Supplementary information

Table S1. Genera in Anthemideae, Astereae, Coreopsideae, Heliantheae , Inuleae tribes of the Asteroideae subfamily and Cardueae tribe of Carduoideae subfamily, all in the Asteraceae family that might potentially be part of the host range of *Ophraella communa* which is a major biocontrol agent for *Ambrosia artemisiifolia* (Heliantheae tribe) which is its main host. Tribes and genera shown that had been tested globally or not yet been tested. In total, 6 of 144 genera existing in the Heliantheae tribe have been tested (5%), 7 of 77 genera in the Inuleae tribe (9%), 4 of 119 in the Anthemideae tribe (3%) 3 of 85 Cardueae (3.5%), and 3 of 29 in Coreopsideae (10%). Genera names extracted from [4~~6~~9]

Subfamily Tribe	**Un-assessed genera**	**Assessed genera**
Asteroideae		
Anthemideae	*Aaronsohnia, Adenanthellum, Adenoglossa, Ajania, Ajaniopsis, Allardi, Anacyclus, Anthemis, Archanthemis, Arctanthemum, Argyranthemum, Artemisiella, Athanasia, Brachanthemum, Brocchia, Cancrinia, Cancriniella, Castrilanthemum, Chamaemelum, Chlamydophora, Chrysanthemum, Chrysanthoglossum, Cladanthus, Coleostephus, Cota, Cotula, Crossostephium, Cymbopappus, Daveaua, Delwiensia, Dendranthema, Elachanthemum, Endopappus, Eriocephalus, Eumorpha, Filifolium, Foveolina, Glebionis, Glossopappus, Gymnopentzia, Handelia, Heliocauta, Heteranthemis, Heteromera, Hilliardia, Hippia, Hippolytia, Hulteniella, Hymenolepis, Hymenostemma, Inezia, Inulanthera, Ismelia, Kaschgaria, Lasiospermum, Lepidolopha, Lepidolopsis, Lepidophorum, Leptinella, Leucanthemella, Leucanthemopsis, Leucoptera, Lidbeckia, Lonas, Marasmodes, Mauranthemum, Mausolea, Mecomischus, Microcephala, Myxopappus, Nananthea, Neopallasia, Nipponanthemum, Nivellea, Oncosiphon, Opisthopappus, Osmitopsis, Otanthus, Otochlamys, Otospermum, Pentzia, Peyrousea, Phaeocephalus, Phaeostigma, Phalacrocarpum, Phymaspermum, Picrothamnus, Plagius, Polychrysum, Prolongoa, Pseudohandelia, Ptarmica, Rennera, Rhetinolepis, Rhodanthemum, Richteria, Santolina, Schistostephium, Sclerorhachis, Soliva, Spathipappus, Sphaeromeria, Stilpnolepis, Stilpnophyton, Tanacetopsis, Tanacetum, Thaminophyllum, Trichanthemis, Tridactylina, Tripleurospermum, Turaniphytum, Ugamia, Ursinia, Waldheimia, Xylanthemum*	*Achillea*, Artemisia*, Leucanthemum, Matricaria*
Astereae	*Acamptopappus, Achaetogeron, Achnophora, Akeassia, Allittia, Almutaster, Amellus, Ampelaster, Amphiachyris, Amphipappus, Aphanostephus, Apopyros, Archibaccharis, Arctogeron, Arida, Arrhenachne, Aster, Asterigeron, Asteromoea, Asteropsis, Asteropterus, Asterothamnus, Astradelphus, Astranthium, Aylacophora, Aztecaster, Baccharidastrum, Baccharidiopsis, Baccharis, Batopilasia, Bellidiastrum, Bellium, Benitoa, Bigelowia, Blakiella, Boltonia, Bourdonia, Brachyactis, Brachychaeta, Brachyris, Brachyscome, Bradburia, Brintonia, Calotis, Camptacra, Canadanthus, Celmisia, Ceratogyne, Ceruana, Chaetopappa, Chamaegeron, Chihuahuana, Chiliophyllum, Chiliotrichiopsis, Chiliotrichum, Chloracantha, Chondrophora, Chroilema, Chrysocoma, Chrysoma, Chrysothamnus, Colobanthera, Columbiadoria,*	*Bellis Chrysopsis Erigeron**

