



## IMPACT ON ALASKA'S FIREWEED

### ISSUE – GALLED FLOWER BUDS ON FIREWEED

- Fireweed (*Chamaenerion angustifolium*) is a well-loved native perennial in Alaska with many traditional uses; the young shoots are harvested for salads, the leaves for tea, and the flower petals for jellies and syrups.
- In July 2023, swollen, galled buds were noticed by diagnosticians at the University of Alaska Fairbanks Integrated Pest Management Program (AK IPM).
- Preliminary searches turned up little information about these galls in North America.
- Diagnosticians collaborated across agencies to confirm the identity of the gall-maker as the fireweed flower gall midge (*Dasineura epilobii*), a Holarctic species which previously had evaded formal record in North America.



**Figure 1. Swollen flower bud gall on fireweed.**



**Figure 2. A galled fireweed bud opened to reveal the orange fireweed flower gall midge larvae inside.**

### RESPONSE

- AK IPM diagnosticians enlisted the help of the public in mapping the distribution of galled fireweed buds across Alaska.
- Diagnosticians collected and reared the causal organisms from the galls and collaborated with other agencies to identify the gall-makers.

### OUTCOMES

- AK IPM demonstrated the value of community participation in advancing scientific knowledge.
- This work also contributed to the redescription of the fireweed flower gall midge, facilitating a broader understanding of this insect in North America.

*“Supplemental funding from the National Plant Diagnostic Network allowed our lab to expand our DNA-based diagnostic capabilities.” – Alexandria Wenninger, University of Alaska Fairbanks, Institute of Agriculture, Natural Resources, and Extension, Integrated Pest Management Program*

This work was also partially funded by the Crop Protection and Pest Management Program (grant no. 2021-70006-35561 & 2024-70006-43668) from the USDA National Institute of Food and Agriculture.