

What

- Altruistic traits are traits that:

- _____ the _____ (survival or reproduction) of the individual with the trait (known as the "_____")
- While _____ the _____ of other individuals (known as the "_____").



Example: WARNING CALL

- A classic example of an altruistic behavior is the "_____ " given by many species of animals (EX: ground squirrels, prairie dogs, and passerine birds)



- +: _____
- -: _____

Example: GROUP DEFENSE

- _____



Ex:

- The broken-wing display of ground-nesting birds
- Food sharing in many species
- Helping at the nest in passerine birds
- Bees killing themselves when they sting an attacker.



How It Works:

- If an individual observes an attacking predator it may give a call that has two effects.
 1. First, (__) when other nearby individuals hear the _____ they recognize that _____ is near and _____
 - Individuals that hear the early warning (the recipients) benefit by having a decreased chance of being killed by the predator.
 2. However (__), by giving the warning call, the _____ (the actor) delays his/her opportunity to flee to safety and attracts the _____ of the _____, thus increasing the chance that the caller is _____ by the predator.

Why Do it?

- Difficult to understand as to how altruistic traits could be produced by _____ **selection**.
 - Natural selection should favor organisms with traits that _____ and reproduction in their environment (known as selfish traits).
- THE BIG QUESTION: How can a behavior that decreases the chance of an organism surviving or reproducing increase in frequency in a population?