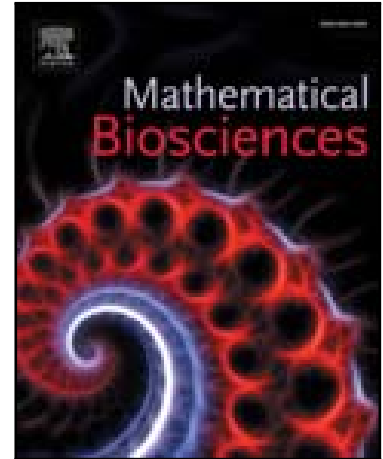


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Phylogenetic diversity and biodiversity indices on phylogenetic networks

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Highlights

Highlights of the manuscript “Phylogenetic diversity and biodiversity indices on phylogenetic networks”

Phylogenetic networks play a crucial role in evolution e.g. in the presence of hybridization or horizontal gene transfer. Moreover, biodiversity indices are becoming more and more important as conservation prioritization tools. However, so far these indices only work on trees and have not yet been defined for phylogenetic networks. Our manuscript gives a first introduction to phylogenetic diversity measures and indices for phylogenetic networks. Moreover, the proposed new concepts have been tested on a platyfish dataset and they have been implemented in the freely available software package “NetDiversity”. In summary, the highlights of our paper are:

- first introduction of phylogenetic diversity concepts in the presence of reticulation events like hybridization or horizontal gene transfer
- first introduction of biodiversity prioritization indices for phylogenetic networks
- comparison of all introduced concepts theoretically and practically (the latter concerning a platyfish dataset)
- free software package concerning an implementation of the proposed concepts

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