

# Improving Research Evaluation Through Support of National Journals: Findings from the 100<sup>th</sup> Anniversary Round Table of *Acta Botanica Croatica*

## AUTHORS:

ZRINKA LJUBEŠIĆ<sup>1</sup>

GORAN DURN<sup>2\*</sup>

VIDA DEMARIN<sup>3</sup>

<sup>1</sup> University of Zagreb, Faculty of Science, Horvatovac 102a, Zagreb

<sup>2</sup> University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, Zagreb

<sup>3</sup> Croatian Academy of Science and Arts, Trg Nikole Zrinskog 11, Zagreb

\* Correspondence: goran.durn@rgn.unizg.hr

This manuscript is published as a Round Table Report at the invitation of the journal's editor-in-chief. Its purpose is to inform the readership of RAD CASA – Medical Sciences about the key discussions, insights, and conclusions presented during the round table organized on the occasion of the 100th anniversary of *Acta Botanica Croatica*. Although the discussion spanned multiple scientific fields, several conclusions are directly relevant to the medical and biomedical research community, particularly in the context of research evaluation, publishing practices, and the integrity of the scientific record. This report summarises expert perspectives on the current state and future directions of scientific publishing and research assessment in Croatia. It does not present original research findings, but serves as an authoritative overview intended to support ongoing professional and policy dialogue within the scientific and medical communities.

In honour of the 100th anniversary of *Acta Botanica Croatica*, the Departments of Natural and Medical Sciences, together with the Faculty of Science of the University of Zagreb, organised a round table The Importance of Croatian National Scientific Journals and Their Evaluation within National Criteria. The event was held on 6 November 2025 at the Library of the Croatian Academy of Sciences and Arts in Zagreb.

The motivation for organising the round table stemmed from the globally recognised *publish-or-perish* culture, which is also strongly present in Croatia. Under pressure to meet national criteria and to secure successful project applications, scientists increasingly turn to fast-publishing journals that charge high article-processing fees and often have lower-quality peer-review processes. At the same time, we are witnessing a hyper-production of scientific papers that is not matched by corresponding advances in knowledge, raising questions about the true purpose of scientific publishing. In contrast, Croatia has a number of long-standing, high-quality scientific journals that continue to uphold rigorous peer-review standards. However, these journals often face slow review processes, difficulty in securing reviewers, and challenges in increasing their impact factors. Because most of them are not ranked in the first or second quartile, they do not satisfy the requirements of national promotion criteria, leaving Croatian scientists with little incentive to publish in them.

The round table opened with introductory lectures by:

- Mirko Orlić, F.C.A., “*Three ways of scientific publishing: standard, grey and predatory*”;
- Prof. Ana Marušić, PhD, “*Challenges to maintaining the integrity of academic publishing*”;
- Prof. Zvezdana Benčetić Klaić, PhD, “*Croatian publications in geodesy and geophysics (2015–2022)*”;
- Ivana Matijević and Prof. Emer. Damir Viličić, “*Bibliometric analyses of the productivity of Croatian scientists in biology (2014–2023)*”;
- Hrvoje Buljan, F.C.A., “*Croatian scientific publishing within the framework of national criteria for academic promotion*”.

The presentations provided an excellent overview of the major challenges in scientific publishing over the past two decades, as well as a detailed analysis of recent trends in geodesy, geophysics, and biology in Croatia. They also offered a critical examination of the national academic promotion framework and its impact on scientific publishing practices.

There was strong interest in the round table, which was held in a hybrid format, and editors of Croatia's leading scientific journals actively participated in the discussion.

The main conclusions of the productive discussions were as follows:

## CROATIAN SCIENTIFIC JOURNALS AS A FOUNDATION OF THE NATIONAL SCIENTIFIC INFRASTRUCTURE

Participants agreed that Croatian scientific journals are an essential and strategic component of the scientific infrastructure of the Republic of Croatia. They require systematic institutional and financial support, as well as a clearly recognised position within the national system for evaluating scientific work. It was emphasized that national journals play a key role in preserving the scientific language, ensuring public accessibility of research results, and maintaining the cultural identity of the scientific community.

Participants further highlighted that recognition and support for Croatian scientific journals must rest on the principles of quality, ethics, openness, sustainability, and public value, all of which strengthen the autonomy and international visibility of Croatian science.

It was recommended that the principles of the Coalition for Advancing Research Assessment (CoARA) and the standards of the Diamond Open Access model be formally integrated into national evaluation policies and practices, forming the basis for future scientific publishing policies in Croatia.

Throughout the discussion, participants offered various reflections and proposals representing the different perspectives of scientists,

editors, and practitioners. They agreed that these insights could be highly valuable in drafting legislation and by-laws, as well as in shaping national guidelines for the evaluation of scientific work and publishing.

