



Review article

The terrestrial arthropods of Rapa Nui: A fauna dominated by non-native species[☆]

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ABSTRACT

The terrestrial arthropod fauna of Rapa Nui has been negatively impacted by human activities, including accidental and purposeful species introductions, which have led to high levels of extinction and extirpation of the native fauna. Unfortunately, the absence of a single, standardized resource documenting all Rapa Nui's native and non-native species hinders protecting surviving native species, as well as recognizing new invasions. Here, we present a comprehensive list of terrestrial arthropod species recorded up to 2024. We compiled this list from the literature, unpublished museum records, and field sampling. We also consulted 29 taxonomic specialists, who assisted in verifying species in this checklist. A total of 539 arthropod species were cataloged including 25 endemic, 27 indigenous, 345 accidentally introduced, and 66 purposefully introduced species, and 76 species of unknown origin. Most, if not all, of the unknown records represent non-native species. Eleven endemic and 14 indigenous species have not been recorded since their original description, which suggests their extinction or extirpation. However, the lack of targeted surveys prevents verification of their persistence on the island. For non-native species, one-third (33%) have cosmopolitan or nearly cosmopolitan distributions, while 31% originated from the tropics. Overall, this checklist will serve as a comprehensive resource for the identification of established species and facilitate the detection of new arrivals. It will also contribute to the protection of the island's surviving native species.

[☆] [Versión en español del manuscrito aquí.](#)

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1. Introduction

Entomological surveys on remote oceanic islands began relatively late in comparison to other taxonomic groups, as early naturalists focused mostly on marine, plant, bird, and mollusk species (Kay, 1972; Gillespie et al., 2008). Once surveys for terrestrial arthropods began on many islands, the lowland fauna had gone extinct or survived at low detection levels and had been replaced largely by non-native species (Gillespie et al., 2008; Wynne et al., 2014; Heppner et al., 2016). The rarity of conspicuous native species fostered the belief that terrestrial arthropods were poorly represented on remote oceanic islands (e.g., Kuschel, 1963; Meyen, 1835 cited in Kay, 1972). This myth was ultimately dispelled after resident naturalists, who were interested in insects, arrived at mountainous, high-elevation islands, such as Hawai'i (Blackburn, 1882; Kay, 1972) and the Marquesas (Adamson, 1935).

Despite reports of a few native species, this perception was particularly difficult to discount on Rapa Nui (e.g., Kuschel, 1963). As the island lacks high elevation areas which can act as refuge habitats (Mann et al., 2008), most native terrestrial arthropod species went extinct before systematic biological surveys commenced (Skottsberg, 1940; Wynne et al., 2014). However, museum and fossil records documenting several extinct species of flora (Dransfield et al., 1984; Flenley and King, 1984) and fauna (Steadman, 2006; Kirch et al., 2009; Cotoras et al., 2017a, b), along with recent discoveries of endemic arthropod species (e.g., Mockford and Wynne, 2013; Bernard et al., 2015; Taiti and Wynne, 2015; Van Damme, 2016), suggest that Rapa Nui once supported a highly diverse community of native arthropod species.

Surveys of terrestrial arthropods on Rapa Nui began in the early 20th century. Fuentes (1914) published the first list totaling 26 insect species. Shortly thereafter, C.J.F. Skottsberg led the Swedish Pacific Expedition, which visited Rapa Nui in 1917 (Skottsberg, 1940). This expedition included the collection of invertebrates, along with plants, birds, and marine species (Skottsberg, 1940). Their results were published by taxonomic specialists in a series of papers between 1921 and 1946. In total, this expedition recorded 42 species of terrestrial arthropods; of which, a few were considered native. Olalquiaga Faure (1946) later listed 18 species, none of which were native, while Campos and Peña (1973) added 56 species bringing the total known fauna to 142 with seven possible native species. Rojas (1981) listed 11 pestiferous insect species and their associated predators and parasites, of which five were new records. Ripa et al. (1995) later reviewed Rojas (1981) and added 60 species purposefully introduced for biological control of agricultural pests or public health.

Beginning in 2006, the Servicio Agrícola Ganadero (SAG) initiated a program to detect organisms associated with agriculture and public health on Rapa Nui. In addition to this effort, several taxonomic-group specific lists have been assembled, including Arachnida (Hammer, 1970; Baert et al., 1997; Cotoras et al., 2017a), Lepidoptera (Viette, 1950; Heppner et al., 2016), Orthoptera (Kevan, 1965), Formicidae (Wilson and Taylor, 1967), Psocoptera (Mockford, 1972), Collembola (Bernard et al., 2015), Coccinellidae (González et al., 2020), and Isopoda (Taiti and Wynne, 2015). Moreover, recent expeditions to the island focused on cave-dwelling arthropods but also included surface sampling (Wynne et al., 2014, 2016, 2024).

The recognition that Rapa Nui once had a significant native arthropod fauna led to a growing sense of urgency to catalog the surviving native species and develop conservation protocols for their protection (Wynne et al., 2014). For example, Wynne et al. (2016) provided management recommendations for the Roiho District, which is the type locality for several presumed cave-restricted arthropod species. Furthermore, non-native species are one of the greatest threats to the environment, agriculture, and native ecosystems (Wynne et al., 2014; Pyšek et al., 2020); these impacts underscore the importance of developing and maintaining a comprehensive list of terrestrial arthropod species for the island (e.g., Matsunaga et al., 2019) and implementing conservation interventions. Importantly, biological surveys that included both native and non-native taxa have provided resource managers and conservationists with a more robust understanding of the arthropod fauna of the island (e.g., Campos and Peña, 1973; Ripa et al., 1995; Wynne et al., 2014, 2016).

