

AQUAVET®



A PROGRAM IN AQUATIC  
VETERINARY MEDICINE

[www.aquavet.org](http://www.aquavet.org)

## 2024 Schedule for AQUAVET® I

### Locations:

Marine and Natural Sciences Building = MNS  
Lecture rooms: MNS 200, MNS 210, MNS 213  
Labs: MNS 103

### Monday, 27. May 2024 – Memorial Day

11:00–12:30 Registration – Check-In  
Bayside  
Apartments

13:00 Orientation  
MNS 200 Dr. Donald W. Stremme – Cornell University  
AQUAVET® Director

14:00 RWU Required Safety Lecture  
MNS 200 Caitlin Conley

15:00 History of AQUAVET®  
MNS 200 Dr. Laurie Landeau – Marinetics, Inc.  
AQUAVET® Associate Director

16:00 An Overview of the Primary Marine Invertebrate Phyla we are Likely to  
MNS 210 Encounter  
Dr. Robert Maze – Marinetics, Inc.  
AQUAVET® Associate Director

18:30 **Welcome to AQUAVET Party**  
Dorm Courtyard Area (weather permitting)

### Tuesday, 28. May 2024

8:00 Anatomy of Bilvalvia, Crustaceans, Cephalopoda and Echinodermata as  
MNS 210 they Pertain to our Lab  
Dr. Maze

10:00 Marine Metazoan Parasites and an Introduction to Public Health Issues  
MNS 210 (e.g. Anisakiasis), those Parasites likely to be seen in AQUAVET (a  
plethora, including those of Limulus, Dorytheuthus and in our Marine  
Mammals labs) and have been researched by AQUAVET students in the  
past  
Dr. Maze

## 2024 Schedule for AQUAVET® I and AQUAVET® II

13:00 MNS 210	Important Diseases of Marine Invertebrates Dr. Roxanna Smolowitz – Roger Williams University
15:00 MNS 210	History of Fishes: Taxonomy from an Evolutionary and Ecological Perspective Dr. Roy Yanong – U FL – Tropical Aquaculture Laboratory
18:30 MNS 210	History of Fishes: Taxonomy from an Evolutionary and Ecological Perspective (continued) Dr. Roy Yanong

**Wednesday, 29. May 2024**

8:00 leave from MSN 103	<b>Rocky Intertidal Invertebrate Collecting</b> <b>LOW TIDE 9:41</b> (dress appropriately – will be outside and in water)
10:00 MNS 103	<b>Invertebrates – WET LAB – (need dissection kit, lab coats)</b> Dr. Maze
13:00 MNS 103	<b>Invertebrates – WET LAB – (need dissection kit, lab coats)</b> Dr. Maze Dr. Jennifer Dill – Regeneron
18:30 MNS 103	<b>Invertebrates – WET LAB – (continued)</b> Drs. Dill and Maze
20:30 MNS 210	AQUAVET® I T-shirt LOGO contest Dr. Landeau

**Thursday, 30. May 2024**

8:00 MNS 103	<b>Invertebrates – WET LAB – (continued)</b> Drs. Dill and Maze Dr. Alisa Newton –OCEARCH – ZooQuatic Laboratory
10:00 MNS 210	Fish Anatomy – Structure and Function Dr. Yanong
13:00 MNS 210	Fish Anatomy – Structure and Function (continued) Dr. Yanong
15:00 MNS 210	Fish Physiology Dr. Lysa Posner – NC State University

## 2024 Schedule for AQUAVET® I and AQUAVET® II

18:30 Fish Physiology (continued)  
MNS 210 Dr. Posner

**Friday, 31. May 2024**

8:00 **Fish Diagnostics and Techniques LAB**  
MNS 103 (need dissection kit, lab coats)  
Drs. Yanong, Getchell, Dill, Newton

9:30 **Fish Anatomy – Structure and Function WET LAB**  
MNS 103 (need dissection kit, lab coats)  
Drs. Yanong, Getchell, Dill, Newton

13:00 Fish Physiology (continued)  
MNS 210 Dr. Posner

15:00 Using Aquatic Animals in Research and the Role of IACUC  
**MNS 200** Dr. Lisa Abbo – Marine Biological Laboratory

18:30 Life Cycles of Aquarium Raised Fish  
MNS 210 Dr. Andy Rhyne – Roger Williams University

**Saturday, 1. June 2024**

8:00 Regulations in Aquaculture  
MNS 210 Dr. Michele Walsh– USDA APHIS Veterinary Services

