

RESEARCH ARTICLE

# Analysis of generative artificial intelligence tools usage policies provided to authors by journals publishing aquaculture research

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Generative artificial intelligence (GenAI) is influencing how research is conducted and reported, however there is limited agreement on what constitutes acceptable use in scholarly publishing. Publishers contribute to shaping norms around GenAI, yet journal policies vary. This study compared GenAI policies across aquaculture journals, especially those publishing research on aquatic animal diseases, to raise awareness to variability in acceptable use. GenAI policies for nine journals were analysed within four domains: Policy Status, Scope and Permissions, Author Responsibilities, and Accountability. All journals explicitly or implicitly permitted GenAI use in manuscript preparation, although detailed guidance was often lacking for specific tasks. Considerable variation existed between journals concerning the creation of figures, from permitted (1/9) and implicitly permitted (3/9) to prohibited (3/9). All journals required disclosure of GenAI use and generally provided instructions, although in some cases certain tasks did not require disclosure including use for grammar and spelling (4/9 journals). Authors were explicitly responsible for accuracy (4/9) and originality (6/9) of GenAI-assisted content, while most journals provided little explicit guidance on legalities of GenAI use or for issues pertaining to data privacy, confidentiality, intellectual property rights, and data ownership, with 4/9 journals not providing any guidance on these matters. Most journals (7/9) explicitly prohibited GenAI authorship. Actions that may help protect research integrity and trust include clearer journal guidance for GenAI use, standardised disclosure statements, and support for researcher training. This is the first study to highlight gaps and variations in aquaculture journal policies to GenAI, which supports authors and contributes to the ongoing debate around acceptable practices.

## 1. Introduction

Generative artificial intelligence (GenAI) tools, which are those capable of creating new content rather than just analysing data or making predictions, have changed, and are changing, the way research is conducted and reported, and their use has increased quickly (Ding et al. 2025; She 2026). Whilst more conventional writing support tools correct spelling and grammar and generally preserve the author's meaning, GenAI tools may offer more intellectual contributions through drafting new text, generating new arguments and proposing alternative interpretations. The rapid introduction

and uptake of GenAI tools, including large language models (LLMs), has presented a major challenge to the research community, and there is a need to establish ethical practices and standards for using such technologies (Delios et al. 2025). Acceptable practices need to address recognised epistemological and ethical concerns such as bias, censorship, inequity, lack of transparency, fabrication, copyright violations, intellectual property rights, and privacy issues (Sethuraman 2023; Tang et al. 2024; Bjelobaba et al. 2025; Ganguly et al. 2025; Tang 2025; White 2025). In addition, concerns have been raised for the detrimental effects of GenAI on the development of critical thinking skills and creativity (Chan and Hu 2023), especially as GenAI increasingly encroaches on the more intellectual tasks such as the presentation, analysis and interpretation of data (Tang 2025; White 2025). The debate on acceptable use of GenAI concerns researchers across the spectrum of experience and, by extension, stakeholders that trust research to inform their decision-making.

The research community has yet to agree what constitutes acceptable usage of GenAI and the extent to which these tools can be used for important tasks such as generating ideas, designing experiments, collecting and analysing data, and reporting findings. Views on GenAI use for different tasks vary from positive and enthusiastic to negative and problematic (Andersen et al. 2025; Tang 2025). Such variance in perceptions introduces uncertainty that can lead to misunderstanding, leaving researchers vulnerable to accusations of research misconduct where acceptable use of GenAI varies. Moreover, guidance on GenAI issued by higher education institutions places the responsibility and accountability for the use of such tools firmly on the researcher (Ganguly et al. 2025).

Academic publishers and the peer-reviewed journals they publish are key actors in the research ecosystem and they play a fundamental role in the dissemination of research completed according to generally accepted standards. Thus, journal policies – typically developed by editors and their editorial boards in collaboration with the publisher – exert significant influence over the way researchers conduct and communicate their research, meaning journal positions on issues such as GenAI are critical in the debate. Journal policies on GenAI use can be found usually in the guides to authors as they prepare their manuscripts for submission.

The rapid uptake of GenAI by the research community meant journals have had to react quickly to develop and implement relevant policies. Naturally, individual journal policies for GenAI have developed variably over time and in scope (Ganjavi et al. 2024), which risks confusion and means acceptable use at one journal is unacceptable at another (Yin and Chapelle 2025). To complicate matters, different journals produced by the same publisher can provide different guidance for GenAI (Hsu et al. 2025). Such a scenario means if GenAI has been used authors must pay special attention to journal

policies when deciding where to publish, particularly if transferring a manuscript between journals following a rejection decision. Still, opinions differ across fields and disciplines for acceptable use of GenAI and how it is integrated into research culture (Andersen et al. 2025), meaning studies of distinct fields and disciplines are warranted. Analysing journal GenAI policies can identify areas of consistency and thus broad agreement, and of divergence, which helps focus the debate on aspects requiring more attention.

