**Supplementary Table S1**. Additional information for all samples in this study.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **sample id** | **taxon group** | **v\_status** | **site** | **original name** | **island** | **location** | **morphological ID** | **amount used for RNA extraction** | **collection date** |
| V\_A\_h1(1) | honeybees | w\_varroa | apiary | H15\_Ow1a | Oahu | Waimanalo | *Apis mellifera* | 30mg (5 adults) | 24/11/2015 |
| V\_A\_h2(62) | honeybees | w\_varroa | apiary | H15\_Bg6 | Big Island | Garnett | *Apis mellifera* | 30mg (5 adults) | 21/11/2015 |
| V\_A\_h3(124) | honeybees | w\_varroa | apiary | H15\_Opa1 | Oahu | Howard - Party | *Apis mellifera* | 30mg (5 adults) | 24/11/2015 |
| V\_A\_h4(125) | honeybees | w\_varroa | apiary | H15\_OPat2 | Oahu | Pat - UH | Apis mellifera | 30mg (5 adults) | 17/10/2016 |
| V\_W\_h1(2) | honeybees | w\_varroa | non-apiray | H15\_Ba1a | Big Island | Amy Greenwell Botanical Garden | *Apis mellifera* | 30mg (5 adults) | 21/11/2015 |
| V\_W\_h2(63) | honeybees | w\_varroa | non-apiray | H15\_Oc3 | Oahu | Coco head | *Apis mellifera* | 30mg (5 adults) | 17/11/2015 |
| V\_W\_h3(126) | honeybees | w\_varroa | non-apiray | H16\_OWM1 | Oahu | Waahila Ridge Manoa | *Apis mellifera* | 30mg (5 adults) | 7/04/2016 |
| V\_W\_h4(127) | honeybees | w\_varroa | non-apiray | H16\_ORr1 | Oahu | Ridge road | *Apis mellifera* | 30mg (5 adults) | 7/04/2016 |
| N\_A\_h1(3) | honeybees | no\_varroa | apiary | H15\_Mb1a | Molokai | Brenda | *Apis mellifera* | 30mg (5 adults) | 19/11/2015 |
| N\_A\_h2(42) | honeybees | no\_varroa | apiary | H15\_Mb2a | Molokai | Brenda | *Apis mellifera* | 30mg (5 adults) | 19/11/2015 |
| N\_A\_h3(43) | honeybees | no\_varroa | apiary | H16\_KCc47 | Kauai | Community college | *Apis mellifera* | 30mg (5 adults) | 8/10/2016 |
| N\_A\_h4(64) | honeybees | no\_varroa | apiary | H16\_KCc48 | Kauai | Community college | *Apis mellifera* | 30mg (5 adults) | 8/10/2016 |
| N\_A\_h5(128) | honeybees | no\_varroa | apiary | H16\_KCc49 | Kauai | Community college | *Apis mellifera* | 30mg (5 adults) | 8/10/2016 |
| N\_A\_h6(129) | honeybees | no\_varroa | apiary | H16\_KDp2 | Kauai | Koloa Dave Paniolo | *Apis mellifera* | 30mg (5 adults) | 8/10/2016 |
| N\_W\_h1(4) | honeybees | no\_varroa | non-apiray | H15\_Mu1a | Molokai | USDA Plant centre | *Apis mellifera* | 30mg (5 adults) | 19/11/2015 |
| N\_W\_h2(65) | honeybees | no\_varroa | non-apiray | H16\_KCl2 | Kauai | Canyon lookout | *Apis mellifera* | 30mg (5 adults) | 7/10/2016 |
| V\_A\_b1(5) | solitary\_bees | w\_varroa | apiary | H15\_Bg37 | Big Island | Garnett | *Megachile chlorura* | 1 adult | 21/11/2015 |
| V\_A\_b2(6) | solitary\_bees | w\_varroa | apiary | H15\_Op7 | Oahu | Pearl City - Urban Garden Centre | *Chalicodoma umbipennis* | 1 adult | 24/11/2015 |
| V\_A\_b3(66) | solitary\_bees | w\_varroa | apiary | H15\_Op29 | Oahu | Pearl City - Urban Garden Centre | *Ceratina smaragdula* | 1 adult | 24/11/2015 |
| V\_A\_b4(130) | solitary\_bees | w\_varroa | apiary | H15\_Ou4 | Oahu | UH | *Ceratina smaragdula* | 1 adult | 18/11/2015 |
