

Publication Project Code of Conduct





# **ERGA Publication Project Code of Conduct v1.1**

- Developed by the ERGA Publications Working Group and ELSI Committee -- Reviewed by the ERGA Council and Executive Board in June 2024 -

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This document builds on the early work of the ERGA Publications Working Group: Elena Buzan, Claudio Ciofi, Rosa Fernández, Shyam Gopalakrishnan, Camila Mazzoni, Ann Mc Cartney, José Melo-Ferreira, and Robert Waterhouse.

**Preamble:** This document is designed as an **open and evolving resource** to reflect the dynamic nature of the ERGA community and its activities. We welcome **contributions**, **suggestions**, **and feedback from all ERGA Members**. If you have insights, updates, or comments that you believe should be incorporated to enrich this document further, we encourage you to contact us: to share your thoughts or propose additions, please reach out to <u>executive-board@erga-biodiversity.eu</u>. Your input is invaluable to ensure that our documentation remains comprehensive, accurate, and reflective of our collective expertise and experiences. This document sets out concepts, best practices, and expectations for ERGA Members to follow when engaged in collectively developing publication projects that involve the ERGA community. It also outlines the different types and origins of such publications presenting guidance to ensure the integrity of collaborative work as well as establishing a framework that fosters openness and transparency. Finally, it sets out procedures that ERGA Members are expected to follow during the initiation, development, and final publishing of an ERGA-related publication.

#### How to use this document:

For **authorship** or **acknowledgement** recognition **criteria** To learn how to correctly use the **ERGA name/identity** To learn about **types** of ERGA-related publications To learn about the **origins** of ERGA-related publications For procedures to **launch** a new **ERGA Publication Project** For general publishing best practices **recommendations** 

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# 1. Summary

The ERGA Publication Project Code of Conduct not only provides a roadmap for navigating concepts relating to scientific authorship but also specifically addresses the workflow for publications that involve the ERGA community, especially when ERGA itself is the subject of the publication, or when individuals are publishing on behalf of ERGA. It encompasses a range of possible publication types and origins, with a focus on defining clear leading and co-authorship and acknowledgement criteria, alongside inclusion considerations. As such, this guidance is indispensable for maintaining the integrity of collaborative work as well as establishing a framework that fosters openness, fair attribution, and transparency. A major objective is to ensure that ERGA Members are actively encouraged and rewarded for their participation in the publication process, as well as to fairly acknowledge and value their contributions. Additionally, the guidance clarifies the procedures for instances when ERGA's interests, actions, or outputs are directly represented in publications, which ensures a unified and fair authorship and acknowledgement process. It is important to note that the use of the ERGA name/identity or affiliation in publications is regulated. It requires approval from the Executive Board and the chair(s) of any implicated ERGA Committees to maintain the integrity of the community's contributions and affiliations.



# 2. Publication Authorship

This section of the document is dedicated to establishing clear and ethical practices for authorship, acknowledgements, and the use of the ERGA name or affiliation in scientific publications. The integrity of research and the recognition of contributions are foundational to the advancement of science. As such, we must adhere to principled standards that respect individual and collective efforts within our research community. The development of these guidelines draws upon the European Code of Conduct for Research Integrity<sup>1</sup> and the Contributor Roles Taxonomy (<u>CRediT</u><sup>2</sup>), integrating their principles to ensure ERGA practices align with the highest standards of research integrity and ethics.

This publication project authorship guideline serves to:

- **Clarify the roles of contributors**: Setting out the expected types of contributor roles in publications to clarify how different inputs can be recognised.
- **Clarify the criteria for authorship**: Outlining expectations of contributions that qualify for authorship, ensuring fair and transparent recognition of different inputs.
- Set out processes for acknowledgement: Outlining expectations of contributions that qualify for acknowledgement, and expected procedures to be followed.
- **Regulate the use of the ERGA name**: Providing explicit instructions on the use of the ERGA name in publications to maintain the integrity of the community.
- **Formalise the collaboration process**: Defining guidance on expected procedures to be followed that foster fair and inclusive collaborative work of the community.

<sup>&</sup>lt;sup>1</sup> https://allea.org/code-of-conduct/

<sup>&</sup>lt;sup>2</sup> https://credit.niso.org/



## 2.1 Roles of Contributors

#### 2.1.1 Authorship roles

Although different publication types (see Section 3. Publication Types) may involve somewhat different sets of contribution types (e.g. a research study with data and analyses versus a review or opinion piece), having a common understanding of the different roles that can be performed by different members contributing to a collaborative publication is essential for community coherence. The European Code of Conduct for Research Integrity recommends that publications should include an "Author Contribution Statement" in the final publication, where possible, to describe each author's responsibilities and contributions. The CRediT Contributor Roles Taxonomy defines 14 roles that can be used to represent the roles typically played by contributors to research outputs. Publications that involve the ERGA community (see Section 4. Publication Origins) are expected to use this framework (ERGA CRedit Template<sup>3</sup>) to map the roles of all contributors during the establishment of the collaboration and the development of the publication (see contributor role definitions in the table below). These ERGA community publications are also expected to follow the journal's guidelines and requirements for author contribution statements and to include the completed CRediT spreadsheet as a supplementary file submitted with the publication. If the journal does not accept the CRediT spreadsheet as a supplementary file, the spreadsheet should be published as a dataset at Zenodo whose DOI can then be added to the publication.

