

Secrets of Success

A Teleplay for a One-Hour TV Documentary

OUTLINE

- I. Introduction: The Age of Insect & Human Beings
 - A. Introduction
 - B. The Success of Insects vs. The Success of People
 - 1. Diversity
 - 2. Numbers
 - 3. Reproduction rates
 - 4. Antiquity, or conversely ...
 - 5. Distribution
 - 6. Physical fitness
 - 7. Technology
 - 8. Social organizations
 - 9. Rights and responsibilities
 - C. Learning About Ourselves by Learning About Insects
- II. Insect Defenses: Surviving in the Environment
 - A. Introduction
 - B. Structural Defenses
 - 1. Small size
 - 2. Large size and armor
 - 3. Shelters
 - 4. Camouflage
 - 5. Markings
 - 6. Mimicry
 - C. Behavioral Defenses
 - 1. Fight
 - a. chemical
 - b. physical
 - 2. Fright: Playing possum
 - 3. Flight
- III. Insect Adaptations: Prospering in the Environment
 - A. Structural Adaptations
 - 1. Wings
 - 2. Other locomotion
 - 3. Mouthparts
 - 4. Summary
 - 5. Example: Honey bee
 - a. pollen- and nectar-gathering adaptations
 - b. compound eyes / honey comb
 - B. Functional/Behavioral Adaptations
 - 1. Floral co-evolution
 - 2. Complete metamorphosis
- IV. Insect Communication: Affecting/Sensing the Environment
 - A. Introduction
 - B. The Five Senses
 - 1. Hearing
 - 2. Seeing
 - 3. Smelling
 - 4. Touching
 - 5. Tasting etc.: Dancing honey bees
- V. Insect Societies: Creating an Environment
 - A. Introduction
 - B. Provisioned Nests

- C. Progressive Provisioning
- D. The Social Condition: Ex. Termites
- E. Fascinating Feats of Ants
- F. A Tool-Using Wasp

VI. Conclusion: The State of Human/Insect Relations

- A. Introduction to Entomology
- B. Damages
 - 1. Crop pests
 - 2. Storage pests
 - 3. Structural pests
 - 4. Medical/Veterinary pests
 - 5. Ecological damages by people
 - 6. Insecticides
 - a. uses
 - b. hazards
 - c. immune pest populations
- C. Benefits
 - 1. Beekeeping
 - 2. Insect products
 - 3. Genetic experiments
 - 4. Soil-building
 - 5. Insects as wildlife food
 - 6. Weed-eating
 - 7. Biological control
 - a. predatory insects
 - b. parasitic insects
 - c. insectiaries
- D. Conclusion: The Age of Instinct *And* Intelligence