| V\_W\_b1(7) | solitary\_bees | w\_varroa | non-apiray | H15\_Ba6 | Big Island | Amy Greenwell Botanical Garden | *Megachile chlorura* | 1 adult | 21/11/2015 |
| V\_W\_b2(8) | solitary\_bees | w\_varroa | non-apiray | H15\_Og7 | Oahu | Waikiki - Urban garden plots | *Chalicodoma umbipennis* | 1 adult | 25/11/2015 |
| V\_W\_b3(67) | solitary\_bees | w\_varroa | non-apiray | H15\_Oc15 | Oahu | Coco head | *Chalicodoma umbipennis* | 1 adult | 17/11/2015 |
| V\_W\_b4(131) | solitary\_bees | w\_varroa | non-apiray | H16\_OCc10 | Oahu | Coco head | *Hylaeus strenuus* | 1 adult | 10/10/2016 |
| N\_A\_b1(44) | solitary\_bees | no\_varroa | apiary | H16\_KCc4 | Kauai | Community college | *Chalicodoma umbipennis* | 1 adult | 8/10/2016 |
| N\_A\_b2(68) | solitary\_bees | no\_varroa | apiary | H16\_KCc5 | Kauai | Community college | *Chalicodoma umbipennis* | 1 adult | 8/10/2016 |
| N\_A\_b3(69) | solitary\_bees | no\_varroa | apiary | H16\_KCc6 | Kauai | Community college | *Chalicodoma umbipennis* | 1 adult | 8/10/2016 |
| N\_A\_b4(103) | solitary\_bees | no\_varroa | apiary | H16\_KCc7 | Kauai | Community college | *Megachile chlorura* | 1 adult | 8/10/2016 |
| N\_W\_b1(15) | solitary\_bees | no\_varroa | non-apiray | H15\_Mu18 | Molokai | USDA Plant centre | *Chalicodoma umbipennis* | 1 adult | 19/11/2015 |
| N\_W\_b2(10) | solitary\_bees | no\_varroa | non-apiray | H15\_Mu19 | Molokai | USDA Plant centre | *Megachile chlorura* | 0.5 adult | 19/11/2015 |
| N\_W\_b3(70) | solitary\_bees | no\_varroa | non-apiray | H15\_Mu37 | Molokai | USDA Plant centre | *Ceratina smaragdula* | 1 adult | 19/11/2015 |
| N\_W\_b4(104) | solitary\_bees | no\_varroa | non-apiray | H16\_Kp2 | Kauai | Kilauea pt - lighthouse | *Hylaeus connectens* | 1 adult | 8/10/2016 |
| V\_A\_v1(18) | V\_pensylvanica | w\_varroa | apiary | H15\_Bh1 | Big Island | Honokaa | *Vespula pensylvanica* | 0.5 adult | 22/11/2015 |
| V\_A\_v2(40) | V\_pensylvanica | w\_varroa | apiary | H15\_Bh2 | Big Island | Honokaa | *Vespula pensylvanica* | 0.5 adult | 22/11/2015 |
| V\_A\_v3(57) | V\_pensylvanica | w\_varroa | apiary | H15\_Bh3 | Big Island | Honokaa | *Vespula pensylvanica* | 0.5 adult | 22/11/2015 |
| V\_A\_v4(98) | V\_pensylvanica | w\_varroa | apiary | H15\_Bh4 | Big Island | Honokaa | *Vespula pensylvanica* | 0.5 adult | 22/11/2015 |
| V\_W\_v1(19) | V\_pensylvanica | w\_varroa | non-apiray | H15\_Bke1 | Big Island | Keolamauloa | *Vespula pensylvanica* | 0.5 adult | 22/11/2015 |
| V\_W\_v2(41) | V\_pensylvanica | w\_varroa | non-apiray | H15\_Bke2 | Big Island | Keolamauloa | *Vespula pensylvanica* | 0.5 adult | 22/11/2015 |
| V\_W\_v3(58) | V\_pensylvanica | w\_varroa | non-apiray | H15\_Bke3 | Big Island | Keolamauloa | *Vespula pensylvanica* | 0.5 adult | 21/11/2015 |
| V\_W\_v4(99) | V\_pensylvanica | w\_varroa | non-apiray | H15\_Bke4 | Big Island | Keolamauloa | *Vespula pensylvanica* | 0.5 adult | 21/11/2015 |
