

CHAPTER 1	9
General Introduction	9
1.1. Hormone treatments for control of ovulation	11
1.2. History of hormone treatments in salmonids	12
1.3. Major aims of the dissertation	13
1.4. Brain-pituitary-gonad axis in salmonids	14
1.5. Regulatory factors and mechanisms of the salmonid reproduction cycle	15
1.5.1 Photoperiod	15
1.5.2. Temperature	16
1.5.3. Temperature and dopaminergic inhibition in salmonids	17
1.6. Acute vs. sustained GnRH α treatments	18
1.7. Effectiveness (<i>superactivity</i>) of GnRH α molecules in salmonids	19
1.8. Egg quality following GnRH α treatment	23
CHAPTER 2	35
Synchronization of ovulation in brook char (<i>Salvelinus fontinalis</i> , Mitchell 1814) using emulsified D-Arg ⁶ Pro ⁹ NET sGnRH α	37
CHAPTER 3	55
Synchronization of ovulation in cultured northern whitefish (<i>Coregonus peled</i> , Gmelin 1788) using [D-Arg ⁶ Pro ⁹ Net]-sGnRH analogue and its effect on egg quality	57
CHAPTER 4	71
Induction and advancement of ovulation in wild Arctic grayling (<i>Thymallus arcticus arcticus</i>) using D-Tle ⁶ ,Pro ⁹ ,NET-mGnRH α Lecirelin	73
CHAPTER 5	81
Effects of salmon gonadotropin-releasing hormone analog (GnRH α) on reproductive success and egg size in rainbow trout and brook trout	83
CHAPTER 6	97
General Discussion	99
English Summary	107
Czech Summary	108
Acknowledgements	109
List of Publications	110
Training and Supervision Plan During Study	112
<i>Curriculum Vitae</i>	114