This present study sought to capture the policies for acceptable GenAI use of journals publishing research in the field of aquaculture and especially aquatic animal diseases, with a view to raising awareness of researchers to prevent unwitting transgressions, and to provide evidence to further the wider debate.

## 2. Materials and methods

### 2.1. Sources of data

Nine peer-reviewed journals, commonly used by researchers to disseminate original research in the field of aquaculture and aquatic animal diseases, were selected for inclusion in this study, specifically *Aquaculture*, *Aquaculture International* (*Aquacult. Int.*), *Aquaculture Journal* (*Aquacult. J.*), *Aquaculture Research* (*Aquacult. Res.*), *Diseases of Aquatic Organisms* (*Dis. Aquat. Org.*), *Frontiers in Aquaculture* (*Front. Aquacult.*), *Journal of Applied Aquaculture* (*J. Appl. Aquacult.*), *Journal of Aquatic Animal Health* (*J. Aquat. Anim. Health*) and *PLoS One*. The approach to journal selection planned to capture a range of academic publisher house types including large multinationals (e.g., Elsevier, Springer Nature, Wiley, Taylor & Francis), university presses (e.g., Oxford Academic), specialists (e.g., Inter-Research), and for-profit (e.g., Frontiers, MDPI) and not-for-profit open access providers (e.g., PLoS). Following scrutiny of publisher webpages, one journal title from each publisher was selected according primarily to scope (i.e., aquaculture and aquatic animal diseases), with a preference for the journal publishing most original research articles where more than one journal was within scope. Journals publishing only review articles were excluded.

The guides for authors for each journal were acquired manually from journal websites (12 December 2025) and transferred to a text file. Included in the data retrieved was information from relevant webpages explicitly referred to in the guides for authors, such as by hyperlink. The journals, specific webpages visited and their weblinks can be found in [Table 1](#). This approach to information gathering mimicked the typical journey that a prospective author would take when planning to prepare a manuscript for submission to each journal.

The overall approach to sampling did not aim to provide comprehensive analysis of policies for all journals publishing research in aquaculture: instead, it sought to provide a snapshot of consistency across options available to authors in this field.

Table 1. Sources of data consulted for journals publishing research in aquaculture and aquatic animal diseases including the title, publisher, webpages (and weblinks) encountered on the typical journey that a prospective author would take when planning to prepare a manuscript for submission.

