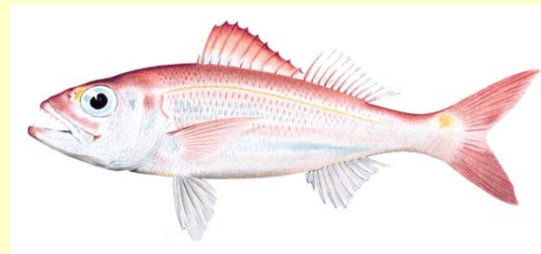
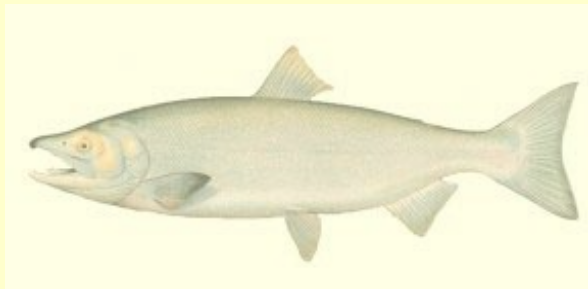


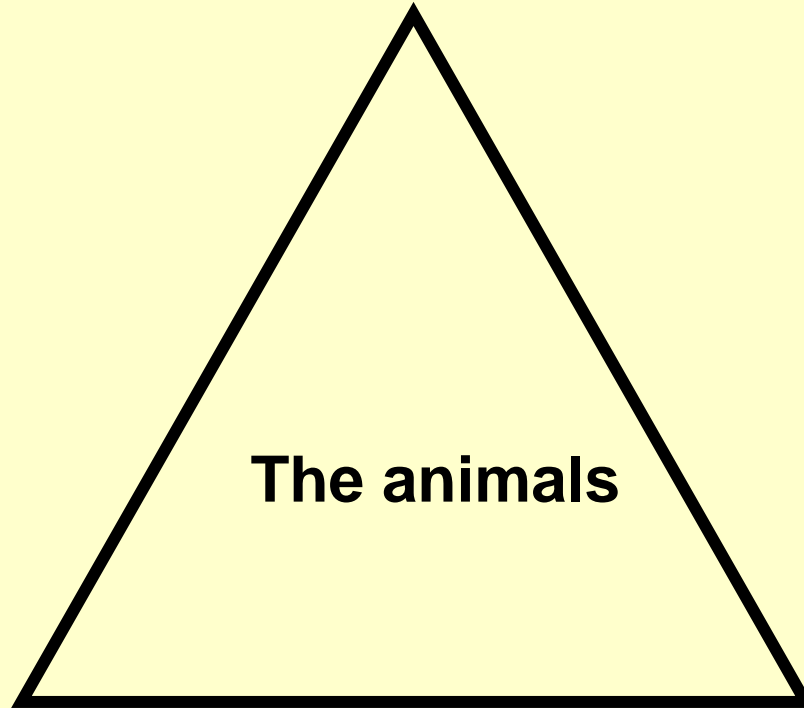


The challenge of FELASA accredited courses in laboratory animal science for fish researchers





