Syllabus

FISH REPRODUCTION - 71831

Last update 15-03-2015

HU Credits: 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Animal Sciences

Academic year: 2

Semester: 2nd Semester

Teaching Languages: hebrew

Campus: Rehovot

Course/Module Coordinator: Prof. Berta Levavi-Sivan

Coordinator Email: Berta.sivan@mail.huji.ac.il

Coordinator Office Hours: Thursday 0900-1000

Teaching Staff:
Prof Sivan Berta
Course/Module description:
A detailed study of the endocrine axis that is leading to fish reproduction

Course/Module aims:
To understand the endocrine tissues along the axis leading to reproduction as well as the hormones, receptors and their mechanism

Learning outcomes - On successful completion of this module, students should be able to:
1. Describe the hormones that are connected to fish reproduction
2. To describe the female- and male reproductive system, with emphasize on the hormones that are secreted and their mode of action
3. To explain the cons and weaknesses of the common methods for spawning induction in farmed fish

Attendance requirements(%):
100

Teaching arrangement and method of instruction: Frontal oral lectures
Hands-on labs

Course/Module Content:
The effect of the environment on fish reproduction; reproduction strategies; endocrine exses
● The ovary, vitellogenesis, ovarian hormones, final oocyte maturation, the endocrine control on the ovary
● The testis, spermatogenesis and its hormonal control, androgens
● The complex pituitary-hypothalamus, different GnRHs, dopamine, gonadotropins
● Recombinant gonadotropins
● The endocrine background of spawning induction of farmed fish. The readiness of females; the hypothalamic and hypophysial approaches
● Puberty control in fish

Required Reading:
Yaron Z, Sivan B (2006) "Fish reproduction". In: Physiology of fishes, 3rd Ed (Evans,

Additional Reading Material:
Yaron, Z. (1995). Endocrine control of gametogenesis and spawning induction in
the carp. Aquaculture 129: 49-83.
reproduction in teleost fish. Gen Comp Endocrinol 165:438-455

Course/Module evaluation:
End of year written/oral examination 80 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 10 %
Reports 10 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:
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