| Journal title                           | Publisher (total journals published <sup>a</sup> ) | Webpage title                                                       | Weblink                                                                                                                                                                                                                                                             |
|-----------------------------------------|----------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Aquaculture</i>                      | Elsevier (>2,900) <sup>b</sup>                     | Guide for Authors                                                   | <a href="https://www.sciencedirect.com/journal/aquaculture/publish/guide-for-authors">https://www.sciencedirect.com/journal/aquaculture/publish/guide-for-authors</a>                                                                                               |
|                                         |                                                    | Generative AI Policies for Journals                                 | <a href="https://www.elsevier.com/about/policies-and-standards/generative-ai-policies-for-journals">https://www.elsevier.com/about/policies-and-standards/generative-ai-policies-for-journals</a>                                                                   |
| <i>Diseases of Aquatic Organisms</i>    | Inter-Research (8) <sup>c</sup>                    | Author Guidelines                                                   | <a href="https://www.int-res.com/for-authors/author-guidelines">https://www.int-res.com/for-authors/author-guidelines</a>                                                                                                                                           |
|                                         |                                                    | Artificial Intelligence Policy                                      | <a href="https://www.int-res.com/for-authors/artificial-intelligence-policy">https://www.int-res.com/for-authors/artificial-intelligence-policy</a>                                                                                                                 |
| <i>Frontiers in Aquaculture</i>         | Frontiers (228) <sup>d</sup>                       | Guidelines for Authors                                              | <a href="https://www.frontiersin.org/journals/aquaculture/for-authors/author-guidelines">https://www.frontiersin.org/journals/aquaculture/for-authors/author-guidelines</a>                                                                                         |
|                                         |                                                    | Editorial Policies and Publication Ethics                           | <a href="https://www.frontiersin.org/guidelines/policies-and-publication-ethics">https://www.frontiersin.org/guidelines/policies-and-publication-ethics</a>                                                                                                         |
| <i>Aquaculture Research</i>             | Wiley (>1,500) <sup>e</sup>                        | Author Guidelines                                                   | <a href="https://onlinelibrary.wiley.com/page/journal/13652109/homepage/forauthors.html">https://onlinelibrary.wiley.com/page/journal/13652109/homepage/forauthors.html</a>                                                                                         |
|                                         |                                                    | Ethical Guidelines                                                  | <a href="https://authorservices.wiley.com/ethics-guidelines/index.html">https://authorservices.wiley.com/ethics-guidelines/index.html</a>                                                                                                                           |
| <i>Journal of Aquatic Animal Health</i> | Oxford Academic (>500) <sup>f</sup>                | Instructions to Authors                                             | <a href="https://academic.oup.com/jaah/pages/general-instructions">https://academic.oup.com/jaah/pages/general-instructions</a>                                                                                                                                     |
|                                         |                                                    | Authorship and AI tools (COPE <sup>k</sup> )                        | <a href="https://publicationethics.org/guidance/cope-position/authorship-and-ai-tools">https://publicationethics.org/guidance/cope-position/authorship-and-ai-tools</a>                                                                                             |
| <i>Aquaculture International</i>        | Springer Nature (>2,700) <sup>g</sup>              | Submission Guidelines                                               | <a href="https://link.springer.com/journal/10499/submission-guidelines">https://link.springer.com/journal/10499/submission-guidelines</a>                                                                                                                           |
|                                         |                                                    | Journal Policies                                                    | <a href="https://link.springer.com/brands/springer/journal-policies">https://link.springer.com/brands/springer/journal-policies</a>                                                                                                                                 |
| <i>Journal of Applied Aquaculture</i>   | Taylor & Francis (>2,700) <sup>h</sup>             | Instructions for Authors                                            | <a href="https://www.tandfonline.com/action/authorSubmission?show=instructions&amp;journalCode=wjaa20">https://www.tandfonline.com/action/authorSubmission?show=instructions&amp;journalCode=wjaa20</a>                                                             |
|                                         |                                                    | Editorial Policies                                                  | <a href="https://authorservices.taylorandfrancis.com/editorial-policies/">https://authorservices.taylorandfrancis.com/editorial-policies/</a>                                                                                                                       |
|                                         |                                                    | AI Policy                                                           | <a href="https://taylorandfrancis.com/our-policies/ai-policy/">https://taylorandfrancis.com/our-policies/ai-policy/</a>                                                                                                                                             |
|                                         |                                                    | Defining Authorship in Your Research Paper                          | <a href="https://authorservices.taylorandfrancis.com/editorial-policies/defining-authorship-research-paper/">https://authorservices.taylorandfrancis.com/editorial-policies/defining-authorship-research-paper/</a>                                                 |
| <i>Aquaculture Journal</i>              | MDPI (497) <sup>i</sup>                            | Instructions for Authors                                            | <a href="https://www.mdpi.com/journal/aquacj/instructions">https://www.mdpi.com/journal/aquacj/instructions</a>                                                                                                                                                     |
|                                         |                                                    | Research and Publication Ethics                                     | <a href="https://www.mdpi.com/ethics">https://www.mdpi.com/ethics</a>                                                                                                                                                                                               |
|                                         |                                                    | Defining the Role of Authors and Contributors (ICMJE <sup>l</sup> ) | <a href="https://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html">https://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html</a> |
| <i>PLoS One</i>                         | PLoS (16) <sup>j</sup>                             | Submission Guidelines                                               | <a href="https://journals.plos.org/plosone/s/submission-guidelines">https://journals.plos.org/plosone/s/submission-guidelines</a>                                                                                                                                   |
|                                         |                                                    | Ethical Publishing Practice                                         | <a href="https://journals.plos.org/plosone/s/ethical-publishing-practice">https://journals.plos.org/plosone/s/ethical-publishing-practice</a>                                                                                                                       |
|                                         |                                                    | Authorship                                                          | <a href="https://journals.plos.org/plosone/s/authorship">https://journals.plos.org/plosone/s/authorship</a>                                                                                                                                                         |

<sup>a</sup>Correct as of 27 December 2025

<sup>b</sup><https://www.sciencedirect.com/journal/wave-motion/about/news/everything-you-need-to-know-about-open-access-in-elsevier>

<sup>c</sup><https://www.int-res.com/for-authors/author-guidelines>

<sup>d</sup><https://www.frontiersin.org/journals>

<sup>e</sup><https://www.jstor.org/publisher/black>

<sup>f</sup><https://academic.oup.com/pages/what-we-publish>

<sup>g</sup><https://link.springer.com/brands/springer/about>

<sup>h</sup><https://taylorandfrancis.com/who-we-serve/academia/authors/journal-authors/>

<sup>i</sup><https://www.mdpi.com/about/journals>

<sup>j</sup><https://plos.org/our-journals/>

<sup>k</sup>Committee on Publication Ethics

<sup>l</sup>International Committee of Medical Journal Editors

## 2.2. Data analysis

The text from the relevant webpages for each journal were analysed by coding responses to questions relating to GenAI use, within four overarching domains of Policy Status, Scope and Permissions, Author Responsibilities, and Accountability. The questions within each domain and the possible responses to each question can be found in [Supplementary Table 1](#).

## 2.3. Use of GenAI

GenAI tools (ChatGPT v5.1 and v5.2 [Open AI]; Copilot [Microsoft]) were used during the design phase to support brainstorming and refine the methodological approach for this study, but not to draft, revise or edit any manuscript text or other content.

## 3. Results

All nine journals had a statement for authors on the use of GenAI in manuscript submissions, with 5/9 journals indicating that the policies were dynamic and could be expected to evolve ([Table 2](#)). All journals explicitly or implicitly permitted the use of GenAI tools in the preparation of manuscripts, with distinct tasks either permitted, implicitly permitted or prohibited, although for many specific tasks no explicit statement on permitted use was provided, such as for generating ideas where only one journal explicitly stated this was permitted.

