

# EFB 390 Recitation – Wednesday 9/28

## Announcements:

- Population abundance assignment **due today**
- Next assignment posted on Blackboard
- Exam Tues. 10/11 (open note)

## Today:

- Intros
- Last minute population abundance work session
- What is a habitat?

1. Trefethen (1964) - "Habitat is the sum total of the environmental factors, food, cover, and water, that a given species needs to survive and reproduce in a given area."
2. Odum - (1971) "the place where an organism lives; where one would go to find it"
3. Ricklefs (1973) - "the place where a plant or animal normally lives, often characterized by a dominant plant form or physical characteristic."
4. Noss et al. (1997) - "the multidimensional place where an organism, population, or assemblage of populations lives; the living and non-living surroundings."
5. Morrison et al. (1992) - " an area with the combination of resources (like food, cover, water) and the environmental conditions (temperature, precipitation, presence or absence of predators and competitors) that promotes occupancy by individuals of a given species (or population) and allows those individuals to survive and reproduce

# Example: Wood Duck

- Wetlands – open water and cover
- Food – seeds, fruits, insects
- Available nesting cavities – tree cavities/nest boxes number and density
- Brood-rearing habitat – dense cover in shallow wetlands with present water



# Group Habitats

- Each group choose a representative species
  - Polar, Temperate, Tropical, Marine
- Define its habitat:
  - Food, cover, water
  - Temperature, precipitation, predators/competition
  - Others?

# Habitat-based conservation

- Why focus on managing habitats instead of species?
- Habitats represent the biological and environmental interactions part of unique ecosystem (important for longterm preservation)
- Protecting habitat → protect non-target species
- Habitats are easier to map than species distribution or ecological processes
- Monitoring environmental change over time is more meaningful at larger scales

# Hall et al. (1997)

“ the resources and conditions present in an area that produce occupancy-including survival and reproduction-by a given organism.”

Ranked based on:

- If terms were defined
- Inconsistent uses of words
- Evaluation of definitions – “correct,” “incorrect,” “weak,” or “poor.”

# Hall et al. (1997)

1. A term was defined similarly to our definition and was used consistently throughout the article
2. No definition, or an incomplete one, was provided for a term, but the use of the term was similar to our use
3. No definition for a term was given, or the use of the term fluctuated between being correct and incorrect in the article
4. Neither of the criteria under “1” was met