Term	Definition					
Conceptualisation	Ideas; formulation or evolution of overarching research goals and aims					
Methodology	Development or design of methodology; creation of models					
Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components					
Validation	Verification, whether as a part of the activity or separate, of the overall replication/ reproducibility of results/experiments and other research outputs					
Formal analysis	Application of statistical, mathematical, computational, or other formal techniques to analyse or synthesise study data					
Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection					

Contributor Role Definitions - from CRediT website<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> https://docs.google.com/spreadsheets/d/1FKRVE87pGDoIRK92RYYQ-RBSy\_bZTxZx17M91WfsyCc/edit?usp=sharing <sup>4</sup> https://credit.niso.org/contributor-roles-defined/



Term	Definition
Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools
Data Curation	Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse
Writing - Original Draft	Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation)
Writing - Review & Editing	Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre-or post-publication stages
Visualisation	Preparation, creation and/or presentation of the published work, specifically visualisation/ data presentation
Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team
Project administration	Management and coordination responsibility for the research activity planning and execution
Funding acquisition	Acquisition of the financial support for the project leading to this publication

## 2.2 Criteria for Authorship

Interdisciplinary collaborations bring together researchers from different fields where there may be somewhat different expectations regarding the types of contributions that qualify for authorship. Therefore, having a common understanding of the types of contributions that warrant recognition through co-authorship is essential for community coherence. The European Code of Conduct for Research Integrity recommends four primary considerations for deciding to recognise contributions that warrant co-authorship:

"... authorship itself is based on: (1) a significant contribution to the design of the research, relevant data collection, its analysis, and/or interpretation; (2) drafting and/or critical reviewing the publication; (3) approval of the final publication; and (4) agreeing to be responsible for the content of the publication, unless specified otherwise in the publication."

Publications that involve the ERGA community are expected to use this framework to justify and decide the types and extents of contributions that warrant recognition through co-authorship whereby:



#### 2.2.1a Contribution to research design

Co-authors are expected to have made substantial contributions to the conception and design of the research project, ensuring its methodological robustness and relevance.

#### AND/OR

#### 2.2.1b Contribution to data collection

Co-authors are expected to have made substantial contributions to the collection of data presented in the publication, including raw and processed data, as well as public data.

#### AND/OR

#### 2.2.1c Contribution to data analysis and interpretation

Co-authors are expected to have made substantial contributions to analyses of data and their interpretation, including analysis and quality control, as well as visualisations of results.

#### AND/OR

#### 2.2.2 Contribution to manuscript preparation

Co-authors are expected to have made substantial contributions to the drafting and/or critical reviewing of the publication, ensuring clarity and accuracy of the scientific narrative.

#### AND

#### 2.2.3 Approval of the final publication

All co-authors are expected to have read and approved the final publication before submission, and to read and approve revisions and responses before re-submission(s).

#### AND

#### 2.2.4 Responsibility for publication content

All co-authors are expected to agree to be responsible for the content of the publication, unless otherwise explicitly specified, to ensure research accuracy and integrity.



#### 2.2.5 Acknowledgements

The roles played by contributors to publications that involve the ERGA community may be deemed not substantial enough to warrant recognition through co-authorship according to the criteria listed above. "Substantial enough" is an inherently subjective measure that can mean different things to different contributors, therefore the ERGA authorship guidance sets out roles and responsibilities for the initiators of any ERGA community publications to balance expectations of inclusivity with expectations of meaningful contributions that warrant co-authorship (see Section 5.5 Participation and Recognition of Publication Project Contributions). When contributions are deemed not substantial enough to warrant co-authorship (i.e. non-author contributors), it is expected that the authors:

- Comprehensively recognise the contributions made by naming all the non-author contributors and briefly describing their roles in the acknowledgement section (or equivalent) of the publication.
- These non-author contributors must be informed of the authors' intentions to recognise their efforts in the acknowledgements, and the authors must obtain the consent of all named non-author contributors before submission of the publication.
- The authors are expected to share a mature version of the publication before initial submission with all named non-author contributors so they can give informed consent to be included in the acknowledgement or give instructions to be excluded.
- The phrasing of the acknowledgement statement(s) should be decided by mutual agreement between the authors and the non-author contributors.
- The authors are also encouraged to inform all non-author contributors of the progress towards publication, from submission, through revision(s), to final acceptance, just as they would for author contributors.
- When acknowledging institutions, organisational bodies (e.g. ERGA Committees), facilities, indigenous peoples, local communities, citizen scientist groups, etc. it is expected that the authors follow the same procedures (sharing a mature version to obtain informed consent and informing on the progress) as for named individual non-author contributors, by communicating with an individual with the authority to represent the acknowledged entity or group. If attempts to identify an individual representative fail, authors are expected to check if the entity or group has an acknowledgement policy (e.g. on their website), and if so to follow these guidelines.



## 2.3 Use of the ERGA Name/Identity

The ERGA community believes that the ERGA name, or identity, should always represent a seal of excellence and integrity. As such, the use of the ERGA name or affiliation in publications needs to be regulated. In determining authorship within ERGA, we aim to accurately reflect individual contributions while acknowledging ERGA's collective expertise. It is unlikely that every single ERGA Member would ever have directly contributed to a publication, making it inappropriate to list ERGA (ERGA Community, ERGA Consortium, ERGA Initiative, etc.) as a named group author. Instead, the ERGA community name should be used in the text and/or acknowledgments to recognise the roles and contributions of the community as a whole, while ensuring transparency and fairness in authorship attribution. This policy highlights the collaborative nature of ERGA's research endeavours (through requiring a description in the text or acknowledgements) and safeguards the ERGA identity by avoiding the potential for granting "ghost authorships" (through avoiding the use of Consortium/Group authorships).

