



**STATE OF MAINE**  
**DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY**  
**BUREAU OF AGRICULTURE, FOOD & RURAL RESOURCES**  
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**PAUL R. LEPAGE**  
GOVERNOR

**WALTER E. WHITCOMB**  
COMMISSIONER

To: Board of Pesticides Control  
From: Kathy Murray, Integrated Pest Management Specialist  
Re: Request for Funding  
Date: May 18, 2018

The Integrated Pest Management (IPM) Program within the Bureau of Animal and Plant Health provides education, outreach, consultation and training to a wide variety of Maine audiences to safeguard health, protect the environment and promote economic benefits of IPM. This is a very small program consisting of one full-time entomologist (Kathy Murray), with occasional support from other Department staff members. The IPM Program provides mandatory training, consultation and tools to all K-12 schools in Maine. This takes about 50% of Dr. Murray's time. The other half of her time is spent writing and administering small grants that provide limited financial support for the program, giving presentations and trainings, maintaining websites, developing educational materials, pest problem-solving consultation for communities and the public, and serving as the staff member/coordinator of the Maine IPM Council.

In addition, the IPM Program has been actively engaged in recent years in developing mosquito surveillance capabilities in collaboration with the Maine Centers for Disease Control mosquito surveillance program. In Maine, mosquito control has historically been the responsibility of individual municipalities—almost none of which do any monitoring. Recognizing that individual towns are ill-equipped to mount an effective mosquito control effort to manage risk of life-threatening vector-borne illness such as Eastern Equine Encephalitis, the state legislature enacted a bill authorizing the State of Maine to conduct mosquito control activities if public health is threatened. In 2013, state legislation was enacted directing DACF to develop a written plan for improving readiness to respond to public health threats of mosquito-borne illness, using existing resources—no funding was allocated. Further legislation enacted in 2015 authorized DACF to conduct mosquito control activities in response to a public health threat—but again, with no funding allocation.

Since 2000, Maine has conducted a thrifty surveillance program for vector-borne disease concentrated in the southernmost part of the state through public-private partnerships led by the state epidemiologist within the state public health agency. Mosquito trapping is done primarily by a state-contracted provider (Maine Medical Center Research Institute) and subcontracts with local colleges and a commercial mosquito control company (Swamp, Inc.). Mosquitoes known to vector EEEV are collected from resting boxes and light traps weekly and submitted to the state health laboratory to be

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tested for arboviruses. This is a minimal surveillance program with a critical need for improvement. There are large areas of the state that are not being monitored due to lack of staff and resources and we are unprepared to respond in the event of a vector-borne disease outbreak. Therefore, DACF IPM Program has for the past three years redirected staff time to participate in mosquito surveillance activities. This project has three objectives:

- 1) develop in-house expertise and capacity for mosquito surveillance and identification;
- 2) develop GIS-based mosquito habitat mapping capabilities to precisely target surveillance efforts for maximum efficiency and effectiveness and to enable rapid response to a mosquito-borne illness 'outbreak'; and
- 3) expand and strengthen mosquito-borne disease surveillance in central Maine.

In 2016 and 2017, federal grant funding was available to hire a student to assist approximately 30 hrs/week. Those sources of funding are no longer available, therefore we are requesting funding from BPC to again hire a temporary field and laboratory assistant.

**Budget Request:**

Salary: \$6282

summer field assistant: 17.45/hr based on \$14/hr salary plus temp staffing agency fee x 30 hrs/week x 12 weeks

Travel: \$ 480

(will use dept-leased vehicles whenever possible). 200 mi/week x 0.20/mi x 12 weeks

**Total \$6762**

**Deliverables:**

- An updated GIS model of Eastern Equine Encephalitis vector mosquito habitat (optimized to identify priority sites for mosquito surveillance and rapid response to outbreaks).
- Season-end report detailing mosquito monitoring results (temporal and geographic distribution of vector species, disease testing results and habitat characteristics of surveillance sites).
- Training, resources and outreach to all Maine K-12 schools to improve awareness and utilization of vector-borne risk reduction strategies in schools and the communities they serve.