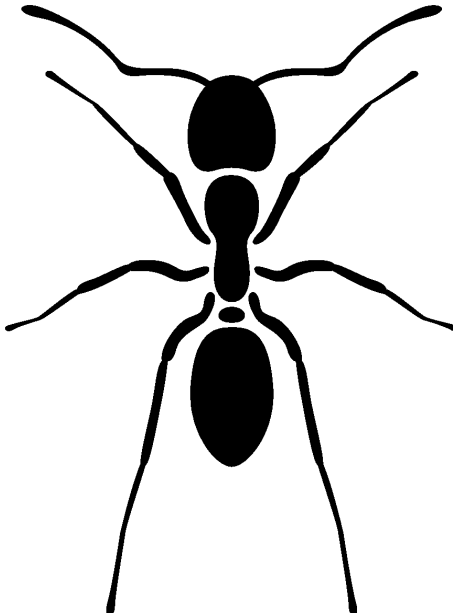
Entomology: the scientific study of insects

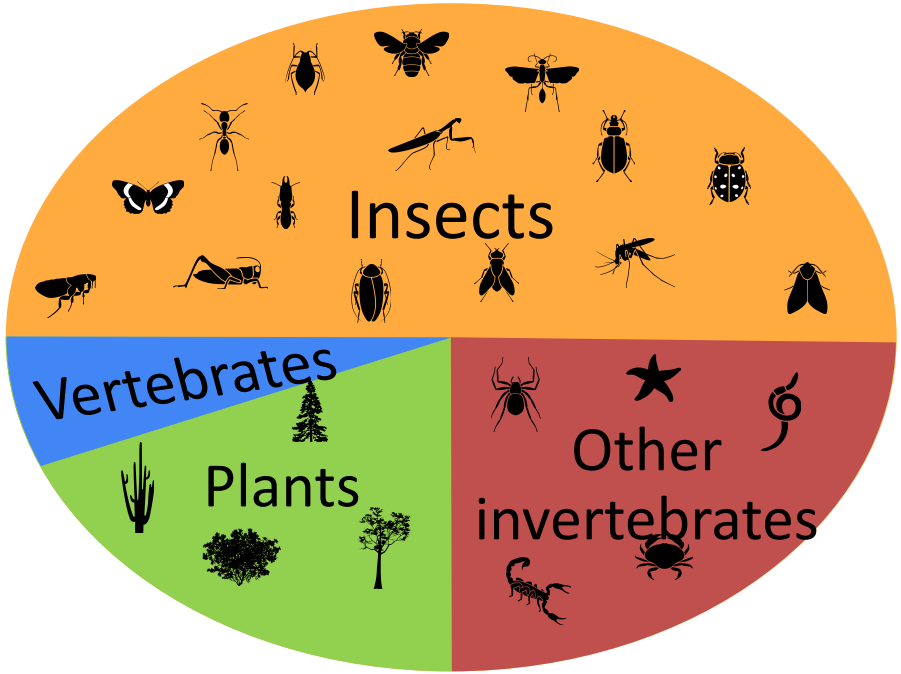
Insect

- 6 legs
- 3 body regions
- Exoskeleton



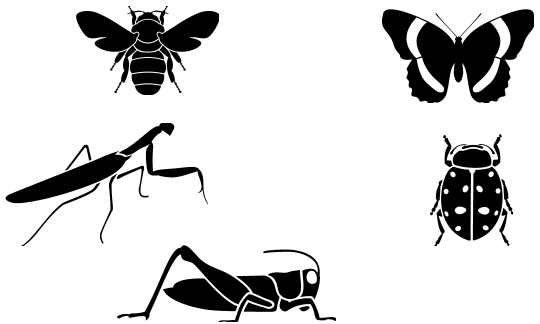
1 million species of insects described

Estimate 2.6 – 7.8 million



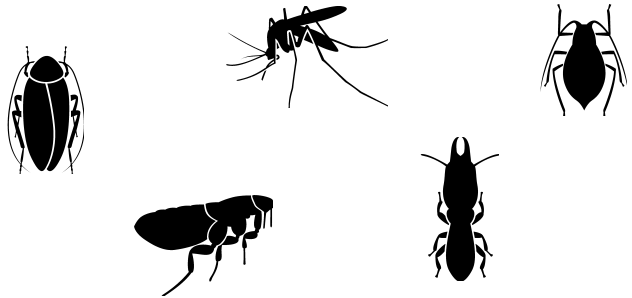
The Good

- Pollinators
- Pest predators
- Decomposers
- Herbivores of weeds

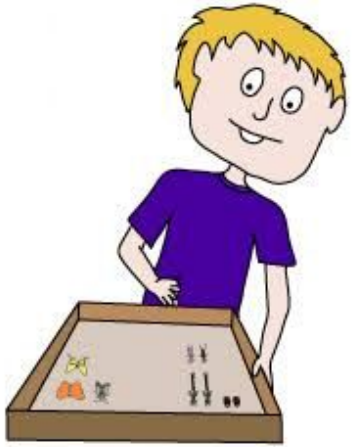


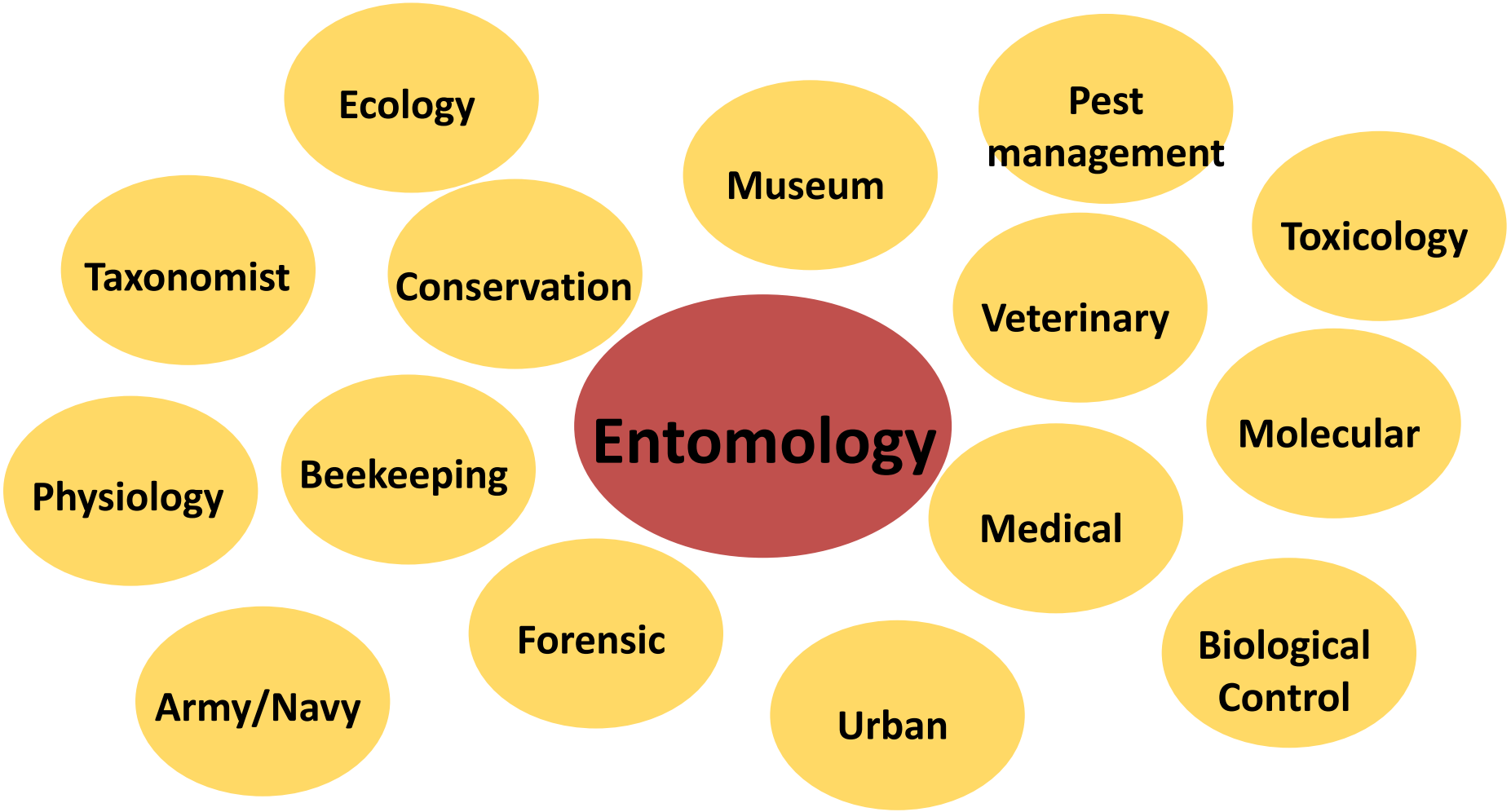
The Bad

- Crop pests
- Urban pests
- Vectors of disease
- Human and animal pests



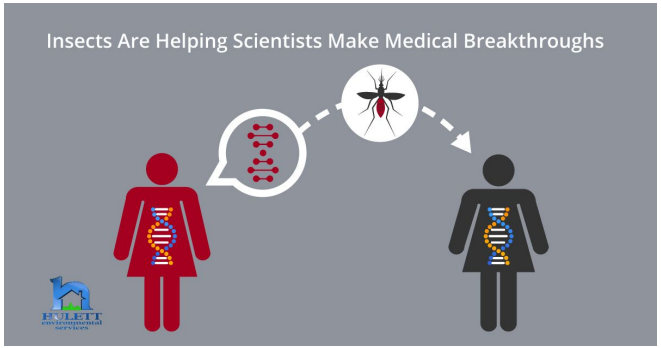
What do entomologists do???




Ecology
Museum
Pest management
Taxonomist
Conservation
Toxicology
Veterinary
Entomology
Molecular
Physiology
Beekeeping
Medical
Forensic
Biological Control
Army/Navy
Urban

Entomology continues to serve as the basis for advancements in:

- Biological and chemical pest control
- Food and fiber production, product storage
- Pharmaceuticals, epidemiology
- Biological diversity, conservation, ecology
- and a variety of other fields of science



Home » May » 4 New Technologies That Use Insects for Inspiration

FROM THE MAY 2013 ISSUE

4 New Technologies That Use Insects for Inspiration

Pests or potential problem-solvers? Fleas, spiders and other insects are the new muses of engineering.

By Jay Harman | Tuesday, April 30, 2013

RELATED TAGS: ENGINEERING, INSECTS

-scientific breakthroughs
-technological advancements
-science literacy education

The Desert Beetle's Water Source

The Dew Bank, which collects and stores condensation, was inspired by the darkling beetle.

Yanko Design, Michael and Patricia Fogden/Minden Pictures

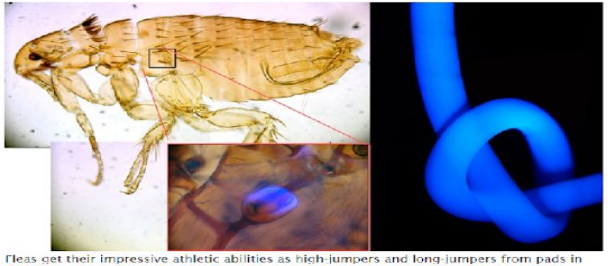
The Butterfly's Crystalline Color

The Mirasol screen mimics the structure of butterfly wings to make e-reader and tablet displays easier to see while using less power.

The Spider's Reflective Web

The spiderweb-inspired pattern on Ornilux glass helps birds see the solid surface and avoid collisions.

The Flea's Jumping Joints



Fleas get their impressive athletic abilities as high-jumpers and long-jumpers from pads in their joints made of resilin (highlighted in blue in inset photo). Right, a rod of synthetic resilin is illuminated by ultraviolet light. Whether natural or lab made, resilin is the most efficient elastic protein known.

Career possibilities for graduates with a B.S. degree in Entomology

- Agricultural, biological or genetic research
- Forensic entomology
- Public health, medical entomology
- Consulting (agricultural, environmental, urban, food processing)
- State and federal government agencies (EPA, USDA, USGS, Dept of Defense, Dept of Energy)
- State departments of agriculture and ecology
- Conservation and environmental biology
- Pharmaceutical industry
- Seed, fertilizer, and chemical research companies
- Natural resources management
- Veterinary, medical, or graduate school
- Production agriculture
- Pest control
- Apiculture
- Outreach education

Envision the possibilities!