9:00 Student Seminars (Cornell today)  
MNS 210 **1 Grace Gonzalez** – Culturing One Health in Aquaculture  
**2 Daniel Kasin** – Reproduction in North Atlantic White Sharks

10:00 **Microbiology Lab Set Up (lab coats and dissection kits)**  
MNS 103 Dr. Lester Khoo – Mississippi State University  
AQUAVET® Director Emeritus

13:00 Aquatic Immunity  
MNS 210 Dr. Erin Bromage – University of Massachusetts Dartmouth

18:30 Water Quality  
MNS 210 Dr. Laurie Landeau – Marinetics, Inc.  
AQUAVET® Associate Director

## 2024 Schedule for AQUAVET® I and AQUAVET® II

**Sunday, 2. June 2024**

- 8:00 Selected Bacterial and Viral Pathogens of Fishes  
MNS 210 Dr. Lester Khoo
- 10:00 **Microbiology – Specimen Necropsy (lab coats and dissection kits)**  
MNS 103 Dr. Khoo
- 13:00 Oyster Culture, Environment, Disease and Nutrition  
MNS 210 Dr. Maze
- 15:00 Elasmobranchs – VIRTUAL  
Virtual Dr. Frasca and Newton
- 19:00 **AQUAVET® Joint Class Picnic**  
courtyard

**Monday, 3. June 2024 – OFF**

- Morning **OPTIONAL Whale Watch**  
Barnstable, MA

**Tuesday, 4. June 2024**

- 8:00 **Selected Bacterial and Viral Pathogens of Fishes**  
MNS 103 **Micro Lab (lab coats and dissection kits)**  
Dr. Khoo
- 10:00 **Water Quality Lab (half of the class)**  
MNS 103 Dr. Landeau
- 10:00 Life Cycles of Aquarium Raised Fish – facilities visit (other half of class)  
MNS 210 Dr. Andy Rhyne – Roger Williams University
- 13:00 **Water Quality Lab (repeat – other ½ of class)**  
MNS 103 Dr. Landeau
- 13:00 Life Cycles of Aquarium Raised Fish – facilities visit (repeat)  
MNS 210 Dr. Rhyne
- 15:00 Normal Fish Histology  
MNS 210 Dr. Sal Frasca – ZooQuatic, LLC
- 18:30 **Normal Fish Histology – Microscope Lab**  
MNS 103 Dr. Frasca  
Dr. Emily Reinhardt – University of Connecticut

## 2024 Schedule for AQUAVET® I and AQUAVET® II

**Wednesday, 5. June 2024**

- 8:00 Pathology and Histopathology of Fish  
MNS 210 Dr. Frasca
- 11:00 **Pathology and Histopathology of Fish – Microscope Lab**  
MNS 103 Drs. Frasca and Reinhardt
- 13:00 **Pathology and Histopathology of Fish – Microscope Lab (cont)**  
MNS 103 Drs. Frasca and Reinhardt
- 14:30 Student Seminars (Cornell today)  
MNS 210  
**3 Samantha Bloom** – The Demographics and Seasonality of Green Sea Turtle Strandings with Recreational Fishing Gear Interactions on Maui, Hawaii  
**4 Katie Broikos** – Pain Management in Turtles  
**5 Alexis Carroll** – The 2013 Sea Star Wasting Disease Outbreak  
**6 Alyssa Miguez** – Unexpected Role of Males in Seahorse and Angler Fish Reproduction  
**7 Zihan Li** – Tire Mire: Understanding 6PPD–quinone Toxicity in Fish Using Ultrasound
- 18:30 Introduction to Fish Hematology  
MNS 210/103 Jill Arnold – Zooquatic Lab
- 19:30 **Fish Hematology – Microscope Lab**  
MNS 103 Jill Arnold

**Thursday, 6. June 2024**

- 8:00 Disease Investigations and Case Reports for Coldwater Fishes  
MNS 210 Dr. Lovy – USGS Western Fisheries Research Center
- 9:00 Environmental/Nutritional Disease of Coldwater Fishes  
MNS 210 Dr. Lovy
- 10:00 Amphibians!  
MNS 210 Dr. Kathy Tuxbury – New England Aquarium
- 13:00 Viral Diseases of Coldwater Fishes  
MNS 210 Dr. Tom Loch – MSU-AAHL, Colleges of Agriculture & Natural Resources and Veterinary Medicine
- 15:00 Parasitic and Fungal Diseases of Coldwater Fishes  
MNS 210 Dr. Lovy

## 2024 Schedule for AQUAVET® I and AQUAVET® II

18:30            Seafood Safety – The Risks of Eating Raw Seafood  
MNS 210            Dr. Maze

