Michael O'Loughlin

Oregon Bee Atlas Collection and Identification Report

1 Your 2023 Collections

Michael O'Loughlin caught 1255 bees across 14 counties from May 13, 2023 to September 11, 2023, representing 44 unique species.

Figure 1: Bees caught by Michael O'Loughlin, broken down by species, genus, and family.

2 All Your Collections

Michael O'Loughlin caught 8628 bees across 36 counties from March 29, 2018 to June 10, 2024, representing 216 unique species. Michael O'Loughlin also caught the only *Calliopsis puellae* in the collection!

Figure 2: Bees caught by Michael O'Loughlin, broken down by species, genus, and family.

Figure 3: Bee catch locations for Michael O'Loughlin (within Oregon), along with total catches per county.

3 Total Catches

Volunteers from the Oregon Bee Atlas project caught 22478 bees across 36 counties from January 24, 2023 to December 13, 2023, representing 90 unique species and 48 unique genera. The **Nimble Net Kudos** (most specimens collected) goes to Scott Sublette, Dan O'Loughlin, and Michael O'Loughlin, who caught a total of 2274, 1283, and 1255 specimens. The *positive* kind of **Darwin Award** (most species collected) goes to Scott Sublette, Ellen Silva, and Michael O'Loughlin, who caught a total of 77, 74, and 72 unique species. Well done!

Figure 4: Bees caught by all volunteers, broken down by species, genus, and family.

Figure 5: Number of bee specimens and unique bee species caught by all volunteers, with your effort shown in red.

Figure 6: Total specimens caught per county, along with catch location of each specimen (black dots). For genus- and species-specific information for each county, see Tables 3 and 4.

Figure 7: Total catches per (Level III) ecoregion, along with catch location of each specimen (black dots).

4 Flight Phenology

West of (and including) the Cascade Mountains, most bees (90%) were caught between April 13 and September 02, but the peak of season (50% of specimens) was from May 21 to July 26.

East of the Cascade Mountains, most bees (90%) were caught between April 28 and September 16, but the peak of season (50% of specimens) was from June 02 to August 07.

Figure 8: Phenology plot for all bee species caught east of the Cascade Mountains, sorted by median abundance times. Percentiles of overall emergence times (50th & 90th) are shown in grey shaded regions. Date ranges for each species (minimum, first, second, third quartiles, and maximum) are shown only for species with >10 specimens.

5 Plant genera

Volunteers collected specimens from a total of 636 unique flower genera, with most volunteers sampling from 19 flower genera (median value). The **Flower Power Kudos** (most sampled flower genera) goes to Michael O'Loughlin, Lori Humphreys, and Dan O'Loughlin, who collected bees from a total of 246, 210, and 188 genera of flowers. Well done!

The flower genera that had the most specimens caught on them were *Ericameria*, *Phacelia*, and *Penstemon*, which yielded a total of 6308, 4129, and 3411 specimens. The flower genera that were popular with the most species of bees were *Phacelia*, *Penstemon*, and *Ericameria*, hosting at total of 179, 167, and 140 unique bee species. See Tables 1 and 2 for more details.

Figure 9: Recorded number of flower genera per county.

Table 1: Number of bee specimens collected from each plant genus. Plants with few records are great targets for future sampling.

Genus	Count	Genus	Count	Genus	Count	Genus	Count	Genus	Count	Genus	Count	Genus	Count
Ericameria	6308	*Chaenactis*	274	*Rupertia*	65	*Anchusa*	26	*Alyssum*	10	*Apium*	5	*Actaea*	2
Phacelia	4129	*Acer*	271	*Adelinia*	64	*Dichelostemma*	26	*Cercis*	10	*Cistus*	5	*Allophyllum*	2
Penstemon	3411	*Sphaeralcea*	271	*Ageratina*	64	*Caryopteris*	25	*Doronicum*	10	*Corylus*	5	*Bauhinia*	2
Grindelia	2796	*Heracleum*	270	*Calyptridium*	64	*Navarretia*	25	*Echinops*	10	*Anthriscus*	4	*Betonica*	2
Rubus	2658	*Gaillardia*	263	*Glebionis*	64	*Pedicularis*	25	*Heliopsis*	10	*Aruncus*	4	*Bromus*	2
Ceanothus	2352	*Crataegus*	261	*Crocidium*	62	*Petrosedum*	25	*Hemerocallis*	10	*Asperugo*	4	*Cardionema*	2
Cirsium	2349	*Acmispon*	258	*Agoseris*	60	*Pieris*	25	*Kickxia*	10	*Beta*	4	*Castanea*	2
Salix	2169	*Gilia*	247	*Cotinus*	60	*Erysimum*	24	*Layia*	10	*Crassula*	4	*Celosia*	2
Solidago	1914	*Malus*	243	*Hirschfeldia*	59	*Lewisia*	24	*Liatris*	10	*Damasonium*	4	*Comandra*	2
Potentilla	1842	*Marah*	234	*Iliamna*	59	*Lobularia*	24	*Aliciella*	9	*Datura*	4	*Cormus*	2
Prunus	1726	*Vaccinium*	225	*Persicaria*	59	*Rhaponticum*	24	*Choisya*	9	*Elymus*	4	*Crocus*	2
Chrysothamnus	1684	*Veronica*	213	*Arbutus*	57	*Sambucus*	24	*Diplacus*	9	*Gypsophila*	4	*Cydonia*	2
Eriogonum	1588	*Philadelphus*	204	*Foeniculum*	57	*Stewartia*	24	*Draba*	9	*Helleborus*	4	*Danthonia*	2
Helianthus	1563	*Astragalus*	202	*Blepharipappus*	56	*Cardamine*	23	*Fraxinus*	9	*Holcus*	4	*Daphne*	2
Lupinus	1506	*Raphanus*	199	*Dalea*	55	*Chamaebatiaria*	23	*Lagophylla*	9	*Impatiens*	4	*Dianthus*	2
Ribes	1419	*Amsinckia*	197	*Eryngium*	55	*Phlox*	23	*Maianthemum*	9	*Kopsiopsis*	4	*Dipterostemon*	2
Symphyotrichum	1418	*Convolvulus*	194	*Lithospermum*	55	*Robinia*	23	*Melissa*	9	*Mutarda*	4	*Echinocystis*	2
Hypochaeris	1393	*Hydrophyllum*	180	*Mertensia*	55	*Smithiastrum*	23	*Mimulus*	9	*Paeonia*	4	*Eucephalus*	2
Arctostaphylos	1332	*Polemonium*	179	*Sorbus*	54	*Aralia*	22	*Papaver*	9	*Pastinaca*	4	*Festuca*	2
Lomatium	1308	*Taraxia*	179	*Lamium*	53	*Erythronium*	22	*Vernonia*	9	*Prosartes*	4	*Achlys*	1
Taraxacum	1286	*Coreopsis*	178	*Styrax*	53	*Leptosiphon*	22	*Vitex*	9	*Pseudognaphalium*	4	*Actinidia*	1
Melilotus	1237	*Iris*	178	*Antennaria*	52	*Pseudotsuga*	22	*Aesculus*	8	*Romanzoffia*	4	*Allotropa*	1
Calochortus	1224	*Amelanchier*	177	*Cynoglossum*	52	*Quercus*	22	*Aronia*	8	*Scabiosa*	4	*Alnus*	1
Eriophyllum	1198	*Arnica*	166	*Cytisus*	52	*Artemisia*	21	*Baptisia*	8	*Swainsona*	4	*Alstroemeria*	1
Erigeron	1173	*Angelica*	158	*Geum*	52	*Conium*	21	*Calandrinia*	8	*Tephroseris*	4	*Amaranthus*	1
Lotus	1147	*Delphinium*	158	*Ilex*	52	*Eurybia*	21	*Canadanthus*	8	*Tiarella*	4	*Anemone*	1
Centaurea	1106	*Medicago*	158	*Aurinia*	51	*Hemizonella*	21	*Cordylanthus*	8	*Tradescantia*	4	*Anethum*	1
Trifolium	1070	*Castilleja*	154	*Boykinia*	51	*Micranthes*	21	*Eruca*	8	*Triantha*	4	*Arctium*	1
Leucanthemum	989	*Calendula*	142	*Caragana*	51	*Sisyrinchium*	21	*Eupatorium*	8	*Tribulus*	4	*Argemone*	1
Vicia	988	*Nemophila*	142	*Viburnum*	51	*Cicuta*	20	*Ficaria*	8	*Tropaeolum*	4	*Atriplex*	1
Chamaenerion	983	*Tanacetum*	139	*Linum*	50	*Pinus*	20	*Lithodora*	8	*Zeltnera*	4	*Begonia*	1
Balsamorhiza	914	*Marrubium*	138	*Scandix*	50	*Populus*	20	*Nasturtium*	8	*Aegopodium*	3	*Betula*	1
Lepidium	862	*Cornus*	135	*Nothochelone*	49	*Bellardia*	19	*Phyllodoce*	8	*Armeria*	3	*Cacaliopsis*	1
Achillea	828	*Limnanthes*	133	*Brodiaea*	48	*Clematis*	19	*Poa*	8	*Asparagus*	3	*Calibrachoa*	1
Apocynum	804	*Verbena*	129	*Cotoneaster*	48	*Hymenoxys*	19	*Spergula*	8	*Astrantia*	3	*Carex*	1
Mentha	786	*Carduus*	123	*Tragopogon*	48	*Ladeania*	19	*Stanleya*	8	*Aucuba*	3	*Catalpa*	1
Sidalcea	767	*Mentzelia*	122	*Tetradymia*	47	*Abelia*	18	*Tagetes*	8	*Brunnera*	3	*Cerinthe*	1
Ranunculus	765	*Triteleia*	118	*Teucrium*	47	*Alisma*	18	*Xerophyllum*	8	*Buxus*	3	*Chaenomeles*	1
Eschscholzia	764	*Dasiphora*	114	*Echinacea*	46	*Amorpha*	18	*Ajuga*	7	*Calocedrus*	3	*Chamaemelum*	1
Holodiscus	693	*Dipsacus*	112	*Kolkwitzia*	44	*Euonymus*	18	*Centaurium*	7	*Camellia*	3	*Chimaphila*	1
Allium	667	*Hosackia*	111	*Orthocarpus*	44	*Physaria*	18	*Croton*	7	*Centranthus*	3	*Corydalis*	1
Bellis	662	*Lonicera*	110	*Stellaria*	44	*Salsola*	18	*Cymopterus*	7	*Centromadia*	3	*Cypripedium*	1
Plagiobothrys	656	*Frasera*	109	*Chrysolepis*	43	*Bassia*	17	*Delosperma*	7	*Chrysopsis*	3	*Eremothera*	1
Camassia	648	*Euthamia*	108	*Petroselinum*	42	*Olsynium*	17	*Eucryphia*	7	*Circaea*	3	*Filipendula*	1
Spiraea	640	*Bistorta*	105	*Aster*	41	*Vancouveria*	17	*Glandora*	7	*Clinopodium*	3	*Forsythia*	1
Geranium	607	*Dieteria*	105	*Gayophytum*	41	*Hydrangea*	16	*Gleditsia*	7	*Clintonia*	3	*Fremontodendron*	1
Symphoricarpos	607	*Malva*	105	*Ligusticum*	41	*Kelloggia*	16	*Heliotropium*	7	*Conioselinum*	3	*Fuchsia*	1
Berberis	592	*Anthemis*	104	*Primula*	41	*Lilium*	16	*Hyssopus*	7	*Crocosmia*	3	*Glechoma*	1
Rosa	575	*Bidens*	104	*Verbascum*	41	*Toxicodendron*	16	*Isatis*	7	*Cucumis*	3	*Gnaphalium*	1
Jacobaea	555	*Thymus*	103	*Columbiadoria*	40	*Zinnia*	16	*Kniphofia*	7	*Dahlia*	3	*Grayia*	1
Senecio	533	*Mahonia*	101	*Hieracium*	40	*Gentiana*	15	*Leucophysalis*	7	*Deutzia*	3	*Helianthemum*	1
Salvia	520	*Chondrilla*	99	*Leontodon*	40	*Jaumea*	15	*Oxalis*	7	*Fritillaria*	3	*Knautia*	1
Rhus	493	*Oenothera*	97	*Spergularia*	40	*Oenanthe*	15	*Parthenocissus*	7	*Galium*	3	*Lepechinia*	1
Agastache	489	*Stachys*	97	*Toxicoscordion*	40	*Scorzoneroides*	15	*Physalis*	7	*Garrya*	3	*Leucocrinum*	1
Madia	484	*Purshia*	95	*Barbarea*	38	*Boechera*	14	*Pilosella*	7	*Iva*	3	*Leycesteria*	1
Daucus	482	*Heterotheca*	94	*Linaria*	38	*Cakile*	14	*Sanguisorba*	7	*Lippia*	3	*Limonium*	1
Sedum	457	*Cleomella*	93	*Erica*	36	*Pyracantha*	14	*Townsendia*	7	*Microsteris*	3	*Linnaea*	1
Clarkia	451	*Cucurbita*	93	*Lithophragma*	36	*Umbellularia*	14	*Tulipa*	7	*Misopates*	3	*Ludwigia*	1
Hackelia	436	*Pyrus*	93	*Borago*	35	*Arabis*	13	*Abronia*	6	*Olea*	3	*Lunaria*	1
Sisymbrium	430	*Polygonum*	91	*Microseris*	35	*Cerastium*	13	*Antirrhinum*	6	*Osmanthus*	3	*Lycopus*	1
Brassica	423	*Plantago*	89	*Oreocarya*	35	*Dicentra*	13	*Arum*	6	*Pediomelum*	3	*Machaeranthera*	1
Drymocallis	421	*Thermopsis*	89	*Cercocarpus*	34	*Glycyrrhiza*	13	*Caltha*	6	*Petasites*	3	*Magnolia*	1
Asclepias	411	*Heuchera*	88	*Opuntia*	34	*Hylotelephium*	13	*Capsella*	6	*Phoenicaulis*	3	*Melaleuca*	1
Claytonia	403	*Perideridia*	86	*Pyrrocoma*	34	*Ipomopsis*	13	*Distichlis*	6	*Physostegia*	3	*Moenchia*	1
Physocarpus	403	*Doellingeria*	84	*Calystegia*	33	*Nothocalais*	13	*Galanthus*	6	*Silybum*	3	*Mycelis*	1
Anaphalis	401	*Fagopyrum*	81	*Agapanthus*	32	*Notholithocarpus*	13	*Gratiola*	6	*Valerianella*	3	*Nicotiana*	1
Prunella	401	*Trichostema*	80	*Campanula*	32	*Pentaglottis*	13	*Hastingsia*	6	*Vinca*	3	*Nuphar*	1
Fragaria	394	*Myosotis*	79	*Chorispora*	32	*Platanthera*	13	*Hemizonia*	6	*Hyacinthus*	2	*Nymphaea*	1
Plectritis	381	*Thlaspi*	79	*Collomia*	32	*Reynoutria*	13	*Hibiscus*	6	*Juglans*	2	*Onobrychis*	1
Nepeta	376	*Cosmos*	78	*Lasthenia*	32	*Sanicula*	13	*Ivesia*	6	*Ligularia*	2	*Oplopanax*	1
Lavandula	372	*Hesperochiron*	78	*Satureja*	32	*Scutellaria*	13	*Juniperus*	6	*Ligustrum*	2	*Osteospermum*	1
Horkelia	352	*Solanum*	78	*Eremogone*	31	*Teesdalia*	13	*Nestotus*	6	*Lobelia*	2	*Oxytheca*	1
Lathyrus	347	*Oreostemma*	77	*Escallonia*	31	*Tithonia*	13	*Rheum*	6	*Lysimachia*	2	*Parnassia*	1
Wyethia	341	*Syringa*	77	*Hyacinthoides*	31	*Abies*	12	*Securigera*	6	*Mochringia*	2	*Pediocactus*	1
Monardella	339	*Downingia*	76	*Scrophularia*	31	*Coriandrum*	12	*Tolmiea*	6	*Ocimum*	2	*Phedimus*	1
Erythranthe	338	*Digitalis*	75	*Alcea*	30	*Elaeagnus*	12	*Veronicastrum*	6	*Omphalodes*	2	*Platycodon*	1
Rudbeckia	330	*Erodium*	75	*Cuscuta*	30	*Sinapis*	12	*Eriastrum*	5	*Patrinia*	2	*Pleiacanthus*	1
Gutierrezia	324	*Oemleria*	75	*Aconitum*	29	*Weigela*	12	*Fagus*	5	*Pelargonium*	2	*Polystichum*	1
Collinsia	321	*Packera*	74	*Argentina*	29	*Arenaria*	11	*Hedera*	5	*Petunia*	2	*Rhamnus*	1
Helenium	302	*Rorippa*	74	*Lapsana*	29	*Buddleja*	11	*Hesperis*	5	*Picea*	2	*Romneya*	1
Origanum	297	*Baccharis*	73	*Sonchus*	29	*Kalmia*	11	*Inula*	5	*Portulaca*	2	*Santolina*	1
Onopordum	294	*Aquilegia*	72	*Wisteria*	29	*Luetkea*	11	*Lagerstroemia*	5	*Pulmonaria*	2	*Saponaria*	1
Epilobium	293	*Whipplea*	72	*Calluna*	28	*Matricaria*	11	*Laurus*	5	*Rumex*	2	*Sempervivum*	1
Cichorium	291	*Euphorbia*	71	*Cynara*	28	*Sherardia*	11	*Minuartia*	5	*Saussurea*	2	*Sixalix*	1
Crepis	291	*Frangula*	70	*Echium*	28	*Urtica*	11	*Montia*	5	*Silphium*	2	*Stokesia*	1
Cryptantha	290	*Gaultheria*	70	*Valeriana*	28	*Noccaea*	10	*Muscari*	5	*Skimmia*	2	*Streptanthus*	1
Hypericum	286	*Lactuca*	70	*Helianthella*	27	*Sabulina*	10	*Narthecium*	5	*Smyrnium*	2	*Styphnolobium*	1
Descurainia	285	*Viola*	70	*Kyhosia*	27	*Silene*	10	*Photinia*	5	*Tiquilia*	2	*Tilia*	1
Eriodictyon	282	*Sericocarpus*	69	*Tonella*	27	*Symphytum*	10	*Sarcobatus*	5	*Torilis*	2	*Trillium*	1
Thelypodium	281	*Monarda*	66	*Lythrum*	26	*Tellima*	10	*Smelowskia*	5	*Triodanis*	2	*Xerochrysum*	1
Rhododendron	277	*Stephanomeria*	65	*Narcissus*	26			*Tripleurospermum*	5	*Veratrum*	2	*Zantedeschia*	1

