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Position statement on the use of AI in scientific writing and publishing

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ABSTRACT

Large language models (LLMs) are rapidly reshaping scientific writing, reviewing, and publishing. Journals must respond in ways that safeguard trust while acknowledging the new realities resulting from these Artificial Intelligence-based technologies. This contribution details the position developed by the editors of *Madagascar Conservation & Development* on the use of LLMs in scholarly work and for publication in the journal. These tools can support authors by enhancing clarity, reducing language barriers, and structural inequities in global science, but recent editorial experience shows that the use of LLMs can generate errors and fabricated references, and formulate false claims that may escape traditional peer review. In volunteer-run journals, such failures impose substantial burdens on editors and reviewers. Our position is simple: LLMs may be used to support and enable authors but their results must never be trusted blindly. Authors remain fully responsible for ensuring the accuracy, originality, and validity of all content, regardless of the tools employed, and any use of LLMs must be disclosed transparently. Protecting scientific integrity remains a shared responsibility.

RÉSUMÉ

Les grands modèles de langage, ou *large language models* (LLM), transforment rapidement l'écriture scientifique, l'évaluation par les pairs et les processus de publication. Les revues doivent y répondre de manière à préserver la confiance, tout en reconnaissant les nouvelles réalités induites par ces technologies fondées sur l'intelligence artificielle (IA). Cette contribution présente la position élaborée par les rédacteurs de *Madagascar Conservation & Development* concernant l'utilisation des LLM dans les travaux scientifiques et pour toute contribution soumise à la revue. L'IA peut aider les auteurs en améliorant la clarté des textes, en réduisant les barrières linguistiques et certaines inégalités structurelles au sein de la science mondiale. Cependant, notre expérience éditoriale récente montre que l'utilisation des LLM peut générer des erreurs, produire des références inexistantes et formuler des affirmations erronées susceptibles d'échapper à l'évaluation par les pairs traditionnelle. Dans les revues reposant exclusivement sur le bénévolat, de telles défaillances se traduisent par une surcharge substantielle de travail pour les rédacteurs et les évaluateurs. Notre position est simple : les LLM peuvent être utilisés pour aider et accompagner les auteurs, mais leurs résultats ne doivent jamais être acceptés sans vérification. Les auteurs demeurent en-

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tièrement responsables de l'exactitude, de l'originalité et de la validité de l'ensemble du contenu, quels que soient les outils employés, et toute utilisation de LLM doit être déclarée de manière transparente. La préservation de l'intégrité scientifique reste une responsabilité partagée.

AUTHOR RESPONSIBILITY IN CHANGING JOURNALSCAPE

Artificial Intelligence (AI) includes both machine-learning tools (Carbonell et al. 1983), long used for data analysis, and newer Large Language Models (LLMs), which can produce coherent text and references (Kumar 2024). In just a few years, LLMs have evolved from a technical curiosity to part of the everyday infrastructure of scientific writing, reviewing, and editorial work for many authors and publishers. Their ever-increasing usage has continuously shaped protocol design, data cleaning and analysis, manuscript drafting, reviewing, and editing, and even decisions about what work gets published (Kusumegi et al. 2025, Zhao 2025). However, since AI-based tools merely produce plausible-sounding text based on probabilities, the results can include errors and inaccuracies that seriously undermine science. Journals worldwide are having to rethink matters of responsibility, transparency, and authorship in response to this profound shift (Thorp 2023). Because *Madagascar Conservation and Development* (*MCD*) wishes to maintain integrity, transparency, accessibility, and equitable participation in knowledge production and dissemination, the journal has decided to articulate a carefully reasoned position on how AI may be used in manuscripts submitted for possible publication, one that protects trust while recognizing both the opportunities and challenges resulting from this new reality.

STRUCTURAL LIMITS OF VOLUNTEER-RUN JOURNALS

Since 2006, when *MCD* published its first issue, the journal has followed a clear editorial process. Each submission is screened for relevance, ethical alignment, and basic formatting. Potentially suitable manuscripts are then sent out for double-blind peer review, followed by one or more rounds of revision prior to a final decision and eventual publication. Only after reviewers and editors are satisfied that *MCD*'s standards have been met does the manuscript proceed to copyediting and verification, during which references, factual claims, tables, and figures are carefully scrutinized.

While a growing number of publishers and preprint journal platforms are experimenting with AI-assisted tools for manuscript screening and research-integrity checks, and authors and reviewers are increasingly making use of the power of AI (Ghassemi et al. 2023, Zhao 2025), at *MCD* no automation is used and we have no paid staff or editorial infrastructure. Instead, the journal's operational model is based on honesty and trust among authors, reviewers, and editors.

