Interim Project Report

We ask all grant recipients to send at least one update during your project. These updates help us to evaluate your progress and are a useful project management tool to keep your project on track and inform us of any changes. You are welcome to send additional project updates as and when you like.

Please fill in and submit this template approximately halfway through your project. This is intended to be a snapshot of your activities so far and does not need to be detailed. Where relevant, any specific details that are included should also be reported in your Final Evaluation Report (i.e. please do not omit key details from the final report just because you have already reported them here).

This Interim Project Report must be sent in **MS Word format (not PDF)** and completed in English. Note that the information may be edited before posting on our website.

Please email the completed report and accompanying Excel budget to jane@rufford.org.

Your Details	
Full name	Fitra Jaya
Project title	Understanding the Current Status of Alien Fish Species and Public Awareness to Protect Endemic Fish in Lake Matano
Application ID	51125-1
Project start date	20 June 2026
Expected end date or month	October 2026
Date of this report	30 July 2026

1. Briefly summarise the activities conducted so far (c. 500 words or less)

Project implementation began with preparatory activities, including internal coordination within the Aquatic Macrofaunal Biodiversity and Conservation (AMBioC) Research Group to finalize the survey design, logistics, and field equipment. Before fieldwork, the team also held an official meeting with the South Sulawesi Natural Resources Conservation Agency (BBKSDA Sulawesi Selatan) to present the project and obtain the necessary research permits (SIMAKSI) required to conduct surveys within the Lake Matano conservation area.

In parallel, the team established communication with local stakeholders, including the spearfishing community and local diving clubs in Lake Matano. These discussions helped strengthen collaboration, gain local support for the project, and facilitated access to boats and other logistical requirements for field surveys. Engaging local communities at an early stage also provided valuable local ecological knowledge that supported survey planning.

On 19 June 2026, the project team travelled from Makassar to Sorowako, a journey of approximately 16 hours by land. Field assessments were conducted from 20–29 June 2026, covering 42 survey sites around Lake Matano. Surveys combined underwater visual census, habitat assessment, and participatory mapping. In addition to survey locations identified from Herder et al. (2012), participatory mapping with local fishers helped identify additional areas where alien fish species were frequently observed.

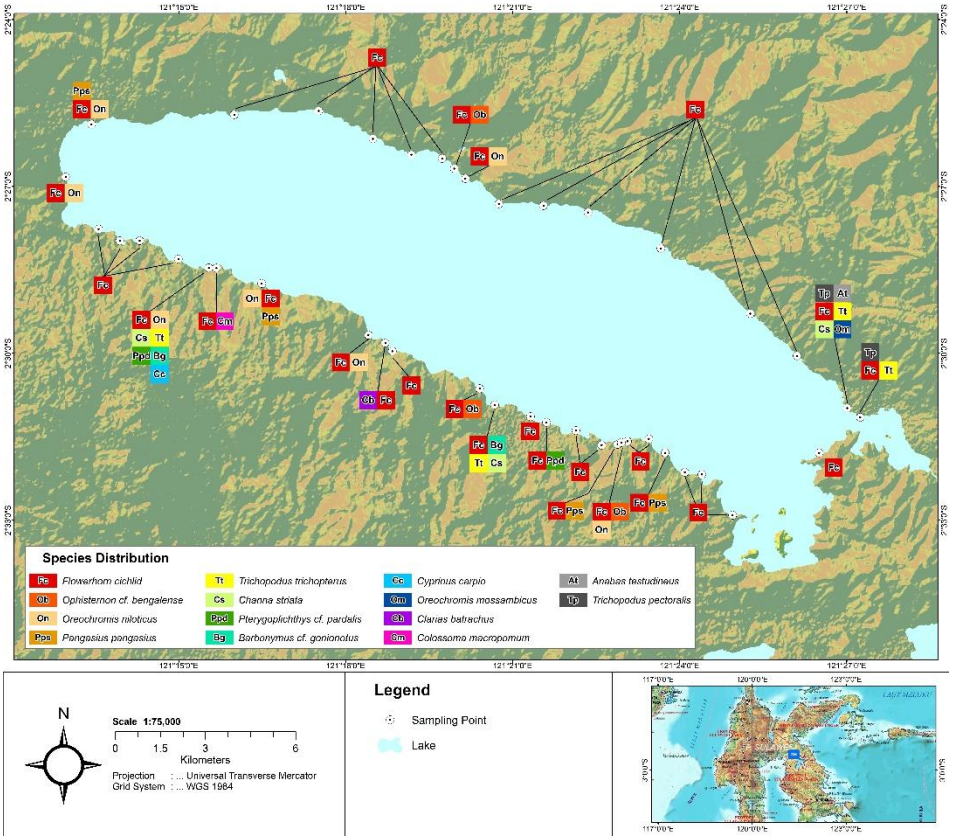

Figure: Map shows the species distribution from the field survey; the species distribution is not included 2 species from participatory mapping, and will be discussed further with the supervisors whether the 2 remain species can be added or not.

