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The significance of graptoblasts in the life cycle of crustoid graptolites

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Graptoblasts are small ovoid bodies with a flat lower, and a convex upper, wall, the latter provided with a costulation having a fusellar aspect. First found as isolated bodies associated with graptolite remains, graptoblasts were later
recognized as a constituent of crustoid colonies (Kozłowski 1949, 1962). Their biological role remain largely enigmatic. The view that graptoblasts were formed within the authothecae is rejected and a conclusion is advanced that
graptoblasts were closed, resting terminal portions of the stolothecae, housing eneysted
dormant zooids. They may be compared with the resting terminal zooids in *Rhabdopleura* and with the hibernacula of ctenostome bryozoans. Graptoblasts provided an adaptation allowing the species to survive the periods of adverse conditions when the rest of the colony disintegrated. One could hypothesize that after germination the graptoblasts produced small propagules ejected through a narrow cryptopyle and forming new colonies after they settled on the substrate.

Key words: Graptoblasts, Graptolithina, Crustoidea, dormancy, germination, propagules, life cycle.