

INSECT IDENTIFICATION REPORT UPDATE

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Accurate identification allows for the most effective means of pest control either in commercial crop fields or the home garden. Correct pest identification is an essential element of integrated pest management (IPM). The Oregon State University Extension Service provides identification services for the public and agricultural sectors to help protect and manage their resources. Extension agents throughout the state are trained to identify common insects and their close relatives such as spiders, ticks, mites, and centipedes. Extension agents trained in entomology possess background knowledge on control methods and general biology, which allows the specialist to suggest information and resources for selection of efficient and cost-effective control measures. Identification services are available through the Oregon State University Insect ID Clinic in Corvallis, county Extension Service offices that have Master Gardener programs, and in Umatilla and Moro counties, through the entomology laboratory at HAREC.

Methods

At HAREC, homeowner and grower samples are typically brought to the administrative office or the entomology laboratory. Individuals requesting identification first complete an insect identification submission form with contains as much pertinent information as possible. This form is available in Extension centers/offices and can be obtained online at http://www.science.oregonstate.edu/bpp/Plant_Clinic/Insect%20ID%20Form.pdf. The sample and identification form are sent to the entomology laboratory for processing. Once the specimen and form arrived at the laboratory, the client is contacted typically within 24 h to advise the client of the receipt of the specimen and and/or the status of the identification.

Specimens for identification

In eastern Oregon, excluding Arachnida (spiders), the top three groups that arrive for identification in 2008 through 2010 were Coleoptera, Diptera and Hemiptera (Figure 1). The latter was closely followed in abundance by Lepidoptera and Hymenoptera, each representing 11% of the total samples received for identification. Curculionidae, Scarabeidae, Chrysomelidae and Cerambycidae were the four most abundant Coleoptera. Within the order Diptera, Bibonidae, Drosophilidae, and Anthomyiidae were the most abundant (Table 1). Aphididae and Coreidae were the most abundant true bugs; aphids represented nearly half (46%) of the specimens. In 2006 through 2008 approximately 65% of the samples came from home owners, while nearly 35% were brought by growers or field men. In the most recent years (2008-2010), the percentage of specimens brought in by growers grew by 2 % (Figure 2). From a seasonal perspective, most samples were brought in during the months of July to September.

Figure 1. Distribution of samples received for identification by Order excluding Arachnida (spiders), Hermiston, OR, 2008-2010.