Table 2: Number of bee species collected from each plant genus

Genus	Count	Genus	Count	Genus	Count	Genus	Count	Genus	Count	Genus	Count	Genus	Count
Phacelia	179	*Fragaria*	41	*Aster*	19	*Coriandrum*	10	*Alyssum*	5	*Aliciella*	3	*Achlys*	1
Penstemon	167	*Triteleia*	41	*Boykinia*	19	*Cynara*	10	*Baptisia*	5	*Anthriscus*	3	*Actinidia*	1
Ericameria	140	*Angelica*	40	*Digitalis*	19	*Dicentra*	10	*Canadanthus*	5	*Armeria*	3	*Allotropa*	1
Grindelia	133	*Bellis*	40	*Alcea*	18	*Hymenoxys*	10	*Croton*	5	*Asparagus*	3	*Alnus*	1
Rubus	129	*Collinsia*	40	*Antennaria*	18	*Lythrum*	10	*Delosperma*	5	*Astrantia*	3	*Alstroemeria*	1
Cirsium	126	*Marrubium*	40	*Arbutus*	18	*Orthocarpus*	10	*Diplacus*	5	*Bassia*	3	*Amaranthus*	1
Eriophyllum	123	*Onopordum*	40	*Caragana*	18	*Primula*	10	*Galanthus*	5	*Boechera*	3	*Anemone*	1
Erigeron	120	*Lonicera*	39	*Cosmos*	18	*Calluna*	9	*Glandora*	5	*Brunnera*	3	*Anethum*	1
Potentilla	120	*Cryptantha*	38	*Hesperochiron*	18	*Erythronium*	9	*Heliotropium*	5	*Capsella*	3	*Arctium*	1
Symphyotrichum	119	*Heracleum*	38	*Hieracium*	18	*Euonymus*	9	*Isatis*	5	*Centromadia*	3	*Argemone*	1
Solidago	117	*Raphanus*	38	*Lactuca*	18	*Hydrangea*	9	*Kalmia*	5	*Chrysopsis*	3	*Atriplex*	1
Ceanothus	115	*Dasiphora*	37	*Lamium*	18	*Leptosiphon*	9	*Leucophysalis*	5	*Circaea*	3	*Aucuba*	1
Melilotus	113	*Medicago*	37	*Lasthenia*	18	*Narcissus*	9	*Matricaria*	5	*Clinopodium*	3	*Begonia*	1
Lupinus	109	*Anthemis*	36	*Ligusticum*	18	*Oreocarya*	9	*Notholithocarpus*	5	*Conioselinum*	3	*Betonica*	1
Trifolium	109	*Crataegus*	35	*Plantago*	18	*Petrosedum*	9	*Pilosella*	5	*Crassula*	3	*Betula*	1
Eriogonum	108	*Tanacetum*	35	*Adelinia*	17	*Platanthera*	9	*Rheum*	5	*Cucumis*	3	*Buxus*	1
Salix	105	*Claytonia*	34	*Columbiadoria*	17	*Salsola*	9	*Sambucus*	5	*Cymopterus*	3	*Cacaliopsis*	1
Chrysothamnus	102	*Eriodictyon*	34	*Cotoneaster*	17	*Scrophularia*	9	*Symphytum*	5	*Dahlia*	3	*Calibrachoa*	1
Calochortus	100	*Hydrophyllum*	34	*Downingia*	17	*Aconitum*	8	*Townsendia*	5	*Datura*	3	*Calocedrus*	1
Chamaenerion	98	*Castilleja*	33	*Foeniculum*	17	*Aronia*	8	*Abronia*	4	*Deutzia*	3	*Carex*	1
Achillea	97	*Cornus*	33	*Hirschfeldia*	17	*Bellardia*	8	*Aesculus*	4	*Echinops*	3	*Catalpa*	1
Centaurea	96	*Descurainia*	33	*Linaria*	17	*Cakile*	8	*Ajuga*	4	*Eriastrum*	3	*Cerinthe*	1
Senecio	96	*Oenothera*	33	*Linum*	17	*Cardamine*	8	*Aruncus*	4	*Fraxinus*	3	*Chaenomeles*	1
Ribes	95	*Rhus*	33	*Persicaria*	17	*Cercis*	8	*Asperugo*	4	*Fritillaria*	3	*Chamaemelum*	1
Rosa	90	*Amelanchier*	32	*Viburnum*	17	*Chorispora*	8	*Calandrinia*	4	*Galium*	3	*Chimaphila*	1
Geranium	85	*Dipsacus*	32	*Dichelostemma*	16	*Cuscuta*	8	*Choisya*	4	*Gleditsia*	3	*Clintonia*	1
Leucanthemum	84	*Marah*	32	*Kolkwitzia*	16	*Elaeagnus*	8	*Cistus*	4	*Actaea*	2	*Cormus*	1
Prunus	84	*Oreostemma*	32	*Lapsana*	16	*Escallonia*	8	*Cordylanthus*	4	*Aegopodium*	2	*Corydalis*	1
Helianthus	83	*Sphaeralcea*	32	*Leontodon*	16	*Hemizonella*	8	*Damasonium*	4	*Allophyllum*	2	*Corylus*	1
Vicia	83	*Coreopsis*	31	*Mertensia*	16	*Jaumea*	8	*Distichlis*	4	*Apium*	2	*Cypripedium*	1
Allium	82	*Delphinium*	31	*Nothochelone*	16	*Lobularia*	8	*Draba*	4	*Arum*	2	*Elymus*	1
Camassia	81	*Philadelphus*	31	*Stephanomeria*	16	*Pieris*	8	*Eruca*	4	*Bauhinia*	2	*Eremothera*	1
Spiraea	81	*Thymus*	31	*Styrax*	16	*Robinia*	8	*Hemerocallis*	4	*Beta*	2	*Fagus*	1
Sidalcea	80	*Vaccinium*	31	*Blepharipappus*	15	*Tonella*	8	*Hesperis*	4	*Bromus*	2	*Filipendula*	1
Arctostaphylos	79	*Acer*	30	*Crocidium*	15	*Weigela*	8	*Hibiscus*	4	*Camellia*	2	*Forsythia*	1
Taraxacum	79	*Carduus*	30	*Echinacea*	15	*Zinnia*	8	*Hylotelephium*	4	*Cardionema*	2	*Fremontodendron*	1
Plagiobothrys	78	*Frasera*	30	*Ilex*	15	*Abelia*	7	*Inula*	4	*Castanea*	2	*Fuchsia*	1
Salvia	77	*Amsinckia*	29	*Microseris*	15	*Agapanthus*	7	*Lagerstroemia*	4	*Celosia*	2	*Glechoma*	1
Hypochaeris	76	*Iliamna*	29	*Pyrrocoma*	15	*Amorpha*	7	*Layia*	4	*Centranthus*	2	*Gnaphalium*	1
Lotus	75	*Mentzelia*	29	*Trichostema*	15	*Aralia*	7	*Luetkea*	4	*Comandra*	2	*Grayia*	1
Balsamorhiza	74	*Nemophila*	29	*Borago*	14	*Cerastium*	7	*Melissa*	4	*Crocosmia*	2	*Helianthemum*	1
Symphoricarpos	74	*Polemonium*	29	*Collomia*	14	*Conium*	7	*Mimulus*	4	*Crocus*	2	*Holcus*	1
Lomatium	72	*Mahonia*	28	*Erysimum*	14	*Cotinus*	7	*Muscari*	4	*Cydonia*	2	*Hyacinthus*	1
Anaphalis	71	*Viola*	28	*Sonchus*	14	*Doronicum*	7	*Narthecium*	4	*Danthonia*	2	*Juglans*	1
Erythranthe	70	*Myosotis*	27	*Stellaria*	14	*Ficaria*	7	*Nasturtium*	4	*Daphne*	2	*Knautia*	1
Agastache	69	*Purshia*	27	*Tragopogon*	14	*Glycyrrhiza*	7	*Oenanthe*	4	*Dianthus*	2	*Lepechinia*	1
Apocynum	68	*Bistorta*	26	*Artemisia*	13	*Ipomopsis*	7	*Oxalis*	4	*Dipterostemon*	2	*Leucocrinum*	1
Nepeta	68	*Fagopyrum*	26	*Campanula*	13	*Lilium*	7	*Pastinaca*	4	*Echinocystis*	2	*Leycesteria*	1
Asclepias	67	*Packera*	26	*Cercocarpus*	13	*Olsynium*	7	*Photinia*	4	*Eucephalus*	2	*Limonium*	1
Mentha	65	*Solanum*	26	*Chrysolepis*	13	*Papaver*	7	*Phyllodoce*	4	*Eucryphia*	2	*Linnaea*	1
Ranunculus	65	*Verbena*	26	*Gayophytum*	13	*Pedicularis*	7	*Physalis*	4	*Festuca*	2	*Ludwigia*	1
Wyethia	65	*Whipplea*	26	*Helianthella*	13	*Pentaglottis*	7	*Pinus*	4	*Garrya*	2	*Lunaria*	1
Sisymbrium	64	*Acmispon*	25	*Oemleria*	13	*Physaria*	7	*Quercus*	4	*Gratiola*	2	*Lycopus*	1
Clarkia	62	*Dalea*	25	*Phlox*	13	*Populus*	7	*Reynoutria*	4	*Kniphofia*	2	*Machaeranthera*	1
Drymocallis	62	*Doellingeria*	25	*Satureja*	13	*Sabulina*	7	*Romanzoffia*	4	*Kopsiopsis*	2	*Magnolia*	1
Eschscholzia	61	*Erodium*	25	*Sisyrinchium*	13	*Scandix*	7	*Scabiosa*	4	*Lagophylla*	2	*Melaleuca*	1
Gilia	61	*Monarda*	25	*Anchusa*	12	*Scutellaria*	7	*Swainsona*	4	*Laurus*	2	*Moenchia*	1
Jacobaea	61	*Polygonum*	25	*Argentina*	12	*Sinapis*	7	*Tithonia*	4	*Ligularia*	2	*Mycelis*	1
Plectritis	61	*Syringa*	25	*Baccharis*	12	*Tellima*	7	*Tradescantia*	4	*Ligustrum*	2	*Nicotiana*	1
Hackelia	59	*Calendula*	24	*Barbarea*	12	*Abies*	6	*Vancouveria*	4	*Lobelia*	2	*Nuphar*	1
Rudbeckia	59	*Cucurbita*	24	*Caryopteris*	12	*Antirrhinum*	6	*Veronicastrum*	4	*Lysimachia*	2	*Nymphaea*	1
Sedum	59	*Aquilegia*	23	*Chondrilla*	12	*Arenaria*	6	*Gypsophila*	3	*Microsteris*	2	*Ocimum*	1
Thelypodium	58	*Calyptridium*	23	*Erica*	12	*Aurinia*	6	*Hedera*	3	*Moehringia*	2	*Onobrychis*	1
Brassica	55	*Cleomella*	23	*Eryngium*	12	*Buddleja*	6	*Helleborus*	3	*Nothocalais*	2	*Oplopanax*	1
Helenium	53	*Cytisus*	23	*Eurybia*	12	*Caltha*	6	*Hemizonia*	3	*Olea*	2	*Osmanthus*	1
Holodiscus	53	*Hosackia*	23	*Heterotheca*	12	*Centaurium*	6	*Impatiens*	3	*Omphalodes*	2	*Osteospermum*	1
Horkelia	53	*Malva*	23	*Lithophragma*	12	*Cicuta*	6	*Iva*	3	*Parthenocissus*	2	*Oxytheca*	1
Monardella	53	*Ageratina*	22	*Navarretia*	12	*Eupatorium*	6	*Ivesia*	3	*Patrinia*	2	*Parnassia*	1
Lepidium	52	*Agoseris*	22	*Opuntia*	12	*Gentiana*	6	*Juniperus*	3	*Pelargonium*	2	*Pediocactus*	1
Crepis	51	*Brodiaea*	22	*Rupertia*	12	*Hastingsia*	6	*Lippia*	3	*Petunia*	2	*Phedimus*	1
Lavandula	51	*Dieteria*	22	*Spergularia*	12	*Heliopsis*	6	*Minuartia*	3	*Phoenicaulis*	2	*Platycodon*	1
Berberis	50	*Perideridia*	22	*Teucrium*	12	*Hyssopus*	6	*Misopates*	3	*Physostegia*	2	*Pleiacanthus*	1
Chaenactis	50	*Stachys*	22	*Valeriana*	12	*Kelloggia*	6	*Montia*	3	*Picea*	2	*Polystichum*	1
Hypericum	49	*Cynoglossum*	21	*Alisma*	11	*Kickxia*	6	*Mutarda*	3	*Portulaca*	2	*Rhamnus*	1
Gaillardia	48	*Euphorbia*	21	*Arabis*	11	*Kyhosia*	6	*Nestotus*	3	*Prosartes*	2	*Romneya*	1
Prunella	48	*Euthamia*	21	*Chamaebatiaria*	11	*Liatris*	6	*Paeonia*	3	*Pseudognaphalium*	2	*Santolina*	1
Veronica	48	*Geum*	21	*Clematis*	11	*Lithodora*	6	*Pediomelum*	3	*Pulmonaria*	2	*Saponaria*	1
Madia	46	*Bidens*	20	*Echium*	11	*Maianthemum*	6	*Petasites*	3	*Rumex*	2	*Sarcobatus*	1
Lathyrus	45	*Calystegia*	20	*Eremogone*	11	*Noccaea*	6	*Poa*	3	*Silphium*	2	*Saussurea*	1
Taraxia	45	*Frangula*	20	*Gaultheria*	11	*Petroselinum*	6	*Pyracantha*	3	*Smyrnium*	2	*Sempervivum*	1
Cichorium	44	*Gutierrezia*	20	*Hyacinthoides*	11	*Sanguisorba*	6	*Sanicula*	3	*Spergula*	2	*Sixalix*	1
Epilobium	44	*Limnanthes*	20	*Ladeania*	11	*Scorzoneroides*	6	*Securigera*	3	*Stanleya*	2	*Skimmia*	1
Arnica	43	*Lithospermum*	20	*Lewisia*	11	*Sherardia*	6	*Silybum*	3	*Tiarella*	2	*Stewartia*	1
Astragalus	43	*Rorippa*	20	*Micranthes*	11	*Silene*	6	*Smelowskia*	3	*Tolmiea*	2	*Stokesia*	1
Iris	43	*Thlaspi*	20	*Pseudotsuga*	11	*Tagetes*	6	*Tephroseris*	3	*Torilis*	2	*Streptanthus*	1
Malus	43	*Verbascum*	20	*Pyrus*	11	*Teesdalia*	6	*Triantha*	3	*Triodanis*	2	*Styphnolobium*	1
Rhododendron	43	*Glebionis*	19	*Rhaponticum*	11	*Toxicodendron*	6	*Tribulus*	3	*Tripleurospermum*	2	*Tilia*	1
Convolvulus	42	*Heuchera*	19	*Tetradymia*	11	*Vernonia*	6	*Tropaeolum*	3	*Tulipa*	2	*Tiquilia*	1
Daucus	42	*Sericocarpus*	19	*Toxicoscordion*	11	*Xerophyllum*	6	*Umbellularia*	3	*Veratrum*	2	*Trillium*	1
Origanum	42	*Sorbus*	19	*Wisteria*	11	*Vitex*	5	*Urtica*	3	*Zeltnera*	2	*Vinca*	1
Physocarpus	42	*Thermopsis*	19	*Smithiastrum*	10			*Valerianella*	3	*Zantedeschia*	1	*Xerochrysum*	1