Despite more than 100 years of entomological inquiry, the results of these myriad surveys have been scattered across journals, gray literature, and unpublished data in museum archives. These sources remained obscure and difficult for researchers and other stakeholders to readily access. Accordingly, finding information on Rapa Nui arthropod species has often been a daunting and time-consuming task. This study addresses this obstacle by providing the first comprehensive list for all terrestrial arthropod species documented on Rapa Nui.

2. Material and methods

2.1. Study area

Volcanic in origin, Rapa Nui (or Easter Island) has an area of 164 km² and is situated in southeastern-most Polynesia approximately 3600 km west of continental Chile and 2000 km east of Pitcairn, Ducie, Oeno, and Henderson Islands (Fig. 1). With a maximum elevation of around 507 m at Ma'unga Terevaka, Rapa Nui is a low-lying island. Vegetation is now characterized by mostly non-native species. Grassland and guava (*Psidium guajava* L.) shrub dominate most of the island punctuated by several large stands of nonnative *Eucalyptus* spp. trees. The island previously supported 43 known endemic plant species; of these, nine species are now extinct or likely extinct (DuBois et al., 2013). Additionally, at least 14 Polynesian cultivars have been introduced to the island (Hunt and Lipo, 2013), which occur near or within the crater lakes and within the town of Hanga Roa.

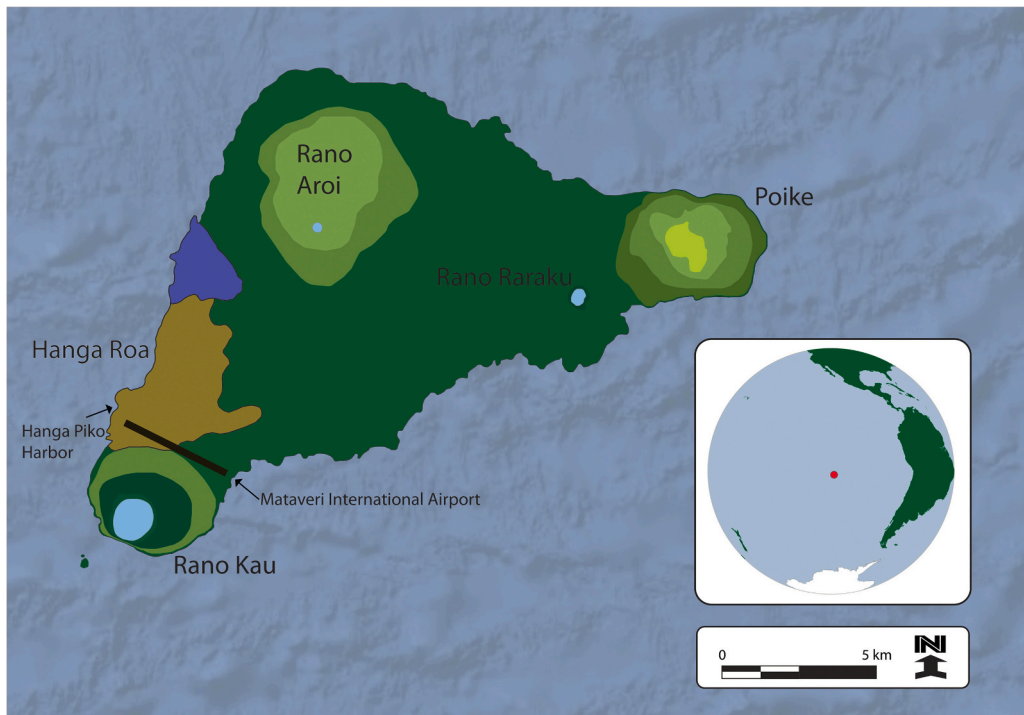


Fig. 1. Extent of Rapa Nui, Chile showing the town of Hanga Roa (olive drab), the harbor, airport, and other prominent geographic features. The proposed management area (indigo) for type locality caves supporting the largely cave-restricted native species is provided. The locator map indicates the island's global position.

Human impacts on Rapa Nui were intensified by the ecosystem's sensitivity to fire (Mann et al., 2008) and a prolonged drought during the rise of the Rapanui civilization (Orliac and Orliac, 1998; Mann et al., 2008; Sáez et al., 2009; Stenseth and Voje, 2009). Due to its vulnerable ecosystems and intense human activities placed upon it, the island experienced a catastrophic ecological shift (Wynne et al., 2014) shortly after human colonization; this occurred between the 12th and 13th centuries (Hunt and Lipo, 2006; Wilmshurst et al., 2011; DiNapoli et al., 2020). The shift transformed the island from a palm-dominated scrub forest to a grassland (Flenley et al., 1991; Mann et al., 2008; Sáez et al., 2009). In the mid-19th century, Rapa Nui was converted into pastureland for a century-long sheep-grazing operation (Fischer, 2005). Results of fossil pollen analysis suggested a remnant population of the endemic palm (*Paschalococos dispersa* Dransfield, 1991) persisted in rugged terrain, before being driven to extinction by livestock grazing (Dransfield et al., 1984; Mann et al., 2008). Another endemic tree, the toromiro (*Sophora toromiro* (Philippi) Skottsberg), survived until the mid-1950s (Heyerdahl and Ferdon, 1961) but ultimately went extinct in the wild, also likely due to grazing (Flenley et al., 1991).