When referring to ERGA in the text of a manuscript, authors are kindly requested to cite the Nature Correspondence piece (Mazzoni, Ciofi, & Waterhouse, 2023<sup>5</sup>) as a reference. Note that this recommendation may change in the future as this announcement piece refers specifically to ERGA Phase I.

Regarding consortium/group authorships: Previous ERGA-related publications did make use of the option of providing a group list of authors and a consortium name ("*The era of reference genomes in conservation genomics*"<sup>6</sup> named "*European Reference Genome Atlas (ERGA) Consortium*" as an author, and "*How genomics can help biodiversity conservation*"<sup>7</sup> named "*The European Reference Genome Atlas Consortium*" as an author). The European Code of Conduct for Research Integrity recommends against such consortium/group authorships due to the potential for misuse, allowing gift/ghost authorships, and general lack of transparency regarding specific contributions. Should the authors of an ERGA-related publication feel that there is a strong case for choosing the consortium/group authorship option they will need to explain their case to the Executive Board. If appropriate,

<sup>&</sup>lt;sup>5</sup> Biodiversity: an atlas of European reference genomes https://www.nature.com/articles/d41586-023-02229-w

<sup>&</sup>lt;sup>6</sup> https://www.sciencedirect.com/science/article/pii/S016953472100313X

<sup>7</sup> https://www.cell.com/trends/genetics/fulltext/S0168-9525(23)00020-3



the ERGA Council will then decide on whether or not to approve the request to exceptionally use the consortium/group authorship option.

Acknowledging ERGA's collective expertise may take different forms - within the text or in the acknowledgements - depending on the type of publication (see Section 3. Publication Types). When the roles, activities, outputs, support, etc. of the ERGA community are described in the publication text, authors are expected to share the text promptly with the ERGA Executive Board (executive-board@erga-biodiversity.eu) for review and approval. This review work by the Executive Board is expected to be recognised in the acknowledgements section. Adhering to the policy on acknowledgements described above (see Section 2.2.5 Acknowledgements), authors must communicate with an individual with the authority to represent the acknowledged entity or group. This means that when the roles, activities, outputs, support, etc. of the ERGA community are described in the acknowledgements the ERGA Executive Board must be consulted for approval. When the acknowledgement is more specific, e.g. an ERGA Committee or some other ERGA entity (e.g. Pilot Project, Biodiversity Genomics Europe Project, etc.), then the leadership of the Committee (normally the chair) or other entity must be consulted for approval. As for Executive Board consultations and reviews, this review work is expected to be recognised in the acknowledgements section.

**Examples:** The authors thank the ERGA Executive Board for their review of and feedback on the manuscript. The authors thank the ERGA Citizen Science Committee for their review of and feedback on the manuscript.



# 3. Publication Types

This section aims to present descriptions of the main types of publications envisioned to comprise publications that involve the ERGA community, i.e. ERGA-related publications.

## 3.1 Announcements/Perspective Articles with an ERGA Focus

These publications are envisioned as dynamic insights into large-scale issues tackled by the ERGA community as a whole or by subsets of the community according to the issue(s) presented such as ERGA projects, Committees, working groups, the Council, the Executive Board, etc. In general such publications would likely focus on describing past or ongoing ERGA actions and/or future goals for the community.

## 3.2 Review/Commentary/Opinion/Perspective Articles with a Topic Focus

These publications are envisioned to put the topic(s)/issues(s) in question at the forefront of the work. The review/commentary/opinion/perspective article would address technical, methodological, scientific, or organisational topics/issues, or topics/issues focusing on research policy, ethics, social justice, etc. The role that ERGA entities and/or ERGA Members play in actions that seek to address the topic/issue would also be described, but the focus of the publication would remain the topic(s) in question.

## 3.3 Policy Briefs, Position Papers, and White Papers

These publications are normally targeted towards policymakers, stakeholders, funding bodies, national/regional agencies, and the general public, offering concise summaries of research findings and their implications for policy and practice, or setting out community-developed roadmaps describing current and future needs. The forum for discussion fostered by ERGA events and activities provides a foundation for Members to discuss, debate, develop, and refine such publications. Policy briefs and position papers are instrumental in translating scientific research into actionable insights, thus playing a crucial role in influencing decision-making and public discourse on relevant issues. White papers can be instrumental in showcasing community consensus descriptions of requirements for the field as a whole to progress. These would normally highlight the role of ERGA community actions in developing and/or promoting such briefs, positions, or roadmaps and how they connect back to biodiversity genomics research needs.



#### 3.4 Technical and Operational Reports/Guidelines

Technical and operational reports or guidelines are envisioned to provide in-depth descriptions of technical or operational processes and procedures for the benefit of all ERGA Members. These publications are essential for documenting the technical and operational aspects of ERGA's work, offering a comprehensive set of resources that guide the community concerning technical (protocols, best practices, step-by-step guidelines, workflows, user guides, etc.) and operational (data policy, privacy policy, governance, elections procedures, authorships, publications, etc.) issues. Such technical reports and operational guidelines are expected to cover topics that are generally outside the scope of traditional academic journal publishing routes and are therefore likely to be published on platforms such as Zenodo, protocols.io, WorkflowHub, or the ERGA website. Some of the technical reports may be adopted and adapted from materials developed by others, while the operational reports are more likely to be developed by ERGA Members for adoption and use by the ERGA community.