All journals explicitly or implicitly permitted the use of GenAI to edit author-provided written content, although few journals explicitly indicated the extent to which GenAI could be used in this way to: improve spelling, punctuation and grammar (2/9), sentences and readability (1/9), and organise content (0/9) ([Table 2](#)). None of the nine journals provided an explicit statement for whether GenAI was permitted for translation purposes ([Table 2](#)).

Six journals explicitly or implicitly permitted GenAI tools to write new text for authors to edit ([Table 2](#)). One journal implicitly permitted GenAI tools to write code (*J. Aquat. Anim. Health*), but another journal prohibited use for this purpose (*J. Appl. Aquacult.*), whilst the remaining journals had no explicit statement concerning this task ([Table 2](#)). Three journals implicitly permitted GenAI tools to analyse data, with the others providing no explicit statement ([Table 2](#)). There was variation in policies governing the creation of figures, ranging from permitted (1/9) and implicitly permitted (3/9) to prohibited (3/9), with the other two journals providing no explicit statement ([Table 2](#)). Journal policy stances were similarly variable for using GenAI to modify figures, with one journal stating that GenAI could be used to 'generate' figures which is interpreted here to mean 'create' rather than 'modify' (*Dis. Aquat. Org.*).

Table 2. Summary of policies towards GenAI use of nine journals popularly used by authors publishing research in aquaculture and aquatic animal diseases. See [Supplementary Table 1](#) for the definitions of possible responses to each question.

| Domain and policy                                                          | <i>Aquaculture</i>    | <i>Diseases of Aquatic Organisms</i> | <i>Frontiers in Aquaculture</i> | <i>Aquaculture Research</i> | <i>Journal of Aquatic Animal Health</i> | <i>Aquaculture International</i> | <i>Journal of Applied Aquaculture</i> | <i>Aquaculture Journal</i> | <i>PLOS One</i>       |
|----------------------------------------------------------------------------|-----------------------|--------------------------------------|---------------------------------|-----------------------------|-----------------------------------------|----------------------------------|---------------------------------------|----------------------------|-----------------------|
| <i>Policy status</i>                                                       |                       |                                      |                                 |                             |                                         |                                  |                                       |                            |                       |
| Is there a statement or policy for use of GenAI by authors?                | Yes                   | Yes                                  | Yes                             | Yes                         | Yes                                     | Yes                              | Yes                                   | Yes                        | Yes                   |
| Is there a statement for ongoing development of the GenAI policy?          | Yes                   | Yes                                  | No explicit statement           | Yes                         | No explicit statement                   | Yes                              | Yes                                   | No explicit statement      | No explicit statement |
| <i>Scope and permissions</i>                                               |                       |                                      |                                 |                             |                                         |                                  |                                       |                            |                       |
| Is GenAI use permitted?                                                    | Yes                   | Yes                                  | Yes                             | Yes                         | Implicitly permitted                    | Yes                              | Yes                                   | Yes                        | Yes                   |
| Is GenAI use permitted to generate ideas?                                  | Implicitly permitted  | No explicit statement                | No explicit statement           | No explicit statement       | No explicit statement                   | No explicit statement            | Yes                                   | No explicit statement      | No explicit statement |
| Is GenAI use permitted to edit author-provided written content?            | Implicitly permitted  | Implicitly permitted                 | Yes                             | Implicitly permitted        | Implicitly permitted                    | Yes                              | Implicitly permitted                  | Yes                        | Implicitly permitted  |
| Is GenAI use permitted to improve spelling, punctuation and/or grammar?    | Implicitly permitted  | Implicitly permitted                 | Implicitly permitted            | No explicit statement       | No explicit statement                   | Yes                              | Implicitly permitted                  | Yes                        | No explicit statement |
| Is GenAI use permitted to improve sentences and readability?               | Implicitly permitted  | Implicitly permitted                 | Implicitly permitted            | No explicit statement       | No explicit statement                   | Yes                              | Implicitly permitted                  | No explicit statement      | No explicit statement |
| Is GenAI use permitted to organise content?                                | Implicitly permitted  | No explicit statement                | Implicitly permitted            | No explicit statement       | No explicit statement                   | No explicit statement            | Implicitly permitted                  | No explicit statement      | No explicit statement |
| Is GenAI use permitted to translate from another language?                 | No explicit statement | No explicit statement                | No explicit statement           | No explicit statement       | No explicit statement                   | No explicit statement            | Implicitly permitted                  | No explicit statement      | No explicit statement |
| Is GenAI use permitted to write new text for authors to edit?              | No explicit statement | Implicitly permitted                 | Yes                             | No explicit statement       | Implicitly permitted                    | No explicit statement            | Implicitly permitted                  | Implicitly permitted       | Implicitly permitted  |
| Is GenAI use permitted to write code?                                      | No explicit statement | No explicit statement                | No explicit statement           | No explicit statement       | Implicitly permitted                    | No explicit statement            | Prohibited                            | No explicit statement      | No explicit statement |
| Is GenAI use permitted to analyse data?                                    | No explicit statement | No explicit statement                | No explicit statement           | No explicit statement       | Implicitly permitted                    | No explicit statement            | Implicitly permitted                  | Implicitly permitted       | No explicit statement |
| Is GenAI use permitted to create figures?                                  | Prohibited            | Implicitly permitted                 | Yes                             | No explicit statement       | Implicitly permitted                    | Prohibited                       | Prohibited                            | Implicitly permitted       | No explicit statement |
| Is GenAI use permitted to modify figures?                                  | Prohibited            | No explicit statement                | Yes                             | No explicit statement       | Implicitly permitted                    | Prohibited                       | Prohibited                            | Implicitly permitted       | No explicit statement |
| <i>Responsibilities</i>                                                    |                       |                                      |                                 |                             |                                         |                                  |                                       |                            |                       |
| Is there a statement on disclosing GenAI use?                              | Yes                   | Yes                                  | Yes                             | Yes                         | Yes                                     | Yes                              | Yes                                   | Yes                        | Yes                   |
| Is disclosing GenAI use mandatory?                                         | Yes                   | Yes                                  | Yes                             | Yes                         | Yes                                     | Yes                              | Yes                                   | Yes                        | Yes                   |
| Are instructions provided for how to disclose GenAI use in the submission? | Yes                   | No explicit statement                | Yes                             | Yes                         | Yes                                     | Yes                              | Yes                                   | Yes                        | Yes                   |

