

Draft standards governing eDNA methods for reporting biosecurity outcomes - Feedback form

Following your reading of the initial draft standards, please provide us feedback on the specific questions below. We will collate this feedback to inform the discussion during the workshop.

* Required

1. Name *

2. Email *

3. Of the following broad-level invasion contexts, please order the options from 'most frequent' and 'least frequent' contexts experienced by your team/organisation, where eDNA-based methods may be considered?

Detection of unknown pests

Detection of known exclusion pests

Detection of containment pests

Post-eradication confirmation of pest removal

4. See provided draft standards summary table, and prioritise the most & least urgent gaps across the following categories:

	most urgent	somewhat urgent	least urgent	NA
Sampling design: site selection & replication	☐	☐	☐	☐
Sampling design: how to sample	☐	☐	☐	☐
Sampling design: standard vs composite	☐	☐	☐	☐
Sampling design: weather considerations	☐	☐	☐	☐
Collection considerations: equipment, sterilisation, volume to filter	☐	☐	☐	☐
Collection considerations: preservation methods	☐	☐	☐	☐
Collection considerations: controls, field & laboratory	☐	☐	☐	☐
Laboratory Methods: DNA extraction & PCR/primers	☐	☐	☐	☐

	most urgent	somewhat urgent	least urgent	NA
Laboratory methods: sequencing platforms	☐	☐	☐	☐
Other aspect not captured in the summary table	☐	☐	☐	☐

5. See provided draft standards summary table, and prioritise the most & least urgent gaps across the following categories:

	most urgent	somewhat urgent	least urgent	NA
Metadata: core metadata reporting	☐	☐	☐	☐
Metadata: capture tools	☐	☐	☐	☐
Metadata: standards such as GBIF, Darwin core	☐	☐	☐	☐
Metadata: data sharing, eg FAIR principles	☐	☐	☐	☐
Data analysis & interpretation: detection metrics	☐	☐	☐	☐
Data analysis & interpretation: bioinformatics	☐	☐	☐	☐
Data analysis & interpretation: taxonomic assignment & reference databases	☐	☐	☐	☐
Data analysis & interpretation: statistical tools	☐	☐	☐	☐
Result validation: literature review	☐	☐	☐	☐

	most urgent	somewhat urgent	least urgent	NA
Result validation: protocol optimisation	☐	☐	☐	☐
Result validation: consistence, repeatability & reproducibility	☐	☐	☐	☐
Result validation: verification	☐	☐	☐	☐

6. **Why are the three most important gaps identified above (Q3 & 4) barriers to success in your decision-making or biosecurity response activities?**

7. What environments do you most commonly sample for eDNA applications for biosecurity? Select all that apply. *

- ☐ water - aquatic environment
- ☐ water - marine environment
- ☐ water - terrestrial environment
- ☐ air - terrestrial environment
- ☐ spore, pollen traps or other biomaterial accumulation - terrestrial environment
- ☐ insect traps - terrestrial environment
- ☐ biotic samples (feces, gut content, plant surfaces) - terrestrial
- ☐ biotic samples (feces, gut content, bivalves, sponges) - marine environment
- ☐ Other

8. What environment or habitat did your target pests commonly occupy when applying eDNA for biosecurity? Select all that apply. *

- ☐ aquatic (lakes, rivers, ponds)
- ☐ marine (near shore, open ocean)
- ☐ terrestrial
- ☐ host associated - aquatic
- ☐ host associated - marine
- ☐ host associated - terrestrial
- ☐ Other

9. If relevant, identify up to three ongoing regional or local scale incursions, range limitation or post-operation monitoring activities that your team/organisation is implementing. We are interesting in designing case-studies to address the urgent gaps.

Please list target species, location, and how it may help address the gaps eg optimum sampling design to confirm eradication', in the text box below. *