

## Principles of Marine Fish Larviculture (I002854)

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

**Studiepunten 3.0** **Studietijd 90 u**

**Aanbodsessies in academiejaar 2024-2025**

**Lesgevers in academiejaar 2024-2025**

**Aangeboden in onderstaande opleidingen in 2024-2025**

**stptn**

**aanbodsessie**

### 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.*

### **Studiemateriaal**

Geen

### **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**

Schriftelijke evaluatie

### **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.*