6 County records

Table 3: Number of bee specimens from each county, by genus. You may want to focus your sampling in under-sampled counties.

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Agapostemon	26	65	47	1	66	1	53	3	126	6	10	77	363	3	65	21	20	42	245	40	31	3	176	67	19	41	10	18	1	72	28	20	26	92	74	87	2045
Andrena	162	672	343	23	335	3	345	91	853	28	60	140	435	111	715	314	849	774	517	668	126	100	205	470	30	222	155	213	14	138	168	205	586	732	301	849	11952
Anthidiellum	1	4	0	0	0	0	23	0	13	3	0	7	7	0	11	3	28	26	48	16	1	1	0	5	0	0	0	1	0	0	0	6	8	2	5	0	219
Anthidium	12	30	32	2	29	20	39	7	85	7	1	69	65	36	66	39	79	47	55	56	53	15	16	51	1	19	5	1	8	11	6	25	35	120	17	41	1200
Anthophora	38	6	9	1	7	3	125	24	527	18	32	88	351	19	205	55	107	183	410	56	1	14	232	15	20	0	0	20	0	19	29	92	57	33	90	11	2897
Anthophorula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Apis	1	77	42	16	9	5	5	36	30	49	1	4	1	79	34	3	58	58	5	23	29	37	15	73	0	99	26	17	4	34	8	2	127	103	6	181	1297
Ashmeadiella	40	0	0	0	0	0	44	1	132	7	2	33	182	33	63	28	44	53	70	16	0	38	30	0	3	0	0	11	0	5	3	16	9	2	19	1	885
Atoposmia	17	0	1	0	0	0	2	2	4	2	0	23	34	7	131	7	9	35	8	28	0	1	0	1	0	0	0	4	0	15	2	25	0	0	2	0	360
Biastes	0	0	0	0	0	0	0	0	0	0	0	0	0	8	13	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Bombus	266	571	401	217	382	66	284	486	813	277	17	437	886	561	738	291	283	1438	416	1370	681	549	150	651	31	547	90	56	266	258	238	356	279	925	176	659	16112
Brachymelecta	4	0	0	0	0	0	12	5	58	2	0	25	23	2	98	0	26	37	112	9	0	1	14	4	1	0	0	0	0	3	1	1	0	1	7	0	446
Calliopsis	9	0	0	0	0	0	0	5	20	32	0	0	34	11	1	7	46	63	34	0	0	0	0	0	1	0	0	18	0	3	0	0	1	0	3	0	288
Ceratina	21	492	137	6	170	5	89	18	212	149	2	55	48	152	311	47	475	115	77	722	76	36	7	355	3	271	296	29	9	42	30	26	71	604	55	836	6049
Chelostoma	21	0	0	0	0	0	2	4	113	3	0	16	12	0	14	2	4	17	9	1	0	2	1	0	0	0	0	16	0	0	2	5	9	0	1	0	254
Coelioxys	22	4	2	2	8	0	9	1	44	2	3	11	44	9	18	5	16	17	25	14	12	8	20	15	4	0	2	0	0	2	8	4	2	3	4	3	343
Colletes	49	13	1	1	2	6	164	28	828	8	69	89	206	40	120	74	49	37	269	63	81	21	126	8	30	0	1	114	29	26	10	48	185	15	61	6	2877
Diadasia	107	1	0	0	0	0	8	1	19	14	0	31	63	3	25	0	46	44	7	0	0	1	246	1	0	0	0	11	0	1	12	9	0	1	42	2	695
Dianthidium	50	2	1	0	0	0	79	7	76	5	0	31	79	3	110	12	115	50	72	13	1	3	71	0	4	0	0	1	0	10	1	15	10	0	19	1	841
Dioxys	1	0	0	0	0	0	1	0	4	0	0	2	4	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	17
Dufourea	4	0	0	0	0	0	0	0	48	3	0	9	46	121	65	15	35	26	3	29	0	11	0	5	0	0	0	0	4	9	3	3	0	0	20	1	460
Epeolus	4	1	0	1	0	8	1	1	19	0	3	3	12	0	17	2	10	4	6	8	5	1	2	2	0	0	0	4	3	1	2	0	1	3	2	0	126
Eucera	32	57	21	0	3	1	25	2	65	0	16	22	44	21	39	23	73	44	22	54	3	4	60	23	2	6	33	60	1	33	33	34	252	48	57	110	1323
Habropoda	9	1	1	0	0	8	6	6	104	5	1	1	19	6	52	1	34	31	27	51	38	0	21	0	0	0	1	6	38	0	1	4	101	0	3	0	576
Halictus	340	689	289	26	328	20	302	99	444	89	18	174	315	554	559	132	905	703	357	488	281	115	344	687	67	205	191	77	44	256	273	225	544	912	407	999	12458
Heriades	4	16	6	0	16	0	6	2	119	14	0	4	1	24	19	28	49	66	5	21	7	3	0	39	8	23	2	1	0	8	2	2	0	55	2	13	565
Hesperapis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Holcopasites	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Hoplitis	52	14	9	1	6	0	35	3	100	11	3	95	214	65	86	150	222	49	73	51	3	37	22	49	5	5	6	35	1	20	33	74	40	59	21	10	1659
Hylaeus	92	80	50	4	40	2	66	43	427	19	9	69	209	46	230	107	338	217	275	176	26	19	18	114	40	34	74	141	7	40	34	68	151	170	77	111	3623
Lasioglossum	319	955	340	67	302	26	607	95	945	118	52	297	678	197	724	258	965	704	555	736	698	157	438	646	53	234	329	268	161	199	191	282	514	1079	620	901	15710
Megachile	133	153	65	15	122	5	80	44	558	121	90	138	240	183	327	97	214	456	215	251	109	132	162	206	37	40	16	104	13	131	36	60	113	277	67	41	5051
Melecta	0	0	0	1	0	0	7	0	10	0	0	10	9	0	1	6	16	5	17	1	0	0	5	0	0	0	0	2	0	3	5	9	18	1	9	1	136
Melissodes	116	293	78	4	107	9	161	41	477	51	53	70	223	30	197	20	101	212	207	166	93	30	328	303	16	105	24	153	9	35	39	24	110	496	78	265	4724
Micralictoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Neolarra	0	0	0	0	0	0	0	0	0	0	2	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	17
Nomada	22	209	70	1	69	2	104	19	447	5	5	80	48	26	108	80	211	121	60	193	28	26	37	55	4	52	53	31	3	29	40	51	138	153	44	217	2841
Nomia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	6
Oreopasites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Osmia	351	266	222	9	91	3	387	94	989	89	26	707	676	581	1054	656	1103	684	742	651	46	206	131	385	35	125	148	148	19	154	303	533	922	406	207	309	13458
Panurginus	18	42	60	3	6	0	35	15	1	7	65	6	38	104	15	0	321	6	13	82	42	22	33	146	0	95	8	0	4	20	7	125	35	231	36	38	1679
Peponapis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Perdita	35	10	0	0	0	0	99	12	314	0	62	76	209	2	92	47	87	56	287	0	0	1	180	1	2	0	0	390	0	17	0	24	96	53	69	15	2236
Protandrena	56	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	69
Protosmia	0	17	23	0	19	0	0	1	0	0	0	0	0	11	155	2	169	10	2	63	0	0	0	16	0	16	12	0	0	0	0	0	24	39	0	77	656
Pseudoanthidium	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	5	0	0	16
Sphecodes	5	48	11	4	38	7	50	9	130	7	1	19	37	19	86	16	65	22	40	52	46	9	6	26	3	13	23	10	8	9	9	17	10	75	31	63	1024
Stelis	5	4	2	0	2	2	13	0	26	0	8	20	28	11	12	12	37	10	20	2	1	2	2	8	0	5	1	3	0	4	10	6	4	4	1	5	270
Trachusa	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	1	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Triepeolus	4	9	3	0	8	0	12	0	26	7	3	30	33	1	18	0	5	11	22	11	9	0	25	30	2	5	0	16	0	1	0	1	1	64	32	3	392
Xylocopa	0	7	0	0	1	1	0	0	0	12	0	0	0	0	18	0	85	30	2	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	179
Zacosmia	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
TOTAL	2454	4808	2266	405	2167	203	3280	1205	9218	1170	614	2968	5933	3079	6616	2561	7335	6514	5375	6206	2527	1607	3137	4457	421	2172	1506	1980	646	1612	1568	2397	4479	6763	2665	5856	118170

