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Testimony of  
**Robert K.D. Peterson, PhD, President**  
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On  
**Fiscal Year 2020 Appropriations for the U.S. Forest Service, the U.S. Environmental  
Protection Agency, and the U.S. Department of Interior**  
Submitted to the  
**Appropriations Subcommittee on Interior, Environment, and Related Agencies**  
**United States House of Representatives**

April 1, 2019

The Entomological Society of America (ESA) respectfully submits this statement for the official record in support of funding for entomology-related activities at the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture (USDA) Forest Service, and the U.S. Department of Interior (DOI). **For fiscal year (FY) 2020, ESA recommends \$8.267 billion for EPA, including support for Pesticides Licensing Program Area activities within its Science & Technology and Environmental Program & Management budgets, and continued support for State & Tribal Assistance Grants for Pesticide Program Implementation.** ESA strongly supports EPA's commitment to work with other federal agencies to monitor and improve pollinator health, including involvement by EPA to examine the potential impact of pesticides on pollinator health. **In addition, ESA requests the Forest Service be funded at least at the FY 2019 enacted level of \$6.087 billion in discretionary funds. Within the Forest Service, ESA requests the Forest and Rangeland Research budget be supported at the FY 2019 enacted level of \$300 million to preserve valuable invasive species research and development. The Society also supports continued investment in Forest Health Management programs across the Forest Service in FY 2020. ESA also recommends that DOI continue to support the important work of the National Invasive Species Council (NISC), which coordinates efforts across agencies to respond to the threats posed by invasive species, to be funded at no less than the FY 2018 level of \$1.202 million.**

Advances in forestry and environmental sciences, including the field of entomology, help to protect our ecosystems and communities from threats impacting our nation's economy, public health, and agricultural productivity and safety. Through improved understanding of invasive insect pests and the development of biological approaches to pest management, entomology plays a critical role in reducing and preventing the spread of infestation and diseases harmful to national forests and grasslands. The study of entomology also contributes to the development of Integrated Pest Management (IPM) techniques, which use science-based, environmentally conscious, comprehensive methods to take effective management action against pests, often resulting in lower costs and a more targeted use of pesticides. In addition, entomology improves our knowledge of pollinators and the factors affecting pollinator health and populations, helping to ensure safe, reliable crop production that meets the needs of a growing world population.

EPA carries out its mission of protecting human health and the environment by developing and enforcing regulations, awarding grants for research and other projects, conducting studies on environmental issues, facilitating partnerships, and providing information through public outreach. Through these efforts, EPA strives to ensure that our nation enjoys clean water, clean air, a safe food supply, and communities free from pollution and harmful exposures to chemicals.

EPA's Pesticides Licensing Program Area, supported by EPA's Science & Technology and Environmental Program & Management budgets, serves to evaluate and regulate new pesticides to ensure safe and proper usage by consumers. Through the mandate of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA uses scientific expertise and data, including knowledge gained from entomological sciences, to set maximum tolerated residue levels and to register pesticide products as effective and safe. By controlling insects that act as vectors of diseases of humans and domesticated animals, and invasive insect species that endanger our environment, pesticides registered by EPA help protect public health and the nation's food supply.

EPA's activities in this area also include the development of educational information and outreach to encourage the use of IPM, a scientific approach to reducing pest populations by incorporating a variety of techniques, and other reduced-risk methods of managing pests. The funding that EPA allocates towards IPM in schools is important to lower the risks of students to pest management tactics and the pests that are harmful to their health or development. Schools can be vulnerable to pest problems because of their size, design and maintenance of green space. The integrated approach to pest problems focuses on prevention, which is advantageous because it reduces the probability of infestation, and is economical, sometimes saving school districts thousands of dollars per year. However, little is known about the current status of many schools and the degree to which they implement IPM practices. Results from a 2014 survey published last year in the *Journal of School Health* found that about 55% of schools in the US conducted IPM practices<sup>1</sup>. The largest schools were the most likely to have robust programs, where they notified staff, students and families before applications. However, despite the resources and guides from the EPA about IPM in schools, there is a need for funding to better ensure a wider adoption and reporting of these practices. **Therefore, ESA supports continuing the activities in the Pesticides Licensing Program Area as well as the modest funding that EPA has invested in school IPM.**

Among EPA's State & Tribal Assistance Grants, categorical grants in the area of Pesticides Program Implementation help to facilitate the translation of national pesticide regulatory information into real-world approaches that work for local communities. For example, these grants fund efforts to reduce health and environmental risks associated with pesticide use by promoting, facilitating, and evaluating IPM techniques and other potentially safer alternatives to conventional pest control methods. **ESA requests that the subcommittee support a modest increase for Pesticides Program Implementation grants in FY 2020.**

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<sup>1</sup> Everett Jones, S., & Glick, S. (2018). School Factors Associated with the Implementation of Integrated Pest Management-Related Policies and Practices. *Journal of School Health*, 88(9), 669-675.