| N\_W\_v1(59) | V\_pensylvanica | no\_varroa | non-apiray | H16\_Kw2 | Kauai | Waimea Canyon road | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| N\_W\_v2(60) | V\_pensylvanica | no\_varroa | non-apiray | H16\_Kw3 | Kauai | Waimea Canyon road | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| N\_W\_v3(61) | V\_pensylvanica | no\_varroa | non-apiray | H16\_Kw4 | Kauai | Waimea Canyon road | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| N\_W\_v4(100) | V\_pensylvanica | no\_varroa | non-apiray | H16\_KWa2 | Kauai | Waimea Canyon road | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| N\_W\_v5(101) | V\_pensylvanica | no\_varroa | non-apiray | H16\_KWa3 | Kauai | Waimea Canyon road | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| N\_W\_v6(120) | V\_pensylvanica | no\_varroa | non-apiray | H16\_Kk3 | Kauai | Kokee - on trail | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| N\_W\_v7(121) | V\_pensylvanica | no\_varroa | non-apiray | H16\_KCl1 | Kauai | Canyon lookout 2 | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| N\_W\_v8(122) | V\_pensylvanica | no\_varroa | non-apiray | H16\_KCt1 | Kauai | Canyon trai lhead | *Vespula pensylvanica* | 0.5 adult | 7/10/2016 |
| V\_A\_d1(34) | potter\_wasps | w\_varroa | apiary | H15\_Bg20 | Big Island | Garnett | *Delta campaniforme ensuriens* | 0.5 adult | 21/11/2015 |
| V\_A\_d2(20) | potter\_wasps | w\_varroa | apiary | H15\_Bg21 | Big Island | Garnett | *Delta campaniforme ensuriens* | 0.5 adult | 21/11/2015 |
| V\_A\_d3(93) | potter\_wasps | w\_varroa | apiary | H15\_Op17 | Oahu | Pearl City - Urban Garden Centre | *Delta pyriforme philippinese* | 0.25 adult | 24/11/2015 |
| V\_A\_d4(113) | potter\_wasps | w\_varroa | apiary | H15\_Opa2 | Oahu | Howard - Party | *Delta campaniforme esuriens* | 0.5 adult | 24/11/2015 |
| V\_W\_d1(35) | potter\_wasps | w\_varroa | non-apiray | H15\_Og3 | Oahu | Waikiki - Urban garden plots | *Delta campaniforme esuriens* | 0.5 adult | 25/11/2015 |
| V\_W\_d2(16) | potter\_wasps | w\_varroa | non-apiray | H15\_Og4 | Oahu | Waikiki - Urban garden plots | *Delta campaniforme esuriens* | 0.5 adult | 25/11/2015 |
| V\_W\_d3(94) | potter\_wasps | w\_varroa | non-apiray | H16\_OCc21 | Oahu | Coco head | *Delta pyriforme philippinense* | 0.25 adult | 10/10/2016 |
| V\_W\_d4(114) | potter\_wasps | w\_varroa | non-apiray | H16\_OCc17 | Oahu | Coco head | *Delta pyriforme philippinense* | 0.25 adult | 10/10/2016 |
| N\_A\_d1(51) | potter\_wasps | no\_varroa | apiary | H16\_KCc39 | Kauai | Community college | *Delta pyriforme philippinense* | 0.25 adult | 6/10/2016 |
| N\_A\_d2(95) | potter\_wasps | no\_varroa | apiary | H16\_KCc40 | Kauai | Community college | *Delta pyriforme philippinense* | 0.25 adult | 6/10/2016 |
| N\_A\_d3(96) | potter\_wasps | no\_varroa | apiary | H16\_KCc41 | Kauai | Community college | *Delta campaniforme ensuriens* | 0.5 adult | 6/10/2016 |
| N\_A\_d3(115) | potter\_wasps | no\_varroa | apiary | H16\_KCc42 | Kauai | Community college | *Delta campaniforme ensuriens* | 0.5 adult | 6/10/2016 |