2.2. Literature and archival searches

2.2.1. Literature review

Published species records were found by searching the Web of Science, Google Scholar, and ResearchGate using the following search terms: "Easter Island", "Rapa Nui", and "Isla de Pascua" combined with "arthropods". We also used these geographic descriptors with search terms for each taxonomic order. We included both peer-reviewed journal articles and non-refereed sources such as technical reports and relevant sources cited therein.

2.2.2. Museum archives and other databases

We searched the online databases of 18 museums in Australia, England, France, Germany, the Netherlands, and the United States, as well as the Biodiversity Information Facility (GBIF) and Barcode of Life Data System (BOLD). Search terms were centered upon locality (i.e., Rapa Nui or Easter Island); for archives in non-English speaking museums, we queried using translations of "Easter Island" including *Isla de Pascua*, *Île de Pâques*, and *Osterinsel* as germane to the museums' country of origin. To avoid duplication, museum records were included only if we could ascertain they were unique from other sources. Importantly, in a few instances, two or more

museums housed material documenting the same species. We present this information separately to recognize these historic holdings.

Finally, we consulted published taxonomic databases including the World Spider Catalog (WSC, 2024), Checklist of the Collembola (Janssens, 2024), Coccinellidae de Chile (González, 2024), Tenebrionidae de Chile (Guerrero, 2024), and the Catalog of the Diptera of the Australasian and Oceanian Regions (Evenhuis, 2024). We also examined the iNaturalist database for potential new island records. Geographical search terms applied to these online databases were “Rapa Nui”, “Easter Island”, and “Isla de Pascua”.

2.3. Field surveys

[Supplemental Material](#), Appendix I-A contains detailed descriptions of the methods employed in the sampling efforts described below.

2.3.1. Servicio Agrícola Ganadero (SAG) surveillance program

Since 2006, SAG has directed a long-term agricultural pest monitoring program on Rapa Nui. Their primary objective has been early detection of arthropod species not yet reported on the island. Additionally, SAG maintains up-to-date information on the health condition of agricultural fields related to specific pest species established on Rapa Nui.

2.3.2. 2016 and 2024 Arthropod sampling effort

Field research by Wynne and colleagues was conducted between 05 July and 01 September 2016 and 05 through 12 June 2024. The 2016 effort represented an island-wide study focused principally on habitats (i.e., patches of native vegetation) with the highest likelihood of harboring native arthropod species. Areas examined included caves, cliffs, crater lakes, and littoral habitats. Researchers also established several surface control grids where they sampled the invasive grassland-guava vegetation association within the interior of the island (see Wynne et al., 2016). From 06 through 12 June, the 2024 campaign resampled the type locality caves in the Sector Roiho and sampled one cliff face in Sector Poike (Wynne et al., 2024).

2.4. Decision rules

(1) For all literature and archival records, we accepted the identifications provided. This was especially true when voucher specimens were not available. (2) Coarse-level identifications (i.e., genus level or higher) were included in the checklist only if they represented a unique morphospecies (hereafter referred to as “species”). (3) When possible, we included the alternative names that could potentially cause confusion with the listed taxon, or the taxon they may represent. (4) When invalid taxonomy and/or misspellings were reported, the name used in the publication was provided with the reference, along with the currently accepted name. For details, see “Taxonomic Validity” section below. (5) Each museum record is treated as an independent record and considered to correspond to a unique detection and/or specimen. (6) Species records that could not be confirmed or likely referred to taxa already in the list are considered *Incertae Sedis*. These records were not included in the analyses.

2.5. Voucher specimens and types

Voucher specimens representing new species records herein are deposited in the following institutions. Voucher specimens for SAG records are deposited at Sección de Entomología, Departamento Red SAG de Laboratorios, with some duplicate material retained by collaborating taxonomists. For material collected by Wynne, selected voucher specimens are housed at both the Bishop Museum, Honolulu, Hawai‘i, and the NAU Arthropod Collection in Flagstaff, Arizona. Concerning newly described species by Wynne and colleagues, holotypes and paratypes are deposited (or will be deposited) in perpetuity at Museo Nacional de Historia Natural in Santiago, Chile.

2.6. Taxonomic validity

For most species, taxonomic validity was initially determined using various online databases and recently published works. These included Catalogue of Life (COL, 2022), Integrated Taxonomic Information System (ITIS, 2024), the Encyclopedia of Life (EOL, 2024), the World Spider Catalog (WSC, 2024), Checklist of the Collembola (Janssens, 2024), Coccinellidae de Chile (González 2024), and Tenebrionidae de Chile (Guerrero, 2024). Names for some species could not be validated. In these cases, taxonomy should be considered provisional until confirmed.

