

Figure S1. Results of species delimitation analysis of the genus *Radix* based on the *COI* gene phylogeny. Vertical bars indicate Molecular Operational Taxonomic Units (MOTUs) suggested by three species delimitation models: ABGD (blue) and mPTP (orange). The consensus clades considered by us as corresponding to separate biological species and subspecies are collapsed. This tree is a fragment of larger super-tree for the family Lymnaeidae (Aksenova et al. 2024). Labels of haplotypes from Lake Issyk-Kul are red. Labels of haplotypes from other ancient lakes are blue. The scale bar indicates the branch lengths (substitutions per site).

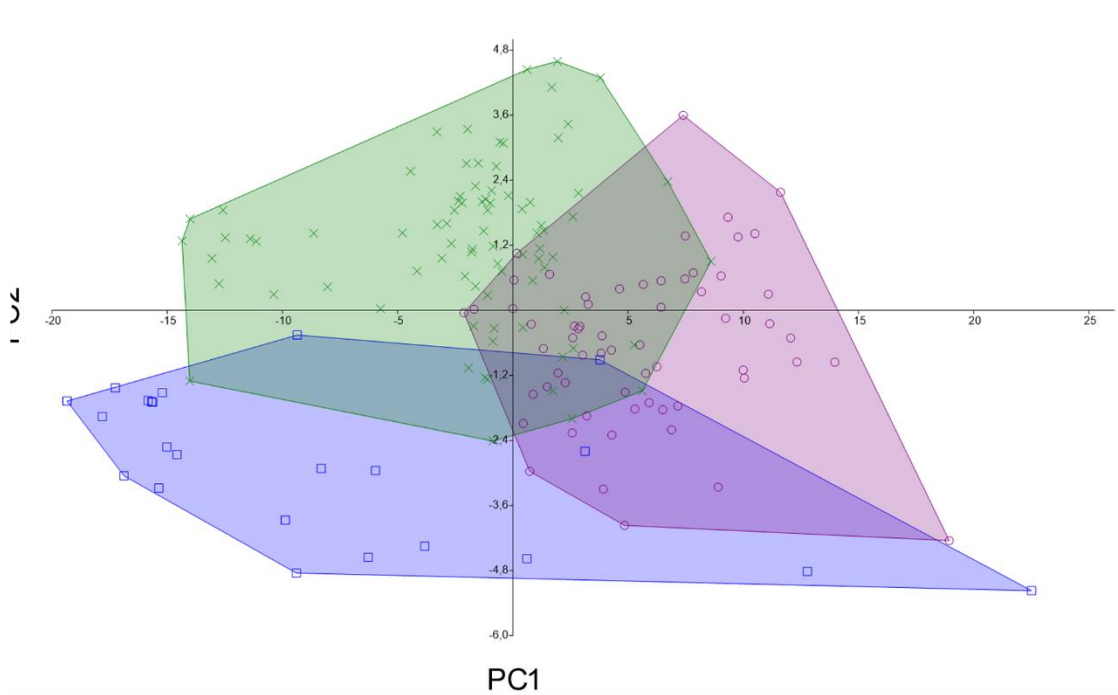


Fig. S2. Principal component analysis of whorl number and shell measurements of three samples of *Radix obliquata* from Central Asia. Green crosses – Issyk-Kul Lake in Choplon-Ata (LMBI 15-2535); lilac circles – Tere-Khol Lake, Republic of Tuva, Russia (IPAE No. 130); blue quadrats – an unnamed lake east of Ubsunur Lake, Mongolia (ZIN, No. 23). The first two principal components (PC) combined account for 95.94% of variance (PC1 89.32%, PC2 6.62%)