

49. *Hymenomonas coronata* Mills (1975)

Cellulae vegetative sphaericae utemque singulae, 8-12 μ m diam; chloroplastus parietalis, poculiformis lobatusque unam vel plures pyrenoides habens; cellulae uninucleatae; status immobilis in cultura prevalent.

Reproductio asexualis zoosporis isokonteis biflagellatis effecta. Zoosporae duae omni in cellula, aliquantulum ovatae ad pyriformes, 12-14 x 7-8 μ m, chloroplastum parietalem unam vel plures pyrenoides continentum habentes. Zoosporae quiescentes sphaericae factae et vegetative se dividunt (desmoschisis) ad sarcinculas parenchymaticas formandas.

Coccolithi (cricilothi) in utroque cellularum typo adsunt.

In ultrastructura: pyrenoides tumescens in superficiae plastidis inferior aliquot thylakoideis transversa; membrane cellularis in cellulis et mobilibus et immobilibus e stratis squamarum "Golgi"-factarum compostia. Coccolithi ovati, 0.9-1.0 x 0.5-0.6 μ m; e 10-12 elementis constants; elementa ad extremitatas coccolithi altiora; coccolithi non semper calcifacti; radicella microtubularis flagellaris in cellulis mobilibus adest; chloroplastus chloroplasto "ER" involutus.

Holotypus JTM 111a e loco Redfish Bay, Port Aransas, Texas, dicto ortus, verne 1969 collectus, in herbario TEX depositus; per culturas Num. 2475 a M.J. Wynne, isolatas etiam expressus.

Vegetative cells spherical when solitary, 8-12 μ m in diam; chloroplast parietal, cup-shaped, lobed with 1 or more pyrenoids; cells uninucleate; nonmotile stage predominates in culture.

Asexual reproduction by biflagellate isokont zoospores, 2 per cell, slightly ovoid to pyriform, 12-14 by 7-8 μ m, with parietal chloroplast containing 1 or more pyrenoids. Zoospores round up upon settling and divide vegetatively (desmoschisis) to form parenchymatous packets.

Coccoliths (cricoliths) present on both types of cells.

Ultrastructurally: bulging pyrenoid on inner face of plastid traversed by several thylakoids, cell wall composed of layers of golgi-produced scales in both motile and nonmotile cells. Coccoliths ovoid, 0.9-1.0 by 0.5-0.6 μ m; consisting of 10-12 pentagonal elements arranged around the periphery of the base scale; elements taller at the ends of the coccolith; coccoliths not always calcified; microtubular flagellar root present in motile cells; chloroplast enveloped by chloroplast ER.

Isolate 2475 isolated by M.J. Wynne and 111a by J.T. Mills from samples near Redfish Bay, near Aransas Pass, Nueces County, Texas. Represented by culture numbers JTM 111a and 2475.

Mills, J.T., 1975. *Hymenomonas coronata* sp. nov., a new coccolithophorid from the Texas Coast. *Journal of Phycology*, **11**: 149-154.