During the ten-day assessment, the team directly recorded 14 alien fish species through underwater surveys. Two additional species, guppy (*Poecilia reticulata*) and blue panchax (*Aplocheilus panchax*), were confirmed through participatory mapping and interviews with local communities, although they were not encountered during underwater observations.

Preliminary findings also indicate changes in the alien fish community compared with the inventory reported by Herder et al. (2012). Two taxa not previously reported, the putative Silver barb (*Barbonymus cf. gonionotus*) and Nile tilapia (*Oreochromis niloticus*), were observed during the assessment and will be further verified during the data analysis stage. Conversely, the maingano cichlid (*Pseudotropheus cyaneorhabdos*) and forest snakehead (*Channa lucius*), both reported in previous surveys, were not detected through either underwater observations or participatory mapping. Interestingly, discussions with supervisors, including Dr Fabian Herder, also indicated that *Channa lucius* has not been documented in Lake Matano since (Kottelat, 1989, 1991), while local fishers consistently reported that they have never observed or captured this species.

Overall, alien fish species were found to be widely distributed throughout Lake Matano, although most occurred at relatively low abundance. In contrast, the flowerhorn cichlid (*Amphilophus* sp.) was recorded at every survey site, suggesting that it is now one of the most widespread and well-established alien fish species in the lake. Similarly, the Amazon sailfin catfish (*Pterygoplichthys cf. pardalis*) showed a high local abundance, particularly around the Sorowako area.

Overall, the project has progressed according to schedule, with all planned field activities completed. The survey has generated updated baseline information on the current status and distribution of alien fish species in Lake Matano while strengthening collaboration with local communities and key stakeholders. These achievements provide a strong foundation for the remaining phases of the project, particularly environmental education, community outreach, and the development of management recommendations for invasive alien fish species in Lake Matano.

2. Describe any challenges you have faced (c. 250 words or less)

The main challenge encountered during the field assessment was the large size of Lake Matano, combined with the limited time available for sampling. Covering 42 survey sites within a ten-day field campaign required careful planning and efficient coordination to ensure that all priority locations could be surveyed.

Another challenge was documenting certain alien fish species underwater. Some species were highly mobile and wary of divers, making it difficult to obtain clear photographic records for species identification. To overcome this, the team combined underwater observations with photographic documentation whenever possible and complemented the surveys with participatory mapping with locals to verify species occurrences.

Weather conditions occasionally affected underwater visibility and field logistics, although these interruptions were relatively minor and did not significantly delay the survey schedule. Strong collaboration with local communities and partner institutions also helped overcome logistical challenges by providing local knowledge, boats, and field support.

Overall, despite these challenges, all planned field activities were completed successfully, and the project remains on schedule.

3. Have there been any changes to the project plan? Are there any objectives or activities that you may struggle to achieve in the remaining project timeframe?

There have been two minor adjustments to the original project plan, both of which were made to improve the efficiency of field implementation without affecting the project's overall objectives.

The planned market survey was postponed following the initial field assessment, as underwater surveys and participatory mapping had already met the primary objectives. During the field assessment, the team had no time for visiting the market due to the schedule being full. However, following an online meeting with the project supervisors to discuss the preliminary findings, it was recommended that a market visit should still be undertaken to gather additional information on alien fish species traded or encountered by local communities. This activity will therefore be integrated into the upcoming education and awareness programme, allowing the team to maximise field efficiency while complementing the ecological survey results.

Second, the planned focus group discussions (FGDs) with fishers and community members were replaced by participatory mapping sessions conducted during the field surveys. This approach enabled more targeted discussions on the distribution of alien fish species, particularly those that were not directly observed during underwater surveys, while also capturing valuable local ecological knowledge from fishers and community members.

These adjustments have not affected the project's objectives or timeline. The project remains on schedule, and all remaining activities are expected to be completed within the planned timeframe. However, after conducting a short online meeting with the supervisors on a brief result presentation, there was a suggestion that the team should still conduct a market visit to at least gather information about the alien species in Lake Matano.

4. What are the key activities planned for the coming months? (c. 250 words or less)

The next phase of the project will focus on environmental education and public awareness activities in schools and communities surrounding Lake Matano. These activities aim to increase understanding of the ecological importance of the lake's endemic fish species and the threats posed by alien and invasive fish. A mini educational booklet introducing the alien fish species recorded during the survey will be distributed to students to support long-term awareness (the booklet is under preparing).

