

NATURAL SELECTION, ECOLOGY & BEHAVIOR

GLOSSARY

link to [glossary](http://www.zoo.ufl.edu/be/pages/Glossary.html) by Dr. Jane Brockman: <http://www.zoo.ufl.edu/be/pages/Glossary.html>

allies: two or more males who coordinate behavior in gaining access to females and defending them from other males

behavior: an action of an organism; may be a movement resulting from contraction of muscles, or a glandular response, or a vocalization; a set of behavioral decisions is called a strategy

causal explanation: (C) behavioral response to an external stimulus, modified by internal state (emotion or body condition); a pattern at the level of individuals (snapshot of performer)

coalition: relation among several allies, e.g. 2-3 male lions that travel together and defend a group of females

communal suckling: offspring suckle from females that are not their biological mother

conceptual map: a diagram illustrating how ideas are related and distinct

developmental explanation: (D) change in behavior with age, resulting from maturation processes (relative irreversible compared to learning); this is related to how heritable is the variation in a behavior (instinct), because if a behavior develops the same in individuals of similar genotypes in different environments, then it is more likely to be highly heritable and subject to natural selection; process at the level of individuals (video of performer)

ecology: study of the relations among organisms and their physical environment, at the levels of populations of individuals, communities of species and multiple communities in ecosystems

estrus (oestrus): behavioral "heat" around the time of ovulation when a female is receptive to copulation

evolutionary explanation: (E) an hypothesis of how traits in ancestral species diverged (different environments) or converged (similar environments) or stayed the same (phylogenetic inertia) as the derived traits in existing organisms; phylogenetic history of a trait over many generations in geological time; process at the level of populations (video of orchestra)

function explanation: (F) an hypothesis about how certain genotypes in a population are likely to increase or decrease due to differences in survival and/or reproduction between one generation and the next; pattern at the population level (snapshot of orchestra)

informal shorthand: a description of evolutionary and functional processes as if a species "wanted" to perpetuate its genes, more fit genotypes "wanted" to reproduce more; used in popular writing to give an intuitive understanding of evolution and function without the jargon

natural selection: (VHDP) If there is variation in a trait, and if the variation is heritable, and if certain variants survive and/or reproduce more than others, then the proportion of genotypes in a population will change over generations.

obfuscating screen: use of jargon that makes sense only to specialists

oestrus: British spelling of estrus

pride: a group of female lions, usually defended by 1-5 males

takeover: a coalition of male lions fights and chases away the males defending a pride

synchronous estrus: all the females in a group come into a state of breeding readiness at the same time; may be related to simultaneous loss of infants, scent cues, or seasonal cues

woolly arguments: an explanation that sounds plausible because it is consistent with common sense, however it may not meet the standards of logic required for a scientific explanation