

Syllabus

VB - 551 – Ecotoxicology of the Northern Hemisphere

(Version of 9/7/06)Thursdays, 4-6 PM

2271C Veterinary Medicine Basic Sciences Building

Dr. Val Beasley, Professor of Veterinary, Wildlife, and Ecological Toxicology and Executive Director of the Envirovet Program in Wildlife and Ecosystem Health of the Department of Veterinary Biosciences will be the principal instructor. The associate instructor will be Dr. Jeff Levengood, Wildlife Contaminant Specialist of the Illinois Natural History Survey and Research Scientist in the Program of Veterinary, Wildlife, and Ecological Toxicology, Department of Veterinary Biosciences. There will be 30 lecture, laboratory, or field exercise periods (all one hour), a mid-term examination, and a final examination. The lectures, laboratories, and field exercises will occur from 4:00 to 6:00 PM on Thursdays. Students will present topics for discussion during the latter portion of the course. Topics will be approved by the principal instructor before a substantial effort is undertaken in preparation.

24/August/2006

1-2. Introduction to the course and principles of ecotoxicology. Dr. Val Beasley

31/August/2006

3. Environmental Contaminants in Fish-eating Birds and their Prey. Comparisons with Northern Europe. Dr. Jeff Levengood.

4. Acid Precipitation and Acid Mine Effluents. Dr. David Soucek, Ecotoxicologist, Entomologist, Illinois Natural History Survey, UIUC Campus, Champaign, IL.

7/September/2006

5. Methylmercury in the Everglades Ecosystem. Dr. Peter Frederick, Department of Pathobiology, College of Veterinary Medicine, University of Florida, Gainesville, FL.

6. Freshwater and Marine Phycotoxicology: Toxins from Cyanobacteria (Blue-Green Algae), Dinoflagellates, and Diatoms. Dr. Val Beasley.

14/September/2006

7-8. Laboratory: Aquatic Invertebrates as Ecosystem Indicators. Identifying aquatic biota in samples from polluted and more pristine aquatic systems. 2743 VMBSB (“the VP laboratory” - 2nd floor). Dr. David Soucek.

21/September/2006

9-10. Great Lakes Environmental Issues. Mr. Paul Horvatin, Chief, Monitoring and Reporting Branch, USEPA Great Lakes National Program Office, Chicago, IL.

28/September/2006

11-12. Sample Collection and Handling, as well as Quality Assurance and Quality Control for Analytical Studies of Water, Sediment, Soil, Air, and Specimens from Animals. Dr. Marv Piwoni, Illinois Waste Management Research Center, UIUC Campus, Champaign, IL.

5/October/2006

13. Human Health Impacts of Contaminants from Fish, with Emphasis on PCBs, Dioxins, and Mercury. Dr. Susan Schantz, Professor, Department of Veterinary Biosciences.

14. Pharmaceuticals and Animal Health Products in the Environment. Dr. Roger Meyerhoff, Eli Lilly and Company, Greenfield, IN.

12/October/2006

15-16. Amphibians, Amphibian Declines, including Direct and Indirect of Effects of Contaminants in an Overall Ecosystem Health Paradigm. Dr. Val Beasley.

19/October/2006

17-18. **First Examination.** (Topics through period 16)

26/October/2006

19-20. Polar Pollution Issues – the Arctic – Alaska, Canada, Northern Europe, and Asia. Dr. Todd O'Hara, Institute of Arctic Biology, University of Alaska, Fairbanks.

2/November/2006

21. Some Endocrine Disruptors in Effluent-dominated Streams. Peter Howe, US Environmental Protection Agency, Region V, Chicago, IL.

22. Aluminum Production and Cancer in Belugas of the St. Lawrence Estuary. Dr. Daniel Martineau, Departement de pathologie et microbiologie veterinaire, Faculte de medecine veterinaire, Universite de Montreal, Campus de St.-Hyacinthe, St.-Hyacinthe, Canada.

9/November/2006

23. Atmospheric Deposition of Pollutants in the Midwest, with Consideration of Europe, and Asia. Van Bowersox, Illinois Water Survey, Champaign, IL.

24. Contaminants and the Ecology of Infectious Disease in Coral Reef Ecosystems. Dr. Bruce Fouke, Department of Geology, UIUC.

16/November/2006

25-26. 4:00-5:50 PM Student presentations

30/November/2006

27-28. 4:00-5:50 PM Student presentations

7/December/2006

29-30. 4:00-5:50 PM Student presentations

Final Examination: date, time, and place to be announced.