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# Acta Adriatica

INSTITUTE OF OCEANOGRAPHY AND FISHERIES SPLIT CROATIA

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#### **PUBLICATION INFORMATION**

#### ACTA ADRIATICA IS PEER REVIEWED JOURNAL

The Acta Adriatica is an international journal which publishes the papers on all aspects of marine sciences, preferably from the Mediterranean. Minimum of two international referees review each manuscript. Editorial Board members advice the Editors on the selection of supplementary referees. Acta Adriatica is published continuously since 1932.

Acta Adriatica is cited in the following data bases:

- Agricola
- Aquatic Science & Fisheries Abstracts
- CAB Abstracts
- CNRS-INIST
- Dialog
- EBSCOhost
- Fish & Fisheries Worldwide by NISC, South Africa
- Georeference
- HRČAK

- ISI Web of Knowledge
- Oceanic Abstracts
- Pollution Abstracts
- Proquest
- Referativnij Zhurnal
- SCI Expanded
- Scopus
- Water Resources Abstracts
- WoS-Web of Science
- Zoological Record

Until the end of 2021 there were 62 volumes published with total of 1048 scientific papers. Types of papers that can be submitted for consideration by the Editorial Board are:

a) original scientific papers, b) review articles, c) short communications, d) conference papers, within the board field of marine and fishery science, referring preferably to the area of the Mediterranean or dealing with other areas, providing they relate to the Mediterranean in some aspect.

#### **ORIGINAL SCIENTIFIC PAPERS:**

Should report only original results. They are limited to 20 printed pages (80,000 characters). The publication of larger articles is subjected to the Editor's agreement.

#### **REVIEW ARTICLES:**

They should be invited or agreed by the Editor. They should be concise (up to 25 printed pages, i.e., 100,000 characters), critical and creative. They should seek to stimulate topical debate and new research initiatives. Prospective authors are asked to send an extended abstract (two pages maximum) of their paper to the Editor by e-mail. The abstract should outline why the review is topical, its main points and objectives, and how it will stimulate debate and research. When the proposal has been accepted by the Reviews Editor, he will invite the author to submit a manuscript within an agreed time limit and following the general guidelines for submission of standard papers.

#### SHORT COMMUNICATIONS:

Short communications, which do not occupy more than four printed pages (16,000 characters). A Short Communication may be concerned with any subject within the scope of the Acta Adriatica but should be confined to a single point or issue of progress, such as an unusual occurrence, an interesting observation, or a topical and timely finding. The manuscript must, however, have some relevance beyond the species or locality under consideration.

#### **CONFERENCE PAPERS:**

Conference papers should report only original results which were presented on the conferences and symposiums. They should be submitted as like as original research papers.

Acceptance of papers. Papers will normally be critically reviewed by two or more outside experts in the relevant discipline and evaluated for publication by the Editor; however, the Editor may return to authors without review any manuscripts deemed to be of inadequate quality or inappropriate for the Acta Adriatica.

### 90 ANNIVERSARY OF ACTA ADRIATICA (1932-2022)

Dear colleagues and friends,

when I assumed the place of Editor-in-Chief of the scientific journal Acta Adriatica in 2007, I could not imagine I would be the Editor-in-Chief who brought this journal to the moment of the 90th Anniversary of its founding and continuous publication. When you find yourself in front of such antiquity and you have to write a short review about it, then you surely find yourself in a situation often depicted in old movies in which you witness a nervous writer who is keen to write something that day, but as a result of his attempts for perfection he has filled the basket with tons of paper. I do not know what how such scene would look like today, possibly a series of overwritten files, broken memory sticks or hard drives. I made a series of unsuccessful attempts, primarily in an effort to avoid more arid data of packed numbers and statistics. Still, let's face it, today we live in a world of numbers and statistics, and hence I cannot be an exception, despite my desire to speak not only about numbers, but about the people who have contributed to the present status of the journal. In 1932 the first issue of the journal Acta Adriatica appeared. Publisher was Institute of Oceanography and Fisheries, Split, which kept its publishing for the past 90 years. Political and administrative circumstances have changed many times during that period (the Journal existed through two wars - II World War and Croatian War of Independence (Domovinski rat) and five changes in statehood), and so it has its appearance. The main goal of publishing Acta Adriatica has remained unchanged: to publish scientific papers of many disciplines that aid in our understanding of the Adriatic Sea, as well as the Mediterranean Sea. Today we also accept papers which are related to other areas as well as those which have a special international

