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Environmental stress effects on reproduction and sexual dimorphism in the gynodioecious species *Silene acaulis*

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Highlights:

- Sexual dimorphism in gynodioecious species *Silene acaulis* is proposed.
- Differences between sexes occurs in fruiting success and flower morphology.
- Hermaphrodite flowers are mainly pollen exporters.
- Environmental severity has a low effect on sexual dimorphism.

Abstract

In gynodioecious species, hermaphrodite plants invest both in seed and pollen production, whereas female plants only produce fruits. For both sexes to coexist, such unbalanced investment is expected to translate in some kind of reproductive compensation, particularly