2.7. Collaborating systematists

We consulted 29 taxonomists to review and provide input for most of the taxonomic groups in the checklist—groups denoted within parentheses. These are Manfred Asche and Hannelore Hoch (Hemiptera: Cicadellidae, Cixiidae, Delphacidae, Flatidae, and

Tropiduchidae), Ernest C. Bernard (Collembola), Tomasz E. Borowski (Coleoptera: Bostrichidae), Daniel Burckhardt (Hemiptera: Aphalaridae and Psyllidae), James M. Carpenter (Hymenoptera), Darko D. Cotoras (Arachnida: Araneae), Patricio R. De los Ríos-Escalante (Decapoda), Neal L. Evenhuis (Diptera), Dillian Georgiev (Psocoptera), Guillermo González (Coleoptera: Coccinellidae), Grey T. Gustafson (Coleoptera: Dytiscidae), Lawrence Kirkendal (Coleoptera: Curculionidae), Peter T. Oboyski (Lepidoptera), Jose Ricardo M. Mermudes (Coleoptera: Anthribidae), Laurence A. Mound (Thysanoptera), John D. Oswald (Neuroptera), Dan Polhemus (Hemiptera: Anthocoridae, Berytidae, Cydnidae, Miridae, Nabidae, Pentatomidae, Reduviidae, Rhyparochromidae, and Thaumastocoridae), Gareth S. Powell (Coleoptera: Nitidulidae), Thibault Ramage (Coleoptera and Hemiptera), Marcel Santos de Araújo (Arachnida: Acari), William A. Shear (Myriapoda), Aaron D. Smith (Coleoptera: Tenebrionidae), Stefano Taiti (Isopoda), Margaret K. Thayer and Alfred F. Newton (Coleoptera: Staphylinidae), Kay Van Damme (freshwater microcrustacea), Cristian A. Villagra Gil (Blattodea), and Kipling W. Will (Coleoptera: Carabidae).

2.8. Database structure

Checklist structure largely follows [Nishida \(2002\)](#) and [Matsunaga et al. \(2019\)](#); that is, each species is listed alphabetically within its genus, which is alphabetized within its family, and so on. Additional information is provided for each species, including biogeographic status, distribution, all published and unpublished references (that cite the Rapa Nui records), and notes. Biogeographic status is characterized as follows: “End” (endemic: presently known to occur only on Rapa Nui), “Ind” (indigenous: natural distribution is not restricted to Rapa Nui), “Acc” (accidental: inadvertently and passively transported via human activity to Rapa Nui), “Pur” (purposely introduced to the island, typically for biological control), and “Unk” (unknown: not enough information to determine its status). A question mark (?) connotes that more information is required to confirm the species’ status. In this paper, we collectively refer to endemic and indigenous species as “native”. The “Notes” column was used to indicate when a junior synonym was used or misspellings occurred by previous researchers; we also provided information on native distributions (if known), as well as other notable details.

2.9. Analysis

Our database was imported into Microsoft Access v. 2021. Using the “find duplicates” query function, we organized the data by quantifying the number of species per taxonomic group (in most cases, order), status, and distribution. Additionally, we used this function to tally the number of endemic and indigenous species within each taxonomic group.

3. Results

The total number of terrestrial arthropod fauna known on Rapa Nui is 539 species ([Table 1](#)). Of these, 398 species were previously reported in a combination of literature, museum collections (including 14 historic archival records), and SAG surveillance program records. We added 141 new island records including 134 species identified from the SAG surveillance program and seven species from the 2016 sampling effort (refer to [Supplemental Material](#), Appendix I-B and I-C and [Wynne et al., 2016](#) for details). New island records included two endemic (Orchesellidae sp. and *Pteronemobius* sp.) and two indigenous (*Olfersia* sp. and *Platorchestia platensis* (Krøyer, 1845)) species. Collection data for voucher specimens supporting these records are provided in [Supplemental Material](#), Appendix I-C. Concerning richness of taxonomic groups, Coleoptera (109 species), Hymenoptera (87), Diptera (73), and Hemiptera (71) supported the highest diversity ([Fig. 2](#)).

To prevent the loss of potentially valid records, uncertain identifications and relevant information are provided in an *Incertae Sedis* list ([Supplemental Material](#), Appendix II-B). Specifically, 143 species records lacked sufficient detail to distinguish them from species already listed. Additionally, four potential new island records from iNaturalist were included in this list, as confirmation was not possible due to the lack of vouchers and formal collection.

The biogeographic status of the documented species is as follows: 25 (4.64 %) endemic, 27 (5 %) indigenous, 345 accidentally introduced (64 %), and 66 (12.25 %) purposefully introduced species ([Table 2](#)). Most, if not all, of the 76 species (14 %) of unknown origin ([Fig. 3A](#)) represent non-native species.

Concerning endemic species, Collembola were the most speciose with seven species ([Fig. 4A](#)). In fact, most collembolans are endemic and chiefly restricted to cave entrances; however, data collected in 2016 extended the range of *Entomobrya manuhoko* [Bernard, Soto-Adames, and Wynne, \(2015\)](#) to cliff habitats in the southwestern-most and eastern-most areas on the island. Additionally, another collembolan, a small juvenile belonging to the family Orchesellidae was discovered on a cliff face at Vai a Tare in 2016; we tentatively consider this animal an endemic species. Among the indigenous species, Diptera (n=7) were the most speciose ([Fig. 4B](#)).