	Commidendrum, Conyza, Conyzella, Corethrogyne, Crinitaria, Croptilon, Cuniculotinus, Cyathocline, Dacryotrichia, Damnamenia, Darwiniothamnus, Denekia, Dichaetophora, Dichrocephala, Dichromochlamys, Dieteria, Dimorphocoma, Diplostephium, Distasis, Doellingeria, Dolichogyne, Doria, Dysaster, Eastwoodia, Egletes, Elachanthus, Engleria, Eremiastrum, Ericameria, Eriocarpum, Erodiophyllum, Eschenbachia, Eucephalus, Eurybia, Eurybiopsis, Euthamia, Exostigma, Felicia, Floscaldasia, Flosmutisia, Fresenia, Galatella, Geissolepis, Glycideras, Golionema, Grangea, Grangeopsis, Grauanthus, Grindelia, Gundlachia, Gutierrezia, Guynesomia, Gymnosperma, Gymnostephium, Gyrodoma, Haplopappus, Hazardia, Hemibaccharis, Henricia, Herrickia, Hesperodoria, Heteromma, Heteropappus, Heteroplexis, Heterothalamus, Heterotheca, Hinterhubera, Homochroma, Homopappus, Hoorebekia, Hysterionica, Inulopsis, Ionactis, Iotasperma, Isocoma, Isoetopsis, Isopappus, Ixiochlamys, Jeffreya, Kalimeris, Keerlia, Kemulariella, Keysseria, Kippistia, Lachnophyllum, Laennecia, Laestadia, Lagenithrix, Lagenocypsela, Lagenopappus, Lagenophora, Lasallea, Lepidophyllum, Leptilon, Leptostelma, Lessingia, Leucelene, Leucopsis, Leucosyris, Linochilus, Linosyris, Llerasia, Lorandersonia, Machaeranthera, Macronema, Madagaster, Mairia, Marsea, Medranoa, Melanodendron, Microglossa, Microgyne, Microtrichia, Minuria, Minuriella, Monoptilon, Myriactis, Nannoglottis, Nardophyllum, Neja, Neobrachyactis, Neonesomia, Neosyris, Nestotus, Nidorella, Nolletia, Noticastrum, Novenia, Oclemena, Oegroe, Olearia, Oligoneuron, Olivaea, Oonopsis, Oreochrysum, Oreostemma, Oritrophium, Osbertia, Pachystegia, Pacifigeron, Paleaepappus, Pappochroma, Parastrephia, Pentachaeta, Peripleura, Petradoria, Pilbara, Pingraea, Piofontia, Piora, Pityopsis, Plagiocheilus, Platystephium, Pleurophyllum, Podocoma, Podopappus, Poecilolepis, Polyarrhena, Polygyne, Printzia, Pseudobaccharis, Pseudolinosyris, Psiadia, Psiadiella, Psila, Psilachenia, Psilactis, Psychrogeton, Pteronia, Pyrrocoma, Pytinicarpa, Rayjacksonia, Remya, Rhamphogyne, Rhinactina, Rhinactinidia, Rhynchospermum, Rigiopappus, Rochonia, Roodebergia, Sarcanthemum, Sergilus, Sericocarpus, Sheareria, Sideranthus, Solenogyne, Solidago, Sommerfeltia, Stenactis, Stenotopsis, Stenotus, Stephanodoria, Stereosanthus, Susanna, Symphyotrichum, Tetramolopium, Thespis, Thurovia, Tibetiodes, Toiyabea, Tolbonia, Tomentaurum, Tonestus, Townsendia, Tracyina, Trimorpha, Triniteurybia, Tripolium, Tursenia, Unamia, Vanclevea, Vickifunkia, Virgulaster, Virgulus, Vittadinia, Weberaster, Welwitschiella, Westoniella, Wyomingia, Xanthisma, Xanthocephalum, Xylorhiza, Xylothamia, Xylovirgata, Zyrphelis	
Coreopsidea e	*Chrysanthellum, Coreocarpus, Coreopsis, Cyathomone, Dicranocarpus, Diodontium, Ericentrodea, Eryngiophyllum, Fitchia, Glossocardia, Goldmanella, Henricksonia, Heterosperma, Hidalgoa, Isostigma, Koehneola, Megalodonta, Moonia, Narvalina, Oparanthus, Petrobium, Pinillosia, Selleophytum, Staurochlamys, Tetraperone, Thelesperma*	*Bidens* Cosmos Dahlia**

