



Characterization of arthropod species associated with Mango and Cherimoya in a Mediterranean context

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Germplasm collections



75 varieties



37 varieties

	1.1 Palmer	1.2 Palmer	2.1 Safeda	2.2 Safeda	3.1 Tommy Atkins	3.2 Tommy Atkins	4.1 Alphonso	4.2 Alphonso	5.1 Manila	5.2 Manila	6.1 Negev Beauty	6.2 Negev Beauty	7.1 Alphonse	7.2 Alphonse
	14.2 Isis	14.2 Isis	13.2 Glenn	13.1 Glenn	12.2 BSOR	12.1 BSOR	11.2 Honey Gold	11.1 Honey Gold	10.2 Dava Haden	10.1 Dava Haden	9.2 Ataulfo	9.1 Ataulfo	8.2 Edward	8.1 Edward
	15.1 Manzanillo	15.2 Manzanillo	16.1 Kent	16.2 Kent	17.1 Neldica	17.2 Neldica	18.1 Langra	18.2 Langra	19.1 Lippens	19.2 Lippens	20.1 President	20.2 President	21.1 Van Dyke	21.2 Van Dyke
	28.2 Mallika	28.1 Mallika	27.2 Chokeanum	27.1 Chokeanum	26.2 Hardsen	26.1 Hardsen	25.2 Gouveia	25.1 Gouveia	24.2 Irwin	24.1 Irwin	23.2 Keitt	23.1 Keitt	22.2 Mahachanok	22.1 Mahachanok
Camino	29.1 Mun 4n	29.2 Mun 4n	30.1 Winters	30.2 Winters	31.1 Ott	31.2 Ott	32.1 Surprise Alexandra	32.2 Surprise Alexandra	33.1 Maya	33.2 Maya	34.1 Dusheri	34.2 Dusheri	35.1 Sensation	35.2 Sensation
	42.2 Osteen	42.1 Osteen	41.2 Carabao	41.1 Carabao	40.2 Heidi	40.1 Heidi	39.2 Nam Doc Mai	39.1 Nam Doc Mai	38.2 Kensington	38.1 Kensington	37.2 Tolber	37.1 Tolber	36.2 Zill	36.1 Zill
	43.1 Naomi	43.2 Naomi	44.1 Haden	44.2 Haden	45.1 Sukkari	45.2 Sukkari	46.1 Mampi 7a	46.2 Mampi 7a	47.1 Kensington 4c	47.2 Kensington 4c	48.1 Manari 8b	48.2 Manari 8b	49.1 Tango	49.2 Tango
	56.2 Gomera 3	56.1 Gomera 3	55.2 Filippo	55.1 Filippo	54.2 Madame Francis	54.1 Madame Francis	53.2 Lili	53.1 Lili	52.2 Springfields	52.1 Springfields	51.2 Sabre	51.1 Sabre	50.2 M. Zelayaynica	50.1 M. Zelayaynica
	57.1 Gomera 4	57.2 Gomera 4	58.1 Gomera 1	58.2 Gomera 1	59.1 Ford	59.2 Ford	60.1 Piri	60.2 Piri	61.1 Hardinson	61.2 Hardinson	62.1 Extreme	62.2 Extreme	63.1 M. Laurina	63.2 M. Laurina
	69.2 Peach	69.1 Peach	68.2 Long Green	68.1 Long Green	67.2 Pope	67.1 Pope	66.2 Nam Doc Mai 4	66.1 Nam Doc Mai 4	65.2 Momi K	65.1 Momi K	64.2 Piva	64.1 Piva		
	70.1 Amini	70.2 Amini	71.1 Valencia Pride	71.2 Valencia Pride	72.1 Valencia Pride	72.2 Valencia Pride	73.1 R2E2	73.2 R2E2	74.1 Shelly	74.2 Shelly	75.1 San Andrés	75.2 San Andrés		

camino														alberca
Fino de Jete	SB125	SP129	Burtons	SB109	SM006	Bonita Corona								
Loma	SE003	SE004	SM009	SP005	SP006	SP076								
SP7752	SM029	SP131	SP079	SP075	SE014	SP025								
SP125	SP135	SP095	OA-24-2	OA-24	Cruz Verde	Zarzero								
Oxhart	Big Sister	SE104	SE029	SP065	México 1	Lisa de Puelarero								
Coodie Island	Miravista													