Of note, one endemic species, the tetragnatid spider, *Tetragnatha paschae* [Berland, \(1924\)](#), is possibly extinct ([Cotoras et al., 2017b](#)), while 44 % (n=11) of the other endemic species have not been observed since they were first described. One species has not been detected in nearly a quarter of a century, and the remaining 12 endemic species were observed within the last 15 years. More than half of the 27 indigenous species (51.85 % or 14 species) have not been recorded since they were first documented on the island and two have not been observed in over 25 years, while the remaining 11 species have been observed within the last decade. One indigenous

Table 1

The 539 known terrestrial species recorded from Rapa Nui, Chile. “Taxa” are listed alphabetically within its genus, which is alphabetized within its family, and so on. “Status” represents biogeographic status on Rapa Nui, and is characterized as follows: “End” (endemic: presently known to occur only on Rapa Nui), “Ind” (indigenous: natural distribution is not restricted to Rapa Nui), “Acc” (accidental: inadvertently and passively transported via human activity to Rapa Nui), “Pur” (purposely introduced to Rapa Nui, typically for biological control), and “Unk” (unknown: not enough information to determine status). A question mark (?) connotes that more information is required to confirm its status. “Distribution” defines the organism’s known range. “Records” includes all detection details, while “Notes” details misspellings and/or invalid species names used by previous workers, native distributions, and other noteworthy details. *Denotes the 141 new island records.

Taxa	Status	Distribution	Records	Notes
ARACHNIDA				
ACARI				
MESOSTIGMATA				
Ascidae				
* <i>Proctolaelaps</i> sp.	Unk	Unknown	SAG, 2012	
SARCOPTIFORMES				
Acaridae				
* <i>Rhizoglyphus robini</i> Claparède, 1869	Acc	Cosmopolitan	SAG, 2012	
Carabodidae				
<i>Austrocarabodes imperfectus squamosus</i> Hammer, 1970	End?	Rapa Nui	Hammer (1970)	
Euphthiracaridae				
<i>Acrotritia ardua</i> (Koch, 1841)	Acc	Cosmopolitan	Niedbala, 1998 (as <i>Rhysotritia ardua</i>)	
<i>Acrotritia curticephala</i> (Jacot, 1938)	Acc	Nearly cosmopolitan	Niedbala, 1998 (as <i>Rhysotritia lucida</i> Niedbala)	
<i>Microtritia tropica</i> Märkel, 1964	Acc	Neotropical	Hammer (1970); Niedbala (1998)	
Galumnidae				
<i>Galumna fordi</i> (Jacot, 1934)	Acc	Hawai’i	Hammer (1970)	
Hemileiidae				
<i>Siculobata sicula</i> Granjean, 1953	Acc	Mediterranean	Hammer (1970)	
Humerobatidae				
<i>Anellozetes fusiformis</i> Hammer, 1970	End?	Rapa Nui	Hammer (1970)	
Hydrozetidae				
<i>Hydrozetes lemnae</i> (Coggi, 1897)	Acc	Cosmopolitan	Hammer (1970)	
Nothridae				
<i>Nothrus oceanicus</i> Sellnick, 1959	Acc	Cosmopolitan	Hammer (1970)	
Oppiidae				
<i>Oppiella nova</i> (Oudemans, 1902)	Acc	Cosmopolitan	Hammer (1970)	
Oribotritiidae				
<i>Sobacarus corneri</i> Ramsay & Sheals, 1969	Acc	Pantropical	Hammer (1970) (as <i>Sabacarus ranokaoensis</i>); Niedbala (1998), (2000)	
Phthiracaridae				
<i>Atropacarus (Hoplophorella) andrei</i> (Balogh, 1958)	Acc	Pantropical	Niedbala (1998)	
<i>Atropacarus (Hoplophorella) singularis</i> (Sellnick, 1959)	Acc	Pantropical	Niedbala (1998)	
<i>Plonaphacarus kugohi</i> (Aoki, 1959)	Acc	Pantropical	Niedbala (1998)	
<i>Phthiracarus paucus</i> Niedbala, 1991	Acc	Australasian	Niedbala (1998)	
Scheloribatidae				
<i>Scheloribates praeincisus interruptus</i> (Berlese, 1916)	Acc	Indomalayan	Hammer (1970)	
Tectocephidae				
<i>Tectocephus velatus</i> (Michael, 1880)	Acc	Cosmopolitan	Hammer (1970)	
TROMBIDIFORMES				
Anystidae				
<i>Erythracarus</i> sp.	Unk	Unknown	Wynne et al. (2018)	
Eriophyidae				
<i>Phyllocoptruta oleivora</i> (Ashmead, 1879)	Acc	Unknown	Olalquiaga Faure (1980)	
Tenuipalpidae				