Table 4: Number of bee specimens from each county, by species

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Agapostemon femoratus	1	0	0	0	0	0	33	0	24	0	2	40	204	0	2	3	0	13	118	0	0	0	69	0	0	0	0	1	0	29	0	0	0	0	1	0	540
Agapostemon melliventris	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Agapostemon subtilior	15	2	14	0	7	0	11	1	64	0	2	27	87	0	53	4	14	13	106	10	20	0	43	21	13	16	4	3	0	28	1	1	0	13	25	35	653
Agapostemon virescens	0	62	8	0	22	0	0	0	1	1	0	1	2	0	0	10	2	0	0	20	2	2	2	43	1	22	5	2	0	11	0	11	5	63	44	37	379
Andrena amphibola	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Andrena angustitarsata	0	0	1	0	0	0	5	0	0	0	0	0	1	0	0	0	2	1	3	7	0	0	0	0	0	0	0	0	0	0	1	1	4	5	0	1	32
Andrena annectens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
Andrena astragali	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Andrena barbilabris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Andrena birtwelli	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Andrena candida	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	3	2	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	13
Andrena candidiformis	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	3	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	13
Andrena cerasifolii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Andrena chapmanae	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Andrena chlorogaster	0	0	0	0	1	0	1	0	3	0	0	0	1	0	0	1	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	4	1	2	0	2	21
Andrena cleodora	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Andrena commoda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Andrena costillensis	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Andrena crataegi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Andrena cressonii	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	1	0	0	5	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	14
Andrena cupreotincta	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	4	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Andrena cyanophila	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Andrena evoluta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Andrena fuscicauda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Andrena hippotes	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Andrena illinoiensis	0	0	2	0	0	0	2	0	2	0	0	1	12	0	0	0	1	4	0	1	0	0	0	21	0	2	0	0	0	0	0	1	0	2	4	0	55
Andrena lawrencei	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Andrena macoupinensis	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Andrena medionitens	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Andrena melanochroa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Andrena merriami	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Andrena microchlora	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	14
Andrena miranda	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Andrena miserabilis	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Andrena nevadensis	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Andrena nigrocaerulea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	28
Andrena nivalis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Andrena nothocalaidis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Andrena pallidifovea	0	0	2	0	0	0	1	0	1	0	0	2	4	0	0	2	1	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	25
Andrena perarmata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Andrena perplexa	0	0	3	2	0	0	0	0	0	0	0	0	0	3	0	1	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	11	0	4	29
Andrena piperi	1	0	0	0	0	0	0	0	3	0	0	0	45	0	0	1	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Andrena prunorum	13	32	2	0	8	0	4	5	52	0	5	6	17	0	33	12	9	28	11	9	5	1	7	18	3	11	5	11	1	31	8	8	8	16	16	31	426
Andrena salicifloris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Andrena scurra	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	44
Andrena sladeni	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Andrena striatifrons	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Andrena topazana	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	5
Andrena transnigra	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Andrena trevoris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Andrena vicina	0	0	8	0	2	0	0	0	11	0	0	0	0	3	0	1	0	0	0	0	4	0	0	0	0	0	0	1	0	0	0	1	3	15	0	0	49
Andrena vicinoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Andrena w-scripta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Andrena walleyi	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Anthidiellum robertsoni	1	4	0	0	0	0	23	0	13	3	0	7	7	0	11	3	28	26	48	16	1	1	0	5	0	0	0	1	0	0	0	6	8	2	5	0	219
Anthidium atrifrons	4	0	0	0	0	0	0	0	4	2	0	16	2	1	1	2	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	41
Anthidium atripes	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Anthidium banningense	2	0	0	0	0	0	7	0	18	0	0	0	0	0	7	1	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	42
Anthidium clypeodentatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Anthidium edwardsii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Anthidium emarginatum	1	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Anthidium formosum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Anthidium illustre	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Anthidium maculosum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Anthidium manicatum	0	28	6	1	6	0	2	3	13	0	0	0	1	3	2	6	10	20	0	10	19	10	0	32	0	10	4	0	1	4	3	0	0	49	0	36	279
Anthidium mormonum	3	0	0	0	0	0	0	0	26	0	0	10	2	0	1	3	1	5	9	4	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0	68
Anthidium oblongatum	0	0	18	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	8	0	0	0	0	0	0	0	50	0	0	83
Anthidium palliventre	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	19	12	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	33
Anthidium placitum	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5
Anthidium tenuiflorae	0	0	1	0	0	0	0	0	1	0	0	2	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Anthidium utahense	0	1	0	0	0	0	15	0	2	2	1	3	0	0	12	0	12	5	2	8	0	0	0	7	0	0	1	0	0	2	0	0	0	0	3	0	76

Table 4: Number of bee specimens from each county, by species *(continued)*

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Anthophora affabilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Anthophora albata	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Anthophora bomboides	5	0	3	0	1	0	1	3	1	0	0	4	3	0	1	0	1	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	1	0	4	2	34
Anthophora californica	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Anthophora crotchii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Anthophora curta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9
Anthophora edwardsii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Anthophora ezigua	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Anthophora maculifrons	0	0	0	0	0	0	0	0	25	0	0	0	2	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Anthophora pacifica	10	2	0	0	0	0	9	0	11	0	0	4	3	0	0	2	20	6	37	3	0	0	0	0	0	0	0	0	1	4	12	0	2	9	0	135
Anthophora peritomae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Anthophora porterae	1	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Anthophora terminalis	0	0	0	0	0	0	0	0	5	2	0	2	7	9	11	0	0	5	1	0	0	2	0	0	0	0	0	0	0	1	1	0	0	0	4	50
Anthophora urbana	7	1	1	0	0	0	36	3	199	7	18	34	114	1	139	14	45	66	205	33	0	10	131	9	6	0	0	2	0	4	0	4	0	1	28	1	1119
Anthophora ursina	2	0	0	0	0	0	4	0	2	0	0	4	0	0	1	0	0	0	35	0	0	0	2	0	0	0	0	0	0	1	8	6	0	0	0	0	65
Anthophorula chionura	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Apis mellifera	1	77	42	16	9	5	5	36	30	49	1	4	1	79	34	3	58	58	5	23	29	37	15	73	0	99	26	17	4	34	8	2	127	103	6	181	1297
Ashmeadiella altadenae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Ashmeadiella bucconis	6	0	0	0	0	0	11	0	6	0	0	7	11	0	0	0	1	4	13	0	0	1	11	0	0	0	0	0	0	0	0	0	0	0	6	0	77
Ashmeadiella cactorum	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Ashmeadiella californica	3	0	0	0	0	0	5	0	0	2	0	6	23	15	13	1	4	2	8	2	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103
Ashmeadiella cubiceps	2	0	0	0	0	0	1	0	1	0	0	3	8	5	6	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Ashmeadiella difugita	0	0	0	0	0	0	0	0	1	0	0	0	23	0	0	0	0	4	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	31
Ashmeadiella foveata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Ashmeadiella foziella	1	0	0	0	0	0	6	0	0	0	0	1	3	0	1	0	0	4	0	4	0	0	3	0	0	0	0	0	0	0	0	3	0	0	0	0	26
Ashmeadiella prosopidis	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Ashmeadiella timberlakei	1	0	0	0	0	0	0	0	10	0	0	4	4	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	26
Atoposmia abjecta	1	0	0	0	0	0	0	0	0	0	0	1	1	5	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	3	0	0	0	0	17
Atoposmia anthodyta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Atoposmia copelandica	7	0	0	0	0	0	0	1	2	1	0	13	6	0	5	5	2	3	6	2	0	0	0	1	0	0	0	4	0	4	0	2	0	0	0	0	64
Atoposmia elongata	4	0	0	0	0	0	0	0	0	0	0	1	1	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	62
Atoposmia oregona	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	10
Atoposmia triodonta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Biastes fulviventris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bombus appositus	8	6	2	0	1	0	0	0	2	4	0	1	13	16	6	0	0	3	8	4	1	6	0	27	0	2	1	0	0	7	2	12	5	7	4	5	153
Bombus caliginosus	0	28	3	21	12	14	0	37	2	34	0	0	0	1	8	2	3	10	0	139	94	3	0	19	0	32	14	0	61	0	0	0	0	35	0	57	629
Bombus centralis	56	0	0	0	0	0	63	0	40	0	6	67	141	0	0	7	0	37	65	0	0	0	13	0	6	0	0	14	0	44	34	46	11	1	55	0	706
Bombus fervidus	18	60	5	26	34	1	24	6	14	8	2	18	147	25	3	5	12	14	30	77	65	16	24	79	2	7	4	1	8	20	9	16	23	103	23	95	1024
Bombus flavidus	6	32	1	2	0	0	0	8	4	3	0	10	1	27	40	1	8	35	4	78	11	42	0	13	1	0	1	0	10	4	6	8	1	12	0	3	372
Bombus flavifrons	4	51	88	18	81	1	4	0	3	12	0	19	13	59	35	2	8	49	14	198	21	78	0	15	1	150	9	0	8	8	50	45	3	91	0	25	1163
Bombus griseocollis	36	20	2	0	9	0	3	0	38	0	6	10	6	1	5	27	2	5	4	7	0	1	30	72	1	1	2	24	0	41	5	12	27	21	19	27	464
Bombus huntii	35	0	0	0	0	0	40	0	128	0	1	27	196	0	1	16	2	24	45	0	0	0	63	1	3	0	1	4	0	17	16	4	4	0	3	0	631
Bombus impatiens	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bombus insularis	18	0	0	0	1	0	0	0	2	1	0	6	20	8	49	0	3	72	22	1	0	1	0	0	0	0	0	0	1	10	0	7	0	0	0	7	229
Bombus melanopygus	0	77	50	13	25	15	3	73	21	6	0	0	0	12	29	26	17	160	0	74	47	25	0	41	0	75	2	0	9	0	1	3	2	56	0	15	877
Bombus mixtus	10	118	98	87	95	7	4	51	15	26	0	14	3	82	99	41	101	58	2	308	182	69	1	111	4	114	20	0	82	11	19	46	2	215	9	129	2233
Bombus morrisoni	0	0	0	0	0	0	3	0	29	0	0	0	2	0	0	3	0	4	4	1	0	0	10	0	0	0	0	0	0	0	0	0	1	0	0	0	57
Bombus nevadensis	6	1	2	0	2	0	8	0	12	0	0	2	17	1	4	5	0	1	1	0	0	0	5	3	1	0	0	4	0	21	10	10	10	10	8	3	147
Bombus occidentalis	1	0	3	0	0	0	0	0	7	1	0	2	4	3	1	1	0	10	8	2	0	20	0	0	0	0	0	0	0	0	1	8	0	0	0	0	72
Bombus rufocinctus	0	1	0	1	4	0	0	0	5	1	0	3	6	1	12	0	1	14	5	1	14	0	1	0	0	1	0	0	2	17	13	22	5	0	1	0	131
Bombus sitkensis	0	22	18	12	8	6	0	17	0	1	0	0	0	4	1	1	0	1	0	61	66	30	0	1	0	8	0	0	29	0	1	2	0	7	0	13	309
Bombus sylvicola	1	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	2	5	1	0	0	0	92
Bombus vagans	8	0	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	1	0	0	0	0	23
Bombus vancouverensis	57	3	36	0	0	0	100	0	173	83	0	252	235	174	198	36	3	356	144	166	2	194	1	28	12	0	0	0	0	54	61	109	1	0	45	4	2527
Bombus vandykei	0	0	2	0	1	0	7	0	104	1	0	2	0	20	47	20	12	55	5	2	0	4	0	3	0	2	1	1	0	0	0	0	85	3	1	0	378
Bombus vosnesenskii	2	152	91	36	109	22	23	294	214	96	2	0	2	127	200	98	111	530	54	251	178	60	0	238	0	154	35	8	56	2	1	0	98	364	8	276	3892
Brachymelecta californica	4	0	0	0	0	0	12	5	58	2	0	25	23	2	98	0	26	37	112	9	0	1	14	4	1	0	0	0	0	3	1	1	0	1	7	0	446
Calliopsis anthidia	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Calliopsis anthidius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Calliopsis coloradensis	7	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Calliopsis edwardsii	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	4	10	16	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Calliopsis fracta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Calliopsis micheneri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Calliopsis obscurella	0	0	0	0	0	0	0	0	18	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Calliopsis personata	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	1	0	0	1	0	3	0	11
Calliopsis scutellaris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Calliopsis zenus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	7
Ceratina acantha	5	416	37	5	115	4	16	14	37	45	0	27	11	50	113	16	284	11	2	288	22	6	0	236	2	178	214	7	4	37	6	10	24	338	7	588	3175
Ceratina arizonensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Ceratina dallatorreana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Ceratina hurdi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

Table 4: Number of bee specimens from each county, by species *(continued)*

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Ceratina micheneri	0	40	2	0	10	0	0	0	0	0	0	0	0	1	9	0	12	1	0	47	0	1	0	24	0	26	14	0	0	0	0	0	0	22	0	82	291
Ceratina nanula	1	1	0	0	1	0	1	0	10	0	0	0	1	0	3	4	14	14	4	3	0	2	0	0	0	1	0	0	0	1	0	0	0	0	1	1	63
Ceratina neomexicana	0	0	0	0	0	0	1	0	8	0	0	0	1	0	0	0	0	1	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	18
Ceratina pacifica	1	0	0	0	0	0	28	0	26	0	1	3	9	0	0	0	2	2	13	0	0	0	4	0	0	0	0	0	0	0	1	4	0	0	6	0	100
Ceratina sequoiae	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Ceratina tejonensis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	34	0	29	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68
Chelostoma californicum	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Chelostoma minutum	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	21
Chelostoma phaceliae	10	0	0	0	0	0	1	0	40	0	0	3	1	0	0	1	1	6	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	72
Coeliozys alternata	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Coeliozys alternatus	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Coeliozys apacheorum	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Coelioxys banksi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Coelioxys deani	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7
Coeliozys edita	8	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	1	0	0	0	38
Coeliozys grindeliae	0	0	0	0	0	0	0	0	1	0	0	0	6	1	1	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Coelioxys hirsutissimus	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	1	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Coeliozys moesta	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Coeliozys moestus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Coeliozys novomexicanus	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5
Coeliozys octodentata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Coeliozys octodentatus	0	1	0	0	0	0	0	0	0	0	0	0	4	1	2	0	2	0	0	1	0	0	2	2	0	0	1	0	0	0	0	0	0	0	0	0	16
Coeliozys porterae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
Coeliozys rufitarsis	4	2	0	0	0	0	2	0	13	1	0	2	7	0	2	0	1	2	9	5	6	0	0	2	0	0	0	0	0	0	0	0	1	0	1	0	60
Coeliozys sayi	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Coeliozys serricaudatus	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	6
Coeliozys sodalis	0	0	0	0	0	0	1	0	3	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Colletes centralis	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Colletes coloradensis	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Colletes compactus	0	0	0	0	0	0	3	0	57	0	1	9	0	0	0	1	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	5	0	81
Colletes consors	4	0	0	0	0	0	0	0	2	0	0	3	1	0	4	0	0	0	2	1	0	0	9	5	0	0	0	7	0	0	0	0	0	0	0	0	38
Colletes fulgidus	0	2	0	0	0	0	12	1	71	4	2	21	47	8	37	4	5	2	35	2	7	1	2	1	5	0	0	3	0	1	1	2	6	2	5	0	289
Colletes gypsicolens	0	0	0	0	0	0	0	0	8	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	11
*Colletes hunt*ii	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Colletes kincaidii	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
Colletes ligatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Colletes nigrifrons	4	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	36
Colletes phaceliae	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Colletes simulans	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Colletes slevini	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Diadasia angusticeps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Diadasia australis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Diadasia bituberculata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Diadasia diminuta	4	0	0	0	0	0	0	1	16	0	0	1	17	0	0	0	15	0	0	0	0	0	82	0	0	0	0	0	0	0	0	0	0	0	17	0	153
Diadasia enavata	88	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	1	0	0	0	133	0	0	0	0	10	0	1	2	2	0	0	0	0	261
Diadasia lutzi	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	14	0	36
Diadasia nigrifrons	15	1	0	0	0	0	8	0	1	14	0	27	13	0	8	0	20	44	4	0	0	1	0	1	0	0	0	0	0	0	10	4	0	1	9	2	183
Diadasia nitidifrons	0	0	0	0	0	0	0	0	1	0	0	3	1	3	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	17
Dianthidium curvatum	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Dianthidium dubium	0	0	0	0	0	0	0	1	1	0	0	0	0	0	9	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Dianthidium heterulkei	1	0	0	0	0	0	0	0	2	2	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Dianthidium parvum	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	8
Dianthidium platyurum	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Dianthidium plenum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Dianthidium pudicum	0	0	0	0	0	0	4	0	3	0	0	0	12	0	0	0	1	0	3	0	0	0	21	0	0	0	0	0	0	1	0	0	0	0	5	0	50
Dianthidium singulare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Dianthidium subparvum	1	1	0	0	0	0	20	4	13	0	0	5	6	0	12	1	3	2	17	1	0	0	2	0	0	0	0	0	0	1	0	0	0	0	5	0	94
Dianthidium ulkei	13	1	0	0	0	0	24	0	17	0	0	3	8	1	16	1	11	6	21	3	0	1	8	0	2	0	0	0	0	1	0	1	0	0	8	1	147
Dioxys aurifuscus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Dioxys pacificus	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Diozys pomonae	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5
Dufourea holocyanea	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Dufourea trochantera	0	0	0	0	0	0	0	0	0	0	0	2	8	0	2	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	13	0	31
Dufourea versatilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Epeolus compactus	0	1	0	0	0	0	0	1	1	0	0	1	0	0	10	0	3	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	21
Epeolus novomexicanus	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Epeolus olympiellus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Eucera acerba	0	0	0	0	0	0	0	1	45	0	0	0	0	0	0	2	5	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Eucera actuosa	12	2	0	0	0	0	9	0	0	0	0	8	8	0	0	5	0	1	3	0	0	0	4	1	0	0	0	0	0	4	0	0	32	0	18	24	131
Eucera amsinckiae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	3	0	14
Eucera cordleyi	5	11	1	0	0	0	7	0	0	0	0	0	1	0	4	1	34	1	0	4	0	0	5	2	0	2	5	2	0	2	0	2	6	1	2	12	110