Mangos

Methodology

Measured incidence on trees



DNA barcoding



Pest already present in this area



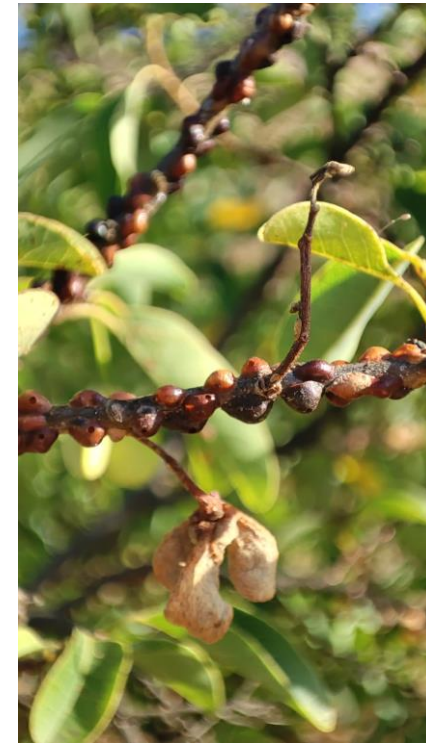
Ceroplastes rusci



Pulvinaria psiddi

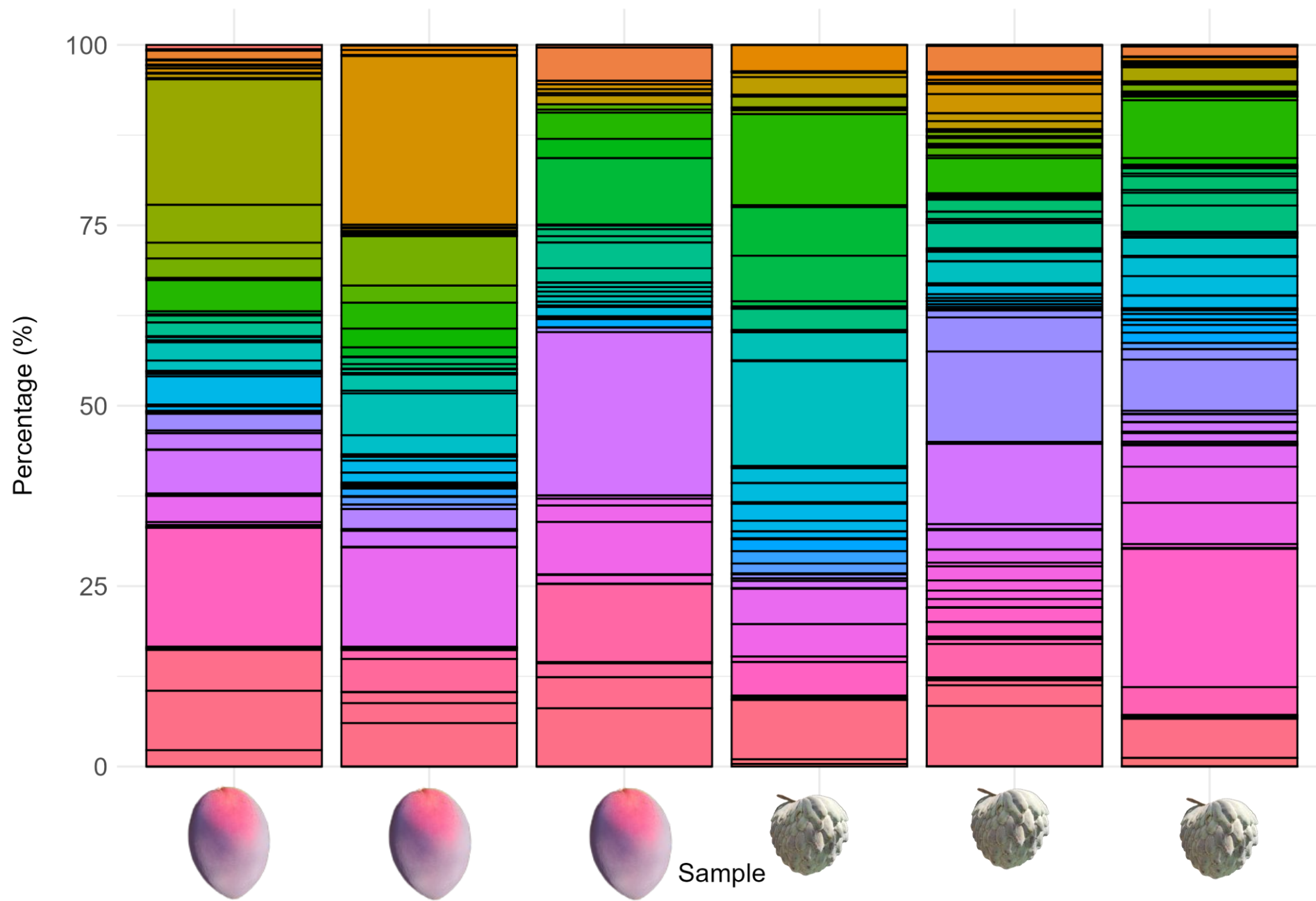


Icerya seychellarum
and
Aulacaspis tubercularis

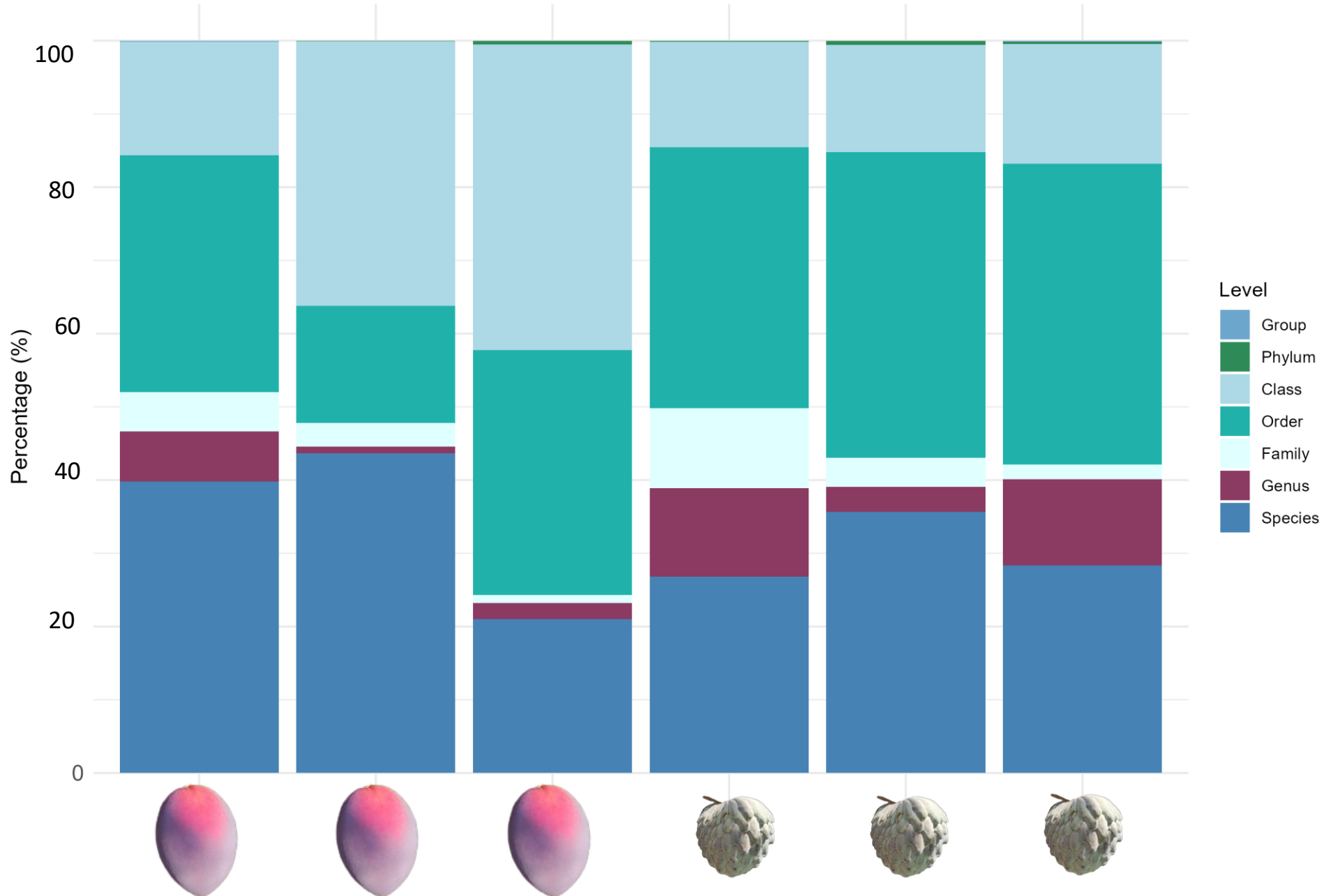


Parasaissetia nigra

Percentage of Species

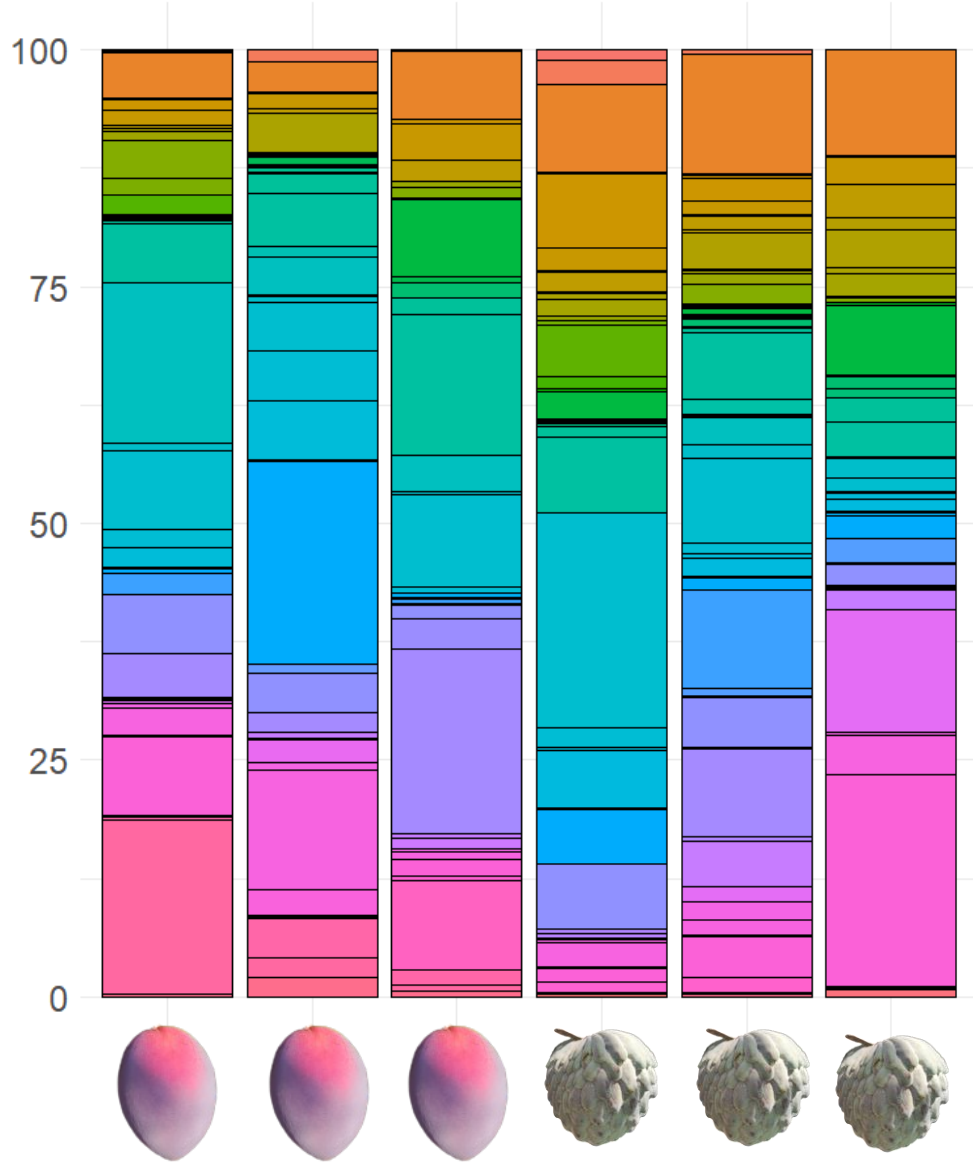


Percentage of Readings at Each Taxonomic Level by Sample





Percentage of each Family

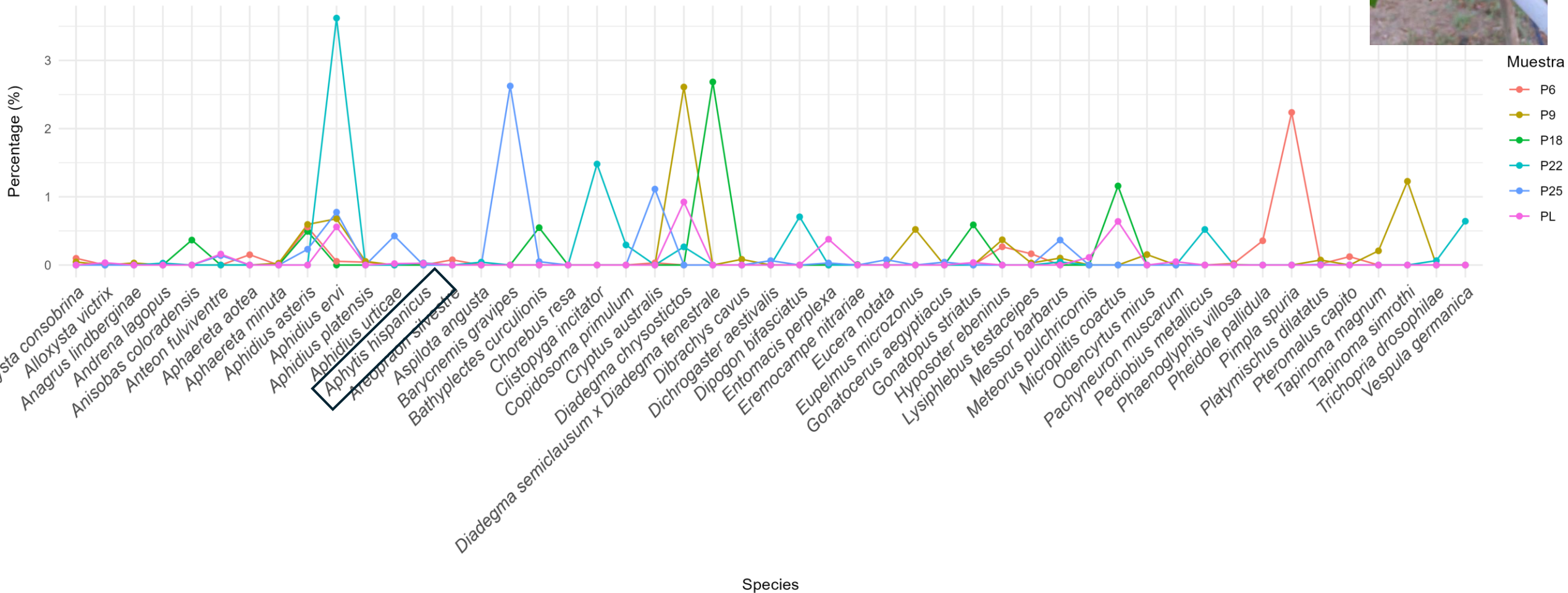


Family

- | | | | | | |
|-----------------|-----------------|----------------|----------------|------------------|-------------------|