|                                                                                                                                                                                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Is there a need to disclose the GenAI tools used and other details?                                                                                                                     | Yes                   | No explicit statement | Yes                   | No explicit statement | Yes                   | No explicit statement | Yes                   | Yes                   | Yes                   |
| Are any GenAI tasks excluded from the disclosure on GenAI tools?                                                                                                                        | Yes                   | No                    | No                    | Yes                   | No                    | Yes                   | No                    | Yes                   | No                    |
| Is there a statement on author responsibility for ensuring accuracy?                                                                                                                    | Yes                   | No explicit statement | Yes                   | Yes                   | No explicit statement | No explicit statement | No explicit statement | No explicit statement | Yes                   |
| Is there a statement on author responsibility for ensuring originality?                                                                                                                 | Yes                   | No explicit statement | Yes                   | Yes                   | No explicit statement | No explicit statement | Yes                   | Yes                   | Yes                   |
| Is there a statement on author responsibility for ensuring impartiality?                                                                                                                | Yes                   | No explicit statement | No explicit statement | Yes                   | No explicit statement | No explicit statement | No explicit statement | No explicit statement | No explicit statement |
| Is there a statement on author responsibility for ensuring data privacy, confidentiality, IP <sup>a</sup> rights including copyright, ownership of data and/or legalities? <sup>b</sup> | Yes                   | No explicit statement | No explicit statement | Yes                   | No explicit statement | Yes                   | Yes                   | Yes                   | No explicit statement |
| <i>Accountability</i>                                                                                                                                                                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Are GenAI authors prohibited?                                                                                                                                                           | Yes                   | No explicit statement | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | No explicit statement |
| Is there a statement on who is accountable if there is a problem with GenAI content?                                                                                                    | Yes                   | No explicit statement | No explicit statement | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Is there a statement on undisclosed use and consequences?                                                                                                                               | No explicit statement | No explicit statement | No explicit statement | No explicit statement | No explicit statement | No explicit statement | No explicit statement | No explicit statement | Yes                   |

<sup>a</sup>IP, intellectual property<sup>b</sup>For full details of relevant statements see [Supplementary Table 2](#)

All journals had a statement on the need to disclose the use of GenAI and in all cases this was mandatory ([Table 2](#)). Moreover, in all but one case (*Dis. Aquat. Org.*) instructions for how to disclose GenAI use were provided and for most journals (6/9) further details were required, such as the need to state the tools used and reasons for their use ([Table 2](#)). Four journals stated there was no requirement to disclose the use of GenAI for grammar and spelling, whilst one journal stated there was no need to disclose GenAI use for ‘general editing’ (*Aquacult. Res.*) and another not requiring disclosure of GenAI use for improving tone, readability and style (*Aquacult. Int.*). Only one journal (*PLoS One*) provided an explicit statement for the consequences of failing to disclose GenAI use ([Table 2](#)).

In terms of author responsibilities, in most cases authors were explicitly responsible for ensuring the originality of GenAI-assisted content (6/9), which refers narrowly here to ensuring the content is not plagiarised. Fewer journals explicitly stated authors were responsible for ensuring accuracy (4/9) and impartiality (2/9), although some journals implied these responsibilities through statements highlighting that ‘Authors are fully responsible for the originality, validity, and integrity of the content of their manuscript’ (*Aquacult. J.*) and need ‘to make sure that [...] work meets the highest standards in your field’ (*J. Appl. Aquacult.*), with this latter journal also drawing attention to potential biases of GenAI-generated content. Meanwhile, one journal (*Aquacult. Res.*) explicitly stated neutrality of GenAI content was an author responsibility (data not shown).