#### 3.5 ERGA Genome Reports

These publications are envisioned to be a key demonstration of ERGA's efforts to support the production of reference genomes by the entire community. They comprise mainly technical descriptions of the sampling and data generation, along with quality control assurance of the resulting genome assembly (and annotations). Note that ERGA Genome Reports are distinct from the semi-automated ERGA Assembly Reports (EARs). They should follow a community-developed structure and high standards to ensure that Genome Reports for species that benefitted in some way from the ERGA community are recognised as high-quality reliable outputs. The genome data presented in these articles is expected to have benefitted in some way from the ERGA community, from advice received from colleagues via ERGA channels (meetings, emails, Keybase, Slack, etc.), or from the use of ERGA-developed protocols, guidelines, standard operating procedures, etc., or from collaborations that grew out of interactions fostered by ERGA community actions. ERGA Genome Reports are expected to be produced for genomes generated by the ERGA community that are reviewed and approved as meeting ERGA standards.



#### **3.6 Educational and Outreach Materials**

This category of publications includes a wide range of materials designed to communicate scientific concepts, methods, approaches, and discoveries, often to non-specialist audiences, including students, educators, and the general public. Formats may include interactive webinars, video tutorials, infographics, PowerPoint presentations, and educational modules. These materials are crucial for inspiring future generations of scientists, increasing scientific literacy, and enhancing the societal impact of ERGA's work. Such educational and outreach materials are generally expected to fall outside the scope of traditional academic journal publishing routes. They are therefore likely to be published on platforms such as Zenodo, protocols.io, WorkflowHub, the ERGA website, or the ERGA Knowledge Hub.

#### 3.7 Workshop and Public Event Reports

These publications are envisioned to take the form of summaries and reflections on workshops, symposia, and public events organised or attended by ERGA Members. These reports can highlight key discussions, emerging trends, and collaborative opportunities identified during these gatherings, contributing to the ongoing dialogue within and beyond the scientific community, and serving to highlight the ongoing work of ERGA to foster interactions that promote ERGA's scientific and societal goals. The publications here refer to the post-event summary reflection articles or blogs, not the materials such as banners, flyers, brochures, etc. used to advertise the events.

#### **3.8 Scientific Research Articles**

These publications are a key part of what ERGA Members produce that contribute to the growing portfolio of scientific outputs that are connected to greater or lesser extents to the activities of the ERGA community as a whole. They would normally share important scientific work and advances, normally centred on researchers' hypotheses, data, results, and discussions. The work presented in these articles is expected to have benefitted in some way from the ERGA community, from advice received from colleagues via ERGA channels (meetings, emails, Keybase, Slack, etc.), or from the use of ERGA-developed protocols, guidelines, standard operating procedures, etc., or from collaborations that grew out of interactions fostered by ERGA community actions.



#### **3.9 Conference Proceedings and Presentations**

These are descriptions, usually in the form of abstracts submitted to conferences or other events, of research presentations, posters, and talks delivered at scientific meetings and conferences by ERGA Members. They would normally serve as a vital platform for sharing preliminary findings, innovative methodologies, and collaborative opportunities with the broader scientific community, with some highlighting of ERGA activities and/or goals. Conference proceedings and presentations allow ERGA Members to gain feedback, foster networks, and highlight the ERGA community's contributions to advancing scientific knowledge. These might be published through formal routes overseen by the event organisers, or they may be published via other means by the talk/poster presenters themselves, such as FigShare, Zenodo, or other platforms.

#### 3.10 Patents and Intellectual Property Disclosures

Patents and other forms of intellectual property disclosure are critical for protecting and commercialising technological innovations and discoveries made by ERGA Members. These documents are essential for securing funding, fostering industry partnerships, and ensuring that ERGA Members' contributions to science and technology are recognised and valued. Such documents would normally be deposited, published, or filed by the legal entity (organisation or individual) seeking to protect their interests relating to their outputs/results. Contributors to these types of publications are encouraged to reach an agreement and explore legal responsibilities and implications as soon as possible in the process if a patent related to resources generated by ERGA Members is to be filed to clearly define the role of each participant.



# 4. Publication Origins

ERGA publications can originate from a variety of sources within the community's extensive network, reflecting the multifaceted nature of its research and collaboration efforts. The publication origin is often linked to the type of publication, and it can range from the overarching ERGA Leadership (Executive Board) to the ERGA Council, ERGA Committees, National ERGA Nodes, ERGA community working groups, ad hoc groups of ERGA Members, members of ERGA core projects, members of ERGA-related projects, as well as ERGA Members producing ERGA Community genomes. It is important to recognise and define the group responsible for the origin of an ERGA-related publication because it is the responsibility of this group to ensure that the guidance set out in this document is followed throughout the development of the publication, i.e. the publication origin defines the publication leadership and decision-making responsibilities.

## 4.1 ERGA Executive Board

The ERGA Executive Board is expected to originate publications concerning the community's establishment and development, regulation and governance, or strategic directions and contributions to global efforts, often involving collaborations with ERGA Committees and the ERGA Council.

