

Practical training for DR443F, Principles in Animal Experimentation

(EU Functions: A - carrying out procedures on animals, B - designing procedures and projects and D - killing animals)

Species/Group of species: Fish

Module: Basic and appropriate biology of fish – minimally invasive procedures with and without anaesthesia.

Learning outcomes

Upon completion of the practical training, the participant should:

- Know the safety measures in fish rearing facilities.
- Know the daily routines in fish rearing facilities (e.g. cleaning, sanitation, feeding, observation and registering of observations).
- Recognize normal and abnormal behavior of the most commonly fish species used in research.
- Know how to handle, collect, tag and anaesthetize fish (know the most commonly used anaesthetics, calculation of doses and method of application).
- Know how to weigh and calculate the basic morphometric indices in fish.
- Know how to collect blood in a proper manner.
- Know how to deliver substances to fish by injection and intubation.
- Know how to dissect and collect samples from dead fish.

Name of candidate:	
E-mail address:	
Person responsible for the practical training	
E-mail address:	
Place of training:	Mørkvedbukta Research Station, NORD University, Bodø
Date:	
Fish species involved in the practical training:	

Assignment 1. General housing and care of fish		
Species:		
Task	Demonstrated	Name of trainer
Daily routines and registering records	X	
Safety rules in fish research facilities	X	
Sanitary procedures	X	
Observation of normal behavior and registering observations	X	
Total assessment (Passed Yes – No)		

Assignment 2. Anaesthesia			
Species:			
Task	Demonstrated	Performed	Name of trainer
Preparation of workplace	X	X	
Preparation of appropriate solutions	X	X	
Safe handling of substances	X	X	
Preparation of additional equipment/tanks	X	X	
Handling of fish in a proper manner	X	X	
Recognition of the different stages of anaesthesia.	X	X	
Assessment of induction and recover time	X	X	
Recognition of abnormal behavior and emergency measures	X	X	
Total assessment (Passed Yes – No)			

Assignment 3. Tagging			
Species:			
Task	Demonstrated	Performed	Name of trainer
Preparation of workplace and appropriate equipment	X	X	
Safe handling of fish	X	X	
Proper use of tools	X	X	
Total assessment (Passed Yes – No)			

Assignment 4. Collection of blood			
Species:			
Task	Demonstrated	Performed	Name of trainer
Preparation of workplace and use of appropriate equipment (syringes and needles)	X	X	
Safe handling of fish	X	X	
Knowledge of maximum volumes of blood samples, according to species and size	X	X	
Collection of blood for different purposes	X	X	
Total assessment (Passed Yes – No)			

Assignment 5. Injection of substances			
Species:			
Task	Demonstrated	Performed	Name of trainer
Preparation of workplace and use of appropriate equipment.	X	X	
Safe handling of fish	X	X	
Proper use of equipment (syringes and needles)	X	X	
Calculation of desired concentrations	X	X	
Knowledge of maximum volumes of substances that can be injected	X	X	
Total assessment (Passed Yes – No)			

Assignment 6. Intubation			
Species:			
Task	Demonstrated	Performed	Name of trainer
Preparation of workplace and use of appropriate equipment.	X	X	
Safe handling of fish	X	X	
Proper use of equipment (syringes and catheters)	X	X	
Calculation of desired concentrations	X	X	
Knowledge of maximum volumes of substances that can be injected	X	X	
Total assessment (Passed Yes – No)			

Assignment 7. Weighing and somatometric measurements			
Species:			
Task	Demonstrated	Performed	Name of trainer
Preparation of workplace and use of appropriate equipment	X	X	
Safe handling of fish	X	X	
Assessment of the main somatometric indices - condition factor	X	X	
Total assessment (Passed Yes – No)			

Assignment 8. Dissection and collection of samples			
Species:			
Task	Demonstrated	Performed	Name of trainer
Use of proper techniques for euthanasia in fish	X	X	
Preparation of workplace and use of appropriate equipment	X	X	
Recognition of normal appearance and abnormal appearance of the various organs	X	X	
Collection of fresh preparations for parasitological examination	X	X	
Collection of tissues for histological examination	X	X	
Collection of tissues for other analyses	X	X	
Total assessment (Passed Yes – No)			

Written report from the practical training	
Submitted:	

Responsible for the practical training

Course coordinator

Ioannis Vatsos