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# New parasitic organisms in a productid brachiopod *Eomarginifera lobata* from the lower Carboniferous of the Moscow Basin, Russia

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Bioclaustrations are among the best ways that parasitic associations are preserved. A new bioclaustration, *Haplorygma productidophilia* csp. nov., is here described from the ventral interior of the Carboniferous productid brachiopod *Eomarginifera lobata*. The location and morphology of the structures in the ventral valve differ from the structure in the dorsal valve, suggesting that two different organisms infested the shells of *Eomarginifera lobata*. It is possible that whether it was ventral or dorsal valve was an important selection criterion for the infesting organisms, which were likely parasites. The proportion of infested productids was low in the population (5.8%). This low infestation rate could indicate that productids had effective methods for resisting parasites, or that the parasites were ineffective in spreading through the brachiopod population.

**Key words:** Brachiopoda, symbiosis, bioclaustrations, Mississippian, lower Carboniferous, Eastern Europe.

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