



Contribution ID : 78

Type : **Oral**

Duckweeds – an example for evolution in flux

martedì 29 settembre 2026 14:30 (15)

The shortest definition of evolution is maintenance and expansion of information by the change of information (mutation) and subsequent selection (by environment). On the biotic (post-cellular) level, evolution led to +/- sexually isolated populations of individuals, called species. While karyotypic mutations can initiate speciation, genic mutations lead to allele diversity and adaptability. The main reasons for karyotype mutations (and thus for speciation) are mis-repaired DNA double-strand breaks. Another important route of speciation is reticulate evolution by fusion of (reduced or unreduced) gametes from different species. Our actual collaborative efforts to resolve the phylogeny of duckweed genera demonstrate how these principles of evolution shaped duckweed diversity in the past and that they are still ongoing.

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Scientific Session

Genes, Genomes and Evolution

Keywords

duckweed-genera; phylogeny; evolution; interspecific-hybridization; genome-rearrangements

References

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Session Classification : Genes, Genomes & Evolution I