

Supplementary Information

Molecular detection of field predation among larvae of two ladybird beetles is partially predicted from laboratory experiments

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Supplementary Table S1: Details of the organisms and GenBank accession numbers of the sequences used in multiple sequence alignment. The accession numbers of the sequences obtained from our field samples are reported in bold.

Organism	GenBank Accession Number
<i>Acyrthosiphon caraganae</i>	EU701270
<i>Acyrthosiphon lactucae</i>	EU701272
<i>Acyrthosiphon macrosiphum</i>	EU701273
<i>Acyrthosiphon malvae</i>	EU701276
<i>Acyrthosiphon pisum</i>	EU701279
<i>Acyrthosiphon purshiae</i>	EU701285
<i>Adalia bipunctata</i>	AJ313068.1
<i>Adalia decempunctata</i>	KM451929.1
<i>Amphorophora agathonica</i>	EU701286
<i>Amphorophora ampullata</i>	EU701288
<i>Amphorophora nr. geranii</i>	EU701291
<i>Amphorophora rubicumberlandi</i>	EU701292
<i>Anoecia fulviabdominalis</i>	EU701293
<i>Aphidinae</i>	EU701752
<i>Aphidius ervi</i>	KT708488.1
<i>Aphidoletes aphidimyza</i>	KJ092340.1
<i>Aphidounguis mali</i>	EU701294
<i>Aphis acaenovinae</i>	EU701295
<i>Aphis asclepiadis</i>	EU701424
<i>Aphis caliginosa</i>	EU701296, EU701297
<i>Aphis ceanothi</i>	EU701298
<i>Aphis clerodendri</i>	EU701407
<i>Aphis clydesmithi</i>	EU701299
<i>Aphis coprosmae</i>	EU701300
<i>Aphis coreopsidis</i>	EU701301, EU701302
<i>Aphis cottieri</i>	EU701304
<i>Aphis craccae</i>	EU701305
<i>Aphis craccivora</i>	EU701312
<i>Aphis crassicauda</i>	EU701315
<i>Aphis decepta</i>	EU701318, EU701317
<i>Aphis equiseticola</i>	EU701319
<i>Aphis fabae</i>	EU701322, EU701330, EU701328, EU701326, EU701324
<i>Aphis farinosa</i>	EU701331, EU701332
<i>Aphis glycines</i>	EU701335

Aphis gossypii

EU701364, EU701357, EU701361, EU701362,
EU701356, EU701422, EU701419, EU701418,
EU701385, EU701384, EU701386, EU701383,
EU701382, EU701381, EU701339, EU701380,
EU701379, EU701387, EU701389, EU701378,
EU701377, EU701391, EU701375, EU701374,
EU701392, EU701367, EU701372, EU701395,
EU701370, EU701396, EU701397, EU701371,
EU701399, EU701400, EU701368, EU701398,
EU701393, EU701369, EU701401, EU701403,
EU701402, EU701354, EU701352, EU701351,
EU701404, EU701359, EU701350, EU701405,
EU701363, EU701340, EU701406, EU701349,
EU701341, EU701410, EU701408, EU701342,
EU701409, EU701411, EU701343, EU701412,
EU701414, EU701347, EU701346, EU701344,
EU701345, **MG847520, MG847521,**
MG847522, MG847523

<i>Aphis healyi</i>	EU701423
<i>Aphis hederæ</i>	EU701321
<i>Aphis helianthi</i>	EU701431
<i>Aphis holodisci</i>	EU701435
<i>Aphis hyperici</i>	EU701437
<i>Aphis ichigo</i>	EU701438
<i>Aphis idaei</i>	EU701440
<i>Aphis illinoisensis</i>	EU701441
<i>Aphis impatientis</i>	EU701442
<i>Aphis lugentis</i>	EU701443, EU701444
<i>Aphis lupini</i>	EU701445
<i>Aphis maculatae</i>	EU701447, EU701446
<i>Aphis manitobensis</i>	EU701448
<i>Aphis middletonii</i>	EU701455
<i>Aphis minima</i>	EU701458
<i>Aphis nasturtii</i>	EU701462
<i>Aphis neilliae</i>	EU701464, EU701466, EU701465
<i>Aphis neogillettei</i>	EU701468, EU701467
<i>Aphis nerii</i>	EU701470, EU701469
<i>Aphis nr. euphorbiae</i>	EU701471
<i>Aphis oenotherae</i>	EU701472
<i>Aphis oestlundii</i>	EU701475, EU701473, EU701474
<i>Aphis oestlundii</i>	KC897405.1
<i>Aphis pomi</i>	EU701479, EU701476, EU701477, EU701478
<i>Aphis rubifolii</i>	EU701481, EU701480
<i>Aphis rumicis</i>	EU701482
<i>Aphis sedi</i>	EU701373