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>*Brevipalpus chilensis</i> Baker, 1949	Acc	Cosmopolitan	SAG, 2007, 2011	
<i>*Brevipalpus obovatus</i> Donnadieu, 1875	Acc	Cosmopolitan	SAG, 2007	
<i>*Brevipalpus phoenicis</i> (Geijskes, 1939)	Acc?	Cosmopolitan	SAG, 2011, 2012 (as <i>Brevipalpus phoenicis</i>)	
Tetranychidae				
<i>*Panonychus citri</i> (McGregor, 1916)	Acc?	Unknown	SAG, 2010	
<i>*Tetranychus urticae</i> Koch, 1836	Acc	Cosmopolitan	SAG, 2011, 2015–2021	
Tydeidae				
<i>*Tydeidae</i> sp.	Unk	Unknown	SAG, 2011	
ARANEAE				
Agelenidae				
<i>Tegenaria domestica</i> (Clerck, 1757)	Acc	Nearly cosmopolitan	Baert et al. (1997); Cotoras et al. (2017a)	
Amaurobiidae				
<i>Coras</i> sp.	Unk	Unknown	Cotoras et al. (2017a)	
Anyphaenidae				
<i>Sanogasta maculatipes</i> (Keyserling, 1878)	Acc	Neotropical	Baert et al. (1997) (as <i>Gayenna maculatipes</i> (Keyserling, 1878)); Cotoras et al. (2017a)	
Araneidae				
<i>Araneus</i> sp.	Unk	Unknown	Fuentes (1914) (as <i>Epeira?</i> sp.)	
<i>Zygiella</i> sp.	Unk	Unknown	Baert et al. (1997)	
Corinnidae				
<i>Creugas gulosus</i> Thorell, 1878	Acc	Cosmopolitan	Berland (1924) (as <i>Corinna cetrata</i> (Simon, 1888)); Baert et al. (1997); Cotoras et al. (2017a)	
Gnaphosidae				
<i>Drassodes</i> sp.	Acc?	Unknown	Berland (1924)	
<i>Odontodrassus aphanes</i> (Thorell, 1897)	Acc	Oceania; Indomalayan; Australasian	Baert et al. (1997) (as <i>Odontodrassus javanus</i> (Kulczynski, 1911))	
<i>Urozelotes rusticus</i> (L. Koch, 1872)	Acc	Cosmopolitan	Baert et al. (1997)	Native distribution: Europe/Mediterranean to temperate Asia
Linyphiidae				
<i>Lepthyphantes</i> sp.	Acc?	Unknown	Cotoras et al. (2017a)	
<i>Ostearius melanopygius</i> (O. Pickard-Cambridge, 1880)	Acc	Cosmopolitan	Baert et al. (1997)	
<i>Tenuiphantes tenuis</i> (Blackwall, 1852)	Acc	Palaearctic; Nearctic; Pacific Islands	Baert et al. (1997); Cotoras et al. (2017a)	Native distribution: Nearctic
Ochyroceratidae				
<i>Theotima minutissima</i> (Petrunkevitch, 1929)	Acc	Pantropical	Baert et al. (1997)	Native distribution: tropical Asia
Oecobiidae				
<i>Oecobius navus</i> Blackwall, 1859	Acc	Cosmopolitan	Baert et al. (1997); Cotoras et al. (2017a); Wynne and Howarth, unpublished data (2009)	Native distribution: Palaearctic (including North Africa and the Middle East)
Oonopidae				
<i>Opopaea silhouettei</i> (Benoit, 1979)	Acc	Seychelles	Baert et al. (1997)	
<i>Orchestina?</i> sp.	End?	Rapa Nui?	Baert et al. (1997) (as <i>Orchestininae</i> n. sp.?)	
<i>Xestaspis loricata</i> (L. Koch, 1873)	Acc	Indomalayan; Oceania	Baert et al. (1997) (as <i>Gamasomorpha loricata</i> (Koch, 1873))	
Pholcidae				
<i>Pholcus phalangoides</i> (Fuesslin, 1775)	Acc	Cosmopolitan (mostly temperate regions)	Berland (1924); Baert et al. (1997); Cotoras et al. (2017a)	Native distribution: Western Asia
<i>Smeringopus pallidus</i> (Blackwall, 1858)	Acc	Cosmopolitan	Baert et al. (1997); Cotoras et al. (2017a)	
<i>Holocneminus pirtarsis</i> Berland, 1942	Ind?	Pacific Islands	Baert et al. (1997); Cotoras et al. (2017a)	
Salticidae				
<i>Dendryphantes mordax</i> (C. L. Koch, 1846)	Acc?	Neotropical	Baert et al. (1997)	

