

**REPRODUCTIVE CHARACTERISTICS OF THE *SAUSSUREA SALICIFOLIA* (ASTERACEAE) FROM KUZNETSK
ALATAU**

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SUMMARY

A prospective medicinal plant from the family Asteraceae, *Saussurea salicifolia* (L.) DC. is known from 4 locations in the Kuznetsky Alatau at the edge of its range. The production and proliferation of achenes in 5 cenopopulations of *S. salicifolia* was analyzed in order to develop an effective strategy for its protection and cultivation. The specimens at the middle of their reproductive phase have the maximum characteristics of their vitality, such as the number of vegetative stems, size of the leaves, etc. However, they may develop less number of generative stems and achenes per capitula compared to the young and old individuals at the reproductive phase. Overall, *S. salicifolia* is characterized by low seed productivity (14–60 seeds/m²) and low reproductive effort (0.07 %). Our observations showed that low seed productivity and lack of vegetative reproduction prevent effective recovery of a population size after its disturbance. *In vitro* experiment was designed to compare proliferation of freshly collected and stratified (kept at low temperature) seeds at two conditions: exposed to the light and in the dark. While exposed to the light, two groups of seeds demonstrated the identical average period of proliferation (4–5 days). In contrast, proliferation in the dark reduced this period for the stratified seeds (3–5 days) compared to the freshly collected seeds (5–9 days). Our observation showed that freshly collected seeds can be successfully used for cultivation of *S. salicifolia*, without stratification. However, if only stratified seeds are available, their proliferation should be performed in the dark in order to obtain adult plants in short period of time. We also suggest that harvesting plants for the purpose of collecting raw material should be restricted by collecting only the specimens at their vegetative phase.

Key words: *Saussurea salicifolia*, seed production, reproductive effort, germination capacity, germination period.