| N\_W\_d1(36) | potter\_wasps | no\_varroa | non-apiray | H15\_Mm1 | Molokai | Molokai burger | *Delta campaniform ensuriens* | 0.5 adult | 19/11/2015 |
| N\_W\_d2(52) | potter\_wasps | no\_varroa | non-apiray | H15\_Mf10 | Molokai | Farm - CTAHR | *Delta campaniform ensuriens* | 0.5 adult | 19/11/2015 |
| N\_W\_d3(97) | potter\_wasps | no\_varroa | non-apiray | H15\_Mf11 | Molokai | Farm - CTAHR | *Delta campaniform ensuriens* | 0.5 adult | 19/11/2015 |
| N\_W\_d4(116) | potter\_wasps | no\_varroa | non-apiray | H16\_Kp1 | Kauai | Kilauea pt lighthouse | *Chalybion bengalense* | 1 adult | 8/10/2016 |
| V\_A\_m1(30) | sol\_wasps | w\_varroa | apiary | H15\_Bg30 | Big Island | Garnett | *Pachodynerus nasidens* | 0.5 adult | 21/11/2015 |
| V\_A\_m2(47) | sol\_wasps | w\_varroa | apiary | H15\_Bg33 | Big Island | Garnett | *Ichneumonidae* | 1 adult | 21/11/2015 |
| V\_A\_m3(74) | sol\_wasps | w\_varroa | apiary | H15\_Ow6 | Oahu | Waimanalo | *Sceliphron caementarium* | 0.5 adult | 24/11/2015 |
| V\_A\_m4(109) | sol\_wasps | w\_varroa | apiary | H15\_Ou12 | Oahu | UH | *Pachodynerus nasidens* | 1 adult | 18/11/2015 |
| V\_W\_m1(31) | sol\_wasps | w\_varroa | non-apiray | H15\_Og13 | Oahu | Waikiki - Urban garden plots | *Pachodynerus nasidens* | 1 adult | 25/11/2015 |
| V\_W\_m2(48) | sol\_wasps | w\_varroa | non-apiray | H16\_OCc3 | Oahu | Coco head | *Ampulex compressa* | 0.5 adult | 10/10/2016 |
| V\_W\_m3(75) | sol\_wasps | w\_varroa | non-apiray | H16\_OCc5 | Oahu | Coco head | *Ampulex compressa* | 0.5 adult | 10/10/2016 |
| V\_W\_m4(110) | sol\_wasps | w\_varroa | non-apiray | H16\_OCc7 | Oahu | Coco head | *Evania appendigaster* | 1 adult | 10/10/2016 |
| N\_A\_m1(32) | sol\_wasps | no\_varroa | apiary | H15\_Mb10 | Molokai | Brenda | *Misc* | 1 adult | 19/11/2015 |
| N\_A\_m2(49) | sol\_wasps | no\_varroa | apiary | H16\_KCc2 | Kauai | Community college | *Liris aurulenta* | 1 adult | 8/10/2016 |
| N\_A\_m3(76) | sol\_wasps | no\_varroa | apiary | H16\_KCc37 | Kauai | Community college | *Ampulex compressa* | 0.5 adult | 6/10/2016 |
| N\_A\_m4(111) | sol\_wasps | no\_varroa | apiary | H16\_KCc30 | Kauai | Community college | *Sceliphron caementarium* | 0.5 adult | 6/10/2016 |
| N\_W\_m1(33) | sol\_wasps | no\_varroa | non-apiray | H15\_Mf14 | Molokai | Farm - CTAHR | *Chalybion bengalense* | 1 adult | 19/11/2015 |
| N\_W\_m2(50) | sol\_wasps | no\_varroa | non-apiray | H15\_Mf15 | Molokai | Farm - CTAHR | *Chalybion bengalense* | 1 adult | 19/11/2015 |
| N\_W\_m3(77) | sol\_wasps | no\_varroa | non-apiray | H16\_KWa1 | Kauai | Waimea Canyon Road | *Pachodynerus nasidens* | 1 adult | 7/10/2016 |
| N\_W\_m4(112) | sol\_wasps | no\_varroa | non-apiray | H15\_Mf21 | Molokai | Farm - CTAHR | *Pachodynerus nasidens* | 1 adult | 19/11/2015 |
| V\_A\_p1(37) | polistes\_wasps | w\_varroa | apiary | H15\_Bg10 | Big Island | Garnett | *polistes aurifer* | 0.5 adult | 21/11/2015 |
| V\_A\_p2(53) | polistes\_wasps | w\_varroa | apiary | H15\_Bg11 | Big Island | Garnett | *polistes aurifer* | 0.5 adult | 21/11/2015 |
