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Disturbance is a strong selective factor in plants causing a partial or total destruction of plant biomass. Even though resprouting has become a generally accepted strategy of tree species in highly disturbed habitats, in herbs it is still incorrectly claimed that short-lived ones occupying such habitats regenerate after damage of all aboveground biomass only from seeds. However, there is a significant number of short-lived herbs that survive removal of 100 % of aboveground biomass, and in spite of such severe injury to their body, resprout and finish the reproductive cycle. Nevertheless, resprouting in short-lived herbs has been neglected by plant ecologists so far, and only little information on this strategy is available.

The present thesis is composed of six original studies describing characteristics, ecological relationships and consequences of the ability of resprouting in the following short-lived herbs of highly disturbed habitats: *Rorippa palustris*, *Barbarea vulgaris*, *Oenothera biennis*, *O. issleri*, *O. fallax* and *O. glazioviana*.

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