Scientific

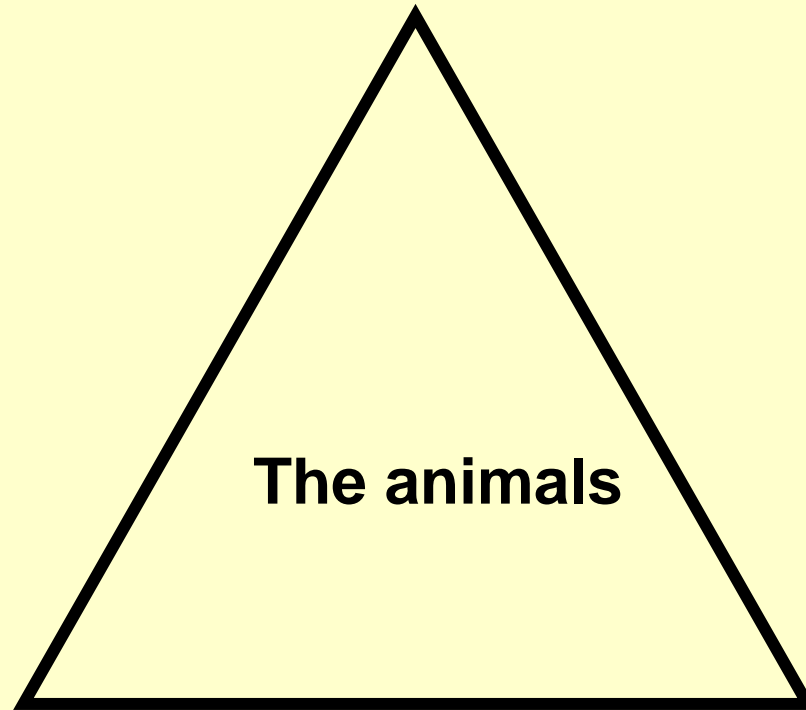


Legal

Ethically acceptable



Animal Department Head



Researchers

Technicians


*The European Convention and
EU directive demand
appropriate teaching and
practical training (documented
competence)*



*FELASA:
Federation of European
Laboratory Animal Associations*

 www.felasa.org

+ a lot of information on the *Laboratory Animals* website:

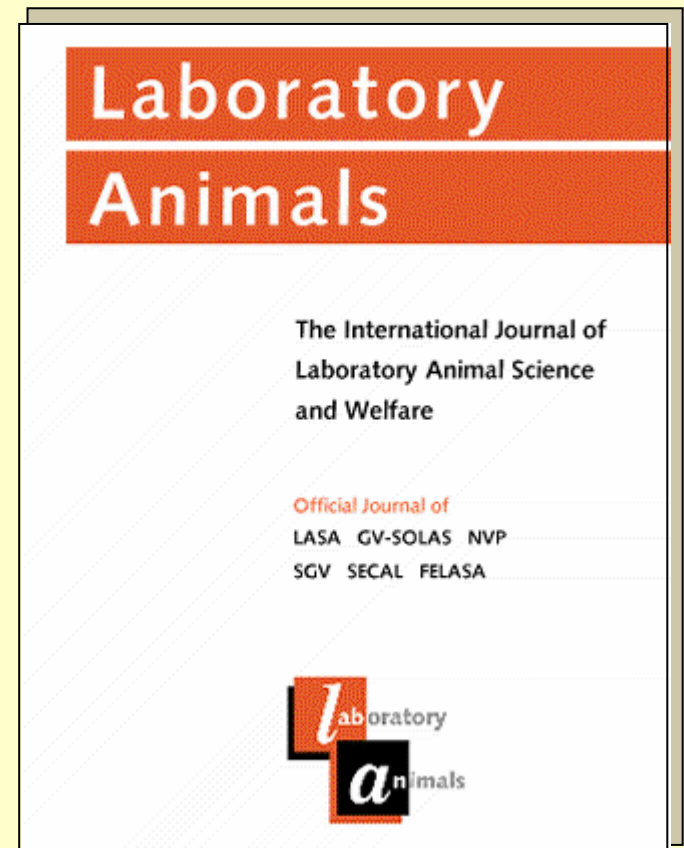
 www.lal.org.uk

FELASA's members are independent European national and regional laboratory animal science associations

- AFSTAL - Association Française des Sciences et Techniques de l'Animal de Laboratoire
- AISAL - Associazione Italiana per Scienze degli Animali da Laboratorio
- Balt-LASA - Baltic Laboratory Animal Science Association
- BCLAS - Belgian Council for Laboratory Animal Science
- CLASA - Czech Laboratory Animal Science Association
- GV-SOLAS - Gesellschaft für Versuchstierkunde - Society for Laboratory Animal Science
- HSBLAS - Hellenic Society of Biomedical and Laboratory Animal Science
- LASA - Laboratory Animal Science Association
- NVP - Nederlandse Vereniging voor Proefdierkunde
- Scand-LAS - Scandinavian Society for Laboratory Animal Science
- SECAL - Sociedad Española para las Ciencias del Animal de Laboratorio
- SGV - Schweizerische Gesellschaft für Versuchstierkunde



FELASA's (and therefore our) journal





FELASA

- Composed of independent European national and regional laboratory animal science associations, established by them in 1978. It can speak for laboratory animal scientists and technologists in at least twenty European countries. It is managed solely by representatives of its constituent associations in those countries.
- Triennial international scientific meetings. It co-ordinates the development of education and training for those engaged in the provision or use of laboratory animals, animal health monitoring and other topics by meetings, study groups and publications.