In 2025, several manuscripts reached the latter stages of copyediting at MCD before the editors discovered fabricated or unverifiable references. Some included dozens of citations that looked plausible but did not actually exist. This is a well-documented outcome of LLM text generators trained to produce fluent and believable text rather than verifiable bibliographies (Ghassemi et al. 2023, Walters and Wilder 2023). These manuscripts had passed peer review and revision, indicating that even a rigorous editorial process was not sufficient to detect such errors. The problem was only revealed during final fact-checking, at the cost of substantial unpaid editorial labor. Similar cases have now been reported across multiple journals, suggesting that it is not an isolated anomaly but rather a growing editorial issue (Brainard 2025).

Some authors use LLMs to polish grammar, clarify structure, and/or translate text, which is a legitimate form of AI-assisted writing (Katsnelson 2022, Borger et al. 2023). Others use these models to generate arguments, interpretations, methods, or text, all of which comprise AI-generated content. The editorial and research communities increasingly distinguish between these two uses of AI (Zou 2024, Bergstrom and Bak-Coleman 2025), one of which supports authorship while the other serves to replace it.

ADAPTING SCHOLARLY PUBLISHING IN RESPONSE TO NEW PRESSURES

In addition to presenting an array of challenges, LLMs can also create new opportunities. Tools that improve clarity and thereby facilitate communication can contribute to expanded participation in global science. This is especially helpful for early-career researchers and scholars writing in English when is it not their native language (Del Giglio and Pereira da Costa 2023, Berdejo-Espinola and Amano 2024). For Malagasy scientists, LLMs may reduce longstanding structural inequities in publishing (Ramananjato et al. 2025) but the promise it holds is only valid if and when the journals in which they seek to publish maintain rigorous verification standards and transparent reporting.

AI use does not constitute plagiarism per se. However, submitting AI-generated content in the form of text, figures, claims, or references without acknowledging and verifying them breaches the norms and standards of academic integrity because it removes human responsibility for accuracy and accountability in scholarship (Hutson 2025). It is neither intellectually honest nor scientifically acceptable for authors to outsource content to a computer-based model. They must remain personally and professionally accountable for every sentence, figure, citation, assumption, interpretation, and inference included in the work they claim to have produced and are seeking to publish under their own name.

A significant issue for a journal such as *MCD* is that the role, value, and appropriateness of LLMs are being judged using standards and requirements that were not factored into the creation of these models. LLM users ask these "machines" to produce truth (or something that resembles truth) even though the underlying technology was never conceived or designed to do so. AI tools compile available information into a seductive and convincing form that resembles fact-based scientific writing, but the process involved is neither transparent nor reproducible, and the results do not adhere to globally accepted scientific methods. Users of LLMs have no way of assessing whether the tool being used operates properly compared to a process developed and implemented by the authors themselves.

Across scientific publishing, a pragmatic consensus appears to be emerging regarding the use of AI in research workflows (Thorp 2023, Naddaf 2025), which can be summarized as follows:

- AI-generated output, including references, must be checked by authors.
- AI tools cannot be listed as an author.
- Responsibility for accuracy and content remains entirely with the submitting authors.
- Authors must provide journals with additional documentation (e.g., drafts or prompt histories) if concerns about AI involvement are raised.

LOOKING AHEAD

Authors submitting manuscripts to *MCD* are expected to state whether and how AI has been used, and they are solely responsible for all content. These requirements apply irrespective of the type of AI used: authors must confirm that they have read and verified all text, figures and tables, and ensure that all cited sources are true and accurate. Every reference must exist, be accessible, and support the statement or assertion being made. Doing so will ensure the reliability and accuracy of the submission while also saving valuable time and energy for *MCD*'s volunteer reviewers and editors.

Reviewers will be encouraged to flag passages that raise concerns, but many of them are already working at the limits of their capacity (Zou 2024) and they are neither expected nor equipped to investigate or assess the appropriateness of AI use. Editors may request authors to provide clarification, confirm sources, and/or correct questionable text and citations. In some cases, authors may be required to withdraw manuscripts in order to safeguard the integrity of the scholarly record (Brainard 2025).

The scholarly community will need to adjust and adapt to the newly emerging AI environment, otherwise journals such *MCD* may not survive. This is a very real possibility that must be taken seriously and something which requires immediate, coordinated action to avoid.