Four of the journals offered no explicit guidance for any issues pertaining to either data privacy, confidentiality, intellectual property rights including copyright, ownership of data and legalities associated with GenAI use, whilst seven journals explicitly prohibited the inclusion of GenAI authors ([Table 2](#)). Finally, seven journals stated explicitly that authors would be accountable for any GenAI-derived content, although one other journal (*Front. Aquacult.*) implied this to be the case as ‘Generative AI technologies cannot be held accountable for all aspects of a manuscript’ ([Table 2](#)).

#### 4. Discussion

The emergence of widely accessible GenAI tools has required consideration for their acceptable application in research, including how they are deployed when reporting findings. Peer-reviewed journals have an important voice in this debate and this present study aimed to capture journal policies provided to authors for GenAI use in the field of aquaculture and especially aquatic animal disease research. Until a consensus is reached on GenAI policies, researchers must be mindful of differences in acceptability for tasks, particularly where field and disciplinary distinctions exist or might emerge.

The analysis of GenAI policies of nine aquaculture journals revealed areas of policy consistency, including permissance of GenAI use for manuscript preparation such as by improving author-generated text, which is consistent with earlier studies (Hsu et al. 2025; Yin and Chapelle 2025), although the extent of permissions for tasks such as high-level (re-)organisation of text was not always clear. Most journals implied that GenAI could be used to generate new text for editing, as reported elsewhere (Hsu et al. 2025; Yin and Chapelle 2025). Almost universally the journals prohibited GenAI tools from being named as authors, which is similar to previous studies (Ganjavi et al. 2024; Huang et al. 2025) and the Committee on Publication Ethics (COPE) guidance that points to their inability to fulfil tasks required of authors including taking responsibility for content, divulging conflicts of interest, or managing copyright and license agreements (COPE n.d.). Indeed, most journals implied or explicitly highlighted that authors would be responsible and accountable for the accuracy and originality of any content derived from GenAI tools. Transparency is a key means for journals to monitor and evaluate acceptable application of GenAI tools (Tang et al. 2024) and all journals required disclosure of their use. Still, some journals explicitly stated that disclosure of GenAI for language editing was unnecessary (e.g., *Aquacult. Int.* does not require declaration of GenAI use for improvements to grammar, spelling, punctuation and tone, or readability and style), which demonstrates the blurred boundaries of acceptable use of GenAI (Yin and Chapelle 2025). Moreover, the method and detail required by journals in the disclosures vary, as observed previously (Ganjavi et al. 2024).

One key area of divergence in journal policies was in figure preparation, where guidance varied from *permitted* to *prohibited* for whether GenAI tools could be used to create or modify figures, and this area deserves more attention to reach consensus on acceptability (Huang et al. 2025; Yin and Chapelle 2025). Key reasons cited for prohibiting GenAI use for figures are the lack of reproducibility and traceability for such outputs (Al-kfairy et al. 2024; Siontis et al. 2026), as well as copyright infringement concerns. Furthermore, explicit guidance was lacking in the journal instructions for whether GenAI use was acceptable practice for many tasks, such as generating ideas, analysing data or writing code, which has been reported previously (Ganjavi et al. 2024; Yin and Chapelle 2025). This could be an oversight, or because a practice is now commonplace and does not warrant comment, or because these parts of the research process are deemed beyond journal responsibility to supervise. However, notably, none of the journals provided explicit guidance on whether GenAI tools could be used for translation, perhaps because non-GenAI tools are effective at this task. Nevertheless, using a GenAI tool for translation raises distinct issues, such as whether translations remain faithful to the meaning of the original text (Bozkurt 2024; Yin and Chapelle 2025). There was also sparse guidance from the journals on author responsibilities concerning matters such as impartiality, data privacy, data ownership, confidentiality, intellectual property rights, and legalities of

GenAI use ([Table 2](#); [Supplementary Table 2](#)). This situation may change as problems become more apparent, which may prompt improved guidance and clearer accountability statements.

There are several key limitations to acknowledge in this present study. The scope was limited to aquaculture and especially aquatic animal diseases, as field and disciplinary attitudes to GenAI use vary (Andersen et al. 2025), although findings may have relevance for other subject areas. Moreover, a limited number of journals was included but this study was not designed to be comprehensive, rather it aimed to provide a snapshot drawing attention to potential issues with variations in policies between journals. In addition, it is possible that journal and publisher policies on GenAI may be found elsewhere on their websites, as the data collected herein focused on pages providing guidance to authors for submissions. Whilst webpages hyperlinked in the guides for authors were generally consistent, reliance on external links can lead to contradictory information and confusion (Ganjavi et al. 2024; Yin and Chapelle 2025). This present study also relied upon a single coder for analysis, which can have shortcomings, and multiple coders could enhance rigour (Roberts et al. 2019). Finally, like other similar studies, this work only provides a snapshot of journal policies to GenAI, and these are changing quickly. Whilst it is important to update guidance as attitudes towards GenAI use evolve, especially as GenAI tools become increasingly embedded within conventional software applications, this dynamism challenges researchers to remain compliant.