In addition, the project team will complete the final verification of species identification, analyze the ecological and participatory mapping data, and prepare recommendations to support the management of alien fish species in Lake Matano.

The findings will be shared with BBKSDA South Sulawesi and other relevant stakeholders to support future conservation planning.

To strengthen stakeholder engagement, the target audience for the community outreach activities has been expanded. Rather than focusing primarily on fishers, the programme will also involve village leaders, fisheries extension officers, youth representatives, PT Vale, and local conservation organisations. This broader participation is expected to improve knowledge exchange, encourage cross-sector collaboration, and increase the long-term impact of conservation efforts while maintaining the active involvement of local fishing communities.

5. Have you been in regular contact with your supervisor/mentor? Please provide details.

Yes. I have maintained regular communication with my project supervisors throughout the implementation of the project, both before and after the field assessment. Before the survey, our discussions focused on refining the assessment methodology, survey design, and field logistics. Following the completion of the fieldwork, I delivered a short online presentation to share the preliminary findings, discuss key observations from the surveys, and highlight emerging conservation issues in Lake Matano.

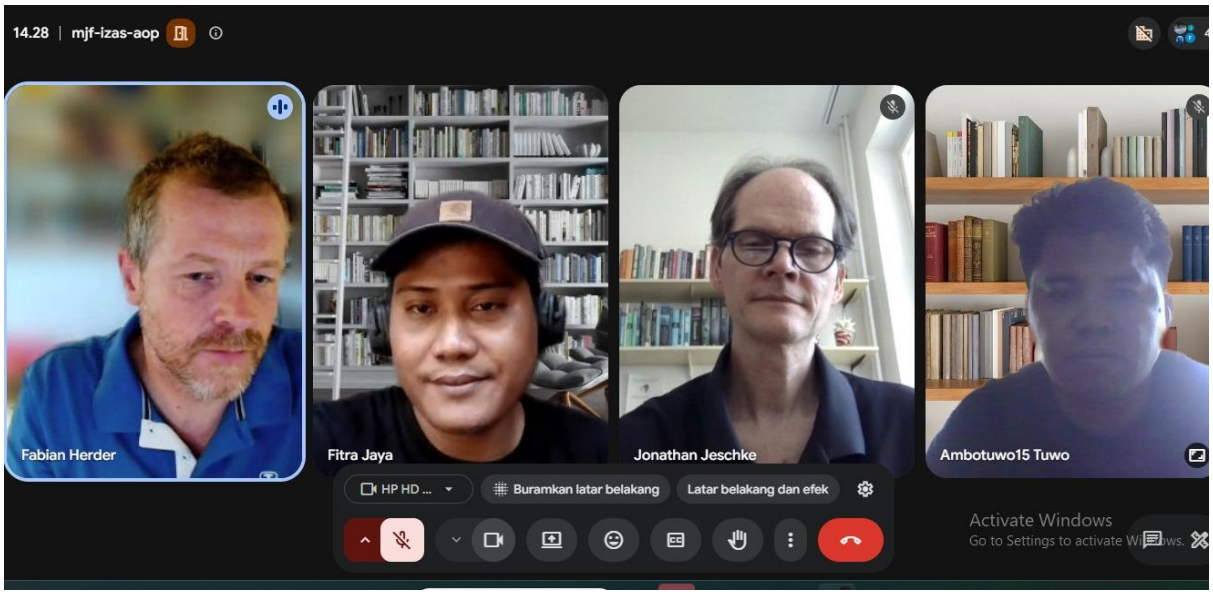

Figure: Post-field assessment meeting with supervisors (Professor Nadiarti was unable to join the meeting because she was traveling and had no internet connection)

During the meeting, the supervisors provided valuable feedback on the preliminary results and suggested incorporating a local market survey during the upcoming education and awareness activities to complement the ecological data. In addition,

Dr Fabian Herder kindly offered his expertise in the taxonomic identification of difficult-to-identify alien fish species, helping to improve the accuracy and reliability of the project's species records. Their continued guidance and constructive feedback have been invaluable in strengthening both the scientific quality and overall implementation of the project.

6. **Have you shared any project activities on social media? If so, please include details.**

No. Project activities have not yet been shared on social media, as the project is currently in the data verification stage. Once the preliminary findings have been verified, project updates will be published through the AMBioC (Aquatic Macrofaunal Biodiversity and Conservation) website to communicate the project's progress and raise public awareness of alien fish species and the conservation of Lake Matano's endemic biodiversity. Also, potentially, I will share the results on my personal LinkedIn, describing the overall findings.

7. **Please use the Excel template provided to complete your interim budget and return this via email along with the Interim Project Report.**

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