

Mat-forming coccoid cyanobacteria from early Silurian marine deposits of Sudetes, Poland

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Mass occurrence of mats comprised of benthic coccoid cyanobacteria is reported from early Silurian black radiolarian cherts exposed at Żdanów village (Bardzkie Mountains, Sudetes, southwestern Poland). The cherts contain laminated organic matter representing degraded benthic coccoid cyanobacterial mats. The remains of cyanobacteria occur as laminated agglomerations of variously preserved subglobular colonies composed of spherical cells of variable size and numbers. The morphology of remnants of cells and their mucilaginous envelopes, structure of colonies, and particularly the presence of small granular structures resembling reproductive cells known in extant coccoid cyanobacteria as baeocytes, permit to compare the Silurian microbiota with modern cyanobacteria assigned to the genera *Stanieria* or *Chroococcidiopsis*.

Key words: Coccoid cyanobacteria, microbial mats, cherts, Silurian, Poland.

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