Table 4: Number of bee specimens from each county, by species *(continued)*

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Eucera edwardsii	6	5	3	0	0	0	2	0	7	0	0	6	4	1	1	2	0	0	1	12	0	0	6	9	0	4	16	2	0	16	1	3	4	5	5	30	151
Eucera frater	3	16	0	0	3	1	4	0	1	0	0	2	3	0	8	10	5	1	8	30	0	1	0	4	0	0	3	0	1	6	5	5	33	20	5	22	200
Eucera fulvitarsis	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Eucera hurdi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Eucera lunata	0	13	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	23
Eucera virgata	1	6	0	0	0	0	0	0	1	0	0	0	1	0	0	0	8	0	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	24
Habropoda cineraria	0	0	0	0	0	0	0	0	7	0	0	0	10	0	0	0	0	0	8	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	29
Habropoda dammersi	0	0	0	0	0	0	0	0	52	0	0	0	0	0	2	1	4	3	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78
Habropoda depressa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	12	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Habropoda miserabilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	34
Habropoda tristissima	9	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	11	0	0	0	25
Halictus confusus	2	25	36	3	39	0	11	10	4	8	0	3	13	4	42	3	13	14	5	18	22	14	0	25	0	45	27	0	6	8	4	4	0	86	1	40	535
Halictus farinosus	13	69	2	0	2	4	24	29	29	30	3	32	38	38	45	57	90	124	159	78	1	3	14	90	8	3	15	4	1	78	4	29	53	50	22	73	1314
Halictus ligatus	221	306	116	4	91	5	94	0	99	21	7	59	105	19	185	15	474	324	18	148	73	10	227	367	41	58	63	34	12	72	105	60	176	340	202	395	4546
Halictus rubicundus	7	73	22	14	37	3	12	25	22	3	0	6	18	2	68	7	55	21	13	96	93	16	13	50	2	22	27	5	20	17	10	23	10	109	11	64	996
Halictus tripartitus	89	169	81	2	97	5	151	28	272	13	2	64	124	65	174	45	254	84	152	102	1	66	70	134	14	30	51	19	0	44	98	89	188	234	154	363	3528
Halictus virgatellus	1	1	0	1	0	0	1	0	0	0	0	0	0	411	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	420
Heriades carinata	0	2	0	0	1	0	0	0	27	0	0	0	0	0	0	0	0	19	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	55
Heriades carinatus	0	4	0	0	1	0	0	0	15	1	0	0	0	0	0	0	13	1	0	1	0	0	0	24	0	3	2	0	0	1	0	0	0	2	0	2	70
Heriades cressoni	4	2	0	0	0	0	0	1	25	4	0	2	0	0	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Heriades variolosus	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hesperapis carinata	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Holcopasites pulchellus	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Hoplitis albifrons	5	0	0	0	1	0	3	0	1	3	0	8	2	3	11	4	12	8	14	3	0	0	3	2	1	1	0	0	0	0	1	2	0	1	1	0	90
Hoplitis boharti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	24
Hoplitis emarginata	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	11	0	0	0	0	9	0	15	0	0	0	0	0	0	0	0	0	0	0	0	38
Hoplitis fulgida	3	0	0	0	0	0	3	0	7	2	1	10	47	0	8	6	23	3	20	4	0	2	0	1	2	0	0	0	0	0	2	5	0	0	3	0	152
Hoplitis grinnelli	0	6	0	0	0	0	0	0	4	0	0	0	2	0	2	1	4	2	0	5	0	0	2	3	1	0	1	9	0	1	0	0	0	1	3	4	51
Hoplitis hypocrita	3	1	0	0	0	0	6	0	14	0	0	3	6	0	2	6	5	0	2	2	0	0	10	6	0	0	2	2	0	1	0	0	5	1	1	2	80
Hoplitis louisae	1	0	0	0	0	0	0	0	0	0	0	1	8	0	2	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	23
Hoplitis orthognatha	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	6	0	0	0	0	10
Hoplitis plagiostoma	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hoplitis producta	1	7	1	0	1	0	2	1	2	0	0	2	3	2	2	8	9	1	2	2	0	8	1	18	0	0	3	6	0	0	0	0	1	5	0	2	90
Hoplitis remotula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Hoplitis sambuci	1	0	0	0	0	0	2	0	2	0	1	2	0	1	3	0	11	2	1	0	0	0	0	0	0	0	0	5	0	2	0	1	2	0	7	0	43
Hoplitis uvulalis	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Hoplitis viridimicans	0	0	1	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Hylaeus Mesillae	11	1	0	0	3	0	1	0	15	1	0	0	10	0	3	2	6	0	12	0	0	0	0	4	0	1	2	2	0	0	0	0	0	2	10	6	92
Hylaeus basalis	0	0	1	0	0	0	0	0	6	0	0	3	0	0	6	7	6	18	10	3	0	2	0	0	1	0	1	0	0	0	0	3	0	0	0	0	67
Hylaeus mesillae	14	9	0	0	7	1	1	0	50	0	0	4	27	2	9	5	16	35	1	6	1	0	6	25	0	7	13	5	0	11	2	0	0	13	14	24	308
Hylaeus nunenmacheri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Lasioglossum aberrans	0	0	0	0	0	0	0	0	0	0	0	0	53	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	57
Lasioglossum albipenne	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0	7
Lasioglossum albohirtum	0	0	0	0	0	0	15	0	42	0	1	0	3	0	6	9	0	2	9	0	0	0	2	0	0	0	0	10	0	2	0	0	14	0	1	0	116
Lasioglossum allonotus	0	3	0	0	0	0	0	0	0	0	2	0	0	1	17	0	31	0	0	6	0	2	0	0	0	2	2	0	0	0	0	3	7	3	0	6	85
Lasioglossum anhypops	2	0	1	0	0	0	1	1	49	0	0	6	10	3	11	7	5	8	10	12	0	3	2	0	2	0	0	0	0	4	2	2	0	0	2	0	143
Lasioglossum argemonis	0	1	0	0	0	0	19	0	6	1	1	0	0	0	13	2	20	12	1	13	3	3	0	5	0	0	2	2	0	0	2	0	0	7	4	4	121
Lasioglossum aspilurum	0	0	0	0	0	0	7	0	3	0	0	1	0	0	2	5	13	0	0	0	0	0	0	0	0	0	0	9	0	3	0	0	1	0	10	0	54
Lasioglossum boreale	2	0	1	0	0	0	1	0	2	0	0	2	2	0	2	4	6	1	3	2	5	1	0	1	0	0	1	0	0	1	5	6	0	0	2	4	54
Lasioglossum brunneiventre	0	1	0	0	0	0	12	0	5	0	7	2	1	0	1	0	2	1	3	0	0	0	0	0	0	0	1	14	0	0	0	0	4	0	8	0	62
Lasioglossum buccale	0	1	2	0	6	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	10	0	0	0	0	3	0	0	1	0	0	0	0	3	0	2	32
Lasioglossum cembrilacus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lasioglossum colatum	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	5	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	12
Lasioglossum cooleyi	39	0	0	0	0	0	16	0	5	0	1	3	6	0	15	7	38	8	9	0	0	0	1	0	0	0	0	4	0	11	3	17	13	0	8	1	205
Lasioglossum cordleyi	22	6	2	0	10	0	0	9	0	2	0	0	0	4	38	1	90	40	0	18	27	0	0	8	0	2	5	7	0	1	0	0	21	17	0	69	399
Lasioglossum cressonii	0	51	9	2	21	0	0	2	0	1	0	0	0	1	0	0	0	0	2	67	4	1	2	18	1	28	53	0	1	0	2	0	1	70	0	68	405
Lasioglossum dashwoodi	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	3	0	10
Lasioglossum diatretum	7	2	0	0	0	0	67	1	34	0	0	13	17	2	24	28	12	59	61	1	0	4	1	1	0	0	0	0	0	10	8	4	0	4	14	4	378
Lasioglossum diversopunctatum	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	14
Lasioglossum ebmerellum	2	0	0	0	0	0	4	0	1	0	0	0	1	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	13
Lasioglossum egregium	3	0	0	0	0	0	6	0	1	0	0	0	1	0	0	0	3	1	7	5	1	0	1	0	0	0	0	2	0	1	5	1	0	0	2	0	40
Lasioglossum glabriventre	3	1	2	0	0	0	3	0	7	0	0	2	10	3	6	5	5	15	5	15	2	2	4	9	0	10	2	0	0	2	0	1	1	11	3	0	129
Lasioglossum helianthi	6	29	0	0	3	0	7	2	46	1	1	6	14	0	16	13	27	49	6	6	1	0	15	8	2	9	2	14	0	0	3	2	33	38	19	17	395
Lasioglossum hudsoniellum	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lasioglossum hyalinum	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lasioglossum incompletum	21	43	3	0	6	0	7	0	8	3	2	2	23	0	18	3	13	35	6	10	0	1	54	15	0	0	6	3	0	11	4	2	39	26	9	22	395
Lasioglossum inconditum	8	9	8	0	8	1	42	1	5	3	0	14	17	12	11	2	12	11	21	40	8	6	1	9	0	0	0	0	6	24	24	33	0	23	0	33	392
Lasioglossum kincaidii	0	3	2	1	1	0	0	1	31	5	0	0	2	0	14	2	6	24	0	5	1	4	0	14	0	2	9	2	0	0	0	0	2	7	2	6	146
Lasioglossum knereri	1	0	0	0	0	0	0	0	1	0	0	1	3	0	2	0	1	4	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	15
Lasioglossum laevissimum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	32	0	0	0	0	1	0	0	2	0	0	0	0	2	0	0	38
Lasioglossum lusorium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	19