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Habronattus coecatus</i> (Hentz, 1846)	Acc	Nearctic; Neotropical	Baert et al. (1997); Cotoras et al. (2017a)	
<i>Hasarius adansoni</i> (Audouin, 1827)	Acc	Cosmopolitan (in temperate regions)	Berland (1924); Cotoras et al. (2017a)	Native distribution: Africa and the Middle East
<i>Menemerus bivittatus</i> (Dufour, 1831)	Acc	Pantropical	Baert et al. (1997)	Native distribution: Africa
<i>Plexippus paykulli</i> (Audouin, 1826)	Acc	Cosmopolitan	Fuentes (1914); Berland (1924); Baert et al. (1997); Cotoras et al. (2017a)	Native distribution: Africa
<i>Phidippus regius</i> C. L. Koch, 1846	Acc	Nearctic; Caribbean	Baert et al. (1997); Cotoras et al. (2017a)	
<i>Opisthoncus cf mordax</i> L. Koch, 1880	Acc	Australasian	Cotoras et al. (2017a)	
Scytodidae				
<i>Dictis lugubris</i> (Thorell, 1887)	Acc	Pantropical	Berland (1924) (as <i>Scytodes lugubris</i> (Thorell, 1887))	Native distribution: tropical Asia; <i>Scytodes lugubris</i> (Thorell, 1887) is a junior synonym
<i>Dictis striatipes</i> L. Koch, 1872	Acc	Indomalayan; Australasian	Baert et al. (1997)	
<i>Scytodes fusca</i> Walckenaer, 1837	Acc	Pantropical	Cotoras et al. (2017a)	Native distribution: Central and South America
<i>Scytodes globula</i> Nicolet, 1849	Acc	Neotropical	Cotoras et al. (2017a)	
<i>Scytodes longipes</i> Lucas, 1844	Acc	Pantropical	Baert et al. (1997); Cotoras et al. (2017a); Wynne et al. (2018)	Native distribution: Central and South America
Sicariidae				
<i>Loxosceles laeta</i> (Nicolet, 1849)	Acc	Neotropical	Baert et al. (1997)	
Tetragnathidae				
<i>Tetragnatha mandibulata</i> Walckenaer, 1841	Acc	Australasian; Afrotropical; Neotropical	Fuentes (1914)	
<i>Tetragnatha nitens</i> (Audouin, 1826)	Acc	Pantropical	Baert et al. (1997)	
<i>Tetragnatha paschae</i> Berland, 1924	End	Rapa Nui	Berland (1924); Cotoras et al. (2017b) (based on museum records)	Probably extinct (Cotoras et al., 2017b)
<i>Tetragnatha riveti</i> Berland, 1913	Acc	South America	Wynne et al. (2016), Cotoras et al. (2017a) (as <i>Tetragnatha</i> sp.); Cotoras et al. (2017b)	Native distribution: Ecuador; same material used for Cotoras et al. (2017a, b)
Theridiidae				
<i>Coleosoma floridanum</i> Banks, 1900	Acc	Cosmopolitan	Baert et al. (1997); Wynne & Howarth, unpublished data (2009)	Native distribution: North, Central, and South America
<i>Cryptachaea blattea</i> (Urquhart, 1886)	Acc	Cosmopolitan	Baert et al. (1997) (as <i>Parasteatoda acrensis</i> (Berland, 1932)?)	Native distribution: Africa
<i>Latrodectus geometricus</i> C. L. Koch, 1841	Acc	Cosmopolitan	Baert et al. (1997); Cotoras et al. (2017a); Wynne et al. (2018)	Native distribution: Africa
<i>Nesticodes rufipes</i> (Lucas, 1846)	Acc	Pantropical	Baert et al. (1997)	Native distribution: Central and South America
<i>Platnickina adamsoni</i> (Berland, 1934)	Acc	Pantropical	Baert et al. (1997) (as " <i>Coleosoma adamsoni</i> (Berland, 1934))	Native distribution: South America
<i>Parasteatoda tepidariorum</i> (C. L. Koch, 1841)	Acc	Cosmopolitan	Berland (1924) (as <i>Theridion tepidariorum</i> (Koch, 1841)); Baert et al. (1997); Cotoras et al. (2017a); Wynne et al. (2018) (as <i>Achaearanea cf tepidariorum</i>)	Native distribution: South America
<i>Steatoda cf erigoniformis</i> (O. Pickard-Cambridge, 1872)	Acc	Pantropical	Cotoras et al. (2017a); Wynne et al. (2018)	Native distribution: Palearctic
<i>Steatoda grossa</i> (C. L. Koch, 1838)	Acc	Cosmopolitan	Baert et al. (1997) (as <i>Stearodea grossa</i> (Koch, 1838)); Cotoras et al. (2017a); Wynne et al. (2018) (as <i>Steatoda cf grossa</i>)	Misspelling: <i>Stearodea</i> (Baert et al., 1997); native distribution: Palearctic
<i>Theridion buxtoni</i> Berland, 1929	Ind?	Pacific Islands	Baert et al. (1997) (as <i>Theridion buxtoni</i> Berland, 1929)	Misspelling: <i>Theridion</i>
Trachelidae				
<i>Meriola arcifera</i> (Simon, 1886)	Acc?	Neotropical	Baert et al. (1997); Cotoras et al. (2017a); Wynne & Howarth, unpublished data (2009)	
PSEUDOSCORPIONES				
Geogarypidae				
<i>Geogarypus longidigitatus</i> (Rainbow, 1897)	Acc	Indomalayan; Pacific Islands	Harvey (2000)	