FELASAs categories:

A1-4: persons taking care of animals
(junior and senior animal technicians)

B: persons carrying out experiments
(research technicians): 40 hours

C: persons responsible for directing
animal experiments (researchers &
competent persons): 80 hours

D: lab animal specialists: 2 years' training
(master degree or equivalent)



Progression in category A:

A1: "Off the street, on the job" *

A2: A1 + at least 2 years' experience/training

A3: A2 + at least 3 years' experience/training

A4: technicians with specialist training
or large responsibilities (can overlap
with category D = 2 years' training

* approx. 1 year's practice +/- theoretical courses to be approved



FELASAs category B:

40 hours of training

Half theory, half practice

Limited to procedures that are totally necessary for the person's work.



FELASAs category C:

- The category that has gained most acceptance
- 80 hours of training
- Very detailed curriculum available
- Problems with documenting practical skills (competence)



FELASAs guidelines

www.felasa.org

(A,C) Lab.Anim. 29: 121-131, 1995

(B) Lab.Anim. 34: 229-235, 2000

(D) Lab.Anim. 33: 1-15, 1999

Written by 3 working groups with different members

Only 1 person sat in all three groups

There are a number of areas where FELASA's guidelines are unclear:

- 1. Does category B competence automatically give competence in A, and if so at what level?***
- 2. Do we agree on what competence is?***
- 3. What are the best procedures?***
- 4. How should the practical training be organised?***

FELASA has started a system for accrediting courses

Situation in the U.K.

A module system:

- 1. Introduction, ethics, legislation**
- 2. Welfare, handling, killing, health and safety**
- 3. Species-specific information (biology, care, diseases, anaesthesia, simple techniques)**
- 4. Species-specific information on surgery & anaesthesia**
- 5. Information for project leaders (paperwork, design, literature, alternatives)**
- 6. Courses for named veterinarians**

Situation in the U.k.

Two accreditation bodies:

- ⊕ They approve suggestions for courses but have no hard rules on how long these courses should be
- ⊕ **Typical courses are:**
 - ⊕ **Module 1 + 2: 1 day**
 - ⊕ **Module 3: 1 day**
 - ⊕ **Module 4: 0,5 - 1 day**
 - ⊕ **Module 5: 0,5 - 2 days**
 - ⊕ **Module 6: 2 days**

Situation in the U.K.

A: It is expected that at technicians take modules 1-4, depending upon their areas of responsibility (i.e. 4-5 days)

B: It is expected that research technicians take modules 1-3 (i.e. approx. 2 days)

NACWOs (Named Animal Care and Welfare Officers):

specific modules for these are being developed

The situation in the UK

- ❖ **Personal licences for (very!) specific techniques**
- ❖ **Evaluation of competence is up to the local place of work**
- ❖ **Documentation of competence can therefore vary greatly from place to place**
- ❖ **No live animals are used by participants on training courses (except in microsurgery)**

Situation in the Netherlands

Technicians defined as:

- ✿ **Animal caretakers**
- ✿ **Animal technicians**

Animal caretakers:

**1,5 year course, 13 weeks of lab animal science
and 21 weeks on the job training**

Animal technicians:

**3 year course, 26 weeks of lab animal science
and 42 weeks on the job training**

Certificate of competence...?



	Dog	Rat	Guinea-pig	Rabbit	Salmon	Turbot	Zebra-fish
Care	XX			X			
s.c.			<i>Nils Normann</i> XX				
i.p.							
i.m.							

