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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*.

TABLE OF CONTENTS

CHAPTER I	General introduction	7
CHAPTER II	Resprouting after disturbance: an experimental study with short-lived monocarpic herbs	17
	Martínková, J., Klimešová, J. & Mihulka, S. (2004) Folia Geobotanica 39: 1-12	
CHAPTER III	Resprouting after disturbance in the short-lived herb <i>Rorippa palustris</i> (Brassicaceae): an experiment with juveniles	35
	Martínková, J., Kočvarová, M. & Klimešová, J. (2004) Acta Oecologica 25: 143-150	
CHAPTER IV	Resprouting after disturbance in the short-lived herb <i>Barbarea vulgaris</i> (Brassicaceae): effect of nutrient level, timing and severity of injury	51
	Martínková, J., Klimešová, J. & Mihulka, S. [manuscript]	
CHAPTER V	Resprouting of biennial <i>Oenothera</i> congeners after disturbance: field observations and an experimental study	67
	Martínková, J., Klimešová, J. & Mihulka, S. [manuscript]	
CHAPTER VI	Intermediate growth forms as a model for the study of plant clonality functioning: an example with root sprouters	85
	Klimešová, J. & Martínková, J. Evolutionary Ecology [in press]	
CHAPTER VII	Biological Flora of Central Europe: <i>Rorippa palustris</i> (L.) Besser	101
	Klimešová, J., Martínková, J. & Kočvarová, M. Flora [in press]	
CHAPTER VIII	Summary of results	121