merchang lagoon, Malaysia. *AACL Bioflux* 13(6):3593-3604.

Handayani S., Adrianto L., Bengen D. G., Nurjaya I. W., Wardiatno Y., 2020 Alternative livelihoods strategy for coastal communities affected by coastal erosion in Sayung Coastal area, Demak Regency, Central Java Province, Indonesia. *AACL Bioflux* 13(6):3605-3617.

Wisnaeni F., Indarja, Hardjanto U. S., Hananto U. D., Yohana M., 2020 The optimization of the Tangguh Coastal Village Development Program as an effort to develop coastal areas. *AACL Bioflux* 13(6):3618-3625.

Fattah M. H., Rahbiah S., Modding B., Marhamah S., 2020 Feasibility and vulnerability of the preserved shrimp eco-farming park of Pinrang District. *AACL Bioflux* 13(6):3626-3636.

Nuryadi A. M., Hartati, Alimusa L. O., 2020 Planning model of raw materials for seaweed agroindustry in Southeast Sulawesi Province, Indonesia. *AACL Bioflux* 13(6):3637-3646.

- Manuhutu J. F., Herawati E. Y., Wiadnya D. G. R., Sambah A. B., 2020 Study on occurrence frequency and time, and food habit of whale shark (*Rhincodon typus*) in the National Park of Cenderawasih Bay, Papua. *AACL Bioflux* 13(6):3647-3655.
- Corpuz M. N. C., Manliclic A. D. C., 2020 Acute salinity tolerance of silver therapon, *Leiopotherapon plumbeus*. *AACL Bioflux* 13(6):3656-3663.
- Ouagajjou Y., El Aloua T., El Moussaoui M., Ait Chattou E. M., Aghzar A., Saoud Y., 2020 First insight into nutrition effect on spawning and larvae rearing of the clam *Ruditapes decussatus* L. from Dakhla Bay. *AACL Bioflux* 13(6):3664-3673.
- Hadi S. P., Anggoro S., Purnaweni H., Yulastuti N., Ekopriyono A., Hamdani R. S., 2020 Assessing the giant sea wall for sustainable coastal development: case study of Semarang City, Indonesia. *AACL Bioflux* 13(6):3674-3682.
- Tran D. D., Cao H. V., Dinh Q. M., Tran L. X., 2020 An assessment of fisheries resources in the coastal water of the Mekong Delta, Vietnam. *AACL Bioflux* 13(6):3683-3693.
- Hendrajat E. A., Sahabuddin, Nafisah, 2020 Tiger shrimp farming in rice-fish farming system using salinity tolerant rice lines. *AACL Bioflux* 13(6):3694-3705.
- Wijayanto D., Bambang A. N., Nugroho R. A., Kurohman F., Nursanto D. B., 2020 The effect of different low salinities on growth, feed conversion ratio, survival rate and profit of Asian seabass cultivation. *AACL Bioflux* 13(6):3706-3712.
- Illijas M. I., Arma N. R., Rante H., Saleh L., Itabashi Y., 2020 Fatty acid composition of individual polar lipids extracted from the brown seaweed *Padina australis*. *AACL Bioflux* 13(6):3713-3720.
- Azhar M., Wisnaeni F., Solechan, Suharso P., Setyono J., Badriyah S. M., 2020 Strengthening the social security of the Indonesian fishermen. *AACL Bioflux* 13(6):3721-3726.
- Hoa N. V., Nhi D. T., 2020 Determination of an appropriate ratio of N:P for optimisation of algal development in fertilizer ponds. *AACL Bioflux* 13(6):3727-3742.
- Ardiana N. A., Husni A., 2020 The impact of temperature on the antioxidant activity of fucoidan obtained from brown seaweed *Sargassum hystrix* extracted using EDTA. *AACL Bioflux* 13(6):3743-3753.
- Elyakoubi M., Ouagajjou Y., Rijal-lebled B., Benjelloun-harzimi M., Fal S., Benhima R., Idhalla M., Errhif A., 2020 Isolation and characterization of potential microalgae strains from Moroccan coasts for their utilization as feed in shellfish hatcheries. *AACL Bioflux* 13(6):3754-3768.
- Yoswaty D., Effendi I., Titani M. R., 2020 *Enterococcus gallinarum*, a new antibiotic-producing bacterium against fish pathogenic bacteria, isolated from mangrove mud snake (*Cerberus rynchops*). *AACL Bioflux* 13(6):3769-3777.
- Haditomo A. H. C., Wijayanto D., Adi N. S., Suryanto S., 2020 Greenhouse gases emission estimation from Indonesia *Litopenaeus vannamei* shrimp production. *AACL Bioflux* 13(6):3778-3788.
- Insafitri, Asih E. N. N., Nugraha W. A., 2020 Marine tourism in Gili Labak Island: willingness to pay method as an effort to preserve coral reef in Gili Labak Island, Madura, Indonesia. *AACL Bioflux* 13(6):3789-3797.

