

Marine Fish Larviculture (I002793)

Wegens Covid19 kan mogelijk afgeweken worden van de onderwijs- en evaluatievormen. Dergelijke afwijkingen zullen via Ufora worden gecommuniceerd.

Cursusomvang *(nominale waarden; effectieve waarden kunnen verschillen per opleiding)*

Studiepunten 6.0 **Studietijd 180 u** **Contacturen** 60.0 u

Aanbodsessies in academiejaar 2020-2021

A (semester 2) Engels Gent

Lesgevers in academiejaar 2020-2021

Van Stappen, Gilbert LA22 Verantwoordelijk lesgever

Aangeboden in onderstaande opleidingen in 2020-2021

	stptn	aanbodsessie
Master of Science in Aquaculture	6	A
Uitwisselingsprogramma bio-ingenieurswetenschappen: landbouwkunde (niveau master-na-bachelor)	6	A

Onderwijstalen

Engels

Trefwoorden

Hatchery, live food, zooplankton, Artemia, rotifers, fish larvae.

Situering

The aim of this course is to give a general overview of larviculture, focusing on the necessity to produce live food. The different aquatic invertebrates that can be used as live food are highlighted, including their natural availability, general characteristics, culture techniques and fields of application in larviculture of mainly marine fish. The theoretical knowledge is put into practice by various practical classes.

Inhoud

1. Introduction to larviculture as a whole with focus on marine fish species: principles, techniques, successes and bottlenecks, perspectives, crucial role of live food
2. Artemia biology, ecology and taxonomy and strain study; production of cysts and biomass; Artemia applications in aquaculture
3. Production techniques and applications of rotifers and other zooplankton organisms
4. Larviculture of marine fish species: general feeding strategies and zootechnical aspects of coldwater and tropical species
5. Larviculture and live feed production practical classes with *Clarias* as example

Begincompetenties

General biology, chemistry, biochemistry and basic knowledge on aquaculture.

Eindcompetenties

- 1 The students has knowledge on general principles of larviculture, such as techniques used, future perspectives, and especially crucial role of live food in larviculture.
- 2 The student has knowledge on various aspects of different live food organisms (rotifers, Artemia cysts and biomass, other zooplankton organisms) used in larviculture, such as their advantages and restrictions, availability, production techniques and fields of application.
- 3 The student has knowledge on various aspects (such as nutritional and zootechnical) of larviculture of marine fish species.
- 4 The student is able to apply practical techniques related to use of Artemia in larviculture (such as cyst decapsulation, nauplius enrichment, cyst quality control)

and can report about them.

5 The student is able to run rotifer batch culture and has insight into rotifer recirculation production systems, and can report about this.

6 The student is able to run larval fish culture tests, including aspects such as supply of artificial and live food (calculation of needed amounts of artificial and live food), zootechnical aspects including maintenance of recirculation system, analysis of parameters related to fish larval growth); and is able to report about this in a written report in the format of a scientific paper.

Creditcontractvoorwaarde

Toelating tot dit opleidingsonderdeel via creditcontract is mogelijk mits gunstige beoordeling van de competenties

Examencontractvoorwaarde

Dit opleidingsonderdeel kan niet via examencontract gevolgd worden

Didactische werkvormen

Begeleide zelfstudie, hoorcollege, practicum

Toelichtingen bij de didactische werkvormen

Theory lectures: lectures based on powerpoint presentations.

Practical classes: *Clarias* feeding experiment, rotifer culture (feeding, density measurement, egg ration, harvesting), Artemia culture (cyst decapsulation, nauplius enrichment, cyst processing, cyst quality control (hatching, biometrics, water content).

Leermateriaal

Printouts of the powerpoint presentation will be available during all classes.

Estimated cost of the printouts: 20 euro (included in fee that is paid in the beginning of the academical year).

Referenties

Manual on the production and use of live food for aquaculture, FAO fisheries technical paper no 361

Vakinhoudelijke studiebegeleiding

Study guidance upon request by email or on appointment.

Evaluatiemomenten

periodegebonden en niet-periodegebonden evaluatie

Evaluatievormen bij periodegebonden evaluatie in de eerste examenperiode

Schriftelijk examen

Evaluatievormen bij periodegebonden evaluatie in de tweede examenperiode

Schriftelijk examen

Evaluatievormen bij niet-periodegebonden evaluatie

Participatie, verslag

Tweede examenkans in geval van niet-periodegebonden evaluatie

Examen in de tweede examenperiode is mogelijk

Toelichtingen bij de evaluatievormen

Period aligned evaluation: theory: written closed book exam.

Non-period aligned evaluation: practical classes: participation and report.

Eindscoreberekening

Out of 20:

16 points attributed to written exam

4 points attributed to report on practical classes

Students that do not attend practical classes without a valid reason, should retake the course the next academic year.

Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examiner.