The principle adopted for *MCD* is straightforward: AI may be used as a supporting and enabling tool but must never be trusted blindly. Its results must always be verified and validated under the entire responsibility of the authors and its use must be disclosed in a fully transparent manner.

Embracing AI or worrying about its impacts and limitations, or the potential for its abuse are no longer the central question. This powerful new technology is already reshaping how science is performed, reported, and evaluated, from conservation research (Reynolds et al. 2025, Silvestro et al. 2025) to everyday scientific communication, peer review (Zou 2024), and academic policy (Pearson 2025). When used with care and integrity, AI can help authors write more clearly, reduce language barriers, and overcome long-standing inequities. However, if it is used carelessly or dishonestly, without disclosure, AI will erode trust and undermine scientific credibility in general and that of authors in particular.

Small, volunteer-run journals such as *MCD* have long functioned under structural and operational constraints. They cannot compete with large commercial publishers in terms of budgets, salaried staff, and access to automated tools to detect plagiarism, check references, and process manuscripts. AI is now amplifying these discrepancies. The volume of problematic AI-generated submissions is already increasing faster than editors can screen them and reviewers can detect erroneous information within them. The scholarly publishing system was fragile before AI-based models came onto the scene, but it is now increasingly under acute strain (Thorp 2023, Bergstrom and Bak-Coleman 2025). The only way journals such as *MCD* will be able to survive is through a coordinated effort to adapt to the rapidly surging wave of AI use (Figure 1) by implementing procedures to ensure disclosure, verification, and strengthened editorial capacity.

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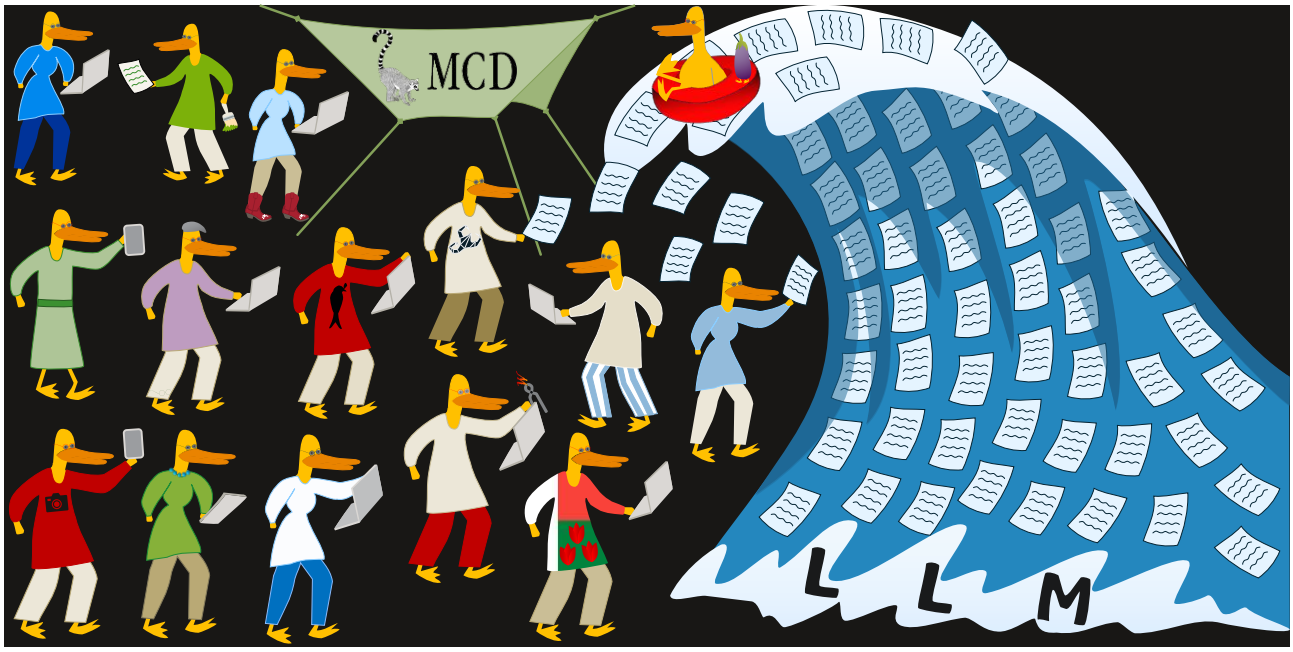

Figure 1. A wave of LLM-produced articles submerging an editorial team. (Any resemblance to actual people or to an existing journal is, of course, in no way a coincidence. Special note: this image was not generated by AI)

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