



## **FW 400: Conservation of Fish in Aquatic Ecosystems** **Colorado State University**

- Instructor:** Dr. Yoichiro Kanno  
Office location: 239 Wagar Building  
Office phone: 970-491-5145  
Email: [kanno@colostate.edu](mailto:kanno@colostate.edu)
- Credit hours:** 3 credit hours
- Field trips:** *Two Saturday field trips are required:*  
Sep. 23<sup>rd</sup> (trout and transition zone fish) and 30<sup>th</sup> (plains fish)
- Prerequisite:** FW 300; LIFE 320
- Communications:** Course content (lecture slides, assignments, etc.) will be managed through Canvas. I will also use your CSU email ([eID@colostate.edu](mailto:eID@colostate.edu)) as means of communication outside of class.

### **Suggested textbooks:**

Helfman, G.S. 2007. Fish Conservation: A Guide to Understanding and Restoring Global Aquatic Biodiversity and Fishery Resources. Island Press.  
Price \$85 (paperback) or \$170 (Hardcover).

Murphy, B.R., D.A. Willis, M.D. Klopfer, and B.D.S. Graeb. 2010. Case Studies in Fisheries Conservation and Management: Applied Critical Thinking and Problem Solving. American Fisheries Society. Price \$50 (paperback)

*Note: Murphy et al. (2010) is available online at the American Fisheries Society (AFS) bookstore (<http://fisheries.org/shop>). If you are an AFS member, you will get a 30% discount (plus shipping) at the AFS online bookstore. Annual AFS student membership is \$20. So, it costs only slightly more to become an AFS student member and purchase this book.*

### **Course description:**

This course is designed to provide an overview of the current status of fishes and aquatic ecosystems, anthropogenic factors that affect these resources, and conservation strategies to sustain aquatic biota. The course focuses on freshwater fishes and ecosystems with limited coverage of marine fish conservation. A strong emphasis is placed on critical thinking, problem solving and communication skills. This emphasis is reflected on interactive and

participatory course assignments, as shown below. Students should have a genuine interest in pursuing professional careers in fish conservation, or other natural resources management.

**Course objectives:**

As a result of this course, students will be able to:

- Describe current state of fishes and aquatic ecosystems;
- Discuss fundamental challenges in fish conservation;
- Apply critical thinking and problem solving skills to case studies
- Improve oral and written scientific communication skills;

**Field trips:**

**Two all-day Saturday trips are required**, which will involve fish sampling with backpack electrofishing (Sep. 23) and seines (Sep. 30). **Dress appropriately and bring your waders (chest waders preferred)** to each trip. Only a limited number of waders are available in my lab. **All students will be transported in CSU vehicles.**