## 4.2 ERGA Council

The ERGA Council is expected to originate publications concerning the functioning, roles, and responsibilities of the Council as a diverse forum and representative body of ERGA Members, member countries, biogenome initiatives, and biogenome hub institutes, often involving collaborations with the Executive Board.

## 4.3 ERGA Committees

The ERGA Committees are expected to originate publications concerning topic(s)/issues(s) that are being addressed primarily at Committee level (both the Scientific and Transversal Committees), sometimes involving cross-committee collaborations, and possibly involving collaborations with external partners on certain topics.



## 4.4 National ERGA Nodes

National ERGA Nodes are expected to originate publications concerning the establishment and development of their national community, their goals and operational aspects, as well as any associated outputs emerging from national actions.

## 4.5 ERGA Community Working Groups

Working groups are established to work on actions oriented towards specific time-limited deliverables, or particular long-term actions that usually work towards a single deliverable. They are therefore expected to originate publications that describe these actions, or where a publication is part of the deliverable (e.g. a technical or operational report).

## 4.6 Members of ERGA Core Projects

Members of ERGA Core Projects (e.g. the ERGA Pilot and the Biodiversity Genomics Europe Project) are expected to originate publications concerning the activities and outputs of the project, possibly involving collaborations with ERGA Committees and ERGA Members not directly associated with the project.

## 4.7 Members of ERGA-Related Projects

Members of ERGA-related Projects (e.g. Affiliated BioGenome Projects or initiatives that benefit from ERGA resources/advice etc.) are expected to originate publications concerning the activities and outputs of the project, possibly involving collaborations with ERGA Committees and ERGA Members not directly associated with the project.

## 4.8 ERGA Members Producing ERGA Community Genomes

ERGA Members Producing ERGA Community genomes (i.e. who benefit from ERGA resources/advice etc.) are expected to originate publications concerning the activities and outputs (e.g. ERGA Genome Reports) of their genome project, possibly involving collaborations with ERGA Committees and ERGA Members not directly associated with the project.

## 4.9 Ad hoc Groups of ERGA Members

Ad hoc groups of ERGA Members may get together to work on actions oriented towards a specific deliverable/topic of interest to them that does not naturally fall within the remit of an ERGA Committee. They are expected to originate publications that describe these actions, or where a publication is part of the deliverable (e.g. a technical or operational report).



# 5. Procedures to Ensure Transparency and Fairness

Having outlined expectations for ERGA-related publication authorships including the roles of contributors and the criteria for authorship and acknowledgements and the use of the ERGA name/identity (Section 2), described the general expectations in terms of publication types (Section 3) and publication origins (Section 4), this final section is designed to set out the expectations in terms of procedures that ERGA Members are expected to follow during the initiation, development, and publication of ERGA-related publications.

#### 5.1 Guiding Principles for Ensuring Transparency and Fairness

ERGA as a community is dedicated to promoting a diverse and inclusive scientific process, advocating for responsible representation and equitable opportunities for all members. Implementing those principles involves inclusive decision-making processes, and fair recognition of diverse contributions, ensuring that the richness of perspectives enhances the quality and relevance of scientific research. To achieve this, ERGA Members are expected to adhere to the following guiding principles for ensuring transparency and fairness during the collaborations to produce an ERGA-related publication:

**5.1.1 Inclusive Team Composition**: ERGA aims to set an example of openness and inclusivity, participation in a publication project is therefore expected to reflect the diversity of ERGA Members and the wide range of perspectives they can bring.

**5.1.2 Equitable Contribution Recognition**: ERGA aims to recognise the contributions of all members towards our common goals, contributions to a publication project are therefore expected to be properly acknowledged in a fair and just manner.

**5.1.3 Transparent Decision Making**: ERGA aims to build positive collaborations amongst members embarking on a common initiative, decision making during a publication project is therefore expected to be open, clear, inclusive, and consensus-driven.

**5.1.4 Respectful Content Co-creation**: ERGA aims to foster interactions where ideas and opinions are shared and debated respectfully, the co-creation of content during a publication project is therefore expected to consider different points of view with respect.



## 5.2 Applicability of the Procedures

The guiding principles described in section 5.1 above, and the procedural requirements described in sections 5.3, 5.4, and 5.5 below, offer a useful framework for all types and origins of ERGA-related publications. Nevertheless, there is a spectrum of "relatedness" from cases where, e.g. ERGA may be only briefly mentioned, to cases where, e.g. the entire content is dedicated to describing ERGA actions or ambitions, etc. The applicability of the procedural requirements described below is therefore likely to be variable and open to interpretation. The non-exhaustive list of expectations described here is designed to guide community members embarking on an ERGA-related publication project. Any doubts about the applicability of the procedures should be conveyed to the ERGA Executive Board (executive-board@erga-biodiversity.eu) at the earliest opportunity, who will assess the case and provide instructions on how to proceed.

**5.2.1 Applicability of the Terms of Use of the ERGA Name/Identity (Section 2.3)**: The policy on the use of the ERGA Name/Identity, whether within the main text of the article or only in the acknowledgements, applies to any publication type or origin (scientific manuscripts, news articles, press releases, etc.). Any ERGA Members who are made aware of the intent to use the ERGA Name/Identity are kindly requested to inform the ERGA Executive Board (executive-board@erga-biodiversity.eu) for consultation and approval.