Future studies could explore information provided to other actors in the publication process, namely editors and reviewers. Wang and Gong (2026) detected disciplinary differences in journal guidance provided to peer reviewers, with humanities and social sciences operating a more lenient approach to GenAI than science, technology and medicine disciplines, although around a fifth of journals lacked a relevant policy. Furthermore, it will be intriguing to monitor how acceptable GenAI usage policies vary and change between fields and disciplines, particularly whether approaches diverge or converge, and this could present a further challenge for transdisciplinary research teams.

Actions that may help to improve matters around GenAI use to protect research integrity and trust include: institutional support to train researchers; development of more comprehensive guidance, including for performing particular tasks and for accountability; and use of standardised disclosure statements (Bozkurt 2024; Ganjavi et al. 2024; Tang et al. 2024; Bjelobaba et al. 2025; Delios et al. 2025; Hsu et al. 2025; Huang et al. 2025). Recently, the International Committee of Medical Journal Editors (ICMJE) updated their recommendations for conducting, reporting, editing and publishing scholarly work including for GenAI use (ICMJE n.d.). ICMJE informs the policies at many journals, and their guidance advises against use of GenAI

for content generation whilst insisting on transparency and accountability (ICMJE n.d.). In the absence of explicit guidance on GenAI use, Holmström and Davison (2026) provide helpful guidance to researchers that can help mitigate research integrity concerns. As many existing guidelines for research place responsibility and accountability for GenAI use on the researcher (Ganjavi et al. 2024; Ganguly et al. 2025), they must educate themselves to ensure compliance with relevant policies and research team leaders have an important role here (White 2025).

In conclusion, this present study is the first to draw attention to gaps and variations in GenAI tool guidance provided to authors by aquaculture journals, and it raises awareness amongst prospective authors as to what constitutes acceptable GenAI use in scholarly publication.

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### ***Conflicts of interest***

APD sits on the Editorial Board of the *Bulletin of the European Association of Fish Pathologists* but had no involvement in the handling of this manuscript including the peer-review process.

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Supplementary Table 1. Answers possible to each of the questions within the four domains of analysis relating to policies towards GenAI use of nine journals popularly used by authors publishing research in aquaculture and aquatic animal diseases. ‘Implicitly permitted’ was applied where the policy contained no explicit statement, but permission could reasonably be inferred from the wording or from restrictions applying to other uses. ‘No explicit statement’ was applied where the policy contained no relevant statement from which permission or prohibition could reasonably be inferred.

| Domain and question                                                     | Answers possible                                                                                                                                                                                                      |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Policy status</i>                                                    |                                                                                                                                                                                                                       |
| Is there a statement or policy for use of GenAI by authors?             | Yes – Statement or policy apparent<br>No explicit statement – No statement or policy apparent                                                                                                                         |
| Is there a statement for ongoing development of the GenAI policy?       | Yes – Statement apparent<br>No explicit statement – No statement apparent                                                                                                                                             |
| <i>Scope and permissions</i>                                            |                                                                                                                                                                                                                       |
| Is GenAI use permitted?                                                 | Yes – Statement apparent that permits this<br>Implicitly permitted – Statement(s) imply or implies permission<br>Prohibited – Statement apparent that prohibits this<br>No explicit statement – No statement apparent |
| Is GenAI use permitted to generate ideas?                               | Yes – Statement apparent that permits this<br>Implicitly permitted – Statement(s) imply or implies permission<br>Prohibited – Statement apparent that prohibits this<br>No explicit statement – No statement apparent |
| Is GenAI use permitted to edit author-provided written content?         | Yes – Statement apparent that permits this<br>Implicitly permitted – Statement(s) imply or implies permission<br>Prohibited – Statement apparent that prohibits this<br>No explicit statement – No statement apparent |
| Is GenAI use permitted to improve spelling, punctuation and/or grammar? | Yes – Statement apparent that permits this<br>Implicitly permitted – Statement(s) imply or implies permission<br>Prohibited – Statement apparent that prohibits this<br>No explicit statement – No statement apparent |
| Is GenAI use permitted to improve sentences and readability?            | Yes – Statement apparent that permits this<br>Implicitly permitted – Statement(s) imply or implies permission<br>Prohibited – Statement apparent that prohibits this<br>No explicit statement – No statement apparent |
| Is GenAI use permitted to organise content?                             | Yes – Statement apparent that permits this<br>Implicitly permitted – Statement(s) imply or implies permission                                                                                                         |

