

SEGMENT FOUR, LECTURE TWO: BEHAVIORS.

[Detailed explanation and discussion of Exam III.]

The behaviors of animals are important components of ecological interactions and are the subject of study of organismal ecologists. Behavior includes every action of an animal, and how that action is accomplished. Ethology is the study of behavior.

Behaviors show varying amounts of genetic and environmental determinations. Types:

Unlearned—

Fixed Action Patterns (FAP) are sequences of unlearned behaviors triggered by a sign stimulus. Once initiated, the sequence continues through completion. Male three-spined sticklebacks, territorial fish, attack red-colored objects.

Learned (where learning is a change of behavior resulting from specific experience)— Imprinting is an irreversible type of learning that is limited to a specific time period in an animal's life, the sensitive period. Austrian naturalist Konrad Lorenz & Geese found that the sensitive period for goslings is 48 h after hatching. Conservationists are manipulating the imprinting behavior when reintroducing migratory birds (whooping cranes, trumpeter swans) back into former habitats. Chicks imprinted on ultralight aircraft can be trained to follow historic or new migratory routes.