

Specialist Bees and their Host Plant in (or likely in) Pennsylvania

Scientific name (Common name)	March	April	May	June	July	Aug	Sept	Oct	Bee species / genera
<i>Cardamine</i> spp. (toothworts and cresses)		x x x x x x							<i>Andrena arabis</i>
<i>Claytonia</i> spp. (spring beauty)		x x x x x x							<i>Andrena erigeniae</i>
<i>Erythronium</i> spp. (trout lily)		x x x x x							<i>Andrena erythronii</i>
<i>Salix</i> spp. (willow)	x x	x x x x x x x							14 spp. <i>Andrena</i> , <i>Perdita</i>
<i>Philadelphus</i> (mock orange)		x x x x x x x x	x x x x x						<i>Chelostoma philadelphi</i>
<i>Cercis canadensis</i> (redbud)		x x x x x							<i>Habropoda laboriosa</i>
<i>Borodinia</i> spp. (rock cress)		x x x x x x							<i>Andrena arabis</i>
<i>Waldsteinia fragarioides</i> (barren strawberry)		x x x x x x							<i>Andrena ziziaeformis</i>
<i>Polemonium reptans</i> (Jacob's ladder)		x x x x							<i>Andrena polemonii</i>
<i>Houstonia</i> spp. (bluets)		x x x x x x x x x							<i>Protoandrena virginicus</i>
<i>Viola</i> spp. (violets)		x x x x x x x x x x							<i>Andrena violae</i>
<i>Zizia</i> spp. (golden Alexanders)		x x x x x x x x							<i>Andrena ziziae</i>
<i>Thaspium trifoliatum</i> (meadow parsnip)		x	x						<i>Hylaeus sparsus</i>
<i>Uvularia</i> spp. (bellwort)		x x x x x x							<i>Andrena uvulariae</i>
<i>Packera</i> spp. (ragwort)		x x x x x x x x x x							<i>Andrena gardineri</i> , <i>Nomada</i> ?
<i>Geranium maculatum</i> (wild geranium)		x x x x x x x							<i>Andrena distans</i>
<i>Phacelia</i> spp. (<i>Miami mist</i>)			x x x						<i>Andrena phaceliae</i> , <i>Hoplitis simplex</i>
<i>Potentilla</i> spp. (<i>cinquefoil</i>)		x x x x x x x x x							<i>Andrena melanochroa</i> , <i>A. ziziaeformis</i> , <i>Panurginus potentillae</i>
<i>Fragaria</i> spp. (strawberry)		x x x x x x x x							<i>Andrena melanochroa</i>
<i>Hydrophyllum</i> spp. (waterleaf)		x x x x x x x							<i>Andrena geranii</i>
<i>Lupinus</i> spp. (lupine)			x x x x						<i>Habropoda laboriosa</i> , <i>Megachile melanophaea</i>
<i>Vaccinium</i> spp. (blueberry), <i>Gaylussacia</i> spp. (Huckleberry), <i>Lyonia</i> spp.		x x x x x x x x x x	x x x x x	x x x x x	x x x x x	x x			~12 spp. <i>Andrena</i> , <i>Melitta</i> , <i>Panurginus</i> , <i>Habropoda</i> , <i>Colletes</i> , <i>Osmia</i>
<i>Penstemon</i> spp. (penstemon)			x x x x x						<i>Osmia distincta</i>
<i>Heuchera</i> spp. (alumroot)			x x x x x x						<i>Colletes aestivalis</i>
<i>Krigia</i> spp. (dwarf dandelion)			x x x x x x x x						<i>Andrena krigiana</i>
<i>Swida</i> spp. (shrub dogwoods)			x x x x x x x x x						<i>Andrena fragilis</i> , <i>A. integra</i> , <i>A. persimulata</i> , <i>A. platyparia</i>
<i>Castanea</i> spp. (chestnut)			x x x x x x x						<i>Andrena rehni</i>
<i>Rhododendron</i> spp. (rhododendron & azalea)		x x x x x x x x x x							<i>Andrena cornelli</i>
<i>Ilex</i> spp. (holly)			x x x x x x x						<i>Colletes banksi</i>
<i>Triodanis perfoliata</i> (Venus' looking glass)				x x x					<i>Colletes brevicornis</i>
<i>Ceanothus americana</i> (New Jersey tea)				x x x	x x x				<i>Protoandrena pauper</i> , <i>Protoandrena virginicus</i>
<i>Rubus</i> spp. (brambles)		x x x x x x		x x x x	x x x				<i>Andrena melanochroa</i>
<i>Lysimachia</i> spp. (loostripe)				x x x x	x x x x	x x x x			<i>Macropis nuda</i> , <i>M. ciliata</i> , <i>M. patellata</i>
<i>Campanula</i> spp. (bellflower)				x x	x x x x	x x			<i>Colletes brevicornis</i>

