



## **New Cloudina-like morphotype from the Ediacaran Tamengo Formation (Neoproterozoic, Corumbá Group), Southwest Brazil**

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The late Ediacaran index fossil *Cloudina* Germs is known for its funnel-in-funnel tubular calcareous shell. The Brazilian species *Cloudina luciano*i (Beurlen and Sommer) occurs in limestones of the Tamengo Formation, near the top of the Corumbá Group, in southwestern Brazil. We report a new *Cloudina*-like morphotype from this formation, based on morphological observations and statistical comparisons of 55 specimens of the new morphotype and 23 of *Cloudina* from a single rock sample. The new morphotype is more delicate and more completely preserved than shells of *C. luciano*i in the same sample. Many of these specimens also bear prominent lateral projections, not previously seen in *C. luciano*i, which are interpreted as outward-flaring flanges of distal segments. Statistical analysis of the diameter/ length ratio of the fossils (linear regression and "t" test) revealed significant differences between the two groups, despite the fact that diameters of the new morphotype cluster within the established size limits of *C. luciano*i. Hence, the new morphotype may represent a different species and not merely a previously unrecognized ontogenetic stage of *C. luciano*i. Statistical analysis further suggests that the shells of *C. luciano*i in the sample represent remnants of larger individuals than the new morphotype. Thus, the assemblages in the studied sample bear distinct taphonomic signatures, with the new morphotype representing an in situ biocoenosis, and the *C. luciano*i fragments apparently parautochthonous or allochthonous elements.

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