# 5.2.2 Applicability of the Procedures According to Publication Type (Section 3) and Publication Origin (Section 4):

## ERGA-Related Publication Type-Origin Matrix

The publication type-origin matrix is designed to guide ERGA Members with respect to the applicability of the described procedures for publication project leadership definition, use of the CRediT spreadsheet, as well as presentations and updates at ERGA plenaries.

Publication Type/Origin	4.1 Executive Board	4.2 ERGA Council	4.3 ERGA Committees	4.4 National Nodes	4.5 Working Groups	4.6 Core Projects	4.7 Related Projects	4.8 Community Genomes	4.9 Ad hoc Groups
3.1 ERGA Focus	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	NA	NA	L-C-P-U
3.2 Topic Focus	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C	l-c	NA	L-C-P-U
3.3 Policy or Position	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C	l-c	NA	L-C-P-U
3.4 Reports or Guidelines	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C-P-U	L-C	l-c	NA	L-C-P-U
3.5 Genome Reports	NA	NA	NA	NA	NA	L-C	l-c	l-c	NA
3.6 Outreach or Education	l-c	l-c	l-c	l-c	NA	L-C	l-c	NA	l-c
3.7 Event Reports	l-c	l-c	l-c	l-c	NA	L-C	l-c	NA	l-c
3.8 Scientific Research	NA	NA	L-C-P-U	L-C-P-U	NA	L-C	l-c	l-c	l-c
3.9 Conference Proceedings	l-c	l-c	l-c	l-c	NA	L-C	l-c	NA	l-c
3.10 Patents or IP <sup>8</sup>	L-C-P-U	L-C-P-U	L-C-P-U	l-c	L-C-P-U	L-C	l-c	NA	l-c
Leadership: Section 5.3; CRediT: Section 2.1.1; Presentation: Section 5.4.1; Updates: Section 5.4.2									
L-C-P-U	Required: Leadership definition, CRediT spreadsheet, presentation at a Plenary, and updates at future Plenaries								
L-C	Required: Leadership definition and CRediT spreadsheet, Plenary presentation and updates if requested by the Executive Board								
l-c	Recommended: Leadership definition and CRediT spreadsheet								
NA	This combination of type and origin is not considered realistic								

<sup>&</sup>lt;sup>8</sup> IP: intellectual property



## 5.3 Publication Project Leadership Definition

The steering of any publication project toward successful completion requires a form of leadership. This is true for traditional scientific articles published in academic journals as well as for other types of publications such as user-guides, best practices guidelines, or operational documents defining procedural matters (**see Section 3. Publication Types**). The clearest and most natural criterion to use to define the leadership of a publication project is to recognise the origin of the publication (**see Section 4. Publication Origins**) and the set of contributors responsible for the publication project initiation. Recognising the origin of a publication project serves to help define the set of contributors that will define the composition of the project leadership.

- Upon the initiation of an ERGA-related publication project, the origin, type, and leadership must be defined by the group of contributors who have decided to launch the new initiative. This document will serve as a reference for the project and will be used during project communication (See 5.4 below). It may exist as a standalone document, or as a prominent section near the start of the document used for drafting the publication. A template text is provided in section 5.6 below.
- Recognising that roles and responsibilities are subject to change during the development of any project, subsequent changes to the initially defined leadership must be made through consensus agreement within the leadership group.

The publication project leadership is therefore defined as the set of contributors responsible for the publication project initiation, clearly defined, openly disclosed, and subject to changes agreed upon within the leadership group. This leadership group is responsible for adhering to the guiding principles (Section 5.1), and the applicable procedural requirements described in sections 5.4 and 5.5 below. If the origin and/or type (Section 5.2.2) of the publication project requires so, the leadership group must create a CRediT spreadsheet (described in Section 2.1.1, using the <u>ERGA CRediT Template</u><sup>9</sup>) to be used as the basis for collecting and updating members' expected and actual contributions over the lifetime of the project. The leadership group must enter their publication project in the <u>Registry of ERGA-Related Publication Projects</u><sup>10</sup>, and update this entry periodically.

 <sup>&</sup>lt;sup>9</sup> https://docs.google.com/spreadsheets/d/1FKRVE87pGDoIRK92RYYQ-RBSy\_bZTxZx17M91WfsyCc/edit?usp=sharing
<sup>10</sup> https://docs.google.com/spreadsheets/d/1a4tjk8p\_r73\_MNianjmAuPZtW7kCZWaw0sUxsPFTlkE/edit?usp=sharing



## **5.4 Publication Project Communication**

This section describes the procedural responsibilities of the project leadership concerning communicating about the initiation and subsequent progression of the ERGA-related publication project. These requirements are designed to ensure inclusivity and openness, in adherence to the guiding principles for ensuring transparency and fairness (Section 5.1).

