



## **Student Activity**

### **Mystery of Disappearing Honeybees:**

#### **Fusion of Form & Function**

#### **NATURE Science Education Series**

##### **Vocabulary:**

cornerstone, repercussions, fertilize, forage, nectar, protein, form, function, proboscis, mandibles, compound eyes, sensory, ocelli, serrated, static, ovaries, colony collapse disorder, replenished, forager, industrialization, habitat destruction, urbanization, agriculture, pollinators, invasive species, bankruptcy, human pathogen, pathogens, coroner, forensic autopsy, immune response, pesticides, toxic, lavender, regurgitating, enzymes, saliva, antibacterial, malnutrition, monoculture, contend, parasites, perfect storm, vulnerable, forage crops, venom, royal jelly, larvae, anthers, Africanized bee, consumption, vitality, gruel

##### **Pre-Viewing Discussion:**

What tiny creature evolved at the same time as flowering plants? Why was this evolutionary act so important to the life of the planet?

How are honeybees represented in art, poetry and mythology? Why do you think they are represented this way?

What is pollination? What foods are produced by pollination?

Do human lives depend in any way on the life of the honeybee? What would happen if honeybees disappeared?

##### **Post-Viewing Discussion:**

Why are honeybees shipped in tractor-trailer loads from Florida to Pennsylvania and Maine? Why is this process "unnatural"?

What is CCD? What pathogens cause diseases in bees? What is the primary cause of CCD? How does CCD affect us?

In what ways do honeybees illustrate a perfect fusion of form and function?

How are pear crops produced in Szechuan Province? Is human pollination an alternative for crop production in other parts of the world?

##### **Further Activities:**

Further investigate the causes and solutions for CCD using sources of information that are scientifically legitimate.

Investigate bee products that are marketed in different parts of the world.

Interview a beekeeper about the problem of CCD and the changes in his industry in recent years.

Investigate the history and uses for royal jelly.