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<i>Erigeron</i> spp. (fleabane)		x x	x x x x	x x x x	x x x x	x x x x	x x x x	x x	7 spp. <i>Paranthidium</i> , <i>Protoandrena</i> , <i>Megachile</i> , <i>Osmia</i>
<i>Monarda</i> spp. (wild bergamot)				x x x	x x x x	x x x x	x x x x	x x x x	<i>Perdita gerhardi</i> , <i>Protandrena abdominalis</i> , <i>Dufourea monardae</i>
<i>Oenothera</i> spp. (evening primrose)			x x x	x x x x	x x x x	x x x x	x x x x	x x x x	<i>Lasioglossum oenotherae</i> , <i>Megachile oenotherae</i> , <i>Svastra compta</i>
<i>Nymphaea odorata</i> (white water lily)				x x x x	x x x x	x x x x	x x x x		<i>Lasioglossum nelumbonis</i> , <i>Hylaeus nelumbonis</i>
<i>Ratibida</i> spp. (prairie coneflower)					x x x x	x x x x			<i>Andrena rudbeckiae</i> , <i>Melissodes agilis</i> , <i>Melissodes boltoniae</i> , <i>Melissodes trinodis</i> , <i>Svastra petulca</i>
<i>Echium vulgare</i> (Viper's bugloss)				x x x x	x x x x	x x x x	x x x x		<i>Hoplitis anthocopoides</i>
<i>Verbena</i> spp. (verbena)					x x x x	x x x x	x x		<i>Calliopsis nebraskensis</i>
<i>Ipomoea</i> spp. (morning glory)						x x x	x x x x	x x	<i>Melitoma taurea</i> , <i>Eucera ipomoeae</i> , <i>Ptilothrix bombiformis</i>
<i>Hieracium</i> spp. (hawkweed)			x x	x x x x	x x x x	x x x x	x x x x	x x x x	<i>Andrena krigiana</i>
<i>Pontederia cordata</i> (pickerelweed)				x x x	x x x x	x x x x	x x x x	x x	<i>Florilegus condignus</i> , <i>Melissodes apicatus</i> , <i>Dufourea novaeangliae</i>
<i>Cirsium</i> spp. (thistle)				x x x x	x x x x	x x x x	x x x x	x x x x	~10 spp. <i>Melissodes</i> , <i>Svastra</i> , <i>Osmia</i> , <i>Megachile</i>
<i>Rudbeckia</i> spp. (black-eyed Susan)				x x x	x x x x	x x x x	x x x x	x x x x	~20 spp. <i>Andrena</i> , <i>Protoandrena</i> , <i>Melissodes</i> , <i>Svastra</i> , <i>Colletes</i> , <i>Paranthidium</i> , <i>Megachile</i> ,
<i>Cucurbita</i> spp. (squash, pumpkin)				x x	x x x x	x x x x	x x x x	x x x	<i>Eucera pruinosa</i> , <i>Xenoglossa strenua</i>
<i>Strophostyles</i> spp. (fuzzybean)						x x x x	x x x x		<i>Trachusa dorsalis</i> , <i>Megachile integra</i>
<i>Hibiscus</i> spp. (rosemallow)						x x x x	x x x x		<i>Ptilothrix bombiformis</i>
<i>Centaurea</i> spp. (knapweed)				x x	x x x x	x x x x	x x x x	x x x x	<i>Lithurgus chrysurus</i> , <i>Megachile apicalis</i>
<i>Eurybia</i> spp. (wood aster)						x x x x	x x x x	x x x x	9 spp. <i>Andrena</i> , <i>Protoandrena</i> , <i>Melissodes</i> , <i>Lasioglossum</i>
<i>Euthamia</i> spp. (flat-topped goldenrod)						x x x x	x x x x		8 spp. <i>Andrena</i> , <i>Perdita</i> , <i>Melissodes</i> , <i>Colletes</i>
<i>Helianthus</i> spp. (sunflowers)						x x x	x x x x	x	~23 spp. <i>Andrena</i> , <i>Perdita</i> , <i>Protoandrena</i> , <i>Melissodes</i> , <i>Svastra</i> , <i>Colletes</i> , <i>Dieunomia</i> , <i>Paranthidium</i> , <i>Megachile</i>
<i>Vernonia</i> spp. (ironweed)						x x x	x x x x	x x x	9 spp. <i>Melissodes</i> , <i>Svastra</i> , <i>Megachile</i>
<i>Physalis</i> spp. (ground cherry)							x x x x	x	<i>Perdita bequaerti</i> , <i>P. halictoides</i> , <i>Colletes latitarsis</i> , <i>C. willistoni</i> , <i>Lasioglossum pectinatum</i>
<i>Parnassia glauca</i> (Carolina grass-of-parnassus)							x x x x		<i>Andrena parnassiae</i>
<i>Solidago</i> spp. (goldenrod)						x x x	x x x x	x x x x	~30 spp. <i>Andrena</i> , <i>Perdita</i> , <i>Protoandrena</i> , <i>Melissodes</i> , <i>Colletes</i> , <i>Dieunomia</i> , <i>Dianthidium</i> , <i>Megachile</i>
<i>Symphotrichum</i> spp. (aster)							x x x x	x x x x	~24 spp. <i>Andrena</i> , <i>Perdita</i> , <i>Protoandrena</i> , <i>Melissodes</i> , <i>Colletes</i> , <i>Dianthidium</i> , <i>Megachile</i>
<i>Bidens</i> spp. (beggars' ticks)							x x x x	x x x	~12 spp. <i>Andrena</i> , <i>Protoandrena</i> , <i>Melissodes</i> , <i>Colletes</i> , <i>Dieunomia</i>
<i>Cuscuta</i> spp. (dodder)							x x x x	x x	<i>Colletes ciliatus</i>
<i>Agalinis</i> spp. (false foxglove)							x x x x		<i>Perdita gerardiae</i>
<i>Verbesina alternifolia</i> (wingstem)							x x x x	x x x x	~6 spp. <i>Melissodes</i> , <i>Dieunomia</i> , <i>Paranthidium</i> , <i>Megachile</i>

Pollen specialization information is almost all from https://jarrodfowler.com/specialist_bees.html Plant blooming dates are from iNaturalist and PNHP data.

This table was compiled by Pete Woods, PA Natural Heritage Program, in 2022, modified and bee species added by Nash Turley, PSU Entomology, March 2023