importance (for example, a description of new methodology or description of new species). We also decided to accept for review works that geographically covered areas directly related to the Mediterranean, primarily the Central and North Atlantic and, through the Suez Canal, the Red Sea (the process of lessepian migration). Initially each issue featured a single article. from 1979 onwards the (20<sup>th</sup> Vol.), the Journal has published two issues annually, with multiple articles in each. So far, a total of more than 1000 articles written by around 1000 authors and co-authors have been published, including original scientific papers, review articles, short communications and conference papers.

Here is some general information about Acta Adriatica: about 60% of the published articles deal predominantly with biology, 16% with physics, 12% with issues of importance to commercial fishing and 11% with chemistry and pollution. It would be rather difficult to present content of all published articles; therefore, I shall very generally review only the main subjects of published articles with indication of some important results. Biological articles embrace a high diversity of titles: systematic and ecology at all niches. From the start, our papers stressed the modern concept of multidisciplinarity. One Vol. was dedicated to the long-term experiment at Mljet Lakes. By this experiment the physical, chemical, geological and biological properties of the lakes were explored in a preliminary phase. The lakes were than fertilized. The results of fertilization were repeatedly observed over time. Subsequently, the experimental results or these fertilizations served as an important baseline for understanding the possible damages due to pollution in different basins. In Series Monographs five issues appeared so far: 1. Ecology of plankton stages of the anchovy in the central Adriatic; 2. Ecological study of

Prosobranchiata in the eastern part of the Adriatic Sea; 3. The taxonomy, distribution and ecology of Adriatic foraminifera; 4. Biology, population dynamics and fisheries case study of anchovy; 5. Tintinnids (Tintinnida, Choreotrichia, Ciliata) in the Adriatic Sea, Mediterranean. Part I Taxonomy, Part II Ecology, floristic and faunal investigations were subject of many papers. These researches included the inventorying, cataloguing, revisions, and keys for determination of different taxa of the Adriatic and Mediterranean flora and fauna. Some new or poorly known species of benthal algae were investigated with revision of some families and description of entirely new genera, species and lower systematic categories. On the basis of floristic, vegetal and ecological investigations the Adriatic littoral has been divided in a few bionimic steps. The composition and distribution of benthal flora and vegetation in he Adriatic was related to ecological factors. The data of the flora of benthal algae and seagrasses at number of areas in the Adriatic and some areas in the Mediterranean could be find in different areas. In the neighbourhood of some towns, changes in the composition and distribution of benthal algae due to pollution have been investigated. The data on flora and fauna of epiphytic algae on the seagrass Posidonia oceanica in some parts of the Adraitic have been published as well as the food and feeding habits of the herbivore fish Sarpa salpa and the impact of fish cage farm on macrobenthic communities. Biochemical compostion of some Adriatic algae and seagrasses was also among published items. Volume 46 Suppl. 1 (2005) gave a long-term results (1947-1971) of morphological, systematic, and ecological studies of genus Sargassum, collected in many coastal and island areas of the eastern side of the Adriatic Sea ("The genus Sargassum in the Adriatic Sea: Morphology, systematics and ecology"), while in the same year the second issue of the Volume were presented benthic investigations in the area of Senj Archipelago (northern Adriatic) ("A benthos survey of the Senj Archipelago - North Adriatic sea, Croatia"). Rather larger number of papers is dedicated to phytoplankton, concerning a relation

