

## PDE 3 Course Press Release

A new professional development opportunity in STEM is being offered to teachers on the Big Island, and the subject has timely real-world application for students and their families. The course, *Engaging Students in Citizen Science for the Prevention of Rat Lungworm Disease*, will be offered statewide this fall for K-12 educators, beginning on Hawaii Island. The course begins with a two-day hands-on workshop focusing on lessons for late elementary through middle school and will provide extensive coverage of topics including the biology of the parasite, disease prevention, data collection and analysis. Teachers will have the chance to involve their classes in a citizen science effort, with students utilizing advanced technology for reporting via ArcGIS online.

Engaging students and teachers in the fight against rat lungworm has been a long-time passion of the lead course instructor, Kay Howe. Howe first encountered the disease when her son contracted a severe case, and for the last decade she has been at the forefront of developing tools and expanding understanding of the disease in Hawaii. Through her position as rat lungworm Curriculum Development Specialist at the UH- Hilo Jarvi Lab, Kay has focused on outreach and education to many audiences but recognized the critical and unique role that teachers can play in keeping residents safe. In 2015-2016, Howe worked with five partner schools on Hawaii Island to develop the integrated pest management plan (IPM) for slug/snail control and the curriculum that will be used in the course. “I worked with the school garden program, and I really saw the value of that network and using place-based education as a way to involve teachers and students as partners in research and public education efforts for disease prevention,” says Howe. “We piloted this project through them, and we saw such a great response from the kids and their teachers - working on a real problem that may have affected people they knew - it gave them a sense of purpose and enthusiasm for the research, and their efforts made a huge difference for us in understanding what was happening with the movement of the hosts.” Howe, a former DOE teacher, notes the complex topic of epidemiology, the study of disease, as a 21st century skill not often covered in K-12 education. “Our course provides a unique opportunity for the inclusion of science, technology, engineering, arts, and math, the STEAM subjects, while raising awareness for disease prevention.”

Howe will be joined by Franny Brewer, Communications Director for the Big Island Invasive Species Committee, another former teacher experienced in project-based and place-based education. The course will be offered three times on the Big Island in 2018: in Hilo on Oct 20 & 21, and in Waimea Oct 27-28 and again Nov 3-4. The two-day workshop will introduce teachers to the IPM plan and curriculum, and all teachers will receive resources and support to complete their portfolios over the following months. Interested teachers must register by enrolling through the PDE3 website (<https://pde3.k12.hi.us>) for Course #SC184011.

For those who are unable to attend the full course, there will also be a one-day, non PDE workshop for educators held in Waimea on Sept. 29, at the Hawaii Preparatory Academy lower campus. Contact Kay Howe at [kehauhowe@gmail.com](mailto:kehauhowe@gmail.com) for more information or visit the BIISC website at [www.biisc.org](http://www.biisc.org).

Support for this educational effort has been provided by the Hawaii Invasive Species Council, the UHH Daniel K. Inouye College of Pharmacy, the Hawaii Community Foundation, the Hawaii Dept. of Education, The Hawaii Dept. Of Health, the Oahu School Garden Network, and the Hawaii Farm to School Hui. Partner Hawaii Island schools hosting workshop locations include Kalaniani'ole, Waimea Middle School, Kanu o Ka 'Aina PCS, and Hawaii Preparatory Academy. Funding is sought for continued support and expansion of this educational effort. Donations can be made to the University of Hawaii Foundation revolving account for project #0002878. Checks can be made payable to the Research Corporation of the University of Hawaii.