Table 4: Number of bee specimens from each county, by species *(continued)*

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Lasioglossum macoupinense	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0	0	1	3	2	14
Lasioglossum macroprosopum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	3
Lasioglossum marinense	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	9
Lasioglossum megastictum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lasioglossum mellipes	0	0	0	0	0	0	1	0	5	2	0	0	0	0	15	1	13	16	3	2	0	0	0	0	0	0	0	0	0	0	0	0	7	1	1	2	69
Lasioglossum nevadense	0	0	1	0	0	0	3	0	28	0	0	5	2	0	2	0	5	1	2	0	0	2	1	2	0	0	0	12	0	3	1	1	7	10	1	0	89
Lasioglossum nigrum	0	1	1	0	3	0	2	0	8	6	0	1	4	3	16	3	6	5	6	14	1	8	0	4	0	0	0	0	2	2	1	7	0	4	0	4	112
Lasioglossum novascotiae	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	5
Lasioglossum occultum	0	15	13	0	5	6	0	4	10	0	0	0	0	1	8	2	3	8	1	17	14	3	0	14	0	4	5	0	10	0	0	0	5	25	0	60	233
Lasioglossum olympiae	0	208	37	1	10	0	7	1	0	9	0	3	0	7	64	6	5	45	31	59	6	15	0	66	0	6	59	0	0	3	25	3	28	95	0	108	907
Lasioglossum orthocarpi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lasioglossum ovaliceps	2	0	0	0	1	0	4	0	12	0	0	1	3	3	7	2	5	2	11	0	0	1	0	0	1	4	0	0	0	0	0	6	1	1	2	1	70
Lasioglossum pacatum	0	0	0	0	0	1	0	1	0	2	0	1	2	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	0	16
Lasioglossum pacificum	0	13	17	0	6	1	0	4	0	1	0	0	0	3	3	0	7	2	0	23	28	0	0	19	0	5	1	0	5	0	0	0	7	28	0	16	189
Lasioglossum pavonotum	0	0	0	0	0	5	0	8	0	7	0	0	0	0	1	0	1	0	0	15	44	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	95
Lasioglossum prasinogaster	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lasioglossum pruinosum	1	0	0	0	0	0	0	0	0	0	2	1	1	0	0	2	0	0	0	0	0	3	10	5	1	0	0	8	0	4	0	0	5	0	3	0	46
Lasioglossum pulveris	14	0	0	0	0	0	40	0	79	0	7	35	81	0	2	24	1	6	14	1	0	0	58	1	4	0	0	50	0	17	11	10	25	2	151	1	634
Lasioglossum punctatoventre	5	0	0	0	0	0	0	0	1	1	0	2	2	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	18
Lasioglossum quebecense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	4	2	1	0	0	0	0	0	0	0	0	0	0	0	2	0	4	18
Lasioglossum robustum	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Lasioglossum ruidosense	3	14	5	0	6	0	4	3	7	2	0	3	19	1	17	3	34	8	5	31	2	6	0	10	1	5	28	0	1	2	2	0	2	11	11	47	293
Lasioglossum sandhousiellum	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	1	13	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	22
Lasioglossum sedi	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	5	0	10
Lasioglossum sequoiae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Lasioglossum sisymbrii	19	8	9	0	4	0	12	0	33	0	0	10	40	6	11	30	5	7	24	22	1	2	36	26	2	3	10	0	0	7	9	18	9	27	3	35	428
Lasioglossum tegulariforme	0	0	0	0	0	0	1	0	2	0	0	0	0	0	5	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	14
Lasioglossum tenax	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lasioglossum testaceum	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lasioglossum timberlakei	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lasioglossum titusi	1	251	64	8	31	0	12	4	1	1	0	33	26	0	44	0	64	65	15	58	20	6	12	191	5	4	56	1	2	1	15	11	8	206	8	101	1325
Lasioglossum trizonatum	0	0	0	0	0	0	8	0	3	0	0	3	6	0	0	0	3	3	7	2	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	39
Lasioglossum tuolumnense	0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	0	8	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	19
Lasioglossum villosulum	0	60	40	18	45	0	0	0	0	7	0	0	0	4	0	0	1	0	0	38	91	14	0	65	0	27	6	1	33	0	0	0	18	62	0	75	605
Lasioglossum yukonae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Lasioglossum zephyrus	0	1	0	0	0	0	2	0	0	2	0	0	3	1	0	0	0	0	0	6	23	0	1	9	0	2	3	0	0	1	0	0	0	0	1	4	59
Lasioglossum zonulum	0	9	6	10	14	2	0	5	0	1	0	0	0	0	2	0	0	0	0	18	37	0	0	8	0	7	2	0	7	0	0	0	0	7	0	2	137
Megachile addenda	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Megachile angelarum	0	51	9	0	6	0	14	0	53	1	3	3	1	9	10	2	10	17	6	22	0	15	0	31	2	15	1	2	0	4	0	0	0	24	6	4	321
Megachile anograe	0	0	1	0	0	0	0	1	0	0	0	0	0	0	3	0	4	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	11
Megachile apicalis	5	1	0	0	0	0	1	0	10	1	5	1	2	5	16	11	3	4	0	5	0	0	3	0	13	0	1	0	0	35	0	0	0	1	9	1	133
Megachile brevis	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	3	0	0	17
Megachile centuncularis	0	2	0	0	0	0	0	1	3	1	0	1	1	0	3	0	0	4	1	3	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	24
Megachile cleomis	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Megachile coquilletti	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	10
Megachile fidelis	0	6	0	0	1	0	4	2	0	6	0	1	3	4	20	0	11	16	8	17	1	5	0	15	0	2	0	0	0	0	0	0	0	1	0	3	126
Megachile frigida	0	0	0	0	0	0	0	0	2	0	0	3	0	1	1	0	0	1	0	2	0	0	0	2	0	2	0	0	0	1	0	0	0	0	0	0	15
Megachile gemula	1	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	3	0	0	1	0	0	0	0	0	0	1	0	2	16
Megachile gentilis	0	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	1	1	1	1	2	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	14
Megachile gravita	1	1	0	0	0	0	0	0	0	1	0	0	0	0	12	0	1	0	0	1	0	0	0	4	0	1	4	0	0	0	0	0	0	16	0	1	43
Megachile inermis	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Megachile inimica	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Megachile lapponica	0	0	0	1	0	0	1	1	5	0	0	6	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0	0	0	0	0	3	0	0	0	1	24
Megachile lippiae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Megachile melanophaea	2	0	0	0	0	0	0	1	8	0	0	5	1	2	3	0	2	0	2	6	1	4	0	3	2	0	0	0	2	2	0	0	0	1	0	1	48
Megachile mellitarsis	1	0	0	0	0	0	2	0	0	4	0	1	10	0	1	0	0	2	7	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	33
Megachile montivaga	0	1	0	0	0	0	0	1	0	0	0	1	0	0	2	1	0	3	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	4	1	1	18
Megachile nevadensis	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	11	26	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	44
Megachile onobrychidis	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	0	0	0	0	0	0	0	0	10
Megachile parallela	12	0	0	0	0	0	1	0	1	1	1	1	95	0	2	0	1	4	1	1	0	0	35	0	0	0	0	0	0	0	0	0	0	0	19	0	175
Megachile perihirta	2	14	1	2	2	0	8	13	65	9	0	16	17	4	17	2	6	29	15	32	40	6	3	31	1	2	3	0	1	5	1	2	0	2	7	1	359
Megachile pseudonigra	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Megachile pugnata	0	5	0	1	0	0	8	0	6	3	0	10	1	31	5	0	4	13	33	3	0	13	0	9	1	0	1	0	0	0	0	2	0	0	0	0	149
Megachile relativa	0	0	3	0	0	0	0	0	1	0	0	2	0	0	0	0	1	3	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Megachile rotundata	1	30	2	0	8	0	0	0	21	0	0	2	4	3	3	6	28	79	0	11	0	1	0	62	7	4	0	0	0	12	0	0	0	14	0	7	305
Megachile subnigra	2	0	0	0	0	0	0	0	1	0	0	0	2	0	5	0	4	5	6	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	28
Megachile texana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Megachile umatillensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	3
Megachile wheeleri	0	0	0	0	0	0	0	0	8	0	2	1	5	1	7	1	2	2	23	0	0	7	0	0	0	0	0	0	0	1	0	0	0	0	1	0	61
Melecta edwardsii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	15
Melecta pacifica	0	0	0	1	0	0	2	0	0	0	0	6	3	0	1	2	4	1	8	0	0	0	3	0	0	0	0	0	0	2	3	2	0	0	2	0	40

Table 4: Number of bee specimens from each county, by species *(continued)*

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Melecta separata	0	0	0	0	0	0	3	0	4	0	0	1	4	0	0	1	6	3	4	1	0	0	0	0	0	0	0	2	0	0	0	0	1	1	3	1	35
Melecta thoracica	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Melissodes agilis	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	0	0	1	0	0	8
Melissodes bimatris	0	0	0	0	0	0	1	0	6	0	2	0	0	0	0	0	0	0	0	3	1	0	8	1	0	0	0	5	0	0	0	0	10	0	1	0	38
Melissodes clarkiae	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Melissodes communis	0	0	0	1	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Melissodes dagosus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Melissodes lupinus	1	115	8	0	1	0	3	3	2	0	0	2	3	0	2	0	3	13	8	45	2	6	2	152	2	0	8	0	0	0	0	1	2	72	5	42	503
Melissodes lustrus	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Melissodes metenuus	2	7	1	0	0	0	25	3	0	0	0	5	1	0	2	0	0	3	2	13	2	0	0	10	0	0	0	0	0	0	0	0	0	8	0	3	87
Melissodes microstictus	2	8	1	0	9	0	15	4	29	8	0	21	3	5	25	0	33	3	3	5	6	5	0	10	0	6	0	0	0	4	0	0	0	5	0	11	221
Melissodes pallidisignatus	0	12	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Melissodes rivalis	1	0	0	0	0	0	1	0	10	0	4	1	2	1	0	0	0	1	1	7	4	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	39
Melissodes robustior	0	8	0	0	3	0	0	0	17	0	1	0	2	0	0	0	0	3	0	9	0	0	0	19	2	14	0	0	0	1	0	0	0	21	0	1	101
Melissodes semilupinus	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Micralictoides ruficaudus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Neolarra vigilans	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Nomia melanderi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	5
Osmia aglaia	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Osmia albolateralis	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Osmia atriventris	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia atrocyanea	7	3	0	0	1	0	3	0	1	0	1	4	4	0	9	5	8	2	0	6	0	1	0	10	0	0	1	0	0	3	1	2	0	1	7	7	87
Osmia bakeri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Osmia bella	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	7
Osmia brevis	33	0	1	0	0	0	2	0	5	0	0	18	5	0	9	8	9	4	3	0	0	0	2	1	0	0	0	0	0	1	5	6	0	0	1	0	113
Osmia bruneri	5	0	0	0	0	0	2	1	10	0	1	17	22	0	11	3	7	0	17	0	0	0	4	0	0	0	0	4	0	3	0	4	3	0	5	0	119
Osmia bucephala	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5	2	1	0	0	0	0	12
Osmia caerulescens	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	6
Osmia californica	1	0	0	0	0	0	8	0	1	0	0	3	3	0	1	0	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	27
Osmia calla	2	0	0	0	0	0	5	0	15	0	0	26	17	0	5	2	0	4	14	0	0	0	1	0	0	0	0	2	0	1	0	1	0	0	1	0	96
Osmia cara	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Osmia caraformis	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	9
Osmia cobaltina	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	4	0	16
Osmia coloradensis	1	0	0	0	1	0	5	0	1	0	0	4	0	0	4	1	9	1	5	1	0	1	0	3	0	1	0	0	0	1	0	3	0	0	2	1	45
Osmia cornifrons	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	7	2	0	0	0	0	0	0	11	0	0	26
Osmia cyanella	15	3	0	0	0	0	9	1	4	2	0	3	0	0	8	5	10	1	0	5	0	1	0	1	0	0	0	0	0	2	0	2	2	1	4	3	82
Osmia densa	7	1	1	0	0	0	12	1	7	4	0	8	2	2	16	7	90	3	8	3	0	4	0	3	0	0	0	0	0	5	7	8	1	0	0	2	202
Osmia dolerosa	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6
Osmia ednae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Osmia enixa	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Osmia exigua	3	0	0	0	0	0	1	1	0	2	0	5	0	0	3	4	4	4	7	2	0	0	0	3	0	0	0	0	0	1	2	1	0	0	0	1	44
Osmia gabrielis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Osmia gaudiosa	0	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	9
Osmia giliarum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Osmia glauca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Osmia integra	0	0	0	0	0	0	1	0	7	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Osmia inurbana	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Osmia juxta	3	0	0	0	0	0	0	0	2	0	0	0	0	0	8	5	7	5	0	1	0	3	0	0	0	0	0	0	0	1	0	2	0	0	1	1	39
Osmia kincaidii	5	0	0	0	0	0	5	0	18	0	0	3	10	0	11	2	20	4	10	2	0	0	0	5	1	0	4	4	0	10	0	7	9	2	1	13	146
Osmia laeta	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	1	6	4	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	19
Osmia lanei	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia lignaria	3	17	1	0	12	0	1	0	0	0	0	0	2	0	1	2	14	8	4	14	1	0	0	5	0	6	3	0	3	2	3	20	3	6	1	21	153
Osmia longula	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	5
Osmia malina	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	5	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	11
Osmia melanopleura	0	0	0	0	0	0	2	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	8
Osmia montana	6	0	0	0	0	0	9	0	9	1	0	6	1	0	4	16	18	5	7	3	0	0	0	0	0	1	0	0	0	0	5	3	23	0	8	0	125
Osmia nemoris	0	16	0	0	0	0	1	0	0	0	0	1	2	0	7	0	0	1	2	1	0	0	0	8	0	0	16	0	0	0	0	0	0	1	0	9	65
Osmia nifoata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia nigrifrons	0	0	0	0	0	0	3	0	0	0	0	2	2	0	3	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	15
Osmia nigriventris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia obliqua	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	3
Osmia odontogaster	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3
Osmia paradisica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Osmia phaceliae	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Osmia physariae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia pikei	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia proxima	0	11	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	2	0	0	0	0	0	0	3	0	4	28
Osmia pusilla	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
Osmia rawlinsi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia regulina	2	0	0	0	0	0	1	0	1	0	1	1	6	0	0	0	3	0	0	0	0	0	0	0	5	0	0	1	0	9	0	0	1	0	3	0	34
Osmia ribifloris	0	0	0	0	0	0	1	0	16	0	0	0	0	0	1	0	8	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	34

Table 4: Number of bee specimens from each county, by species *(continued)*

	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes	Douglas	Gilliam	Grant	Harney	Hood River	Jackson	Jefferson	Josephine	Klamath	Lake	Lane	Lincoln	Linn	Malheur	Marion	Morrow	Multnomah	Polk	Sherman	Tillamook	Umatilla	Union	Wallowa	Wasco	Washington	Wheeler	Yamhill	TOTAL
Osmia rostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Osmia sanrafaelae	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia simillima	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Osmia sladeni	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia tanneri	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia tersula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Osmia texana	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Osmia tristella	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	1	6
Osmia vandykei	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Osmia visenda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Peponapis pruinosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Perdita albipennis	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Perdita nevadensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Protosmia rubifloris	0	17	23	0	19	0	0	1	0	0	0	0	0	11	155	2	169	10	2	63	0	0	0	16	0	16	12	0	0	0	0	0	24	39	0	77	656
Pseudoanthidium nanum	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	5	0	0	16
Sphecodes arvensiformis	0	1	0	1	5	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	0	1	1	0	1	0	0	0	1	0	1	0	1	1	2	25
Sphecodes davisii	0	0	4	0	3	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	12
Sphecodes kincaidii	0	0	1	0	0	4	0	0	0	0	0	1	0	1	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	14
Sphecodes olympicus	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Sphecodes pecosensis	0	0	0	0	0	0	0	0	7	0	0	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	15
Stelis ashmeadiellae	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Stelis carnifex	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Stelis laticincta	0	4	0	0	0	0	0	0	1	0	0	0	0	1	0	1	17	1	0	1	0	0	0	7	0	4	0	0	0	0	0	0	0	0	0	2	39
Stelis monticola	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	6
Stelis rubi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Stelis subemarginata	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	6
Trachusa timberlakei	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	1	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Triepeolus argyreus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Triepeolus californicus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Triepeolus concavus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Triepeolus helianthi	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Triepeolus heterurus	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	11
Triepeolus lunatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Triepeolus melanarius	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	8	0	1	20
Triepeolus paenepectoralis	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	9
Triepeolus utahensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
Xylocopa californica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Xylocopa tabaniformis	0	0	0	0	1	1	0	0	0	8	0	0	0	0	17	0	55	17	1	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116
Xylocopa virginica	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Zacosmia maculata	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
TOTAL	1265	3073	1104	312	1105	115	1463	752	3362	614	109	1356	2923	1462	2979	867	3288	3371	2500	3314	1455	964	1458	2929	214	1320	916	408	415	984	701	909	1375	3459	1299	3669	57809

7 Taxonomic Accuracy, 2023

In 2023, you identified 1237 of your 1255 specimens to genus level and 366 to species level, with a genus-level identification accuracy of 94.3% and a species-level identification accuracy of 89.3% (see Table 5). In total, volunteers from the Oregon Bee Atlas project identified 44.5 % (9993) of the 22478 bee specimens to the level of genus, with an average accuracy of 94.5%. Volunteers also identified 8.4% (1887) of the specimens to species level, and had an average accuracy of 88.9% (see Table 6). Nicely done!