among different species and groups, biomass and primary production. Results are based on the permanent observations along with environmental factors at few controls stations in the Middle Adriatic followed by series of studies concerning natural time and space variations of plankton community. The results of size structure of phytoplankton related to the density, biomass and primary production with the aim of better understanding of food chains are published as well. It served to estimate the rate of annual primary and secondary production of the Adriatic. The changes in density, biomass and production of phytoplankton, its seasonal rhythm and appearing of characteristic species due to advanced eutrophic conditions of the coastal waters were observed. Later on some of this phenomena was observed in the open waters as well. The impact of the Suez channel on the phytoplankton of the Egyptian waters was observed together with the corresponding influence of the Black Sea on the coastal waters of Greece. zooplankton, fish eggs and larval stages were frequent theme. Seasonal and long-term biomass variation and taxonomic composition of zooplankton under the influence of environmental factors and of man activities is prevalent subject. The most important plankton group, the copepods, appears in many papers. Most of the papers treat the Adriatic, but data from the waters of the eastern Mediterranean and Aegean Sea should not be neglected. Different aspects of microbiological research are present in more than twenty papers. Daily, seasonal, horizontal and vertical distribution of heterotrophic bacteria and their activity in sulphur and nitrogen cycles in the Middle and South Adriatic were studied. The relation of heterotrophic bacteria with phytoplankton and zooplankton as well as the impact of some phytoplankton species on the growth of bacterial strains was examined. Red tide phenomenon in the upper layers of the sea lakes on the Mljet Island was explained by presence of bacterial strains Rhodopseudmonas sp., which has red pigment of carotenoid nature. Recently the flow of the bacterial carbon through the microbe food net was examined and also the bacterial quality of sea water and shells as well

as the impact of different factors on dispersion and lasting of the fecal pollution indicators. Numerous papers deal with biology and ecology of pelagic and benthic fish in the Adriatic and also in the waters of Italy, Israel, Egypt, North Africa Aegean Sea, and Senegal coast. Some fishes like mackerel, red mullets, sardine anchovy and some cartilaginous species as well as Nephrops norvegicus from decapod crustacean have been examined in details. Sardine Sardina pilchardus was tagged in 50's of the last century already with the aim to examine its migrations. Along with sardine the other species of pelagic fish (sprat, anchovy, Atlantic and Spanish mackerel) are frequent subject. Later on the quantity of small pelagic fish was detected by echo sounding, following from the beginning of 70's of the last century by the first examinations of quantity using the pelagic trawl net for one ship and ultrasonic detection. Each commercially important fish species in the Adriatic was examined in detail, but some other species also. fish feeding was discussed in about 26 papers embracing Adriatic and waters from the Eastern Mediterranean and North Africa. Benthal organisms were treated in the channels and the open sea. Few papers deal with selectivity of the deep trawl net and its construction improvements with the aim of reducing the damage. Some papers furnish the data on stock estimation using direct and indirect methods. Lagoon fishery and shell cultivation were treated from the beginning and from seventies of the last century the fish aquaculture as well. Composition and distribution of benthic fauna and life communities in some areas of the Adriatic were examined. A few papers gave data on different organisms from Egyptian waters. In 2008, the Vol.40 (3) was dedicated to Juraj Kolombatović, the renowned Croatian natural scientist who gained his greatest success in the ichthyological research, a field in which he discovered and described seven new fish species. for the first time, in this volume, appeared contribution which covered the area of the history of Science ("Evolutionary steps in ichthyology and new challenges"). Benthic communities are frequent topic of the Journal. Communities of different substrata like rocky, sandy,