## 5.4.1 Project initiation communication

Having defined the origin, type, and leadership of a new ERGA-related publication project, if the origin and/or type (Section 5.2.2) requires, the leadership must present their project in an ERGA Plenary meeting at their earliest convenience. This presentation to the community should include:

- A description of the motivation(s) underlying the initiation of the publication project
- A description, in general terms, of the expected outcome(s) of the publication project
- A list of the members making up the publication project leadership (See 5.3 above)
- A confirmation of the type (Section 3) and origin (Section 4) of the publication project
- An outline of the approximate expected timeline for the development of the publication project through to finalisation
- When contributions are sought from the ERGA community:
  - A general description of the types of expertise and expected contributions that the publication project leadership is seeking from the ERGA community
  - A deadline for expressing an interest in participating, i.e. a date after which it is expected no new contributors would join the publication project
  - A date, a time, and connection information for an initial open online meeting for any interested member to join to learn more about the publication project
- When no contributions are sought from the ERGA community:

A brief explanation should be provided, as the reasoning depends on the type of publication. Examples of such reasoning include:

- **Origin = National Node**: The publication's aim or topic is country-specific
- **Origin = ERGA Council**: Contributions are sought only from Council Members

• **Origin = Core Project**: Contributions are sought only from project members This explanation can be as simple as one sentence and should be tailored to the specific publication. The goal is to encourage effective communication within ERGA while allowing flexibility and avoiding overly prescriptive measures.



#### 5.4.2 Project progress communication

The leadership group is expected to keep the <u>Registry of ERGA-Related Publication</u> <u>Projects</u><sup>11</sup> up-to-date with the latest progress of the publication project. When any major transitions are imminent, e.g. moving from seeking contributions to closing participation, or when substantial milestones have been achieved, e.g. submission to a preprint server or a journal, the leadership group is encouraged to announce these in the ERGA Plenary meetings.

## 5.5 Participation and Recognition of Publication Project Contributions

As detailed in the *Publication Project Leadership Definition* (Section 5.3 above) and the *Template Text for Leadership Definition* (Section 5.6 below), the leadership group is responsible for ensuring that the development of the publication project adheres to the guiding principles and the applicable procedural requirements.

- The leadership group will comprehensively assess individual contributions to the publication project's research and writing phases.
- Based on the guidelines set out in this document, in particular, those detailed in Section 2, the leadership group has the responsibility to decide on whether a participant's contribution warrants recognition as a co-author or as a named non-author contributor in the acknowledgments.
- The leadership group will use the CRediT spreadsheet as the basis for collecting and updating participants' expected and actual contributions over the lifetime of the publication project.
- Any contributor who comments on or edits the manuscript preparation documents implicitly acknowledges and accepts the terms of participation and recognition of publication project contributions.
- The decisions made by the leadership group regarding recognition and authorship are considered final and binding, and their decision-making process must adhere to the guiding principles (Section 5.1).
- In the event that an ERGA Member believes that the procedures and best practices detailed in this document have not been correctly followed or applied, they are requested to seek a resolution through the ERGA Conduct Compliance procedure.

<sup>&</sup>lt;sup>11</sup> https://docs.google.com/spreadsheets/d/1a4tjk8p r73 MNianjmAuPZtW7kCZWaw0sUxsPFTlkE/edit?usp=sharing



## 5.6 Template Text for Leadership Definition

ERGA Publication Project Leadership Definition. This publication project identifies as TYPE [Select one 3.1 ERGA Focus; 3.2 Topic Focus; 3.3 Policy or Position; 3.4 Reports or Guidelines; 3.5 Genome Reports; 3.6 Outreach or Education; 3.7 Event Reports; 3.8 Scientific Research; 3.9 Conference Proceedings; 3.10 Patents or IP] with ORIGIN [Select one 4.1 Executive Board; 4.2 ERGA Council; 4.3 ERGA Committees; 4.4 National Nodes; 4.5 Working Groups; 4.6 Core Projects; 4.7 Related Projects; 4.8 Community Genomes; 4.9 Ad hoc Groups]. The group of contributors who have launched this initiative defines the publication project leadership as follows: Firstname1 Lastname1, Firstname2 Lastname2, Firstname3 Lastname3, Firstname3 Lastname3, etc. Recognising that roles and responsibilities are subject to change during the development of any project, subsequent changes to this leadership group will be made through consensus agreement within the leadership group. This leadership group is responsible for ensuring that the development of the publication project adheres to the guiding principles and the applicable procedural requirements defined in the ERGA Publication Project Code of Conduct [link]. The leadership group will comprehensively assess individual contributions to both the research and writing phases of this publication project. Based on the guidelines set out in the ERGA Publication Project Code of Conduct, the leadership group has the responsibility to decide whether a participant's contribution warrants recognition as a co-author or as a named non-author contributor in the acknowledgments. The decisions made by the leadership group regarding recognition and authorship are considered final and binding, and their decision-making process must adhere to the guiding principles (Section 5.1). By commenting on or editing the manuscript preparation documents [link to the manuscript preparation document if this leadership document is a standalone document], you implicitly acknowledge and accept these terms of publication project leadership and this recognition and authorship policy. The leadership group has created a CRediT spreadsheet - accessible via this form<sup>12</sup> - to be used as the basis for collecting and updating participants' expected and actual contributions over the lifetime of the publication project.

<sup>&</sup>lt;sup>12</sup> <u>https://www.cognitoforms.com/ERGAEuropeanReferenceGenomeAtlas/ERGAPublicationProjectParticipation</u>



# 6. Technical and Ethical Recommendations

This final section lists, in no particular order, a variety of good practices that the ERGA community would like to see implemented in the processes of developing ERGA-related publications beyond the procedures detailed in the previous sections. The aim here is not to be exhaustive, but rather to provide examples of the kinds of optimal best-practice publication-related behaviours the ERGA community would like to see widely adopted by ERGA members. These examples are complemented by the **ERGA O3pen Data Policy**<sup>13</sup> that addresses ERGA's commitments to dealing with different aspects regarding data, including their processing and publishing.