Table 5: Your determination accuracy in 2023.

Taxon	Specimens ID-ed	Correct ID	% Correct
Family			
Andrenidae	189	188	99.5
Apidae	344	339	98.5
Colletidae	18	17	94.4
Halictidae	346	345	99.7
Megachilidae	337	323	95.8
Melittidae	3	0	0.0
TOTAL	1237	1212	98.0
Genus			
Agapostemon	4	4	100.0
Andrena	52	52	100.0
Anthidiellum	5	5	100.0
Anthidium	11	11	100.0
Anthophora	29	29	100.0
Ashmeadiella	13	13	100.0
Atoposmia	1	0	0.0
Biastes	1	1	100.0
Bombus	114	113	99.1
Ceratina	2	2	100.0
Chelostoma	1	0	0.0
Coelioxys	7	7	100.0
Colletes	8	7	87.5
Diadasia	41	38	92.7
Dianthidium	49	48	98.0
Dufourea	2	2	100.0
Eucera	12	12	100.0
Halictus	161	161	100.0
Hesperapis	3	0	0.0
Holcopasites	1	1	100.0
Hoplitis	12	10	83.3
Hylaeus	10	10	100.0
Lasioglossum	175	174	99.4
Megachile	97	93	95.9
Melecta	1	1	100.0
Melissodes	125	116	92.8
Nomada	15	14	93.3
Osmia	140	129	92.1
Panurginus	30	30	100.0
Perdita	99	68	68.7
Protandrena	8	7	87.5
Sphecodes	4	4	100.0
Trachusa	1	1	100.0
Triepeolus	3	3	100.0
TOTAL	1237	1166	94.3

Table 5: Your determination accuracy in 2023. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Species			
Anthidiellum robertsoni	5	5	100.0
Bombus appositus	1	1	100.0
Bombus caliginosus	2	2	100.0
Bombus centralis	5	5	100.0
Bombus fervidus	7	7	100.0
Bombus flavidus	3	3	100.0
Bombus flavifrons	4	3	75.0
Bombus frigidus	1	0	0.0
Bombus griseocollis	18	18	100.0
Bombus huntii	9	9	100.0
Bombus insularis	2	1	50.0
Bombus morrisoni	1	1	100.0
Bombus nevadensis	6	5	83.3
Bombus sitkensis	2	1	50.0
Bombus sylvicola	6	0	0.0
Bombus vancouverensis	39	38	97.4
Bombus vosnesenskii	6	6	100.0
Halictus confusus	2	2	100.0
Halictus farinosus	8	6	75.0
Halictus ligatus	66	65	98.5
Halictus tripartitus	43	43	100.0
Halictus virgatellus	6	6	100.0
Holcopasites pulchellus	1	1	100.0
Lasioglossum cooleyi	22	0	0.0
Lasioglossum cressonii	1	1	100.0
Lasioglossum diatretum	1	1	100.0
Lasioglossum diversopunctatum	4	4	100.0
Lasioglossum incompletum	63	61	96.8
Lasioglossum inconditum	1	1	100.0
Lasioglossum nevadense	1	1	100.0
Lasioglossum pruinosum	4	4	100.0
Lasioglossum pulveris	2	2	100.0
Lasioglossum ruidosense	3	3	100.0
Lasioglossum sisymbrii	12	12	100.0
Lasioglossum titusi	8	8	100.0
Trachusa timberlakei	1	1	100.0
TOTAL	366	327	89.3

Table 6: Determination accuracy for all volunteers in 2023.

Taxon	Specimens ID-ed	Correct ID	% Correct
Family			
Andrenidae	1171	1121	95.7
Apidae	3080	3039	98.7
Colletidae	422	396	93.8
Halictidae	2297	2266	98.7
Megachilidae	3020	2970	98.3
Melittidae	4	1	25.0
TOTAL	9994	9793	98.0
Genus			

Table 6: Determination accuracy for all volunteers in 2023. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Agapostemon	86	86	100.0
Andrena	682	662	97.1
Anthidiellum	30	7	23.3
Anthidium	125	124	99.2
Anthophora	198	184	92.9
Apis	85	85	100.0
Ashmeadiella	58	47	81.0
Atoposmia	46	44	95.7
Biastes	3	3	100.0
Bombus	1671	1670	99.9
Brachymelecta	5	5	100.0
Calliopsis	21	10	47.6
Ceratina	273	268	98.2
Chelostoma	27	24	88.9
Coelioxys	43	42	97.7
Colletes	265	245	92.5
Diadasia	71	59	83.1
Dianthidium	97	78	80.4
Dioxys	2	1	50.0
Dufourea	53	52	98.1
Epeolus	10	9	90.0
Eucera	60	57	95.0
Habropoda	49	47	95.9
Halictus	902	862	95.6
Heriades	40	29	72.5
Hesperapis	4	1	25.0
Holcopasites	1	1	100.0
Hoplitis	231	195	84.4
Hylaeus	157	151	96.2
Lasioglossum	1163	1101	94.7
Megachile	562	546	97.2
Melecta	21	20	95.2
Melissodes	370	322	87.0
Micralictoides	14	14	100.0
Neolarra	3	3	100.0
Nomada	207	201	97.1
Osmia	1670	1639	98.1
Panurginus	140	120	85.7
Perdita	319	249	78.1
Protandrena	8	7	87.5
Protosmia	48	33	68.8
Pseudoanthidium	4	1	25.0
Sphecodes	79	65	82.3
Stelis	31	21	67.7
Trachusa	6	5	83.3
Triepeolus	43	41	95.3
Xylocopa	10	9	90.0
TOTAL	9993	9445	94.5
Species			
Anthidiellum robertsoni	7	7	100.0
Apis mellifera	68	68	100.0

Table 6: Determination accuracy for all volunteers in 2023. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Bombus appositus	8	7	87.5
Bombus caliginosus	32	24	75.0
Bombus centralis	43	38	88.4
Bombus fervidus	43	43	100.0
Bombus flavidus	23	22	95.7
Bombus flavifrons	57	54	94.7
Bombus frigidus	3	0	0.0
Bombus griseocollis	46	46	100.0
Bombus huntii	50	46	92.0
Bombus insularis	9	7	77.8
Bombus kirbiellus	1	0	0.0
Bombus melanopygus	42	20	47.6
Bombus mixtus	139	121	87.1
Bombus morrisoni	4	4	100.0
Bombus nevadensis	13	12	92.3
Bombus occidentalis	5	3	60.0
Bombus rufocinctus	6	4	66.7
Bombus sitkensis	29	15	51.7
Bombus sylvicola	45	14	31.1
Bombus vagans	4	2	50.0
Bombus vancouverensis	259	257	99.2
Bombus vandykei	31	24	77.4
Bombus vosnesenskii	269	252	93.7
Brachymelecta californica	3	3	100.0
Ceratina pacifica	1	0	0.0
Halictus confusus	35	28	80.0
Halictus farinosus	28	24	85.7
Halictus ligatus	208	207	99.5
Halictus rubicundus	16	15	93.8
Halictus tripartitus	108	107	99.1
Halictus virgatellus	7	6	85.7
Holcopasites pulchellus	1	1	100.0
Lasioglossum anhypops	3	3	100.0
Lasioglossum aspilurum	1	1	100.0
Lasioglossum boreale	2	2	100.0
Lasioglossum cooleyi	23	0	0.0
Lasioglossum cressonii	1	1	100.0
Lasioglossum diatretum	1	1	100.0
Lasioglossum diversopunctatum	4	4	100.0
Lasioglossum glabriventre	1	1	100.0
Lasioglossum helianthi	1	0	0.0
Lasioglossum incompletum	74	72	97.3
Lasioglossum inconditum	2	2	100.0
Lasioglossum kincaidii	2	2	100.0
Lasioglossum nevadense	1	1	100.0
Lasioglossum olympiae	1	1	100.0
Lasioglossum ovaliceps	5	5	100.0
Lasioglossum pavonotum	10	10	100.0
Lasioglossum pruinosum	4	4	100.0
Lasioglossum pulveris	6	6	100.0
Lasioglossum quebecense	1	0	0.0

Table 6: Determination accuracy for all volunteers in 2023. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Lasioglossum ruidosense	3	3	100.0
Lasioglossum sisymbrii	19	19	100.0
Lasioglossum titusi	24	20	83.3
Lasioglossum zephyrus	1	1	100.0
Lasioglossum zonulum	4	4	100.0
Megachile perihirta	1	0	0.0
Micralictoides ruficaudus	14	14	100.0
Osmia atrocyanea	1	0	0.0
Osmia brevis	2	0	0.0
Osmia coloradensis	1	0	0.0
Osmia cyanella	3	0	0.0
Osmia densa	5	0	0.0
Osmia sculleni	3	0	0.0
Protosmia rubifloris	15	15	100.0
Trachusa timberlakei	5	5	100.0
TOTAL	1887	1678	88.9

8 Taxonomic Accuracy, All Years

In 2023, you identified 5383, 0 of your 8586, 42 specimens to genus level and 2332, 0 to species level, with a genus-level identification accuracy of 97.8%, and a species-level identification accuracy of 91.1%, (see Table 7). In total, volunteers from the Oregon Bee Atlas project identified 45 % (53168) of the 118170 bee specimens to the level of genus, with an average accuracy of 94.2%. Volunteers also identified 11.3% (13393) of the specimens to species level, and had an average accuracy of 89.9% (see Table 8). Nicely done!

Table 7: Your determination accuracy.

Taxon	Specimens ID-ed	Correct ID	% Correct
Family			
Andrenidae	633	631	99.7
Apidae	1813	1806	99.6
Colletidae	208	198	95.2
Halictidae	1715	1712	99.8
Megachilidae	1011	996	98.5
Melittidae	3	0	0.0
TOTAL	5383	5343	99.3
Genus			
Agapostemon	175	173	98.9
Andrena	328	327	99.7
Anthidiellum	9	9	100.0
Anthidium	32	32	100.0
Anthophora	259	254	98.1
Apis	5	5	100.0
Ashmeadiella	95	95	100.0
Atoposmia	6	5	83.3
Biastes	1	1	100.0
Bombus	682	679	99.6
Brachymelecta	26	26	100.0
Calliopsis	7	7	100.0
Ceratina	190	189	99.5
Chelostoma	6	5	83.3
Coelioxys	24	24	100.0
Colletes	92	83	90.2
Diadasia	146	142	97.3
Dianthidium	116	115	99.1
Dufourea	4	4	100.0
Epeolus	5	5	100.0
Eucera	81	80	98.8
Habropoda	2	1	50.0
Halictus	780	774	99.2
Heriades	3	3	100.0
Hesperapis	3	0	0.0
Holcopasites	1	1	100.0
Hoplitis	39	36	92.3
Hylaeus	116	115	99.1
Lasioglossum	707	706	99.9
Megachile	263	258	98.1
Melecta	2	2	100.0
Melissodes	322	307	95.3
Nomada	50	49	98.0
Osmia	385	374	97.1
Panurginus	41	41	100.0

Table 7: Your determination accuracy. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Perdita	247	216	87.4
Protandrena	10	9	90.0
Protosmia	27	27	100.0
Sphecodes	49	40	81.6
Stelis	5	5	100.0
Trachusa	1	1	100.0
Triepeolus	41	41	100.0
TOTAL	5383	5266	97.8
Species			
Agapostemon femoratus	56	53	94.6
Agapostemon melliventris	9	9	100.0
Agapostemon subtilior	82	78	95.1
Agapostemon virescens	23	13	56.5
Andrena prunorum	6	6	100.0
Anthidiellum robertsoni	9	9	100.0
Anthidium atrifrons	2	2	100.0
Anthidium emarginatum	1	0	0.0
Anthidium manicatum	3	3	100.0
Anthidium mormonum	1	1	100.0
Anthidium placitum	1	1	100.0
Anthophora urbana	140	140	100.0
Apis mellifera	5	5	100.0
Ashmeadiella aridula	1	0	0.0
Ashmeadiella cubiceps	2	1	50.0
Ashmeadiella difugita	1	0	0.0
Atoposmia copelandica	4	4	100.0
Bombus appositus	8	5	62.5
Bombus caliginosus	5	5	100.0
Bombus centralis	40	38	95.0
Bombus fervidus	63	62	98.4
Bombus flavidus	9	9	100.0
Bombus flavifrons	52	31	59.6
Bombus frigidus	1	0	0.0
Bombus griseocollis	37	37	100.0
Bombus huntii	19	17	89.5
Bombus insularis	5	2	40.0
Bombus melanopygus	29	25	86.2
Bombus mixtus	74	73	98.6
Bombus morrisoni	2	2	100.0
Bombus nevadensis	23	20	87.0
Bombus occidentalis	5	5	100.0
Bombus rufocinctus	10	8	80.0
Bombus sitkensis	40	34	85.0
Bombus sylvicola	10	1	10.0
Bombus vagans	3	0	0.0
Bombus vancouverensis	109	105	96.3
Bombus vandykei	4	3	75.0
Bombus vosnesenskii	106	99	93.4
Brachymelecta californica	27	25	92.6
Calliopsis zonalis	1	0	0.0
Ceratina acantha	127	127	100.0
Ceratina micheneri	22	22	100.0

Table 7: Your determination accuracy. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Ceratina nanula	1	1	100.0
Ceratina pacifica	3	3	100.0
Diadasia australis	3	3	100.0
Diadasia diminuta	8	8	100.0
Diadasia enavata	79	78	98.7
Diadasia lutzi	8	2	25.0
Diadasia opuntiae	6	0	0.0
Dianthidium curvatum	18	18	100.0
Dianthidium heterulkei	7	0	0.0
Dianthidium pudicum	11	11	100.0
Dianthidium subparvum	3	3	100.0
Dianthidium ulkei	20	14	70.0
Eucera actuosa	3	2	66.7
Eucera speciosa	19	0	0.0
Habropoda tristissima	1	1	100.0
Halictus confusus	13	11	84.6
Halictus farinosus	66	63	95.5
Halictus ligatus	350	343	98.0
Halictus rubicundus	39	37	94.9
Halictus tripartitus	239	233	97.5
Halictus virgatellus	6	6	100.0
Holcopasites pulchellus	1	1	100.0
Hoplitis producta	1	0	0.0
Hylaeus mesillae	1	0	0.0
Lasioglossum colatum	1	1	100.0
Lasioglossum cooleyi	22	0	0.0
Lasioglossum cressonii	4	4	100.0
Lasioglossum diatretum	1	1	100.0
Lasioglossum diversopunctatum	4	4	100.0
Lasioglossum glabriventre	1	1	100.0
Lasioglossum imbrex	7	0	0.0
Lasioglossum incompletum	63	61	96.8
Lasioglossum inconditum	1	1	100.0
Lasioglossum kincaidii	2	2	100.0
Lasioglossum nevadense	1	1	100.0
Lasioglossum olympiae	6	6	100.0
Lasioglossum ovaliceps	4	4	100.0
Lasioglossum pruinosum	4	4	100.0
Lasioglossum pulveris	2	2	100.0
Lasioglossum ruidosense	3	3	100.0
Lasioglossum sisymbrii	46	46	100.0
Lasioglossum titusi	20	20	100.0
Megachile angelarum	2	2	100.0
Megachile apicalis	4	4	100.0
Megachile mellitarsis	3	3	100.0
Megachile perihirta	1	1	100.0
Megachile wheeleri	4	4	100.0
Melecta thoracica	1	0	0.0
Osmia aglaia	9	0	0.0
Osmia bruneri	1	1	100.0
Protosmia rubifloris	27	27	100.0
Trachusa timberlakei	1	1	100.0

Table 7: Your determination accuracy. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Triepeolus concavus	2	2	100.0
Triepeolus utahensis	2	0	0.0
TOTAL	2332	2124	91.1

Table 8: Determination accuracy for all volunteers.