detritus etc. of coastal, canal and open waters of the Adriatic were observed. Their specific behaviour compared to the Mediterranean like appearance of endemic and some boreal species as well as differences between North. Middle and South Adriatic were emphasized. In 1996 Vol. 37 (1/2) gave the interdisciplinary study in the region of gas fields IVANA and IKA in the north Adriatic. The results of some other ecological projects like those of the Vir Sea and coastal zone between Vir and Konavle were also published. Different aspects of fishery improvements were discussed in a few papers dealing with efficiency of different fishing gear, although emphasis was paid to the permanent observation of fish communities and to the efforts of avoiding the damages of overfishing. Use of statistical data processing served in that direction. One part of Vol. 40 (Suppl.) was dedicated to the 50th Anniversary Conference (1999) "Fishery-biological expedition Hvar in the Adriatic Sea". In a few volumes the results of systematic and random data collection of all kinds like hydrography, current meters, chemical, ecological and biological were published. In series of papers appear the data of the sea temperature, salinity and density as well as their seasonal and longterm variation. Coastal zone from Istria to Montenegro is described in detail. Along with the Adriatic some other regions of the Eastern Mediterranean like coastal zone of Egypt, Turkev and Greece were also covered. Strongly marked continental aspect of the Adriatic and especially of its Northern part was observed. Therefore, the pronounced seasonal variation of the basic hydrographic properties is obvious. Long-term variation has also been considered and the temperature increase due to the Adriatic ingressions described. Series of multidisciplinary papers deal with trends and long-term fluctuations of salinity, transparency and chlorophyll related to Adriatic ingressions. Optical types of the waters of the Middle and South Adriatic are considered as well as their variation in time. Definition of water masses, their space distribution and time changes were released. Water masses of the Eastern Mediterranean and Aegean Sea were also considered and especially the formation of the Eastern Intermediary Water in

the Levantine Sea. The processes of the heat exchange between the sea and atmosphere were also considered. The issue in 2006 (Vol. 47, Suppl.) gave main results of the ADRICOSM Pilot Project (launched in October 2001 and ended in March 2005) ("The ADRICOSM Pilot Project: a coastal and river basin prediction system for the Adriatic Sea").

Dynamic conditions were demonstrated in more than 25 issues. They cover the whole Adriatic and number of its small basins (Trieste Bay, Kvarner, Coastal zone of Dalmatia like Vir Sea, Brač Channel, Kaštela Bay and Otranto Strait), as well as the east Mediterranean. for the first time the calculation of geostrophic currents appeared for the Adriatic and the East Mediterranean. Differences between the coastal and open sea were emphasized with the appearance of the frontal zone along the east Adriatic coastal region. Simple and more sophisticated models were used to solve different dynamical problems. The impact of the Aswan high Dam construction on the oceanographic and fishery conditions in the waters of Nile delta and also the much larger area was shown. Chemical papers embrace primarily discussions on quantity and distribution of nutrients, their entries and farther role in the biological cycles. Observations of chemical parameters in the last two decades indicate the eutrophication of some areas of the coastal region, primary close to bigger cities. Different biochemical subjects have also been considered in that respect. In the same period the process of pollution of the Adriatic ecosystems was marked and examined. Some studies of content of heavy metals in sea water, sediments and organisms have been published as well as the content of other pollutants like oils, detergents and pesticides. The growing impact of man and its activities on the sea ecosystem was emphasized. A few papers concerning similar subjects from Egyptian waters were issued. Marine geology is present in papers concerning sedimentation (Lakes on the Mljet Island, channel region of the eastern Adriatic coast and primary the Kaštela Bay), hydro-geology (freshwaters springs), and papers on Foraminifera in the Adriatic and waters of Lebanon and Yemen.

In the last 5-6 years, a number of very interesting review papers and original scientific articles have been published, with significant citations, such as: "Concentrations and origin of polycyclic aromatic hydrocarbons in sediments of the Middle Adriatic Sea", "To what extent the size fraction affects an interpretation of planktonic foraminiferal assemblages - case study from Southern Adriatic", "A long term (1949-2010) study of catch and effort in Israeli trawl fishery, Eastern Mediterranean Sea", "The abundance, distribution and speciation of mercury in waters and sediments of the Adriatic Sea - a review", "Wind storminess in the Adriatic Sea in a climate change scenario", "The presence of Tetraodontidae species in the Central Mediterranean: an update from the southern Adriatic Sea", "Progress in Mediterranean bioinvasions two years after the Suez Canal enlargement", "The abundance and speciation of mercury in the Adriatic plankton, bivalves and fish a review", "Setting-up a billboard of marine invasive species in the ESENIAS area: current situation and future expectancies", "A comparative approach to the Croatian and Montenegrin small-scale fisheries (SSF) in the coastal eastern Adriatic Sea: fishing gears and target species", "Seaweeds of the Greek coasts: Rhodophyta excluding Ceramiales", "Oil seeps detection and mapping by SAR imagery in the Adriatic Sea", "A review of reproduction biology and spawning/ nursery grounds of the most important Adriatic commercial fish species in the last two decades" and "Reproductive traits of the European hake, Merluccius merluccius (L. 1758), in the Adriatic Sea"