## 6.1 Adherence to Ethical and Legal Standards

This is a priority in all publishing decisions within the ERGA community. Adhering to relevant legal and ethical standards must be prioritised, including proper data usage, research integrity, and transparency in methodologies and reporting. Compliance with relevant legal and/or funding agency requirements, such as data protection laws and intellectual property rights is also essential. Additionally, integrating the principles of justice, equity, diversity, and inclusion (JEDI) throughout the research and publication process is crucial for creating an environment that promotes fair treatment and representation for all contributors (see the ERGA Social Justice subcommittee webpage<sup>14</sup> for further details). Justice ensures equitable distribution of benefits and burdens, such as fair authorship practices. Equity addresses systemic inequalities by providing resources and opportunities to contribute to underrepresented researchers. Diversity brings a wide range of backgrounds and perspectives to the writing process. Inclusion creates a welcoming environment where all individuals feel valued and respected.

## 6.2 Data Accessibility - FAIR & CARE

Data accessibility is an important component of responsible research publications. Authors should provide clear and accessible links to the data and code used in their work, ensuring that all data are cited appropriately with relevant accessions or identifiers e.g. DOIs, BioProject IDs, etc. This facilitates reproducibility and transparency. The principle of "as open as possible and as closed as necessary" should guide data openness, balancing it with privacy, security, and legal or ethical constraints. Adherence to the FAIR Principles<sup>15</sup> of data

<sup>13</sup> https://zenodo.org/records/10785625

<sup>14</sup> https://www.erga-biodiversity.eu/social-justice

<sup>&</sup>lt;sup>15</sup> https://www.go-fair.org/fair-principles/



governance—making data Findable, Accessible, Interoperable, and Reusable—is essential. Additionally, respecting the CARE (Collective Benefit, Authority to Control, Responsibility, Ethics) Principles<sup>16</sup> for indigenous data governance ensures that data use benefits indigenous communities and respects their right to indigenous data sovereignty.

## 6.3 Community Engagement and Partnership

Engagement and partnerships with local communities and other stakeholders are important throughout the research process. Engaging and partnering with relevant communities, including local communities and indigenous people, ensures their perspectives and knowledge are integrated into the research, if and when appropriate. Engaging and partnering with these communities can ensure that the research outcomes are relevant and beneficial to them, as well as respecting their contributions and expertise. Involving community members in the research process further enhances its inclusivity, impact, and relevance. Where community groups or individuals are acknowledged in publications it is important to consider potential barriers to informed participation, particularly regarding the language of the publication (usually English), and take necessary steps to provide local-language summaries, if and when appropriate.

## 6.4 Transparency in Methodologies

Clear, detailed, and accessible descriptions of research methodologies are crucial for reproducibility. Detailed descriptions of methodologies, including comprehensive protocols, workflows, and software code, should be provided. Supplementary materials, such as detailed protocols or raw data, should be published in accessible permanent repositories like Zenodo or WorkFlowHub.

## 6.5 Access and Benefit-Sharing

Access and benefit-sharing (ABS<sup>17</sup>) aspects should be explicitly addressed in publications, either as a standalone section or in combination with the Data Accessibility section. This section should describe how the research results will benefit the broader community. It should also outline plans for sharing resources or data generated by the research. By following this approach, the benefits of research will be distributed equitably and contribute to the well-being of a broader community.

 <sup>&</sup>lt;sup>16</sup> <u>https://www.gida-global.org/care</u>
<sup>17</sup> <u>https://www.cbd.int/abs/infokit/brochure-en.pdf</u>



## 6.6 Funding Acknowledgements

The sources of funding must be disclosed transparently, including all grants, institutional support, and other contributions. Acknowledging funding sources ensures transparency and highlights the financial support that enabled the research to take place. The publication project leadership is expected to facilitate processes to ensure the collection of all authors' relevant funding sources so they can be properly acknowledged in any publication, if and as necessary.

## 6.7 Open Access and Publication of Pre-Prints

When selecting a publishing strategy and outlet, authors should consider publishing a pre-print (at BioRxiv<sup>18</sup>, EcoEvoRxiv<sup>19</sup>, etc.) to disseminate findings quickly and choose open peer-review platforms to enhance transparency in the review process. Authors are also strongly encouraged to favour open-access publication as this ensures that research findings are accessible without paywall barriers. Favouring non-profit publishers and society journals supports ethical publishing practices and scientific knowledge dissemination. For example, journals listed at DAFNEE<sup>20</sup>, a Database of Academia Friendly journals in Ecology and Evolution, include non-profit, learned society, or university-associated journals relevant to the field of ecology and evolutionary biology.

## 6.8 Conflict of Interest

Transparency and trust in research require the disclosure of conflicts of interest. Authors must disclose any potential conflicts of interest that could influence the research or interpretation of results. This includes financial, personal, or professional relationships that could be perceived as biases. The publication project leadership is expected to facilitate processes to ensure the collection of all authors' possible conflicts of interest so they can be properly reported in any publication, if and as necessary.

<sup>18</sup> https://www.biorxiv.org/

<sup>&</sup>lt;sup>19</sup> https://ecoevorxiv.org/

<sup>&</sup>lt;sup>20</sup> https://dafnee.isem-evolution.fr/