

Principles of Marine Fish Larviculture (I002854)

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

Cursusomvang	<i>(nominale waarden; effectieve waarden kunnen verschillen per opleiding)</i>		
Studiepunten	3.0	Studietijd	90 u
		Contacturen	30.0 u
Aanbodsessies in academiejaar 2022-2023			
A (semester 1)	Engels	Gent	

Lesgevers in academiejaar 2022-2023

Van Stappen, Gilbert	LA22	Verantwoordelijk lesgever
Bossier, Peter	LA22	Medelesgever

Aangeboden in onderstaande opleidingen in 2022-2023

	stptn	aanbodsessie
International Master of Science in Health Management in Aquaculture	3	A
Master of Science in Aquaculture	3	A
Uitwisselingsprogramma bio-ingenieurswetenschappen: landbouwkunde (niveau master-na-bachelor)	3	A

Onderwijstalen

Engels

Trefwoorden

Hatchery, fish larva, live food, larval nutrition, microdiet

Situering

The aim of this course is to give a general overview and principles of marine fish larviculture, focusing on nutritional and zootechnical aspects. Firstly, larval nutritional requirements in general are addressed. 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. Also developments in the field of microdiets are explained

Inhoud

1. Introduction to marine fish species larviculture: principles, techniques, past and present successes and bottlenecks, perspectives and current developments with focus on nutrition; crucial role of live food
2. Artemia biology, ecology and taxonomy and strain study; production of cysts and biomass; commercial aspects and quality control; 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

Begincompetenties

General biology, chemistry, biochemistry

Eindcompetenties

- 1 The student has general knowledge on general principles of marine fish larviculture, such as techniques used, current developments and future perspectives
- 2 The student has in-depth knowledge on the nutritional aspects of marine fish larviculture: nutritional requirements; feeding behaviour; live food versus artificial diets
- 3 The student has detailed knowledge on various aspects of different live food organisms (rotifers, Artemia, other zooplankton organisms) used in larviculture, such as their

- advantages and restrictions, availability, production techniques and fields of application.
4 The student has general knowledge on Artemia biology, ecology and taxonomy

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

Hoorcollege

Toelichtingen bij de didactische werkvormen

Theoretical lectures based on power point presentations and with plenary exercises, followed by discussion rounds.

Leermateriaal

Printouts of the powerpoint presentation are available during all classes.

Estimated cost of the printouts: 10 euro (included in fee that is paid in the beginning of the academic year).

Pdf of the lectures and video clips of specific lecture contents are available through Ufora

Referenties

- *Manual on the Production and Use of Live Food for Aquaculture. FAO Fisheries Technical Paper no 361*
- *K. Hamre, M. Yúfera, I. Rønnestad, C. Boglione, L. Conceição, M. Izquierdo. 2013. Fish larval nutrition and feed formulation: knowledge gaps and bottlenecks for advances in larval rearing. Reviews in Aquaculture*
<https://doi.org/10.1111/j.1753-5131.2012.01086.x>
- *L. Conceição, M. Yúfera, P. Makridis, S. Morais, M.T. Dinis. 2010. Live feeds for early stages of fish rearing*
<https://doi.org/10.1111/j.1365-2109.2009.02242.x>

Vakinhoudelijke studiebegeleiding

Study guidance upon request by email or on appointment

Evaluatiemomenten

niet-periodegebonden evaluatie

Evaluatievormen bij periodegebonden evaluatie in de eerste examenperiode

Evaluatievormen bij periodegebonden evaluatie in de tweede examenperiode

Evaluatievormen bij niet-periodegebonden evaluatie

Schriftelijk examen

Tweede examenkans in geval van niet-periodegebonden evaluatie

Examen in de tweede examenperiode is mogelijk

Toelichtingen bij de evaluatievormen

Previously announced written tests on specific parts of the course, spread throughout the semester. Second-chance by one single exam

Eindscoreberekening

All questions asked over the successive tests contribute evenly to the total end score.

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