View from the East Coast - UPEI/Atlantic Veterinary College

- Jonathan Spears
  - University Veterinarian UPEI/AVC
  - Assistant Professor - Biomedical Sciences
  - Clinical Laboratory Animal Veterinarian
  - Attending Veterinarian for NBCC
  - Aquaculture Technician Program
  - Consulting Veterinarian for DFO
    - Biosafety Level 3 Aquatic Facility in Charlottetown
  - Previous Life as Aquaculture Veterinarian
    - Bay of Fundy NB
Atlantic Veterinary College

- Heavily centered on Aquatic Animal Health
- Particularly Aquaculture related research
- Clinically Oriented
Problem #1- Training in Aquatic Species

- Problems
  - Difficulty finding appropriate material
    - Usually as requested by CCAC
  - “The Experimental Fish” – dated
    - History of some Problems with CLLL at UPEI
  - Appropriate to species and activities of the institution
  - Funds for large courses
Training in Aquatics

- Agree with Dr. Moon
  - Faculty involvement for training ACC and Staff

- Canadian Aquaculture Institute
  - Short Modular Courses
    - 2 day, building on previous knowledge and experience
    - Currently 2 modules:
      - Basic Husbandry and Health
      - Advanced Medicine and Experimental methods
      - [http://lifelonglearning.upei.ca/cai](http://lifelonglearning.upei.ca/cai)

- The Experimental Fish
  - Being revamped by
    - CAI
Problem #2 – Design and Biosafety

- AVC Currently Finalizing a Biosafety Level 2 Aquatics Facility
  - Aquatic Biosafety Guidelines
    - Light on Specific recommendations
  - Certification Process
    - Slow for us
      - Multiple Site Visits

- Design - Appropriate experience invaluable
  - Right people involved in the design
  - Budget appropriately
Recommendations

- Ensure University Biosafety Officer is well versed in Aquatic Biosafety Guidelines and Regulations
  - Channel communications through this person or group

- All Design, Contracting and Validating Phases:
  - Appropriate Involvement of Technical Staff and Faculty
  - AVC made mistakes
Problem #3- Animal Acquisition

- Common PI request:
  - We have a source of fish “This Week Only!”
  - But project *might* start sometime in the summer
    - Waiting ACC approval
    - Waiting funding etc.
Solutions?

- Set up holding protocols for ACC
  - Animals acquired but “owned” by the facility until ACC approvals etc. are satisfied

- Ensure back-up protocols
  - Teaching protocols have constant demand
  - But still risk involved
    - What will you do with 1000 salmon?
Problem #4 ACC inexperience with fish

- Representation for aquatic species on our ACC - Vital!
  - Assist with questions of what is normal for fish related research?
    - Numbers – often 1000’s of fish
    - Industry standards- Ex. Stunning and bleeding of fish in clinical field research
    - What are endpoints for fish? – When is a moribund state really reached?
- Opposite- Why should we care about fish when we are also considering invasive dog protocols in same meeting?
Solutions?

- **Training**

- PI’s provide photographic and video footage
  - Especially of Clinical field research
    - Ex. Harvest

- **Endpoints-**
  - Describe appropriate criteria
  - ACC driven SOP’s (euthanasia and anesthesia/analgesia)

- **Stack the ACC**
  - Aquatic Facility Managers on ACC
Problem #5 – Clinical Record Keeping

- Monitoring of Animals and Studies
- Herd Health Approach
Solutions?

- Clarify Roles:
  - Facility Staff
    - Clear authority
  - Investigator staff
- Clear Facility SOP’s
  - Everyone Adheres
- Agreements and Working Summaries
  - Delineates roles and responsibilities
Finally- Alternatives

- We are trying to promote a shift in aquatic related research towards invertebrates
  - Tunicates, Lobster, Crab
Discussion!

- Other experiences
- Other issues