| Acrididae | Chaoboridae | Drosophilidae | Hybotidae | Phalacridae | Staphylinidae |
| Aderidae | Chironomidae | Dryinidae | Ichneumonidae | Phlaeothripidae | Syrphidae |
| Agromyzidae | Chloropidae | Ectopsocidae | Lachesillidae | Phoridae | Tachinidae |
| Aleyrodidae | Chrysomelidae | Elachistidae | Latridiidae | Pipunculidae | Tephritidae |
| Andrenidae | Chrysopidae | Encyrtidae | Leiodidae | Plutellidae | Tetracampidae |
| Anthocoridae | Cicadellidae | Entomobryidae | Liviidae | Polleniidae | Tettigometridae |
| Anthomyiidae | Clubionidae | Erebiidae | Lonchaeidae | Pompilidae | Theridiidae |
| Aphelinidae | Coccidae | Erotylidae | Lycanidae | Psilidae | Thripidae |
| Aphididae | Coccinellidae | Eulophidae | Lygaeidae | Psychodidae | Tineidae |
| Apidae | Coleophoridae | Eupelmidae | Mantidae | Psyllidae | Tipulidae |
| Apionidae | Corylophidae | Figitidae | Miridae | Pteromalidae | Tortricidae |
| Araneidae | Cosmopterigidae | Formicidae | Monophlebidae | Pterophoridae | Trichogrammatidae |
| Asteiidae | Crabronidae | Gelechiidae | Muscidae | Pyrrhocoridae | Trichopsocidae |
| Autostichidae | Crambidae | Geometridae | Mycetophagidae | Rhinophoridae | Triozidae |
| Blastobasidae | Cryptophagidae | Gnaphosidae | Mycetophilidae | Rhopalidae | Trogiidae |
| Braconidae | Culicidae | Gracillariidae | Mymaridae | Rhyparochromidae | Ulidiidae |
| Cecidomyiidae | Diapriidae | Halictidae | Noctuidae | Scelionidae | Vespidae |
| Ceratopogonidae | Diaspididae | Heleomyzidae | Oxycarenidae | Sphaeroceridae | |
| | | Hemerobiidae | | | |



Percentage of Species by Order: Hymenoptera



Conclusions and perspectives

Five pests have been detected on trees, with differences on their incidence between crop varieties

Natural enemies of *Parasaissetia nigra* and *Aulacaspis tubercularis* have been detected, what could be interested for developing management tools for these pests in this area

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