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Книга представляет собой сборник тезисов докладов 4-го международного конгресса по морфологии беспозвоночных, проходившего 18-23 Августа 2017 года в Московском государственном университете им. М.В. Ломоносова (Москва, Россия). Материалы докладов распределены по 14 симпозиумам, отражающим наиболее актуальные направления современной зоологической науки. Всего в рамках конгресса заслушано 170 устных и 160 стеновых докладов от участников из 25 стран мира. Более трети всех докладов сделаны молодыми учеными – студентами и аспирантами ведущих российских и зарубежных вузов. Пленарные и приглашенные лекции прочитаны ведущими специалистами по сравнительной анатомии, эмбриологии, палеонтологии, геномики и эволюции беспозвоночных.

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SPATIAL MORPHOLOGICAL VARIATION IN THE DWARF POND SNAIL (*GALBA TRUNCATULA*): SCALE-DEPENDENCE AND NON-LINEARITY

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The reality of spatial clinal variation in morphological traits of freshwater pulmonate snails (Gastropoda: Pulmonata) has repeatedly been questioned or totally disclaimed. The lack of sound statistical evidence in the articles hitherto published on this subject supported these claims. Here, by means of different analytical methods (analysis of spatial autocorrelation, trend surface analysis, canonical analysis and geometric morphometry), we demonstrate that shell variation in the dwarf pond snail, *Galba truncatula* (O.F. Müller), is patterned in space throughout northern and central Palearctic, with latitudinally oriented clines in body size and (partially) in shell proportions. Shell size in *G. truncatula* decreases with latitude and temperature representing a special case of converse Begmann cline. However, the temperature itself is hardly the main driver of shell size variation. It is argued that the shorter growing seasons at high latitudes may represent a better explanation for the observed trend. Shell proportions in the dwarf pond snails weakly vary at the macrogeographic scale being spatially patterned at lower (mesogeographic) scales around 1200–1500 km. The spatial clines in shell shape in the dwarf pond snail are non-linear (U-shaped) clines as it has been revealed by means of the geometric morphometry approach. The northern and southern populations of this species are characterized by similar shell proportions, whereas the ‘intermediate’ ones are more or less distinct phenotypically.

In general, the spatial variation in *G. truncatula* shell size is decoupled from variation in shell shape demonstrating clear scale-dependence similar to that found in different species of terrestrial (non-aquatic) pulmonate snails.

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