**Friday, 7. June 2024**

8:00            What is Unique about Eye Structure and Sight: From A (Avian)  
MNS 210            to Z (Zalophus or Zebrafish)  
                         Dr. Carmen Colitz – Aquatic Animal Eye Care, LLC

11:00            Marine Mammal Anaesthesia – **VIRTUAL**  
MNS 210            Dr. James Bailey – National Marine Mammal Foundation

13:00            Diseases of Warmwater Aquaculture Fishes – Infectious Diseases (con't)  
MNS 210            Dr. Jack

15:00            Diseases of Warmwater Aquaculture Fishes – Non-Infectious Diseases  
MNS 210            Dr. Jack

18:30            Culture and Health Concerns of Baitfish and Hybrid Striped Bass  
MNS 210            Dr. Jack

**Saturday, 8. June 2024**

8:00            Fish Nutrition  
MNS 210            Dr. Allen Davis – Auburn University

10:00            Student Seminars  
MNS 210            **8 Sara Pratt** – Cancer in Sharks and the Shark Immune System  
                         **9 Isabelle Krupa** – The Anatomy and Physiology of the Nautilus

13:00            Student Seminars  
MNS 210            **10 Sophie Ramirez** – The Effect of Anthropogenic Sound on Marine  
                         Mammals  
                         **11 Abigail Flowers** – Communication in Bottlenose Dolphins  
                         **12 Darby Gielewski** – Vial Hemorrhagic Septicemia and How It Fits  
                         into Aquaculture Specifically in Newfoundland  
                         **13 Lauren Staiger** – Cuttlefish and Their Color Changing Physiology  
                         and Behaviors

15:00            Corals  
MNS 210            Dr. Ilze Berzins – One Water, One Health, LLC

18:30            Reptile Medicine  
MNS 210            Dr. Jessica Lovstad – Roger Williams Park Zoo

## 2024 Schedule for AQUAVET® I and AQUAVET® II

**Sunday, 9. June 2024**

8:00 Shrimp Industry  
MNS 210 Dr. Bob Bullis – Florida Keys Community College  
Dr. Arun Dhar – University of AZ, Aquatic Pathology Laboratory

13:00 Student Seminars  
MNS 210 **14 Courtney Buser – Manatee Watercraft Injuries**  
**15 Reagan Munday – The Greenland Shark as an Indicator Species**  
**16 Garrett Steinbronner –**

15:00 OFF

**Monday, 10. June 2024**

OPEN

**Tuesday, 11. June 2024**

8:00 Drugs used in Aquaculture – Regulations, labels, FDA, CVM and  
MNS 210 Medicated Feeds  
Dr. Emily Cornwell – Food and Drug Administration

10:00 Harmful Algal Blooms  
MNS 210 Dr. Chris Gobler – Stony Brook University

13:00 Medical Aspects of HABs – and Aquatic Toxicology – **VIRTUAL**  
MNS 210 Dr. Lisa Murphy – University of Pennsylvania

14:00 (Sea)food Safety – Emphasis on Toxins – **VIRTUAL**  
MNS 210 Dr. Murphy

15:00 Other Aspects of Aquatic Toxicology and Selected Cases – **VIRTUAL**  
MNS 210 Dr. Murphy

16:00 Student Seminars  
MNS 210 **17 Laura Wilson – Congenital Malformations in Sea Turtles**  
**18 Hannah Rogers – California Coast Climate Events: A Decade in Review**

18:30 Economic Considerations in the Development of Aquaculture Operations  
MNS 210 Dr. Landeau

## 2024 Schedule for AQUAVET® I and AQUAVET® II

**Wednesday, 12. June 2024**

Today is overnight trip to Riverhead, NY. Take what you will need with you.

- 8:00 Leave RWU for Mystic, CT
- 9:30 arrive at Mystic Aquarium
- 9:30 Mystic Aquarium Tour**  
**Dr. Allison Tuttle et al – Mystic Aquarium and Institute for Exploration**
- 15:00 Leave Mystic for New London – must arrive by 15:30
- 15:30 Arrive New London Ferry Terminal  
they require arrival 30 minutes ahead of departure
- 16:00** Ferry to Orient Point, NY
- 17:30 or so arrive Orient Point – drive to Riverhead, NY
- 18:30 arrive Riverhead, NY
- 18:30** Long Island Aquarium tour
- 19:30 Coral Biology, Husbandry and Propagation  
Joe Yaiullo – Atlantis Marine World
- 21:00 Dinner nearby – stay overnight at Hyatt (next to aquarium)

