Insect Surveys on Established Native Forbs & Shrub Plantings
at the USDA-NRCS Corvallis, Oregon Plant Materials Center

Abstract

In 2007, the USDA-NRCS Corvallis Plant Materials Center (PMC), Oregon State University’s Integrated Plan Protection Center (IPPC), and the Xerces Society came together to develop and plant a native pollinator/beneficial insect hedgerow and conduct insect surveys on over 20 different native shrub and forb species located at the PMC. The objective of the project is to gain knowledge of pollinator and beneficial insect associations with native plants of the Pacific Northwest and to publish the findings to aid growers and planners in habitat establishment and management for these organisms using native plants within agronomic settings in Oregon’s Willamette Valley.

Basic knowledge of pollinator and beneficial insect visitation on native plants within the Willamette Valley is lacking or very limited. As part of this partnership, three students from Oregon State University conducted insect surveys on a variety of native plant species at the PMC between the months of April and August in 2007 and 2008. Weekly surveys were conducted visually, using sweep nets, aspirators, blue vane, beat sheets, vacuums and pan traps. Flowering dates of the surveyed plants were also recorded throughout the season.

An on-farm demonstration hedgerow established at the PMC in February 2008 and was also sampled for insect pollinators and biological control organisms. The hedgerow is comprised of 11 shrub and 6 native forb species and will serve as a demonstration planting for growers, government personnel, and the general public. The principal results to date show that over 40 families of insects have been collected on native plants at the PMC, including 19 species of bees. This high diversity of native bee visitation is significant in light of nationwide declines of European honey bee populations and the important role native pollinators can have on crop production.