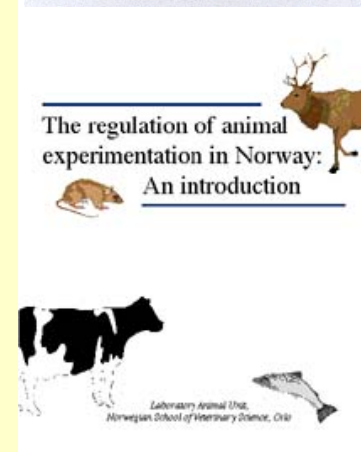
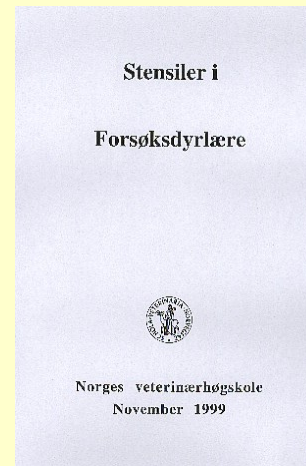
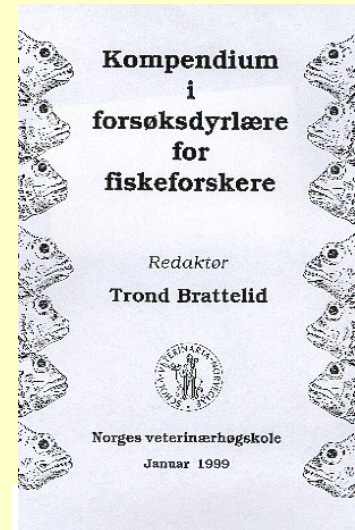
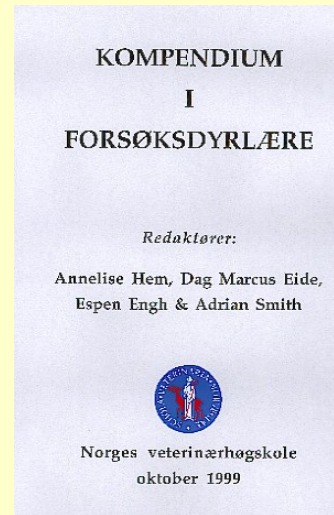
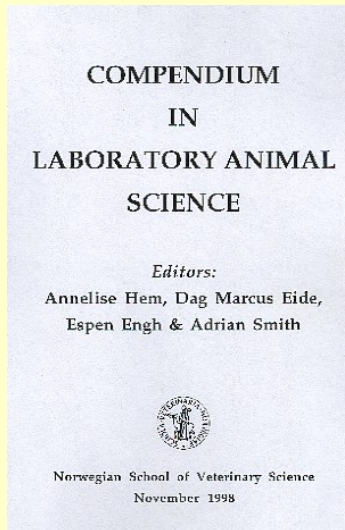
X: seen the procedure performed

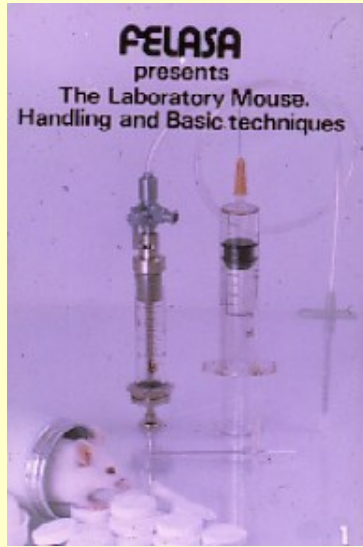
XX: has performed the procedure (at least once)

Signature: competent to perform the procedure alone



Written information (static)

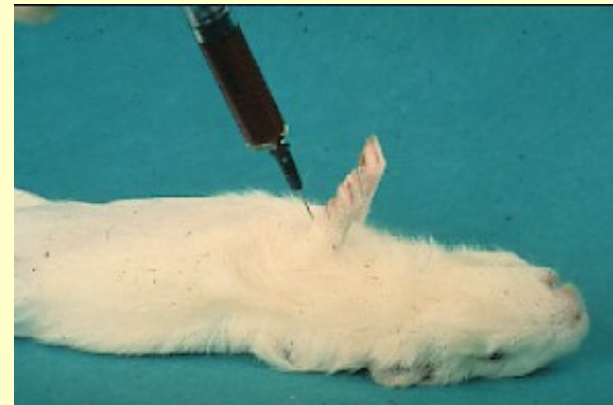




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DYREFORSØK I NORGE

Denne video er laget for å gi informasjon om moderne dyreforsøk i Norge. I Del 1 følger vi to ungdomsskole-elever rundt Veterinærhøgskolens dyrevædding. Del 2 stiller en rekke spørsmål om våre holdninger både til dyreforsøk og dyr i sin alminnelighet. Disse spørsmålene, og flere tanker omkring emnet, er gjengitt i diskusjonsheftet som følger filmen.

