Outlineoffungi.org - Note 934 *Chionasteraceae*

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Chionasteraceae N.A.T. Irwin, C.S. Twynstra, V. Mathur & P.J. Keeling
     Chionasteraceae was introduced by Irwin et al. (2021) that was typified by *Chionaster nivalis* (K. Bohlin) Wille, a unicellular, fungus, that is frequently observed in snow accommodated in the class *Tremellomycetes*, based on ITS and the D1-D2 region of the large subunit ribosomal RNA gene. *Chionaster* was described and identified based on radiating arms (3 to 5) and a central condensed cell (i.e., an aplanospore) associated with the lack of higher-level classifications in fungi. Moreover, *Chionaster nivalis* showed a distinct phylogenetic lineage in *Tremellomycetes* thus introducing *Chionasterales* and *Chionasteraceae* (Irwin et al. 2021). Besides, Irwin et al. (2021) confirmed that *Chionaster nivalis* and *Chionasterales* 'are globally distributed and probably psychrophilic, as they appear to be limited to the high alpine and arctic regions. These results highlight the unexplored diversity that exists within these extreme habitats and emphasize the utility of single-cell approaches in characterizing these complex algal-dominated communities. The taxonomic placement of this family is in *Chionasterales, Tremellomycetes, Agaricomycotina,* and *Basidiomycota*.

Reference

Irwin NAT, Twynstra CS, Mathur V, Keeling PJ. 2021 – The molecular phylogeny of *Chionaster nivalis* reveals a novel order of psychrophilic and globally distributed *Tremellomycetes* (Fungi, *Basidiomycota*). PLoS ONE 16(3), e0247594. https://doi.org/10.1371/journal.pone.0247594

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