Discussion Questions:

1) Discuss what is meant by biological fitness.

2) Propose a reasonable reproductive strategy that each of the following invertebrates might use to attract or woo their mates. Be sure to use terms that were used in the video:
    a. A nocturnal moth
    b. A nocturnal katydid
    c. A scorpion
    d. A male Swallowtail Butterfly
    e. A lobster

3) Sometimes it is hard to find mates. Propose a reasonable reproductive strategy for each of the following invertebrates who may not be physically able to move to find a mate OR who simply fail to find a nearby mate:
    a. A stick insect
    b. A coral

4) For rhinoceros beetles, males that mature with gigantic battle horns have certain advantages with respect to courtship. However, there are certain advantages to maturing into a smaller beetle with much less armature, as well. Discuss the evolutionary tradeoffs associated with large vs. small size in rhinoceros beetles.

5) The Southern Pine Beetle (SPB), *Dendroctonus frontalis*, is a major pest of pine trees native to the Southeastern United States, but has started expanding its range up northward. A major component of the attractant semiochemical blend produced by female beetles within host trees has been found to be frontalin. How might this knowledge be used to help control the spread of these devastating pests?

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