The language policy has changed over time. At the beginning the papers were published in the languages, which were considered the main international languages of the time: French, English and German. In the 60's and 70's of the last century the government preferred the use of the Croatian language, with summaries in an international language, from the 80's on the use of English was the rule with only a few exceptions in French. At present it is the official publishing language, but with a Croatian summary at the end of the paper. In all, so far more

than 70% of the articles have been published in English. The greater diversity of authors' nationalities over time also shows the progress of the scope of the Journal, from local to international. Though foreign authors had been published from the very beginning, in the last decade they have written more than 60% of the papers. The foreign authors come mostly from the Mediterranean (Egypt, Italy, Turkey, Slovenia, Montenegro, France, Malta, Lebanon, Israel, Tunisia, Algeria, Lybia and Spain), but there are also authors from non-Mediterranean countries (UK, Sweden, Norway, Poland, Romania, Portugal, Czech Republic, Hungary, USA, Argentina, Brasil, Oman, India, Senegal, Japan, Jordan, United Arab Emirates).

Today, Acta Adriatica is cited in the following data bases: Agricola, ASFA (CSA) – Aquatic Science & fisheries Abstracts CSA, CAB Abstracts, CNRS - INIST, Dialog, DOAJ, EBSCO Host fish & fisheries Worldwide produced by NICS South Africa, Georeference, Hrčak, ISI Web of Knowledge, Oceanic Abstracts, Pollution Abstracts, Referativnij zhurnal, WoS-Web of Science, SCOPUS Water Resources Abstracts, and Zoological Record. Acta Adriatica got its first Impact factor (IF) in 2009 and it was 0.459, while in 2011 was 0.500. In addition, the number of citations of articles from Acta Adriatica in the SCI (Science Citation Index) has been analyzed for the period between 1975 and 2001 (ANDREIS & JOKIĆ, 2008\*). Compared to 119 Croatian scientific journals dealing with all fields except medicine, Acta Adriatica ranks second, based on the number of citations in the SCI database (ranks 6 among 142 journals covering all fields). Nowadays, compared to all Croatian scientific journals dealing with all fields, Acta Adriatica ranks fourth, based on criteria proposed by Ministry of Science, Education and Sport Republic of Croatia. Acta Adriatica is a successful scientific journal with long tradition that promotes the safekeeping of the knowledge unique to the Adriatic and the Mediterranean.

As the first, in the last 5 years, the structure of the Editorial board has changed, we are introducing OJS (Open Journal System) in operation at the beginning of 2020, all with the aim of improving and facilitating work and access to authors. All back issues of Acta Adriatica (starting from Vol. 40. (2), 1999) are available online (http://jadran.izor.hr/acta/, ISSN 1846-0453).

This journal is financially supported by Institute of Oceanography and Fisheries as a publisher and by Ministry of Science and Education of Republic of Croatia. Several issues were cofinanced by the town Split.

At the end, I would like to use this opportunity to give the honor and recognition to everyone who in some way contributed to the existence and publication of the Journal, but especially to late Dr. Mira Zore-Armanda, late Dr. Tereza Pucher Petković, Prof. dr. Ivan Jardas and Mrs. Milica Vučemilović. My thanks go to all members of the Editorial Team and reviewers from all of the world, past and present. Their individual expertise and dedication have been so much appreciated. We have all worked together as a team to produce a journal that is recognized and respected by marine scientists in the Mediterranean, Europe and worldwide.

I'm hoping that our journal Acta Adriatica will continuously and safely sail in scientific waters in future!

Sincerely yours, Editor-in-Chief Jakov Dulčić

\*Andreis, M. & M. Jokić. 2008. An impact of Croatian journals measured by citation analysis from SCI-expanded database in time span 1975–2001. Scientometrics, 75 (2): 263–288.