CONTENT

CHAPTER 1	7
STAR CONTROL OF THE C	

General introduction

CHAPTER 2			31

Influence of environmentally relevant concentrations of vinclozolin on quality, DNA integrity, and antioxidant responses of sterlet *Acipenser ruthenus* spermatozoa

CHAPTER 3 43

Protection of common carp (Cyprinus carpio L.) spermatozoa motility under oxidative stress by antioxidants and seminal plasma

CHAPTER 4 57

The effect of reactive oxygen species on motility parameters, DNA integrity, tyrosine phosphorylation and phosphatase activity of common carp (*Cyprinus carpio* L.) spermatozoa

CHAPTER 5 69

Molecular mechanisms of motility activation and intracellular signaling in spermatozoa of two taxonomically distant fish species: sterlet (*Acipenser ruthenus*) and common carp (*Cyprinus carpio* L.)

CHAPTER 6	99
General discussion	101
English summary	107
Czech summary	109
Acknowledgements	111
List of publications	113
Training and supervision plan during study	115
Curriculum vitae	116