Elhetawy A. I. G., Vasilyeva L. M., Lotfy A. M., Emelianova N., Abdel-Rahim M. M., Helal A. M., Sudakova N. V., 2020 Effects of the rearing system of the Russian sturgeon (*Acipenser gueldenstaedtii*) on growth, maturity, and the quality of produced caviar. AACL Bioflux 13(6):3798-3809.

Chikhlyayev I. V., Ruchin A. B., 2020 Helminths of amphibians (Amphibia) in beaver ponds in the Central Russia. AACL Bioflux 13(6):3810-3821.

Dewanti L. P., Tarigan A. L., Apriliani I. M., Khan A. M. A., 2020 Population dynamics of Indo-Pacific king mackerel (*Scomberomorus guttatus*) in Pangandaran, West Java, Indonesia. AACL Bioflux 13(6):3822-3829.

Wagey B. T., Boneka F. B., Mantiri R., 2020 Status of marine biodiversity and community perception on marine conservation in Mantehage Island, Bunaken National Park, North Sulawesi, Indonesia. AACL Bioflux 13(6):3830-3839.

Velichkova K., Sirakov I., Valkova E., 2020 The effect of sweet flag (*Acorus calamus* L.) supplemented diet on growth performance, biochemical blood parameters and meat quality of rainbow trout (*Oncorhynchus mykiss* W.) and growth of lettuce (*Lactuca sativa* L.) cultivated in aquaponic recirculation system. AACL Bioflux 13(6):3840-3848.

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

Published by Bioflux – six issues/year (bimonthly); in cooperation with The Natural Sciences Museum Complex (Constanta, Romania)

The journal includes original papers, short communications, and reviews on Aquaculture (Biology, Technology, Economics, 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 (Romania)
Gavriloaie Ionel-Claudiu (alternate): SC Bioflux SRL, Cluj-Napoca (Romania).

