



Lecture's Outlines – Prof. James E. WILEN

LECTURE 1:

MODELS OF METAPOPOPULATION MANAGEMENT

1. Bioeconomics of Metapopulations
 - dispersal and diffusion
 - patchy systems
2. Open Access Exploitation
 - entry/exit
 - spatial bioeconomic equilibria
3. Optimal Metapopulation Management
 - spatial shadow prices
 - heterogeneity and optimal solutions
4. Marine Reserves
 - the policy setting
 - reserves as corner solutions
 - non-consumptive benefits

LECTURE 2:

MODELING BIOINVASION MANAGEMENT

1. Diffusion and dispersal
2. Economics of Bioinvasions
 - damages and control costs
 - bioeconomic components
3. Models of Control
4. Landscape Management of Bioinvasions

Readings:

Sanchirico, James and James E. Wilen. 1999. "Bioeconomics of Spatial Exploitation in a Patchy Environment," Journal of Environmental Economics and Management, 37(2):129-150.

Sanchirico, James and James E. Wilen. 2001. "A Bioeconomic Model of Marine Reserves Creation" Journal of Environmental Economics and Management, 42(3): 257-276.

Martin D. Smith and James E. Wilen. 2003. "Economic Impacts of Marine Reserves: the Importance of Spatial Behavior" Journal of Environmental Economics and Management, 46(2):183-206.

Sanchirico, James and James E. Wilen. 2005. "Optimal Spatial Management of Metapopulations: Matching Policy Scope to Ecosystem Scale", Journal of Environmental Economics and Management, 50(1): 23-46.

Sanchirico, James, Alan Hastings, Ludmilla Malvadka, and James Wilen. 2006. "When are No-take Zones an Economically Optimal Fishery Management Strategy?", Ecological Applications, 16(5): 1643-1659.

Wilen, James E. 2007. "Economics of Spatial-dynamic Processes" American Journal of Agricultural Economics, 89(5): 1134-1144.