[illegible]

|                                                                                                                                                               |                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Is there a need to disclose the GenAI tools used and other details?                                                                                           | Yes – Statement apparent                                                    |
| Are any GenAI tasks excluded from the disclosure on GenAI tools?                                                                                              | No explicit statement – No statement apparent                               |
|                                                                                                                                                               | Yes – Statement indicates some GenAI tasks are excluded from the disclosure |
|                                                                                                                                                               | No – No indication that any GenAI task is excluded from the disclosure      |
| Is there a statement on author responsibility for ensuring accuracy?                                                                                          | Yes – Statement apparent                                                    |
|                                                                                                                                                               | No explicit statement – No statement apparent                               |
| Is there a statement on author responsibility for ensuring originality?                                                                                       | Yes – Statement apparent                                                    |
|                                                                                                                                                               | No explicit statement – No statement apparent                               |
| Is there a statement on author responsibility for ensuring impartiality?                                                                                      | Yes – Statement apparent                                                    |
|                                                                                                                                                               | No explicit statement – No statement apparent                               |
| Is there a statement on author responsibility for ensuring data privacy, confidentiality, IP rights including copyright, ownership of data and/or legalities? | Yes – Statement apparent                                                    |
|                                                                                                                                                               | No explicit statement – No statement apparent                               |
| <i>Accountability</i>                                                                                                                                         |                                                                             |
| Are GenAI authors prohibited?                                                                                                                                 | Yes – Statement apparent that prohibits this                                |
|                                                                                                                                                               | No – Statement apparent that permits this                                   |
|                                                                                                                                                               | No explicit statement – No statement apparent                               |
| Is there a statement on who is accountable if there is a problem with GenAI content?                                                                          | Yes – Statement apparent                                                    |
|                                                                                                                                                               | No explicit statement – No statement apparent                               |
| Is there a statement on undisclosed use and consequences?                                                                                                     | Yes – Statement apparent                                                    |
|                                                                                                                                                               | No explicit statement – No statement apparent                               |

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Supplementary Table 2. Statements in journal policies relating to author responsibilities for ensuring data privacy, confidentiality, IP rights including copyright, ownership of data and/or legalities. n/a, not applicable.

| Journal                                 | Statement(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Aquaculture</b>                      | <p>"[...] authors are responsible and accountable for the contents of their work. This includes accountability for: [...] Ensuring the manuscript is developed in a way that safeguards data privacy, intellectual property and other rights".</p> <p>"Authors must check the terms and conditions of any AI Tool [...] to ensure that the privacy and confidentiality of their data and inputs [...] is maintained".</p> <p>"Images that duplicate or refer to existing copyrighted images, real people, or others' identifiable products or brands must not be generated, nor any likeness of an individual's voice".</p> <p>"Authors should [...] only grant to the AI Tool the right to use their materials to provide the service [...] and that they do not grant [...] any other rights to the materials that they input [...]. They must also ensure that the AI Tool does not impose constraints on the use of outputs from the AI Tool [...] that could restrict the subsequent publication [...]"</p> |
| <i>Diseases of Aquatic Organisms</i>    | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Frontiers in Aquaculture</i>         | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Aquaculture Research</b>             | <p>"Authors must confirm that the AI Technology does not claim ownership of their content or impose limitations on its use".</p> <p>"Authors must not use any AI Technology that restricts their own, Wiley's, or any other party's use of the submission. This includes ensuring that the AI Technology used and the provider [...] does not gain any rights over the author's underlying content, including the right to "train" their AI Technology on the content".</p> <p>"Authors must use AI Technology in a manner that aligns with privacy, confidentiality, and compliance obligations. This includes respecting data protection laws, avoiding the use of AI to replicate unique styles or voices of others".</p> <p>"[...] authors should use tools with appropriate privacy controls to protect confidentiality".</p>                                                                                                                                                                               |
| <i>Journal of Aquatic Animal Health</i> | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Aquaculture International</b>        | "While legal issues relating to AI-generated images and videos remain broadly unresolved, Springer Nature journals are unable to permit its use for publication. Exceptions: Images/art obtained from agencies that [...] have created images in a legally acceptable manner. Images and videos that are directly referenced in a piece that is specifically about AI [...]. The use of generative AI tools developed with specific sets of underlying scientific data that can be attributed, checked and verified for accuracy, provided that ethics, copyright and terms of use restrictions are adhered to".                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Journal of Applied Aquaculture</b>   | <p>"You must ensure any tools you intend to use respect high standards of data security, confidentiality, and copyright protection. You must receive permission from copyright holders prior to using copyrighted material in an AI tool".</p> <p>"At present, Generative AI tools are often used on third-party platforms that may not offer sufficient standards of confidentiality, data security, or copyright protection".</p> <p>"Generative AI providers may reuse the input or output data from user interactions (e.g. for AI training). This practice could potentially infringe on the rights of authors and publishers".</p> <p>"If an author is intending to use an AI tool, they should ensure that the tool is appropriate and robust for their proposed use, and [...] provide sufficient safeguards and protections, for example around intellectual property rights, confidentiality and security".</p>                                                                                        |
| <b>Aquaculture Journal</b>              | "Authors are fully responsible for [...] any material that has been generated by GenAI tools, and they must ensure [...] that this content complies with all MDPI's publication ethics policies, including, but not limited to, the Plagiarism, Data Fabrication and Image Manipulation and Intellectual Property policies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <i>PLoS One</i>                         | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |