



3 Park Place, Suite 307
Annapolis, MD 21401-3722 USA

Phone: 301-731-4535
Fax: 301-731-4538

esa@entsoc.org
www.entsoc.org

The Entomological Society of America (ESA) is the largest organization in the world serving the professional and scientific needs of entomologists and individuals in related disciplines. Founded in 1889, ESA is a not-for-profit professional society, with nearly 7,000 members affiliated with educational institutions, health agencies, private industry, and government. ESA's public and science policy initiatives focus on raising the importance of entomology in the following areas:

FOOD SECURITY: Entomological research is critical for increasing crop yields while minimizing negative impacts on the environment and helping national and global food security.

- The U.N. estimates the world's population will grow to 9 billion by 2050.
- Citrus greening disease, spread by an invasive insect called the Asian citrus psyllid, is threatening Florida's \$9 billion citrus industry and 76,000 jobs.
- Bees pollinate more than 90 crops in the United States and contribute to the production of an estimated 70 percent of all the food we eat or export. Entomology is needed to fully understand the complexities of Colony Collapse Disorder (CCD) and to examine the diverse factors that endanger bee health.

DISEASE PREVENTION: Entomological research is critical to limiting and preventing the spread of many insect-borne diseases.

- The U.S. Centers for Disease Control and Prevention (CDC) reports that from 1991-2012, 37,008 cases of West Nile virus have been documented, resulting in 1,549 deaths.
- According to the CDC, 35,000 cases of Lyme disease are reported annually.
- After a 60-year hiatus, the mosquito-borne illness dengue fever has officially re-established itself in Florida.

HOUSEHOLD PESTS: Entomological research is critical for controlling insect pests in homes and schools.

- The CDC and Environmental Protection Agency (EPA) have reported "an alarming resurgence in the population of bed bugs" in the U.S. due to increased resistance of bed bugs to available pesticides, increased travel, lack of knowledge regarding control of bed bugs, and the decline of effective control programs at state and local public health agencies.
- According to the EPA, droppings and body parts from cockroaches trigger asthma and can cause allergic reactions.

MILITARY READINESS: Entomological research is critical for keeping U.S. military personnel safe from insect-borne diseases.

- Malaria, typhus, yellow fever, and most recently leishmaniasis in Operation Iraqi Freedom have affected the health and readiness of U.S. troops in every major conflict since the Civil War.
- Insects have caused more casualties in wars than have conventional weapons.

BIOLOGICAL RESEARCH: Many genetic techniques and advances were achieved by studying insects.

- The i5k Initiative aims to sequence the genomes of 5,000 insects and other arthropods in order to improve our ability to manage arthropods that threaten our health, food supply, and economic security.

MUSEUM COLLECTIONS: Insect collections in museums are critical resources for many uses.

- Museum collections support identification services and help experts determine whether exotic insects intercepted by Homeland Security and the U.S. Department of Agriculture are native or invasive species, and whether or not they are pests. Collections can also help enable the identification of beneficial insects that can be introduced to use for biological control methods.