Department of Civil Engineering
2011 Summer Semester
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Environmental Statistics

Outline #13 Environmental Risk Assessment (4 July 2011)

1. Time Series Analysis (review)
    Autocorrelation

2. Statistical models in Ecology

3. Environmental Risk
    - Overview
    - Risk comparison

4. Human Health Risk
    - Hazard Identification
    - Determination of endpoint
    - Exposure Quantification
    - Dose-Response Analysis
    - Risk characterization, Monte Carlo Method

5. Ecological Risk
    - What can be endpoints in ecological risk assessment?
    - Predicted Environmental Concentration (PEC)
    - Predicted No Effect Concentration (PNEC)
    - Population model, Extinction probability
    - IUCN Red List Categories

6. Exercise (13-1, 13-2)