| V\_A\_p3(78) | polistes\_wasps | w\_varroa | apiary | H15\_Op28 | Oahu | Pearl City - Urban Garden Centre | Polistes exclamens | 0.5 adult | 24/11/2015 |
| V\_A\_p4(117) | polistes\_wasps | w\_varroa | apiary | H16\_OW3 | Oahu | Waimanalo | *Polistes aurifer* | 0.5 adult | 31/03/2016 |
| V\_W\_p1(38) | polistes\_wasps | w\_varroa | non-apiray | H15\_Bw1 | Big Island | Waipio lookout | *Polistes aurifer* | 0.5 adult | 22/11/2015 |
| V\_W\_p2(54) | polistes\_wasps | w\_varroa | non-apiray | H16\_OCc11 | Oahu | Coco head | *Polistes exclemans* | 0.5 adult | 10/10/2016 |
| V\_W\_p3(79) | polistes\_wasps | w\_varroa | non-apiray | H16\_OCc12 | Oahu | Coco head | *Polistes exclemans* | 0.5 adult | 10/10/2016 |
| V\_W\_p4(118) | polistes\_wasps | w\_varroa | non-apiray | H16\_OCc13 | Oahu | Coco head | *Polistes exclemans* | 0.5 adult | 10/10/2016 |
| N\_A\_p1(39) | polistes\_wasps | no\_varroa | apiary | H15\_Mb8 | Molokai | Brenda | *Polistes aurides* | 0.5 adult | 19/11/2015 |
| N\_A\_p2(55) | polistes\_wasps | no\_varroa | apiary | H16\_KCc32 | Kauai | Community college | *Polistes olivaceus* | 0.5 adult | 6/10/2016 |
| N\_A\_p3(80) | polistes\_wasps | no\_varroa | apiary | H16\_KCc33 | Kauai | Community college | *Polistes olivaceus* | 0.5 adult | 6/10/2016 |
| N\_A\_p4(119) | polistes\_wasps | no\_varroa | apiary | H16\_KCc34 | Kauai | Community college | *Polistes olivaceus* | 0.5 adult | 6/10/2016 |
| N\_W\_p1(17) | polistes\_wasps | no\_varroa | non-apiray | H15\_Mu8 | Molokai | USDA Plant centre | *Polistes olivaceus* | 0.5 adult | 19/11/2015 |
| N\_W\_p2(56) | polistes\_wasps | no\_varroa | non-apiray | H15\_Mf8 | Molokai | Farm - CTAHR | *Polistes esclamans* | 0.5 adult | 19/11/2015 |
| N\_W\_p3(81) | polistes\_wasps | no\_varroa | non-apiray | H15\_Mf9 | Molokai | Farm - CTAHR | *Polistes esclamans* | 0.5 adult | 19/11/2015 |
| N\_W\_p4(102) | polistes\_wasps | no\_varroa | non-apiray | H16\_KA1 | Kauai | Ag land kekaha | *Polistes aurifer* | 0.5 adult | 7/10/2016 |
| V\_A\_a1(22) | ants | w\_varroa | apiary | H15\_Op16 | Oahu | Pearl City - Urban Garden Centre | *Anoplolepis gracilipes* | 1 adult queen | 24/11/2015 |
| V\_A\_a2(23) | ants | w\_varroa | apiary | H15\_Op24 | Oahu | Pearl City - Urban Garden Centre | *Anoplolepis gracilipes* | 5 adults | 24/11/2015 |
| V\_A\_a3(89) | ants | w\_varroa | apiary | H15\_Ou3 | Oahu | UH | *Pheidole megacephala* | 5 adults | 16/11/2015 |
| V\_A\_a4(105) | ants | w\_varroa | apiary | H16\_Opat1 | Oahu | Pats-UH | *Pseudomyrmex gracilis* | 1 adult | 17/10/2016 |
| V\_W\_a1(24) | ants | w\_varroa | non-apiray | H15\_Oc2 | Oahu | Coco head | *Pseudomyrmex gracilis* | 1 adult | 17/11/2015 |
| V\_W\_a2(25) | ants | w\_varroa | non-apiray | H16\_OWR2 | Oahu | Waahila Ridge | *Anoplolepis gracilipes* | 5 adults | 7/04/2016 |
| V\_W\_a3(90) | ants | w\_varroa | non-apiray | H16\_OWR3 | Oahu | Waahila Ridge | *Anoplolepis gracilipes* | 5 adults | 7/04/2016 |
| V\_W\_a4(106) | ants | w\_varroa | non-apiray | H16\_OCc4 | Oahu | Coco head | *Anoplolepis gracilipes* | 1 adult | 10/10/2016 |
