

Supplementary Table S1. Summary of information sources, search framework, eligibility criteria, screening procedure, and included evidence categories used in the structured evidence synthesis.

Component	Details
Information sources	Web of Science Core Collection; Scopus; PubMed; CAB Abstracts; Google Scholar; backward citation searching of eligible articles and relevant reviews; forward citation tracking in Google Scholar
Coverage period	Database inception to 31 December 2025
Role of Google Scholar	Supplementary discovery tool and source for forward citation tracking
Search concepts	Myxogastria/slime mould terms + macrofungal fruiting body or cultivation terms + association descriptors, combined with Boolean AND/OR
Eligible evidence types	Field records on macrofungal fruiting bodies or fungus-structured detritus; studies linking myxomycete occurrence to rot type or decay stage; cultivation reports; experimental studies of attraction, feeding/assimilation, tissue lysis, or fungal growth inhibition
Eligible source types	Journal articles; books and checklists; theses; unpublished reports when they contained verifiable taxonomic, substrate, or experimental information
Language handling	English and non-English literature were eligible when the relevant association data could be extracted reliably
Field-record inclusion threshold	Identifiable myxomycete to at least genus and clearly described macrofungal fruiting body or fungus-structured substrate context
Exclusions	Studies focusing exclusively on Dictyostelia or protostelids; field records lacking identifiable myxomycete or adequate substrate context
Study selection steps	Deduplication; title/abstract screening; full-text assessment against eligibility criteria; backward and forward citation additions
Evidence interpretation	Direct experiments interpreted as strongest support for direct interaction; cultivation reports as context-specific observational evidence; stable isotope studies as indirect trophic evidence; field co-occurrence records as descriptive habitat-association evidence
Included evidence counts	34 forest field entries from 27 sources; 5 cultivation/managed-system entries from 4 sources; 4 direct experimental/mechanistic entries from 5 sources; 2 stable isotope studies from 2 sources; 45 evidence entries from 38 distinct evidence-bearing sources overall