**Thursday, 13. June 2024**

- 6:30 Hyatt Hotel breakfast
- 7:30 pack, check out and load cars – save clean clothes for trip back
- 8:00 Aquarium Visit – Training Demo – Penguin Exams**  
Long Island Aquarium and  
Riverhead Foundation for Marine Research and Preservation  
**Dr. Robert Pisciotta**  
**Dr. Richard Hanusch**  
**Maggie Seiler**  
**Candyce Paparo**  
**Maxine Montello**
- 12:00 lunch on own



## 2024 Schedule for AQUAVET® I and AQUAVET® II

- 13:00 RFMRP – Clinical Techniques for Marine Mammals and Aquatic Animals –  
WET LAB – Bring Old Clothes or Clothing Covers  
Dr. Robert Pisciotta  
Dr. Richard Hanusch  
Maggie Seiler  
Candyce Paparo  
Maxine Montello
- By 16:30 Leave Riverhead for ferry  
17:30 arrive at Orient Point, NY  
**18:00** Ferry leaves for New London, CT  
19:20 arrive New London – Dinner somewhere – drive to campus

**Friday, 14. June 2024**

- 8:00 Overview of Pet Fish Medicine Including LSS and Water Quality  
MNS 210 Dr. Jessie Sanders – Aquatic Veterinary Services
- 10:00 Pet Fish Medicine – Common Diagnostic Techniques  
MNS 210 Dr. Sanders
- 11:00 Aquarium World Diagnostics and Selected Aquarium Cases  
MNS 210 Dr. Shane Boylan – Georgia Sea Turtle Center
- 12:30 Aquarium World Diagnostics and Selected Aquarium Cases (continued)  
MNS 210 Dr. Shane Boylan – Georgia Sea Turtle Center
- 13:00 Treatments for Fish Diseases in Warmwater Pet Fish: Goiter, Gas  
MNS 210 Saturation, Trauma, Infectious Diseases, etc.  
Dr. Boylan
- 15:00 Selection of Pet Fish Cases  
MNS 210 Dr. Geoffrey Grocock – Transit Animal Hospital
- 16:00 Selection of Pet Fish Cases (continued)  
MNS 210 Dr. Sanders
- 18:30 Fish Anaesthesia and Surgical Techniques  
MNS 210 Dr. Grocock

## 2024 Schedule for AQUAVET® I and AQUAVET® II

**Saturday, 15. June 2024**

- 8:00            **Fish Surgery Lab – HALF of CLASS**  
**MNS 103**        no special equipment needed by students  
                      wear scrubs or tshirt  
                      Drs. Grocock, Boylan and Sanders
- 8:00            **RWU Shellfish Facility Visit (half of the class)**  
 Meet MNS 103        Kristen Savastano – Roger Williams University
- 10:00           Both halves switch
- 14:00           Large Display Aquaria  
**MNS 210**            Dr. Boylan
- 15:00           Common Koi Problems  
**MNS 210**            Dr. Sanders
- 17:00           OPEN

**Sunday, 16. June 2024**

OPEN

**Monday, 17. June 2024**

- 8:00            Marine Mammals  
**MNS 210**            Dr. Inga Sidor – University of New Hampshire  
                      Dr. Paul Calle – Zool. Health Program, Wildlife Conservtn. Society  
                      Dr. Cara Field – The Marine Mammal Center  
                      Dr. Molly Martony – Mystic Aquarium  
                      Dr. Eric Anderson – Mystic Aquarium  
                      Dr. Allison Tuttle – Mystic Aquarium  
                      Dr. Melissa Joblon – New England Aquarium
- 8:00            Important Marine Mammal Legislation, Regulatory Agencies, and Member  
**MNS 210**            Organizations  
                      Dr. Tuttle
- 9:00            Marine Mammals – Taxonomy, Anatomy, Physiology, Reproduction  
**MNS 210**            Dr. Field
- 10:45           Marine Mammals – Husbandry and Aquarium/Zoo Management  
**MNS 210**            Dr. Calle

## 2024 Schedule for AQUAVET® I and AQUAVET® II

<b>12:45</b> MNS 210	<b>Student Seminars</b> <b>19 Ji Hyung Park – Marine Mammal Dentistry</b> <b>20 William Crewe – Crustacean Anesthesia</b>
14:15 MNS 210	Marine Mammal Clinical Techniques Dr. Calle
15:30 MNS 210	Marine Mammal Diseases I (Bacterial, Viral) Dr. Field
<b>18:00</b> MNS 210	Marine Mammal Diseases II (Fungal, Parasitic, Toxins, Misc.) Dr. Field
19:15 MNS 210	Ethics of Keeping Marine Mammals Under Human Care (discussion) Marine Mammal Group