Heliantheae	*Abasoloa, Acmella, Actinomeris, Acunniana, Aiolotheca, Aldama, Altamirania, Alvordia, Ambrosia, Ancistrophora, Andrieuxia, Anomostephium, Apowollastonia, Aspilia, Aspiliopsis, Baeria, Bahiopsis, Balsamorhiza, Baltimora, Berlandiera, Blainvillea, Boebera, Borrichia, Calanticaria, Calhounia, Calyptocarpus, Chaenocephalus, Chromolepis, Chrysogonum, Clibadium, Cuchumatanea, Damnxanthodium, Delilia, Dendroviguiera, Dicoria, Dimerostemma, Dugesia, Echinacea, Eclipta, Elaphandra, Eleutheranthera, Encelia, Enceliopsis, Engelmannia, Euphrosyne, Exomiocarpon, Fenixia, Flourensia, Geraea, Gonzalezia, Greenmania, Hedosyne, Helianthella,, Heliomeris, Heliopsis, Hoffmanniella, Hybridella, Hymenostephium, Idiopappus, Indocypraea, Iogeton, Iostephane, Jefea, Kingianthus, Lagascea, Lantanopsis, Lasianthaea, Leptocarpha, Leptosyne, Lindheimera, Lipoblepharis, Lipochaeta, Lundellianthus, Melanthera, Monactis, Montanoa, Oblivia, Otopappus, Oxycarpha, Oyedaea, Pappobolus, Parthenice,, Pascalia, Pentalepis, Perymeniopsis, Perymenium, Philactis, Phoebanthus, Plagiolophus, Podachaenium, Podanthus, Quadribractea, Ratibida, Rensonia Rhysolepis, Riencourtia, Rojasianthe, Rudbeckia, Salmea, Sanvitalia, Saubinetia, Scalesia, Schizoptera, Sclerocarpus, Sidneya, Silphium, Simsia, Sphagneticola, Spilanthes, Squamopappus, Steiractinia, Stemmatella, Stephanopholis, Stuessya, Syncretocarpus, Synedrella, Synedrellopsis, Tehuana, Tetrachyron, Tetranthus, Tilesia, Tithonia, Trichocoryne, Trigonopterum, Tuberculocarpus, Tuxtla, Verbesina, Vigethia, Viguiera, Wamalchitamia, Wedelia, Wollastonia, Wootonella, Wootonia, Wyethia, Zaluzania, Zexmenia, Zyzyxia*	*Ambrosia *, Helianthus *, Iva*, Parthenium*, Xanthium*, Zinnia*
Inuleae	*Adelostigma, Allagopappus, Allopterigeron, Amblyocarpum, Antiphiona, Anvillea, Asteriscus, Blumea, Bubonium, Caesulia, Calostephane, Chiliadenus, Chrysophthalmu, Codonocephalum, Coleocoma, Cratystylis, Cylindrocline, Delamerea, Doellia, Duhaldia, Epaltes, Ethuliopsis, Francoeuria, Geigeria, Hirschia, Ighermia, Iphiona, Iphionopsis, Jasonia, Karelinia, Laggera, Lifago, Limbarda, Litogyne, Mollera, Monarrhenus, Monenteles, Nauplius,, Neojeffreya, Nicolasia,Ondetia, , Pechuel-loeschea, Pegolettia, Perralderia, Platychaete* *Pluchea, Porphyrostemma, Pseudoblepharispermum, Pseudoconyza, Pterigeron, Pterocaulon, Pulicaria, Rhanteriopsis, Rhanterium, Rhodogeron, Sachsia, Schizogyne, Sclerostephan, Sphaeranthus, Sphaeromorphaea,Stenachaenium, Streptoglossa, Tecmarsis, Telekia, Tessaria, Thespidium, Triplocephalum, Varthemia, Vicoa, Vieraea*	*Buphthalmum*, Carpesium,Dittrichia*, Inula*, Pentanema*, Xerolekia** ***Pallenis***
Carduoideae		
Cardueae	*Arctium, Atractylis, Atractylodes, Berardia, Callistephus, Cardopatiummets, Carduncellus, Carduus, Carlina, Centaurodendron, Centaurothamnus, Chamaeleon, Chardinia, Cheirolophus, Cirsium, Cnicus, Cousinia, Cousiniopsis, Crocodylium, Crupina, Dipterocome, Dolomiaea, Echinops, Femeniasia, Galactites, Goniocaulon, Hyalochaete, Hymenocephalus, Hypacanthium, Jurinea, Karvandarina, Klasea, Lamyropappus, Lamyropsis, Leuzea, Lyrolepis, Mantisalca, Myopordon, Notobasis, Ochrocephala, Olgaea, Oligochaeta, Onopix, Onopordum, Outreya, Phaeopappus, Phalacrachena, Phonus, Picnomon, Pilostemon, Plagiobasis, Plectocephalus, Polytaxis, Psephellus, Ptilostemon, Rhaponticoides, Rhaponticum, Russowia, Saussurea, Schischkinia, Schmalhausenia, Serratula, Siebera, Silybum, Staehelina, Stemmacantha, Stephanochilus, Stizolophus, Synurus, Syreitschikovia, Thevenotia,*	*Carthamus Centaurea*, Cynara*

Tiarocarpus, Tricholepis, Tugarinovia, Tyrimnus, Vladimiria,
Volutarella, Volutaria, Xanthopappus, Xeranthemum, Yunquea, Zoegea

* Indicates genera that had been found attacked by the *O. communa* either by larval feeding, adult feed or egg laying in host range tests of field observations.