<i>Aphis solanella</i>	EU701327
<i>Aphis spiraecola</i>	EU701503, EU701495, EU701493
<i>Aphis spiraephila</i>	EU701506
<i>Aphis varians</i>	EU701508
<i>Aphis vernoniae</i>	EU701510
<i>Apthargelia symphoricarpi</i>	EU701514, EU701512
<i>Artemisaphis artemisicola</i>	EU701516
<i>Asiphonaphis pruni</i>	EU701517
<i>Astegopteryx formosana</i>	EU701518
<i>Aulacorthum dorsatum</i>	EU701519, EU701521
<i>Aulacorthum pterinigrum</i>	EU701523
<i>Aulacorthum solani</i>	EU701525, EU701526
<i>Baizongia pistaciae</i>	EU701529
<i>Bemisia tabaci</i>	KJ591608.1
<i>Boernerina variabilis</i>	EU701530
<i>Brachycaudus cardui</i>	EU701531
<i>Brachycaudus helichrysi</i>	EU701532
<i>Brachyunguis tetrapteralis</i>	EU701537
<i>Braggia columbiana</i>	EU701543
<i>Braggia eriogoni</i>	EU701541
<i>Braggia longicauda</i>	EU701542
<i>Braggia urovaneta</i>	EU701544
<i>Brevicoryne brassicae</i>	EU701547
<i>Calaphis flava</i>	EU701548
<i>Cantharis rustica</i>	KM448150.1
<i>Capitophorus elaeagni</i>	EU701550
<i>Capitophorus hippophaes</i>	EU701551
<i>Capitophorus hudsonicus</i>	EU701553
<i>Carolinaia rhois</i>	EU701555
<i>Cavariella theobaldi</i>	EU701563, EU701562
<i>Cepigillettea myricae</i>	EU701568
<i>Cerataphis bambusifoliae</i>	EU701569
<i>Ceratoglyphina styracicola</i>	EU701570
<i>Ceratovacuna japonica</i>	EU701571
<i>Ceruraphis viburnicola</i>	EU701572
<i>Chaetosiphon fragaefolii</i>	EU701574
<i>Chaitophorus populicola</i>	EU701602
<i>Chrysoperla rufilabris</i>	KR148659.1
<i>Cinara anelia</i>	EU701607
<i>Cinara atlantica</i>	EU701609
<i>Cinara coloradensis</i>	EU701610
<i>Cinara fornacula</i>	EU701614

<i>Cinara laricifex</i>	EU701618
<i>Cinara occidentalis</i>	EU701619
<i>Cinara pergandei</i>	EU701621
<i>Cinara watsoni</i>	EU701625
<i>Clydesmithia</i>	EU701626
<i>Coccinella hieroglyphica</i>	KJ963687.1, KJ966585.1
<i>Coccinella magnifica</i>	AJ429494.1, KM449697.1
<i>Coccinella miranda</i>	GU073927.1
<i>Coccinella septempunctata</i>	GU013586.1, KR130888.1, KR130384.1, KP851144.1, KM850872.1, KM850778.1, KM850775.1, KM850528.1, KM850322.1, KM848755.1, KM849570.1, KM847953.1, KM847494.1, KM847561.1, KM847259.1, KM846953.1, KM846933.1, KM846776.1, KM846493.1, KM846369.1, KM843264.1, KM842148.1, KM841529.1, KM846020.1, KM845026.1, KM844743.1, KM844347.1, KM452668.1, KM443837.1, KM439459.1, KJ204125.1, HQ711964.1, EU392414.1, JX508274.1, JX508257.1, JX508192.1, JX508132.1, JX508027.1, JX508008.1, JF296199.1, JF296201.1, JF296181.1, AJ313071.1, KM449469.1, MG847526 , MG847527
<i>Colopha ulmicola</i>	EU701627
<i>Coloradoa rufomaculata</i>	EU701628
<i>Drepanaphis carolinensis</i>	EU701632
<i>Drepanaphis kanzensis</i>	EU701633
<i>Drepanaphis simpsoni</i>	EU701634
<i>Drepanosiphum platanoidis</i>	EU701635
<i>Dysaphis plantaginea</i>	EU701636
<i>Elatobium abietinum</i>	EU701637
<i>Eomacrosiphon nigromaculosum</i>	EU701638
<i>Episyrphus balteatus</i>	KR260215.1
<i>Ericaphis fimbriata</i>	EU701642, EU701639
<i>Ericaphis gentneri</i>	EU701645
<i>Ericaphis lili</i>	EU701646
<i>Ericaphis scammelli</i>	EU701647
<i>Ericaphis wakibae</i>	EU701655
<i>Eriosoma crataegi</i>	EU701659
<i>Eriosoma lanigerum</i>	EU701660
<i>Essigella knowltoni</i>	EU701662
<i>Eucallipterus tiliae</i>	EU701665
<i>Eulachnus rileyi</i>	EU701667
<i>Forda marginata</i>	EU701668

