

CONTENT

CHAPTER 1

7

General introduction

CHAPTER 2

31

Development and application of LC/HRPS for quantification of adenine nucleotides, creatine phosphate, and creatine in sturgeon spermatozoa

CHAPTER 3

43

The study of sturgeon sperm maturation

CHAPTER 4

57

Content of creatine- and adenylate phosphates in European eel spermatozoa: influence of hormonal treatment, *in vitro* storage, and motility

CHAPTER 5

73

Effect of environment osmolality on whitefish sperm subpopulations and content of creatine- and adenylate phosphates

CHAPTER 6

91

General discussion

93

English summary

100

Czech summary

102

Acknowledgements

104

List of publications

105

Training and supervision plan during study

107

Curriculum vitae

108