| N\_A\_a1(26) | ants | no\_varroa | apiary | H15\_Mb4 | Molokai | Brenda | *Camponotus variegatus* | 1 adult | 19/11/2015 |
| N\_A\_a2(27) | ants | no\_varroa | apiary | H15\_Mb6 | Molokai | Brenda | *Tapinomea melanocephalum* | 5 adults | 19/11/2015 |
| N\_A\_a3(91) | ants | no\_varroa | apiary | H15\_Mb9 | Molokai | Brenda | *Camponotus variegatus* | 1 adult | 19/11/2015 |
| N\_A\_a4(107) | ants | no\_varroa | apiary | H16\_KDp1 | Kauai | Koloa Dave Paniolo | *Pheidole megacephala* | 5 adults | 8/10/2016 |
| N\_W\_a1(28) | ants | no\_varroa | non-apiray | H15\_Mu3 | Molokai | USDA Plant centre | *Pheidole megacephala* | 5 adults | 19/11/2015 |
| N\_W\_a2(29) | ants | no\_varroa | non-apiray | H15\_Ma1 | Molokai | airport | *Pheidole megacephala* | 5 adults | 19/11/2015 |
| N\_W\_a3(92) | ants | no\_varroa | non-apiray | H15\_Mf1 | Molokai | Farm - CTAHR | *Technomyrmex albipennis* | 5 adults | 19/11/2015 |
| N\_W\_a4(108) | ants | no\_varroa | non-apiray | H15\_Mu4 | Molokai | USDA Plant centre | *Pheidole megacephala* | 5 adults | 19/11/2015 |
| V\_A\_f1(11) | flies | w\_varroa | apiary | H15\_Bg34 | Big Island | Garnett | *Syrphid sp* | 1 adult | 21/11/2015 |
| V\_A\_f2(45) | flies | w\_varroa | apiary | H15\_Ow13 | Oahu | Waimanalo | *Syrphidae* | 1 adult | 24/11/2015 |
| V\_A\_f3(71) | flies | w\_varroa | apiary | H15\_Ow14 | Oahu | Waimanalo | *Allograpta sp* | 1 adult | 24/11/2015 |
| V\_A\_f4(83) | flies | w\_varroa | apiary | H15\_Ou24 | Oahu | UH | *Allograpta sp* | 1 adult | 18/11/2015 |
| V\_W\_f1(12) | flies | w\_varroa | non-apiray | H15\_Ba7 | Big Island | Amy Greenwell Botanical Garden | *Syrphid sp* | 1 adult | 21/11/2015 |
| V\_W\_f2(13) | flies | w\_varroa | non-apiray | H15\_Ba10 | Big Island | Amy Greenwell Botanical Garden | *Allograpta sp* | 1 adult | 21/11/2015 |
| V\_W\_f3(72) | flies | w\_varroa | non-apiray | H15\_Oc25 | Oahu | Coco head | *Allograpta sp* | 1 adult | 17/11/2015 |
| V\_W\_f4(84) | flies | w\_varroa | non-apiray | H15\_Oc24 | Oahu | Coco head | *Allograpta sp* | 1 adult | 17/11/2015 |
| N\_A\_f1(46) | flies | no\_varroa | apiary | H16\_KCc3 | Kauai | Community college | *symopsyrphus sp* | 1 adult | 8/10/2016 |
| N\_A\_f2(73) | flies | no\_varroa | apiary | H16\_KCc43 | Kauai | Community college | *symopsyrphus sp* | 1 adult | 8/10/2016 |
| N\_A\_f3(85) | flies | no\_varroa | apiary | H16\_KCc44 | Kauai | Community college | *symopsyrphus sp* | 1 adult | 8/10/2016 |
| N\_A\_f4(86) | flies | no\_varroa | apiary | H16\_KCc45 | Kauai | Community college | *symopsyrphus sp* | 1 adult | 8/10/2016 |
| N\_W\_f1(14) | flies | no\_varroa | non-apiray | H15\_Ml1 | Molokai | lookout spot | *Allograpta sp* | 1 adult | 19/11/2015 |
| N\_W\_f2(9) | flies | no\_varroa | non-apiray | H15\_Mu21 | Molokai | USDA Plant centre | *Syrphid sp* | 1 adult | 19/11/2015 |
| N\_W\_f3(87) | flies | no\_varroa | non-apiray | H16\_Ku4 | Kauai | UH ag station Kapaa | *symosyrphus sp.* | 1 adult | 6/10/2015 |
| N\_W\_f4(88) | flies | no\_varroa | non-apiray | H16\_Kw5 | Kauai | Waimea Canyon Road | *Allograpta sp* | 1 adult | 7/10/2015 |