CONTENT

CHAPTER 1	7
General introduction	

CHAPTER 2 29

The genetics of overwintering performance in two-year old common carp and its relation to performance until market size

CHAPTER 3 49

Potential for genetic improvement of the main slaughter yields in common carp with $in\ vivo$ morphological predictors

CHAPTER 4 65

Estimation of genetic parameters of fatty acids composition in flesh of market size common carp (*Cyprinus carpio* L.) and their relation to performance traits revealed that selective breeding can indirectly affect the flesh quality

CHAPTER 5 79

Accuracy of genomic evaluations of juvenile growth rate in common carp (*Cyprinus carpio*) using genotyping by sequencing

CHAPTER 6 91

Mapping and sequencing of a significant quantitative trait locus affecting resistance to Koi herpesvirus in common carp

CHAPTER 7	107
General discussion	109
English summary	tedmen brood - walke Palmot Jone 121
Czech summary	nedman broad - Aveil alterno 123
Acknowledgements	redmem brand - lembt A streb X len's 125
List of publications	126
Training and supervision plan during study	128
Curriculum vitae	130