



Course Outline

Ecological genetics - genetic variability, natural selection, evolution, geological timetable

Behavioral ecology -

Lecture Text: Ecology- Concepts and Application

-purchase suggested but not required

Authors: Molles and Laursen 2020- 5th edition (Canadian Edition)

-E-version available from bookstore (cost ~\$64)

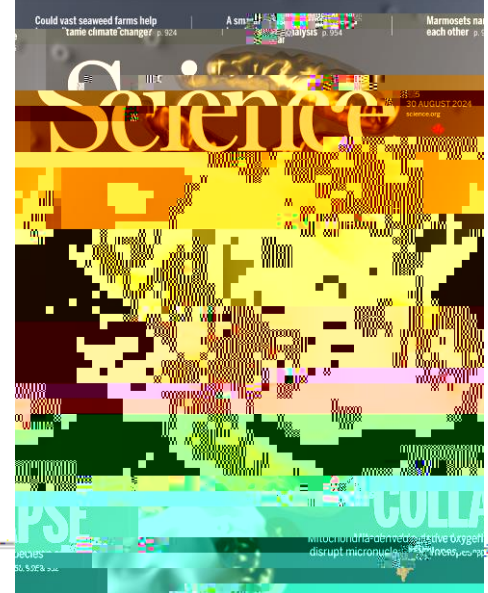
**Additional readings to supplement lecture topics: examples- New Scientist,
Conservation Biology, Ecology, Trends in Ecology and Evolution,**

-British
-weekly-
published every
Wednesday

Volume 632
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Online- UVic Library

-US
-weekly-
published every
Thursday



All lectures and labs are in person

Course Outline

• **Ecological genetics** genetic variability, natural selection, evolution, geological timetable

Behavioral ecology- optimal foraging, territoriality, sex & mating systems, group living, life histories

Population ecology- movement, estimating population size, life tables, mortality and survivorship curves, population growth and population regulation

• **Ecological interactions**- competition, niche, predation, defenses

Community ecology- succession, trophic levels, keystone species, nutrient cycling

Major ecological communities- estuaries, intertidal, kelp forests, pelagic, deep sea, coral reefs, lakes, tundra, taiga, temperate forests, grasslands, deserts, tropical forests

Global biodiversity- latitude, elevation, ocean depth causes: evapotranspiration, spatial heterogeneity, geological history, complexity, stability

Island biogeography island size, distance, species turnover, equilibrium & tripartite theory

Conservation Ecology

• **Human impact on ecosystems** population growth, habitat loss, fragmentation, atmospheric pollutants, global warming, marine and freshwater pollution, overhunting, overfishing, introduced species, extinctions

• **History of conservation, ecological footprint, IUCN categories, protected areas, SLOSS, minimum viable population (MVP), minimum viable area (MVA), critical habitats, endemic species, park design, restoration, de-extinction, re-wilding, role models**

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Important Dates and Issues

Sept 03 (first)-17 day issues

Sept 17: last day for 100% reduction of tuition fees for standard first term and full year courses.

50% of tuition fees will be assessed for courses dropped after this date

Sept 20: Last day for adding courses that begin in the first term

Sept 30: Last day for paying first term fees without penalty

University closed (National Day for Truth and Reconciliation)

Oct 08: Last day for 50% reduction of tuition fees. 100% of tuition fees will be assessed for courses dropped after this date

Oct 14: University closed (Thanksgiving Day)

Oct 31: Last day for withdrawing from first term courses without penalty of failure

Nov 11: University Closed (Remembrance Day)

Dec 07: Examinations begin for all faculties

We acknowledge and respect the Lək̓'wəṣən (Songhees and Esquimalt) Peoples on whose territory the university stands, and the Lək̓'wəṣən and WSÁNE Peoples whose historical relationships with the land continue to this day.

Nov 11