**ESA is in favor of increased funding for scientifically based studies of pollinator populations and health.** Pollinators play a vital role in our nation's agriculture industry; for example, honey bees alone pollinate more than 90 crops in the US and are essential for the production of an estimated one-third of all the food we eat or export, contributing over \$17 billion in annual crop and seed production in the US alone. To ensure a healthy bee population, more research is needed to fully understand the diverse factors that endanger bee health. Pesticides represent just one potential risk to bees, but both the risks and benefits must be balanced, and those risks and benefits will vary among different crops and different crop-producing regions of the US. EPA is well-positioned to help identify methods for protecting bee health; the agency has previously awarded agricultural grants to three universities to aid in the development of IPM practices that lower pesticide risks to bees while protecting valuable crops from pests. **For this reason, ESA supports EPA's participation in multi-agency efforts to investigate pollinator health and implementing plans to prevent pollinator population decline.**

The U.S. Forest Service sustains the health, diversity, and productivity of 193 million acres of public lands in national forests and grasslands across 44 states and territories. Serving as the largest supporter of forestry research in the world, the agency employs approximately 30,000 scientists, administrators, and land managers. In addition to activities at the federal level, the Forest Service provides technical expertise and financial assistance to state and private forestry agency partners.

The Forest Service's Forest and Rangeland Research budget supports the development and delivery of scientific data and innovative technological tools to improve the health, use, and management of the nation's forests and rangelands. Within Forest and Rangeland Research, the Invasive Species Strategic Program Area provides scientifically based approaches to reduce and prevent the introduction, spread, and impact of non-native invasive species, including destructive insects, plants, and diseases that can have serious economic and environmental consequences for our nation. For example, Forest Service scientists are working to prevent the devastation of ash trees across North America by the emerald ash borer, an invasive beetle that was accidentally introduced from Asia. Emerald ash borer was first detected in 2002 and, since then, has killed millions of ash trees. This biological invasion threatens to eliminate all ash trees from North America and is the costliest invasion from a forest insect to date. Emerald ash borer is just one on the exponentially growing list of invasive insects and diseases that harm our nation's forests and our nation's economy. Forest health is also affected by invasive weeds, and those weeds are often best controlled by beneficial insects used as biological control agents, resulting in permanent and often spectacular control. **ESA respectfully requests that Forest and Rangeland Research be fully funded at \$297 million for FY 2020.**

Also under the purview of the Forest Service is the Forest Health Management program, which conducts mapping and surveys on public and private lands to monitor and assess risks from potentially harmful insects, diseases, and invasive plants. The program also provides assistance to state and local partners to help prevent and control outbreaks that threaten forest health. According to a 2011 study, invasive forest insects cost local governments alone an average of over \$2 billion per year; direct costs to homeowners from property loss, tree removal, and

treatment averages \$1.5 billion per year.<sup>2</sup> Initiatives within the Forest Health Management program can help control these costly pests. The program's "Slow the Spread" activities, for example, have led to a 60 percent reduction in the rate of the spread of the gypsy moth, another invasive species, resulting in an estimated benefit-to-cost ratio of 3:1. Without the program, it is estimated that 50 million additional acres would have been infested by the moth.<sup>3</sup> **To support these important functions, ESA requests that the subcommittee oppose any proposed cuts to Forest Health Management program in FY 2020.**

Spotted lanternfly is an invasive insect pest from Asia that was first reported in the United States in 2014. It has become established (meaning it has been identified in all stages of its life cycle) in Pennsylvania, Virginia, New Jersey, and, most recently, Delaware. Its ability to disperse over broad geographic areas presents a particularly challenging problem to growers and homeowners, as does its unusually broad host range, as it has been recorded feeding on more than 70 plants, including commercial crops such as hops, grapes, apples, and cherries. In addition to damage caused directly by feeding, the spotted lanternfly inflicts indirect damage via coating plants and other surfaces in "honeydew" (urine), which encourages the growth of mold and fungi. Preliminary studies indicate that it is a serious threat to agriculture and forest ecosystem health in the US, poised to destroy an estimated \$18 billion worth of crops in Pennsylvania alone. Studies like this demonstrate the need for continued and robust support for the interagency coordination advanced by the National Invasive Species Council (NISC). **As such, ESA requests that NISC be funded at no less than the FY 2018 level.**

ESA, headquartered in Annapolis, Maryland, is the largest organization in the world serving the professional and scientific needs of entomologists and individuals in related disciplines. Founded in 1889, ESA has more than 7,000 members affiliated with educational institutions, health agencies, private industry, and government. Members are researchers, teachers, extension service personnel, administrators, marketing representatives, research technicians, consultants, students, pest management professionals, and hobbyists.

Thank you for the opportunity to offer the Entomological Society of America's support for Forest Service and EPA programs. For more information about the Entomological Society of America, please see <http://www.entsoc.org/>.

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<sup>2</sup> Aukema, J.E.; Leung, B.; Kovacs, K.; [et al.]. 2011. Economic impacts of non-native forest insects in the continental United States. PLoS ONE 6(9): e24587.

<sup>3</sup> Forest Service FY 2017 Budget Overview: <http://www.fs.fed.us/sites/default/files/FY-2017-FS%20-budget-overview.pdf>.