

REPRODUCTIVE BIOLOGY OF *HEDYSARUM THEINUM* (FABACEAE)

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The article presents the results of research on the reproductive biology of *Hedysarum theinum* Krasnob. in natural populations of the Altai Republic and Northern Kazakhstan. The species is vegetatively immobile, reproducing by seed only. It was found that *H. theinum* belongs to the plants with an average (38.0 to 66.6%) seed productivity in the conditions of Northern Kazakhstan (the center of the species range), which is sufficient for the regular renewal of populations and maintaining the stability of their age structure. The indexes of fruit and seed formation in the studied populations of Northern Kazakhstan also indicate a fairly good adaptability and compliance of the ecological conditions of the habitats with biological requirements of the species. In the northern part of the range, in the Altai Republic, *H. theinum* is recognized as rare and subject to high anthropogenic pressure. There, it was shown that the seed productivity of the species was significantly lower (22.1 to 40.1%) and self-renewal was successful not in all populations. Therefore, the highest indexes of the efficiency of fruit formation and the formation of full-fledged seeds were noted in the center of diversity, namely Northern Kazakhstan, the lowest ones at the edge of the range, especially in the habitats with anthropogenic pressure, in the Republic of Altai.

Keywords: *Hedysarum theinum*, Altai Republic, Northern Kazakhstan, seed productivity, seed production percentage, fruit formation, biology of seed germination

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