Englig ansvarlig: Adrian Smith
Kommentarer: Annelise Hem
Produksjon: Natur
Copyright: Norges veterinærhøgskole

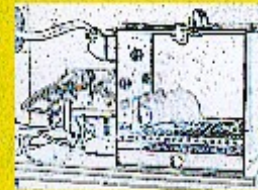
Spilletid: Del 1: 7 min. 30 sek.
Del 2: 6 min.

DYREFORSØK I NORGE



DYREFORSØK I NORGE

Del 1: Omvisning på forsøksdyrevæddingen,
Norges veterinærhøgskole
Del 2: Repetisjon med spørsmål for diskusjon



Necropsy procedures for small laboratory animals

It is of great importance to maintain laboratory animals in good health.
In 1994 the Federation of European Laboratory Animal Science Associations (FELASA) published the first in a series of guidelines for the health monitoring of laboratory animals. These guidelines included suggestions for a necropsy examination.

This video demonstrates the procedures necessary to perform a FELASA-style necropsy of small laboratory animals.

Filmed at The Microbiology Laboratories (Senklunch) and the Norwegian School of Veterinary Science, Oslo.

Scientific content and commentary: Jeffrey R. Neelham

Text: Jeffrey R. Neelham
Karin W. Prestrud

Production: Natur

Copyright © The Norwegian School of Veterinary Science 2000

Running time: Approx 22 mins

Necropsy procedures for small laboratory animals



Necropsy procedures for small laboratory animals





Distance-learning:

- Videoconferences
- Internet-based (www, email)
- Short courses where all meet





Published *standards are useful*

- ❁ “Good Practice”
- ❁ “High standards”
- ❁ “Best Practice”
- ❁ These phrases are commonly used, but without any definition of what standards may have been achieved

WORKING PARTY REPORT

Refining procedures for the administration of substances

Report of the BVAAWF/FRAME/RSPCA/UFaw Joint Working Group on Refinement

Members of the Joint Working Group on Refinement: D. B. Morton (Chairman), M. Jennings (Secretary), A. Buckwell, R. Ewbank, C. Godfrey, B. Holgate, I. Inglis, R. James, C. Page, I. Sharman, R. Verschoye, L. Westall & A. B. Wilson

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Come correspondence and requests for reprints to: Professor D. B. Morton, Department of Biomedical Sciences & Biomedical Ethics, The Medical School, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

Accepted 14 July 2000

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*Guidelines for reporting the
results of experiments on fish
Lab. Anim., 2000, 34: 131-5*

*Guidelines for health monitoring
In preparation....!*





Challenges as researchers see it:

- *The fish themselves*
 - Better standardisation
 - Better availability of good models, e.g. zebrafish
 - More use of purpose-bred animals
 - Availability of non-vaccinated, healthy fish
- *Standardisation of external factors*
 - Transport
 - Water quality
 - Environment
 - Sampling methods
- *Three R's*
 - Increased use of statisticians & pilot studies
 - Better limits for environmental factors (e.g. stocking density, water quality, feeding regime)
 - Pain control
 - More research on handling techniques, analgesics & anaesthetics, humane killing
 - Humane endpoints



Many lectures in traditional lab animal science (for caged rodents) appear irrelevant

More hands-on work is expected by fish researchers



LTS
to the
ian Sea

TS
o
igin to spawn

*What is an experimental animal
(i.e. that demands trained personnel)?*

Eggs

larvae →

(live feed e.g. microplankton / invertebrates)

fingerlings/juveniles (will eat processed food)

Both carry a yolk sac but are 'free-living vertebrates'

Natural mortality:

One experiment may involve groups of 500,000 individuals,
3-4 million in one study.

As few as 0.001% of these may survive to maturity...



Resistance to mandatory courses

**I am always willing to learn, but I
don't always like being taught...**

Winston Churchill