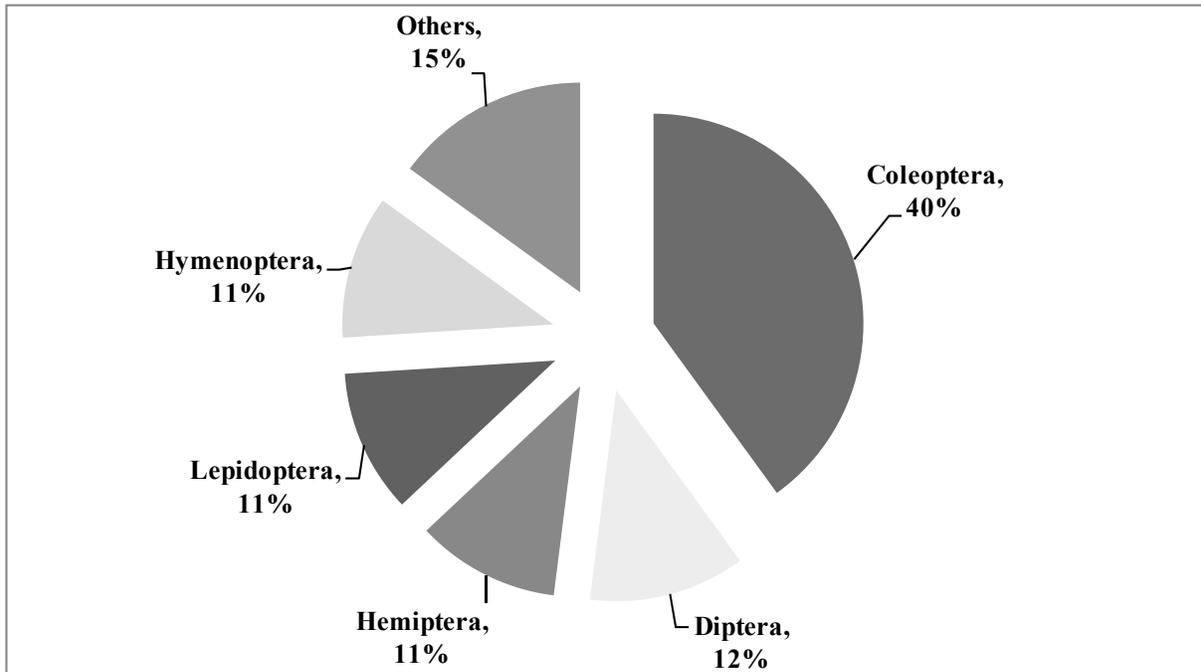


Figure 2. Origin of samples, Hermiston, OR 2008-2010

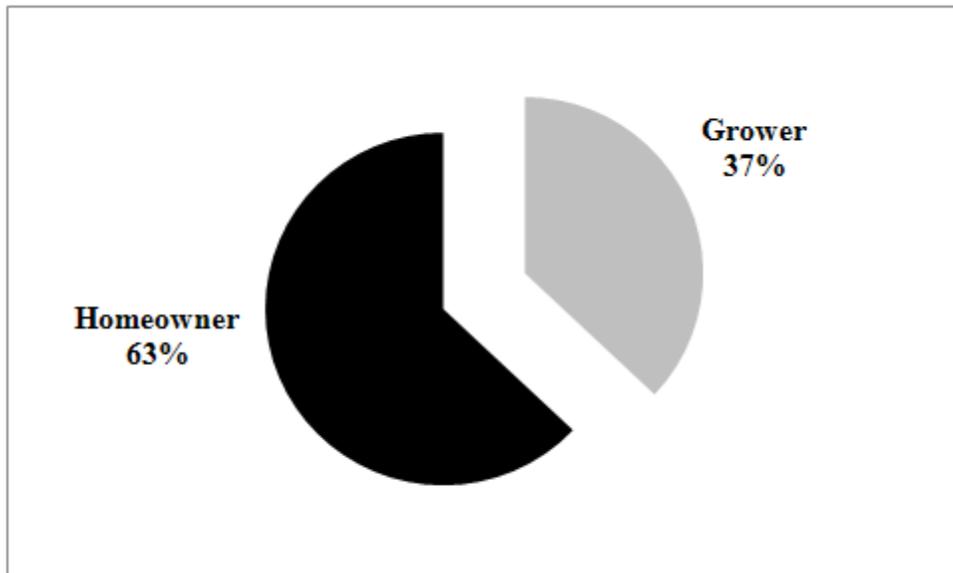


Table 1. Distribution (%) of samples brought for identification by family listed for the three most frequent orders of insects.

Coleoptera	%	Diptera	%	Hemiptera	%
Curculionidae	27	Bibionidae	31	Aphididae	46
Scarabaeidae	18	Drosophilidae	23	Coreidae	38
Chrysomelidae	13	Anthomyiidae	15	Pentatomidae	8
Cerambycidae	11	Chloropidae	8	Coccidae	8
Carabidae	9	Syrphidae	8		
Elateridae	7	Ceratopogonidae	8		
Nitidulidae	4	Nematocera	8		
Tenebrionidae	2				
Cucujidae	2				
Meloidae	2				
Staphylinidae	2				
Other	2				

Table 2. Number of requests for identification by season Hermiston, OR 2008-2010.

Season	2008	2009	2010
January-March	6	4	8
April-June	17	14	19
July-September	18	21	30
October-December	6	7	5

More information:

Hollis, B.C., S.I. Rondon, and J. Young. 2009. Identifying insects and arthropods in Oregon. Oregon State University Extension Service Publication. June. EC 1630-E
<http://extension.oregonstate.edu/catalog/pdf/pnw/EC1630E.pdf>