DSMZ

Where are the Types of aquatic hyphomycetes ?

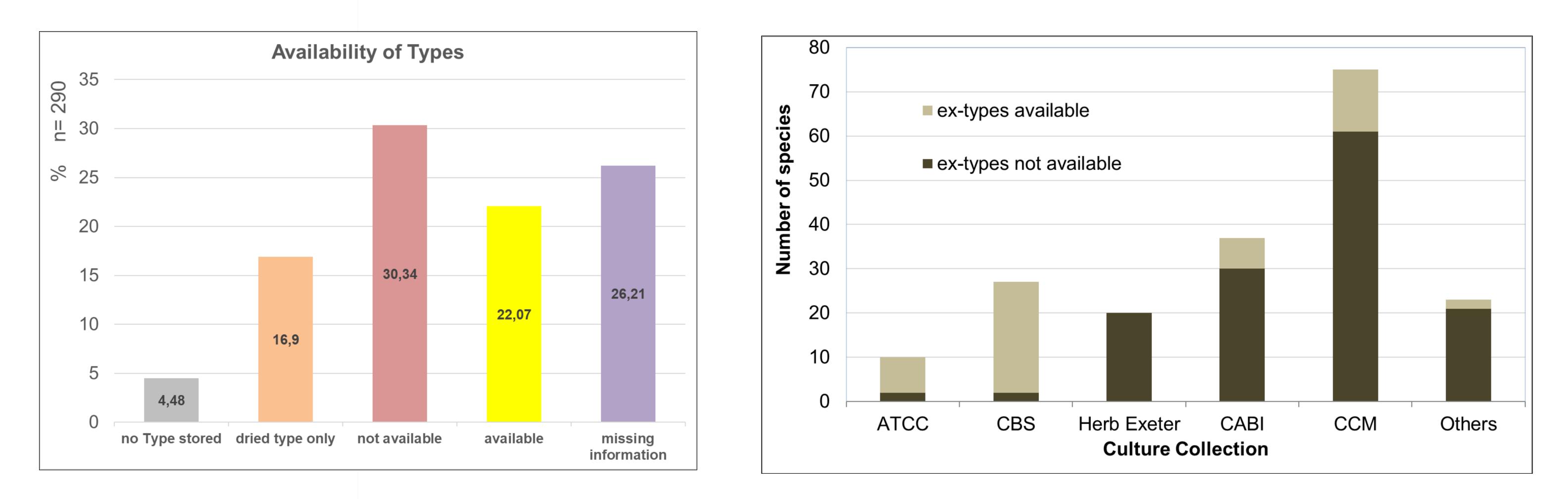
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Aquatic "hyphomycetes"

Aquatic hyphomycetes (AH) are an ubiquitously occurring polyphyletic group of asexual fungi. They are important key players in the decomposition of leaf litter in streams. More than 300 species are described but are underrepresented in public culture collections.

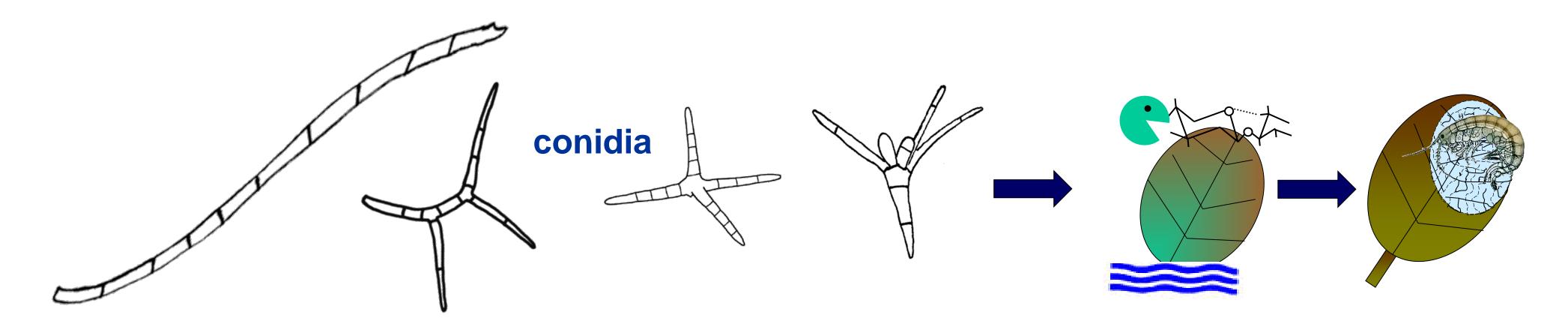
The condition of many Types is uncertain

Accessibility – either types available as dried cultures and slides, only - or hidden in restricted collections.



References

- 3. Johnston, P. R., & Baschien, C. (2020). Tricladiaceae fam. nov. (Helotiales, Leotiomycetes). Fungal Systematics and Evolution, 6, 233.



Where are the Types?

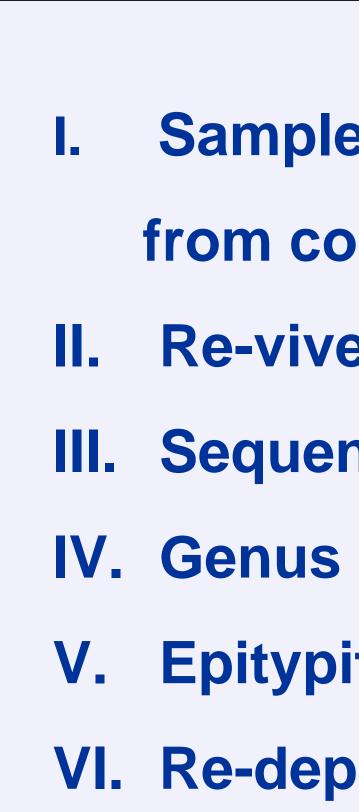
While the revision urgent, aquatic Of many hyphomycete genera is impossible because of missing type, ex-type or authentic cultures.

1. Baschien, C., Tsui, C. K. M., Gulis, V., Szewzyk, U., & Marvanová, L. (2013). The molecular phylogeny of aquatic hyphomycetes with affinity to the Leotiomycetes. Fungal Biology, 117(9), 660-672. 2. Johnston, P. R., Quijada, L., Smith, C. A., Baral, H. O., Hosoya, T., Baschien, C., ... & Townsend, J. P. (2019). A multigene phylogeny toward a new phylogenetic classification of Leotiomycetes. IMA fungus, 10(1), 1-22.3.



Safeguarding historical AH collections

It is crucial for the evaluation of genus and species boundaries to have access to a larger number of isolates of a species for investigating genetic and morphological as well as biogeographical variation.





Sample strains - ex-type & other -

from collections and nature

Re-vive, preserve

III. Sequence: Genes & Genomes

IV. Genus & species concepts

Epitypification if necessary

VI. Re-deposit in original collection