

THE UNIVERSITY OF BRITISH COLUMBIA
Department of Economics

Economics 472: The Economics of Renewable Resources

Term 2, 2011/2012
Office Hours: F, 9:00 – 10:30 and by appointment

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READING LIST AND OUTLINE

Textbook: J.M. Hartwick and N.D. Olewiler, *The Economics of Natural Resource Use*, 2nd Edition.

Along with the text, there will be some additional readings. You will either be directed to these readings, or you find them posted to my Home Page under Economics 472. See: <http://www.econ.ubc.ca/munro/homepage.htm>

I. An Introduction to the Economics of Renewable Resources

- (i) Renewable vs. exhaustible natural resources
- (ii) Natural resources and the Canadian economy
- (iii) Time, sustainability and the concept of natural resources as capital assets

Text: Chapters 1 and 2

II. The Economics of Fisheries: The Traditional Static Approach

- (i) An overview of the Canadian fishing industry
- (ii) Capture fisheries vs. aquaculture
- (iii) Biological models as foundations for economic models of the fishery
- (iv) The concept of sustainable yield, and the MSY criterion for fisheries management
- (v) The “common pool”, or open access, characteristic of capture fisheries; the concepts of resource rent, and Bionomic Equilibrium. Pure Open Access, Regulated Open Access and intermediate cases.
- (vi) Weaknesses in the static approach to fisheries economics

Text: Chapter 4

G. Munro, “Economics and the Management of Ocean Fishery Resources”, go to my Home Page.

G. Munro, "Mathematical Bioeconomics and the Evolution of Modern Fisheries Economics", *Bulletin of Mathematical Biology*, vol. 54, issue 2/3, p. 163ff, go to: <http://www.sciencedirect.com/science/journal/00928249/54/2-3>

Ola Flaaten, *Fisheries Economics and Management*, Chapter 3, Parts 3.1 and 3.2; Chapter 5, Parts 5.1 to 5.3, go to: <http://www.ub.uit.no/munin/bitstream/handle/10037/2509/book.pdf?sequence=1>

III. The Economics of Fisheries: Capital Theoretic Approaches

- (i) A review of elementary capital theory, and investment theory; the concept of the social rate of discount and dynamic models of the fishery
- (ii) A dynamic perception of the "common pool" problem
- (iii) The special issue of "existence value"

Text: Chapter 11

G. Munro, "Mathematical Bioeconomics and the Evolution of Modern Fisheries Economics".

Ola Flaaten, *Fisheries Economics and Management*, Chapter 4, Chapter 5, Part 5.4

IV. Major Policy Issues in Fisheries Management

- (i) Dealing with the consequences of the "common pool" characteristic of capture fisheries: Incentive Blocking vs. Incentive Adjusting approaches to resource management
- (ii) The impact of the UN Third Conference on the Law of the Sea, and Extended Fisheries Jurisdiction
- (iii) The special problem of shared fishery resources
- (iv) The rebuilding of overexploited capture fishery resources

Text: Chapters 5 and 11

G. Munro, B. Turriss, C. Clark, U.R. Sumaila and M. Bailey, "Impacts of Harvesting Rights in Canadian Pacific Fisheries", Fisheries and Oceans Canada, go to: <http://www.dfo-mpo.gc.ca/ea-ae/cat1/no1-3/no1-3-eng.htm>

J. Cancino, H. Uchida and J. Wilen, "TURFs and ITQs: Coordinated vs. Decentralized Decision Making", go to: <http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=2c286864-c46c-43c4-a0c3-c5ac94d0e504%40sessionmgr110&vid=1&hid=104>

G. Munro, "Getting the Economics and Incentives Right", from: OECD, *The Economics of Rebuilding Fisheries*, Paris, 2010, go to my Home Page

"Fishing and Rights: How to Stop Fishermen Fishing", *The Economist*, February 25, 2012, p. 16. Go to: <http://www.economist.com/node/21548240>

V. The Basic Economics of Forest Management

- (i) Forestry in the Canadian and British Columbia economies
- (ii) Optimal management over the long run: the optimal stock and optimal period of rotation.

Text: Chapter 10

VI. Further Issues in Forest Management

- (i) Problems of forest tenure
- (ii) Multiple Use of Forest Lands and Environmental Conflicts

Text: Chapter 10

P. Pearce, "Average Economic Yield Per Rotation: Douglas Fir", go to my Home Page.

VII. The Economics of Environmental Quality

- (i) The environment as a "common pool" resource
- (ii) Static vs. dynamic approaches to the problems of pollution
- (iii) Means of control: quantitative controls vs. taxes

Text: Chapter 6; Chapter 7, pp. 220-228, pp. 245-259.