Taxon	Specimens ID-ed	Correct ID	% Correct
Family			
Andrenidae	6786	6064	89.4
Apidae	17614	17375	98.6
Colletidae	2847	2685	94.3
Halictidae	14510	14302	98.6
Megachilidae	11434	11275	98.6
Melittidae	4	1	25.0
TOTAL	53195	51702	97.2
Genus			
Agapostemon	965	961	99.6
Andrena	4750	4155	87.5
Anthidiellum	56	24	42.9
Anthidium	546	539	98.7
Anthophora	1213	1144	94.3
Apis	594	585	98.5
Ashmeadiella	342	291	85.1
Atoposmia	137	93	67.9
Biastes	8	6	75.0
Bombus	7802	7774	99.6
Brachymelecta	95	71	74.7
Calliopsis	98	57	58.2
Ceratina	2971	2923	98.4
Chelostoma	82	63	76.8
Coelioxys	152	143	94.1
Colletes	1346	1229	91.3
Diadasia	368	322	87.5
Dianthidium	314	280	89.2
Dioxys	6	3	50.0
Dufourea	260	217	83.5
Epeolus	61	43	70.5
Eucera	635	583	91.8
Habropoda	279	259	92.8
Halictus	5622	5393	95.9
Heriades	223	179	80.3
Hesperapis	4	1	25.0
Holcopasites	1	1	100.0
Hoplitis	748	605	80.9
Hylaeus	1500	1454	96.9
Lasioglossum	7189	6828	95.0
Megachile	2279	2223	97.5
Melecta	72	69	95.8
Melissodes	2045	1860	91.0
Micralictoides	16	14	87.5
Neolarra	3	3	100.0

Table 8: Determination accuracy for all volunteers. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Nomada	1220	1164	95.4
Nomia	2	2	100.0
Oreopasites	3	0	0.0
Osmia	6165	6055	98.2
Panurginus	750	567	75.6
Perdita	1147	1060	92.4
Protandrena	27	9	33.3
Protosmia	268	212	79.1
Pseudoanthidium	6	3	50.0
Sphecodes	454	354	78.0
Stelis	97	64	66.0
Trachusa	8	7	87.5
Triepeolus	176	147	83.5
Xylocopa	62	60	96.8
Zacosmia	1	1	100.0
TOTAL	53168	50100	94.2
Species			
Agapostemon femoratus	181	171	94.5
Agapostemon melliventris	14	14	100.0
Agapostemon subtilior	228	214	93.9
Agapostemon virescens	109	95	87.2
Andrena angustitarsata	18	18	100.0
Andrena astragali	1	1	100.0
Andrena chlorogaster	2	2	100.0
Andrena crataegi	1	1	100.0
Andrena cupreotincta	14	14	100.0
Andrena fuscicauda	2	2	100.0
Andrena illinoiensis	1	1	100.0
Andrena nigrocaerulea	2	2	100.0
Andrena pallidifovea	1	1	100.0
Andrena perplexa	1	1	100.0
Andrena piperi	3	2	66.7
Andrena prunorum	34	34	100.0
Andrena salicifloris	2	2	100.0
Andrena vicina	4	3	75.0
Anthidiellum robertsoni	19	19	100.0
Anthidium atrifrons	3	3	100.0
Anthidium banningense	5	5	100.0
Anthidium duomarginatum	1	0	0.0
Anthidium emarginatum	5	0	0.0
Anthidium manicatum	53	44	83.0
Anthidium mormonum	12	12	100.0
Anthidium oblongatum	14	14	100.0
Anthidium palliventre	33	30	90.9
Anthidium placitum	1	1	100.0
Anthidium tenuiflorae	2	2	100.0
Anthidium utahense	3	3	100.0
Anthophora bomboides	3	3	100.0
Anthophora californica	1	0	0.0
Anthophora neglecta	3	0	0.0
Anthophora pacifica	3	3	100.0
Anthophora urbana	251	249	99.2

Table 8: Determination accuracy for all volunteers. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Anthophora ursina	2	0	0.0
Apis mellifera	492	488	99.2
Ashmeadiella aridula	1	0	0.0
Ashmeadiella californica	1	1	100.0
Ashmeadiella clypeodentata	1	0	0.0
Ashmeadiella cubiceps	2	1	50.0
Ashmeadiella difugita	1	0	0.0
Ashmeadiella eurynorhyncha	1	0	0.0
Ashmeadiella timberlakei	1	1	100.0
Atoposmia abjecta	3	3	100.0
Atoposmia copelandica	6	6	100.0
Atoposmia oregona	4	3	75.0
Atoposmia triodonta	1	0	0.0
Bombus Griseocollis	1	0	0.0
Bombus Mixtus	8	0	0.0
Bombus Nevadensis	1	0	0.0
Bombus appositus	48	36	75.0
Bombus caliginosus	345	273	79.1
Bombus centralis	201	187	93.0
Bombus fervidus	362	325	89.8
Bombus flavidus	145	134	92.4
Bombus flavifrons	541	454	83.9
Bombus frigidus	5	0	0.0
Bombus griseocollis	140	138	98.6
Bombus huntii	160	139	86.9
Bombus insularis	33	25	75.8
Bombus kirbiellus	1	0	0.0
Bombus melanopygus	328	274	83.5
Bombus mixtus	956	877	91.7
Bombus morrisoni	11	10	90.9
Bombus nevadensis	65	58	89.2
Bombus occidentalis	33	27	81.8
Bombus rufocinctus	58	36	62.1
Bombus sitkensis	195	147	75.4
Bombus suckleyi	2	0	0.0
Bombus sylvicola	69	31	44.9
Bombus vagans	24	8	33.3
Bombus vancouverensis	829	802	96.7
Bombus vandykei	86	62	72.1
Bombus vosnesenskii	1378	1284	93.2
Brachymelecta californica	45	43	95.6
Calliopsis zonalis	1	0	0.0
Ceratina acantha	679	665	97.9
Ceratina micheneri	44	43	97.7
Ceratina nanula	3	2	66.7
Ceratina neomexicana	1	1	100.0
Ceratina pacifica	8	6	75.0
Ceratina sequoiae	5	0	0.0
Ceratina tejonensis	7	2	28.6
Ceratina timberlakei	5	0	0.0
Chelostoma minutum	1	1	100.0
Coelioxys alternatus	1	0	0.0

Table 8: Determination accuracy for all volunteers. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Coelioxys rufitarsis	4	0	0.0
Coelioxys sayi	2	2	100.0
Coelioxys texanus	4	0	0.0
Diadasia angusticeps	7	7	100.0
Diadasia australis	4	4	100.0
Diadasia diminuta	17	17	100.0
Diadasia enavata	100	99	99.0
Diadasia lutzi	28	6	21.4
Diadasia nigrifrons	9	9	100.0
Diadasia opuntiae	8	0	0.0
Dianthidium curvatum	22	22	100.0
Dianthidium heterulkei	9	0	0.0
Dianthidium pudicum	12	12	100.0
Dianthidium subparvum	3	3	100.0
Dianthidium ulkei	24	17	70.8
Dioxys aurifuscus	2	2	100.0
Eucera actuosa	11	10	90.9
Eucera cordleyi	18	4	22.2
Eucera edwardsii	48	20	41.7
Eucera frater	8	8	100.0
Eucera speciosa	19	0	0.0
Habropoda depressa	4	4	100.0
Habropoda miserabilis	7	6	85.7
Habropoda tristissima	3	2	66.7
Halictus Ligatus	4	0	0.0
Halictus confusus	149	122	81.9
Halictus farinosus	284	246	86.6
Halictus ligatus	1475	1464	99.3
Halictus rubicundus	361	333	92.2
Halictus tripartitus	723	684	94.6
Halictus virgatellus	114	109	95.6
Heriades carinata	2	0	0.0
Holcopasites pulchellus	1	1	100.0
Hoplitis albifrons	5	5	100.0
Hoplitis boharti	2	2	100.0
Hoplitis colei	1	0	0.0
Hoplitis emarginata	1	1	100.0
Hoplitis fulgida	7	7	100.0
Hoplitis grinnelli	8	5	62.5
Hoplitis hypocrita	1	1	100.0
Hoplitis louisae	2	2	100.0
Hoplitis orthognatha	7	7	100.0
Hoplitis producta	12	10	83.3
Hoplitis uvulalis	3	3	100.0
Hoplitis viridimicans	6	4	66.7
Hylaeus basalis	6	3	50.0
Hylaeus mesillae	1	0	0.0
Hylaeus verticalis	1	0	0.0
Lasioglossum albipenne	3	3	100.0
Lasioglossum albohirtum	7	7	100.0
Lasioglossum allonotus	1	1	100.0
Lasioglossum anhypops	6	5	83.3

Table 8: Determination accuracy for all volunteers. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Lasioglossum aspilurum	2	2	100.0
Lasioglossum athabascense	2	0	0.0
Lasioglossum boreale	2	2	100.0
Lasioglossum brunneiventre	4	4	100.0
Lasioglossum buccale	3	3	100.0
Lasioglossum colatum	1	1	100.0
Lasioglossum cooleyi	24	1	4.2
Lasioglossum cordleyi	5	5	100.0
Lasioglossum cressonii	30	30	100.0
Lasioglossum diatretum	5	3	60.0
Lasioglossum diversopunctatum	4	4	100.0
Lasioglossum egregium	4	1	25.0
Lasioglossum glabriventre	4	4	100.0
Lasioglossum helianthi	1	0	0.0
Lasioglossum imbrex	7	0	0.0
Lasioglossum incompletum	79	73	92.4
Lasioglossum inconditum	7	5	71.4
Lasioglossum kincaidii	10	10	100.0
Lasioglossum macroprosopum	2	2	100.0
Lasioglossum mellipes	3	0	0.0
Lasioglossum nevadense	9	9	100.0
Lasioglossum novascotiae	1	0	0.0
Lasioglossum occultum	3	2	66.7
Lasioglossum olympiae	138	127	92.0
Lasioglossum ovaliceps	12	12	100.0
Lasioglossum pacificum	64	55	85.9
Lasioglossum pavonotum	59	58	98.3
Lasioglossum pruinosum	12	12	100.0
Lasioglossum pulveris	27	27	100.0
Lasioglossum quebecense	1	0	0.0
Lasioglossum rubicundus	1	0	0.0
Lasioglossum ruidosense	5	5	100.0
Lasioglossum sequoiae	6	0	0.0
Lasioglossum sisymbrii	105	101	96.2
Lasioglossum titusi	260	214	82.3
Lasioglossum villosulum	11	8	72.7
Lasioglossum zephyrus	2	2	100.0
Lasioglossum zonulum	25	22	88.0
Megachile angelarum	25	22	88.0
Megachile anograe	6	0	0.0
Megachile apicalis	4	4	100.0
Megachile brevis	23	1	4.3
Megachile fidelis	6	5	83.3
Megachile melanophaea	2	1	50.0
Megachile mellitarsis	4	4	100.0
Megachile montivaga	1	0	0.0
Megachile nevadensis	8	0	0.0
Megachile perihirta	61	55	90.2
Megachile pugnata	8	4	50.0
Megachile rotundata	23	22	95.7
Megachile wheeleri	4	4	100.0
Melecta edwardsii	8	8	100.0

Table 8: Determination accuracy for all volunteers. *(continued)*

Taxon	Specimens ID-ed	Correct ID	% Correct
Melecta pacifica	5	3	60.0
Melecta separata	4	4	100.0
Melecta thoracica	2	0	0.0
Melissodes agilis	1	1	100.0
Melissodes bimatris	2	0	0.0
Melissodes metenuus	3	3	100.0
Melitta americana	2	0	0.0
Micralictoides ruficaudus	14	14	100.0
Nomia melanderi	1	1	100.0
Osmia aglaia	10	0	0.0
Osmia albolateralis	1	0	0.0
Osmia atrocyanea	10	9	90.0
Osmia brevis	2	0	0.0
Osmia bruneri	8	7	87.5
Osmia californica	2	0	0.0
Osmia calla	6	0	0.0
Osmia coloradensis	1	0	0.0
Osmia cornifrons	10	10	100.0
Osmia cyanella	3	0	0.0
Osmia densa	6	1	16.7
Osmia kincaidii	3	3	100.0
Osmia laeta	2	0	0.0
Osmia lignaria	11	11	100.0
Osmia montana	3	3	100.0
Osmia nemoris	5	1	20.0
Osmia sculleni	3	0	0.0
Perdita nevadensis	1	1	100.0
Protosmia rubifloris	168	167	99.4
Pseudoanthidium nanum	2	2	100.0
Stelis laticincta	5	5	100.0
Trachusa timberlakei	5	5	100.0
Triepeolus concavus	4	4	100.0
Triepeolus utahensis	5	2	40.0
Xylocopa californica	1	1	100.0
Xylocopa tabaniformis	16	16	100.0
Xylocopa virginica	1	0	0.0
Zacosmia maculata	1	1	100.0
bombus flavifrons	1	0	0.0
bombus melanopygus	1	0	0.0
bombus sitkensis	1	0	0.0
bombus vosnesenskii	1	0	0.0
TOTAL	13393	12047	89.9