Editors

Abdel-Rahim Mohamed M.: National Institute of Oceanography and Fisheries, Alexandria (Egypt)
Adascalitei Oana: Maritime University of Constanta, Constanta (Romania)
Amira Aicha Beya: Badji Mokhtar Annaba University, Annaba (Algeria)
Arockiaraj A. Jesu: SRM University, Chennai (India)
Appelbaum Samuel: Ben-Gurion University of the Negev (Israel)
Baharuddin Nursalwa: Universiti Malaysia Terengganu, Terengganu (Malaysia)
Boaru Anca: USAMV Cluj, Cluj-Napoca (Romania)
Botha Miklos: Bioflux SRL, Cluj-Napoca (Romania)
Breden Felix: Simon Fraser University (Canada)
Burny Philippe: Universite de Liege, Gembloux (Belgium)
Caipang Christopher M.A.: Temasek Polytechnic (Singapore)
Chapman Frank: University of Florida, Gainesville (USA)
Coroian Cristian: USAMV Cluj, Cluj-Napoca (Romania)
Creanga Steofil: USAMV Iasi, Iasi (Romania)
Cristea Victor: Dunarea de Jos University of Galati, Galati (Romania)
Das Simon Kumar: Universiti Kebangsaan Malaysia, Bangi, Selangor (Malaysia)
Dimaggio Matthew A.: University of Florida (USA)
Firica Cristian Manuel: Spiru Haret University Bucharest, Craiova (Romania)
Georgescu Bogdan: USAMV Cluj, Cluj-Napoca (Romania)
Karayucel Ismihan: University of Sinop, Sinop (Turkey)
Khamesipour Faham: Shiraz University, Shiraz (Iran)
Kosco Jan: Presov University, Presov (Slovakia)
Kovacs Eniko: USAMV Cluj, Cluj-Napoca (Romania)
Mehrad Bahar: Gorgan University of Agricultural Sciences and Nat. Res. (Iran)
Miclaus Viorel: USAMV Cluj, Cluj-Napoca (Romania)
Mihociu Tamara: R&D National Institute for Food Bioresources (Romania)
Molnar Kalman: Hungarian Academy of Sciences, Budapest (Hungary)
Muchlisin Zainal Abidin: Universiti Sains (Malaysia), Syiah Kuala University (Indonesia)
Muntean George Catalin: USAMV Cluj, Cluj-Napoca (Romania)
Nowak Michal: University of Agriculture in Krakow (Poland)
Nyanti Lee: Universiti Malaysia Sarawak, Sarawak (Malaysia)
Olivotto Ike: Universita Politecnica delle Marche, Ancona (Italy)
Oroian Firuta Camelia: USAMV Cluj, Cluj-Napoca (Romania)
Papuc Tudor: USAMV Cluj, Cluj-Napoca (Romania)
Parvulescu Lucian: West University of Timisoara (Romania)
Pasarin Benone: USAMV Iasi, Iasi (Romania)
Pattikawa Jesaja Ajub: Pattimura University, Ambon (Indonesia)
Petrescu Dacinia Crina: Babes-Bolyai University, Cluj-Napoca (Romania)
Petrescu-Mag Ruxandra Malina: Babes-Bolyai University, Cluj-Napoca (Romania)
Petrovici Milca: West University of Timisoara (Romania)
Pratasik Silvester Benny: Sam Ratulangi University, Manado (Indonesia)
Proorocu Marian: USAMV Cluj, Cluj-Napoca (Romania)
Ray Sunuram: Khulna University (Bangladesh)
Rhyne Andrew: Roger Williams University; New England Aquarium, Boston (USA)
Ruchin Alexander B.: Joint Directorate of the Mordovia State Nature Reserve and National Park «Smolny», Saransk (Russia)
Safirescu Calin: USAMV Cluj, Cluj-Napoca (Romania)
Serrano Jr. Augusto E.: University of the Philippines Visayas (Philippines)
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)
Vintila Iuliana: Dunarea de Jos University of Galati, Galati (Romania)
Wariaghli Fatima: University Mohammed V in Rabat, Rabat (Morocco)
Yusli Wardiatno: Bogor Agricultural University, Bogor (Indonesia).

Contact Publisher

SC Bioflux SRL, 54 Ceahlău Street, Cluj-Napoca, 400488, Romania, European Union.

Ioan Valentin Petrescu-Mag, e-mail: zoobiomag2004@yahoo.com

Note that there is also an electronic version of the journal. You may download the fulltext version of AACL Bioflux – Volume 13/2020 from <http://www.bioflux.com.ro/aac/> – open access.

All articles included in AACL Bioflux are peer reviewed (double 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 full text reproduced by/in the following scholar/scientific databases, search engines, libraries, publishers:

ISI Web of Science – via CABI and Zoological Record

Zoological Record (direct submission/coverage)

Scopus - Elsevier; Sciverse

Scimago - Journal Rank

CAB International - CAB Abstracts

ProQuest

China Educational Publications Import & Export Corporation - SOCOLAR

Ulrich's Periodicals Directory

CAB Direct (as part of CABI)

Wolters Kluwer - Ovid LinkSolver

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

Athabasca University - ICAAP Database

University of Southampton - ROAR

Georgetown University Library - NewJour

Universita 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

Universitat 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

Universita 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 Biblioteca

Reference Zone – Nigeria

Dayang Journal System

Riley-Hickingbotham Library

Politechnika Wroclawska

Universite Paris Diderot – Revues Electroniques

ERSA – Chinese Library.



THOMSON REUTERS



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 ex-im 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 Fax: +86 (0)10 6251 4068 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.

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.