<i>Forda riccobonii</i>	EU701669
<i>Frankliniella occidentalis</i>	KR141362.1
<i>Geocoris pallens</i>	KR036760.1
<i>Geoica wertheimae</i>	EU701670
<i>Ghariesia polunini</i>	EU701671
<i>Greenidea nipponica</i>	EU701672
<i>Greenidea psidii</i>	EU701673
<i>Grylloprociphilus imbricator</i>	EU701675
<i>Gypsoaphis oestlundii</i>	EU701676
<i>Harmonia dimidiata</i>	EF192096.1
<i>Harmonia quadripunctata</i>	KM447142.1
<i>Hayhurstia atriplicis</i>	EU701680
<i>Helicoverpa armigera</i>	KP253145.1
<i>Henosepilachna elaterii</i>	GU073968.1
<i>Hippodamia convergens</i>	AJ429497.1
<i>Hippodamia variegata</i>	KM449469.1, KM447972.1, KM445423.1, KM439665.1, KM450443.1, KM445899.1, KM444433.1, KM442834.1, KM441730.1, KJ965564.1, KJ964021.1, KJ963952.1, KJ962252.1, KJ961736.1, HQ164778.1, GU073936.1, JQ240197.1, JN580802.1, MG847524, MG847525
<i>Hormaphis cornu</i>	EU701682
<i>Hyadaphis tataricae</i>	EU701684, EU701683
<i>Hyalopterus pruni</i>	EU701688, EU701687
<i>Hyperomyzus lactucae</i>	EU701692
<i>Hyperomyzus pallidus</i>	EU701694
<i>Hyperomyzus rhinanthi</i>	EU701695
<i>Liosomaphis berberidis</i>	EU701709
<i>Lipaphis pseudobrassicae</i>	EU701711
<i>Longistigma caryae</i>	EU701716
<i>Lysiphlebus testaceipes</i>	KJ087120.1
<i>Macrosiphoniella leucanthemi</i>	EU701717
<i>Macrosiphoniella ludoviciana</i>	EU701718
<i>Macrosiphoniella millefolii</i>	EU701719
<i>Macrosiphoniella subterranea</i>	EU701720
<i>Macrosiphum albifrons</i>	EU701721
<i>Macrosiphum californicum</i>	EU701722
<i>Macrosiphum coryli</i>	EU701723
<i>Macrosiphum daphnidis</i>	EU701724
<i>Macrosiphum euphorbiae</i>	EU701728, EU701726
<i>Macrosiphum impatientis</i>	EU701731
<i>Macrosiphum parvifolii</i>	EU701732

<i>Macrosiphum rosae</i>	EU701733
<i>Macrosiphum stanleyi</i>	EU701740
<i>Macrosiphum tuberculiceps</i>	EU701742
<i>Maculolachnus sijpkensi</i>	EU701743
<i>Mastopoda pteridis</i>	EU701745, EU701744
<i>Melanaphis bambusae</i>	EU701746
<i>Melaphis rhois</i>	EU701748
<i>Metopeurum fuscoviride</i>	EU701751
<i>Mindarus obliquus</i>	EU701757, EU701758
<i>Mindarus sp.</i>	EU701756
<i>Monaphis antennata</i>	EU701759
<i>Monellia caryella</i>	EU701760
<i>Mordwilkoja vagabunda</i>	EU701761
<i>Muscaphis escherichi</i>	EU701762
<i>Muscaphis musci</i>	EU701763
<i>Muscaphis stroyani</i>	EU701764
<i>Muscaphis utahensis</i>	EU701765
<i>Myzaphis rosarum</i>	EU701766
<i>Myzia oblongoguttata</i>	KM451601.1
<i>Myzocallis asclepiadis</i>	EU701768, EU701767
<i>Myzocallis bellus</i>	EU701769
<i>Myzocallis coryli</i>	EU701770
<i>Myzocallis punctatus</i>	EU701771
<i>Myzodium mimulicola</i>	EU701773
<i>Myzodium modestum</i>	EU701780
<i>Myzus ascalonicus</i>	EU701783, EU701782
<i>Myzus cerasi</i>	EU701788
<i>Myzus lythri</i>	EU701792
<i>Myzus ornatus</i>	EU701794
<i>Myzus persicae</i>	EU701804, EU701800, EU701798, EU701796, EU701795
<i>Nabis punctatus</i>	JQ782830.1
<i>Nasonovia alpina</i>	EU701807, EU701806
<i>Nasonovia aquilegiae</i>	EU701808, EU701809
<i>Nasonovia cynosbati</i>	EU701810
<i>Nasonovia purpurascens</i>	EU701811
<i>Nasonovia ribisnigri</i>	EU701813, EU701812
<i>Nasonovia takala</i>	EU701814
<i>Nearctaphis crataegifoliae</i>	EU701815
<i>Nearctaphis sensoriata</i>	EU701817
<i>Neoamphorophora kalmiae</i>	EU701818
<i>Neomyzus circumflexus</i>	EU701820