### NATIONAL FRAMEWORK FOR JOURNAL CLASSIFICATION AND EVALUATION

It was proposed that a national framework for the classification and evaluation of scientific journals be established, grounded in the principles of responsible research assessment and aligned with the guidelines of CoARA and the San Francisco Declaration on Research Assessment (DORA).

While it is desirable for all journals to be indexed in relevant international bibliographic databases, since such indexing enhances visibility and accessibility, evaluation should not rely solely on database inclusion. Instead, journal assessment should be based on a comprehensive set of quality indicators, including:

- the quality, rigour, and transparency of the peer-review process;
- adherence to ethical standards and international editorial guidelines;
- openness and accessibility of content (open access);
- alignment with the principles of Diamond Open Access, in accordance with the DIAMAS project and the Diamond OA Standard (DOAS);
- the journal's contribution to national scientific and professional priorities.

### EUROPEAN INTEGRATION AND SUSTAINABLE OPEN ACCESS MODELS

The Croatian scholarly publishing system should actively engage with key European initiatives, particularly:

- CoARA, in promoting responsible research assessment;
- DIAMAS and DOAS, in developing sustainable, non-profit open access models;
- European Diamond Capacity Hub, in building shared infrastructure and providing training and technical support for publishers.

Such integration would strengthen the independence and long-term sustainability of national journals while enhancing their international visibility and recognition.

### SCIENTIFIC PUBLISHING AND INTERNATIONAL PRACTICES

Several participants emphasized the need to limit the influence of commercial publishers operating mass open-access models (*e.g.*, MDPI, Frontiers Media, Hindawi Publishing Corporation, OMICS

*Publishing Group, and others*) and to clearly identify and avoid so-called “grey” and predatory journals. Concerns were raised about the substantial financial resources paid from the Croatian state budget to support publication in such venues, resources that could be better directed toward research.

Participants stressed the importance of encouraging publication in Croatian journals, which form the foundation of domestic scientific visibility and help preserve the national scientific language. As Diamond Open Access journals, they are largely insulated from the harmful publishing practices associated with “grey” and predatory publishers.

It was suggested that Croatian Diamond Open Access journals receive systematic financial, technical, and mentoring support to enhance their quality and international relevance. Furthermore, participants recommended exploring the possibility of merging several journals from related fields to increase visibility and impact.

### EVALUATION CRITERIA AND ACADEMIC PROMOTION

Participants expressed the view that the criteria for appointment to scientific and scientific-teaching positions should include the requirement to publish at least one paper in a national journal operating under the Diamond Open Access model.

It was proposed that publishing one paper in a domestic journal within a five-year period be considered equivalent to publishing in a top-quartile (Q1) journal, thereby acknowledging the strategic importance of national journals for the development of the scientific community.

Concerns were raised that the current quartile system is often inadequate, as quartile rankings do not necessarily reflect the true scientific quality or impact of a journal, particularly given the recent proliferation of “grey” publishers.

Participants recommended expanding evaluation criteria to achieve a balance between quantitative and qualitative indicators, for example, 50% bibliometric indicators and 50% peer-review evaluation, where quantitative metrics serve as a necessary but not sufficient condition for decision-making.

The discussion also highlighted the need to value additional forms of scholarly contribution, such as leading research projects, supervising doctoral candidates, authoring scientific books, serving on editorial boards, and undertaking similar activities that contribute to the development of the scientific community.

It was proposed that a national project be launched to develop a new, balanced evaluation system over a 5- to 10-year period, with clearly defined measurable and qualitative parameters. Participants stressed the importance of analysing and comparing evalua-

tion systems used in countries with long scientific traditions (e.g., Germany) in order to adopt proven and sustainable models.

### POSITION OF DIFFERENT SCIENTIFIC FIELDS

Participants noted that the humanities require special treatment within the evaluation system, as their scholarly contributions cannot always be meaningfully measured through bibliometric indicators.

They proposed that evaluation criteria for the humanities and social sciences be developed separately, taking into account their specific forms of scholarly output, such as monographs, critical editions, translations, scholarly and professional essays, and other forms of public scholarly communication.

### LEGISLATIVE AND INSTITUTIONAL FRAMEWORK

Participants observed that the current legislative framework governing scientific activity is often overly rigid, slowing adaptation to new circumstances and hindering the timely implementation of modern international evaluation principles.

It was argued that amendments to the law and accompanying regulations should support a more flexible and operational system that promotes quality, collaboration, and openness in scholarly publishing.

Special emphasis was placed on the need for adequate and long-term financial support for Croatian scientific journals, particularly those operating under the Diamond Open Access model, as their sustainability and quality depend on stable public funding.

### NOTE

These excerpts reflect the recorded views and proposals of the round-table participants and do not necessarily represent a consensus among all attendees. Their purpose is to preserve these insights as a contribution to ongoing professional dialogue and to serve as input for shaping national policy on scholarly publishing and research evaluation.