**Tuesday, 18. June 2024**

<b>8:00</b> MNS 210	<b>Student Seminars</b> <b>21</b> <b>22 Natasha Serrano – Shark Fin Soup – Leading Factor for Potential Species Extinction</b>
9:15 MNS 210	Marine Mammal Water Quality/Life Support/Environmental Considerations Dr. Calle
10:00 MNS 210	Manatee Medicine Dr. Martony
11:00 MNS 210	Marine Mammal Clinical Cases Dr. Calle
12:30 MNS 210	Marine Mammal Clinical Cases Dr. Calle
13:00 MNS 210	Marine Mammals – Clinical Cases Dr. Martony
14:30 MNS 210	Marine Mammal Special Topics from the Marine Mammal Center Dr. Field
15:45 MNS 210	Marine Mammal Stranding Cases Dr. Sidor
18:30 MNS 210	Marine Mammals – Pathology, Principals of Necropsy, Forensics – “How To” Dr. Sidor

## 2024 Schedule for AQUAVET® I and AQUAVET® II

**Wednesday, 19. June 2024**

- 6:00 Iv RWU for Woods Hole
- 7:30 Required OSHA training to be in the necropsy lab  
Carriage House Misty Niemeyer – Woods Hole Oceanographic Institution  
Breakfast during this training
- 8:00 **Marine Mammal Necropsy Lab WET LAB**  
WHOI **(need dissection kit – protective clothing will be provided)**  
**Consider bring change of clothes for after this lab**  
Drs. Sidor and Field  
Dr. Melissa Joblon – New England Aquarium  
Dr. Eric Anderson – Mystic Aquarium
- 12:30 Students Present Results of Necropsies for the Group  
Carriage House Dr. Sidor leading discussion
- 13:00 lunch  
Carriage House
- 13:30 Stranding & What We Can Learn from Strandings, Including Large Whale  
Carriage House Strandings and Mass Strandings  
Dr. Sarah Sharp – International Fund for Animal Welfare
- 16:00 leave MBL by this time or earlier  
16:15 arrive at MBL and park  
16:30 meet at MRC entrance
- 16:30 **Tour of MBL and MRC Facilities**  
**Dr. Lisa Abbo, MBL Veterinarian**
- 17:30 approx Group Photo and time to explore town  
18:30 Dinner at Captain Kidd  
20:30 approx depart for RWU  
22:00 approx arrive RWU

**Thursday, 20. June 2024**

- 8:00 Student Seminars  
MNS 210 23  
24 Elisabeth Santos – Zoonotic Diseases in Marine Mammals
- circa  
10:00 leave RWU for Boston – New England Aquarium  
12:00 estimated arrival time – lunch Faneuil Hall
- 13:00 **New England Aquarium – Behind the Scenes Tours**  
**Dr. Tuxbury and staff**

## 2024 Schedule for AQUAVET® I and AQUAVET® II

- 15:00 open time to visit NEAQ on own  
(aquarium closes at 6pm)
- 18:00 dinner on own – suggest Faneuil Hall – open until 19:00
- 19:15 board bus to drive back to RWU

**Friday, 21. June 2024**

- 8:00 Biology, Medicine and Surgery of Turtles Including Sea Turtles  
MNS 210 Dr. Charles Innis – New England Aquarium
- 12:30 Biology, Medicine and Surgery of Turtles Including Sea Turtles (Cont)  
MNS 210 Dr. Innis
- 13:00 **Turtle Necropsy Lab (lab coats, dissection kit)**  
MNS 103 Dr. Innis
- 16:00 Aquaculture Systems  
MNS 210 Dr. Rhyne
- 18:30 Aquaculture Systems (continued)  
MNS 210 Dr. Rhyne

**Saturday, 22. June 2024**

- 8:00 Aquatic Birds  
MNS 210 Dr. Cindy P. Driscoll – Maryland Department of Natural Resources
- 13:00 **Aquatic Birds Anatomy Lab – WEB LAB – (dissection kits, lab coats)**  
MNS 103 **(NOTE: due to HPAI need special PPE this year)**  
Dr. Driscoll  
Dr. Tuxbury and or. Dr. Joblon
- 19:00 **AQUAVET®I Clambake**

**Sunday, 23. June 2024**

- By 10:00 check out – back to reality