<i>Neoprociphilus aceris</i>	EU701822
<i>Nephus includens</i>	GU073951.1
<i>Obtusicauda coweni</i>	EU701823
<i>Oenopia conglobata</i>	KM446481.1
<i>Oestlundiella flava</i>	EU701824
<i>Orius laevigatus</i>	KM016075.1
<i>Pachypappa pseudobyrsa</i>	EU701825
<i>Pachypappa sacculi</i>	EU701828
<i>Paradoxaphis aristoteliae</i>	EU701829
<i>Paradoxaphis plagianthi</i>	EU701830
<i>Peltaphis hottesi</i>	EU701831
<i>Pemphigus betae</i>	EU701832
<i>Pemphigus bursarius</i>	EU701834
<i>Pemphigus monophagus</i>	EU701836
<i>Pemphigus populiramulorum</i>	EU701842
<i>Pemphigus populitransversus</i>	EU701844
<i>Periphyllus lyropictus</i>	EU701850
<i>Periphyllus negundinis</i>	EU701851
<i>Periphyllus testudinaceus</i>	EU701852
<i>Phytoseiulus persimilis</i>	KP642058.1, FM210193.1
<i>Pleotrichophorus pseudoglandulosus</i>	EU701854
<i>Pleotrichophorus xerozoous</i>	EU701855
<i>Plocamaphis flocculosa</i>	EU701856
<i>Prociphilus caryae</i>	EU701857
<i>Prociphilus fraxinifolii</i>	EU701859
<i>Prociphilus tessellatus</i>	EU701863
<i>Prociphilus xylostei</i>	EU701866, EU701868
<i>Propylea japonica</i>	KM207067.1
<i>Pseudoepameibaphis glauca</i>	EU701873
<i>Pterocomma beulahense</i>	EU701876
<i>Pterocomma bicolor</i>	EU701878
<i>Pterocomma sanguiceps</i>	EU701879
<i>Rhopalomyzus lonicerae</i>	EU701881
<i>Rhopalosiphum cerasifoliae</i>	EU701886
<i>Rhopalosiphum insertum</i>	EU701888
<i>Rhopalosiphum maidis</i>	EU701890
<i>Rhopalosiphum nymphaeae</i>	EU701891
<i>Rhopalosiphum padi</i>	EU701894
<i>Rhopalosiphum rufiabdominale</i>	EU701895
<i>Rhyzobius chrysoloides</i>	KM449740.1
<i>Sanbornia juniperi</i>	EU701896
<i>Sarucallis kahawaluokalani</i>	EU701898

<i>Schizaphis graminum</i>	EU701899
<i>Schizaphis scirpicola</i>	EU701900
<i>Schizolachnus curvispinosus</i>	EU701902
<i>Shivaphis celti</i>	EU701905
<i>Siphonatropia cupressi</i>	EU701906
<i>Sitobion avenae</i>	EU701907
<i>Spodoptera littoralis</i>	KJ634300.1
<i>Stethorus punctillum</i>	KM849192.1
<i>Subcoccinella vigintiquatuorpunctata</i>	KM450224.1
<i>Symydobius americanus</i>	EU701914
<i>Tamalia coweni</i>	EU701916
<i>Tetranychus urticae</i>	GQ141909.1, KM596708.1
<i>Thecabius populiconduplifolius</i>	EU701922
<i>Thecabius populimonilis</i>	EU701925
<i>Tiliphagus lycoposugus</i>	EU701928
<i>Tinocallis ulmifolii</i>	EU701929
<i>Toxoptera aurantii</i>	EU701930
<i>Toxoptera citricidus</i>	EU701937
<i>Trama rara</i>	EU701939
<i>Trialeurodes vaporariorum</i>	KR345934.1, KR031122.1
<i>Tuberaphis coreana</i>	EU701940
<i>Tuberculatus annulatus</i>	EU701941
<i>Tuberosiphium salignus</i>	EU701942
<i>Uroleucon anomalae</i>	EU701943
<i>Uroleucon erigeronense</i>	EU701944
<i>Uroleucon eupatoricolens</i>	EU701946
<i>Uroleucon nigrotibium</i>	EU701951
<i>Uroleucon taraxaci</i>	EU701953
<i>Utamphorophora commelinensis</i>	EU701954
<i>Wahlgreniella nervata</i>	EU701958