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
SCORPIONES				
Buthidae				
<i>Isoetes maculatus</i> (De Geer, 1778)	Acc	Pantropical	Museum records: MCZ Invertebrate Zoology 17416 (1972); Fet and Lowe (2000) ; Wynne et al. (2018)	
ENTOGNATHA				
COLLEMBOLA				
Entomobryidae				
<i>Arrhopalites caecus</i> (Tullberg, 1871)	Acc	Nearly cosmopolitan	Jordana and Baquero (2008)	Probably a species complex; everywhere except Africa, Indian subcontinent, and southeast Asia
<i>Coecobrya aitorererere</i> Bernard, Soto-Adames and Wynne, 2015	End	Rapa Nui	Bernard et al. (2015)	
<i>Coecobrya kennethi</i> Jordana and Baquero, 2008	End	Rapa Nui	Jordana and Baquero (2008) ; Bernard et al. (2015) ; Wynne et al. (2018)	
<i>Entomobrya atrocincta</i> Schött, 1896	Acc	Nearctic	Wynne et al. (2016) (as <i>Entomobrya cf atrocincta</i> Schött, 1896 ; Wynne, unpublished data, 2016	Also known to Motu Motiro Hiva (i.e., Salas y Gómez Island; Hershauer et al., 2020)
<i>Entomobrya manuhoko</i> Bernard, Soto-Adames and Wynne, 2015	End	Rapa Nui	Bernard et al. (2015) ; Wynne et al. (2018) ; Wynne, unpublished data, 2016	Collected in caves in Unai Sector and along cliffs at Orongo, Poike, and Vai a Tare (28 July - 29 Aug 2016) (Wynne, unpublished data)
<i>Entomobrya multifasciatus</i> (Tullberg, 1871)	Acc	Holarctic; Australia; South Africa	Schött (1921) ; Wynne et al. (2016) (as <i>Entomobrya cf multifasciata</i> (Tullberg, 1871)); Wynne, unpublished data, 2016	Coloration patterns on habitus of female <i>E. atrocincta</i> closely resemble <i>E. multifasciata</i> , so the Schött record may be suspect. As such, North American records may represent <i>E. atrocincta</i> females.
<i>Lepidocyrtus olena</i> Christiansen & Bellinger, 1992	Acc?	Hawai'i; Rapa Nui	Bernard et al. (2015) ; Wynne et al. (2018)	Species' origin is uncertain; two hypotheses proposed: (1) it could be neotropical based on a congeneric clade native to Central and South America (Bernard et al., 2015), or (2) early dispersal to Rapa Nui via early Polynesian navigators (Wynne et al., 2014).
<i>Pseudosinella hahoteana</i> Soto-Adames, Bernard & Wynne, 2015	End	Rapa Nui	Bernard et al. (2015) ; Wynne et al. (2018)	
<i>Seira manukio</i> Soto-Adames, Bernard & Wynne, 2015	End	Rapa Nui	Bernard et al. (2015) ; Wynne et al. (2018)	
<i>Folsomia candida</i> (Willem, 1902)	Acc	Cosmopolitan	Bernard et al. (2015) ; Wynne et al. (2018)	
Orchesellidae				
*Orchesellidae sp.	End?	Rapa Nui?	Wynne, unpublished data (2016)	
Paronellidae				
<i>Cyphoderus manuneru</i> Bernard, Soto-Adames and Wynne, 2015	End	Rapa Nui	Bernard et al. (2015)	
DIPLURA				
Campodeidae				
<i>Campodea</i> sp.	Unk	Unknown	Campos and Peña (1973)	
INSECTA				
BLATTODEA				
Blaberidae				
<i>Diploptera punctata</i> (Eschscholtz, 1822)	Acc	Australasia; Pacific Islands	Sjöstedt (1924) ; Olalquiaga Faure (1946) (as <i>Diploptera dytiscoides</i> Serville, 1838); Kevan (1965) ; Campos and Peña (1973) ; Wynne et al. (2018)	<i>D. dytiscoides</i> is a junior synonym
<i>Pycnoscelus surinamensis</i> (Linnaeus, 1758)	Acc	Nearly cosmopolitan	Walker (1871) ; Kevan (1965) ; Wynne & Howarth, unpublished data (2009)	A parthenogenic species; evolved from its sexual ancestor, <i>P. indicus</i> (Fabricius, 1775)
Blattellidae				
<i>Blattella germanica</i> (Linnaeus, 1767)	Acc	Cosmopolitan	Kevan (1965) ; Campos and Peña (1973) ; SAG, 2007, 2012, 2014	
<i>Balta notulata</i> (Stål, 1861)	Acc	Australasian; Indomalayan; Pacific Islands	Sjöstedt, 1924 (as <i>Allacta notulata</i> Stål); Campos and Peña (1973) (as <i>Luppacia notulata</i> (Sjöstedt, 1924)); Kevan (1965) (as <i>Onychostylus notulatus</i> (Stål))	
Blattidae				
<i>Platyzoisteria soror</i> (Brunner, 1865)	Acc	Indomalayan; Pacific Islands	Kevan (1965) ; Campos and Peña (1973) (as <i>Melanozosteria soror</i>); Wynne & Howarth, unpublished data (2009)	Native distribution: southeast Asia

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Periplaneta americana</i> (Linnaeus, 1758)	Acc	Cosmopolitan	Kevan (1965); Campos and Peña (1973); Wynne et al. (2014), (2018)	
<i>Periplaneta australasiae</i> (Fabricius, 1775)	Acc	Cosmopolitan	Sjöstedt (1924); Olalquiaga Faure (1946); Kevan (1965); Campos and Peña (1973); SAG, 2013, 2014; Wynne & Howarth, unpublished data (2009)	
Ectobiidae				
<i>Moluchia strigata</i> (Blanchard, 1851)	Acc	Neotropical	Fuentes (1914); Moroni and Camousseight (1976)	
COLEOPTERA				
Anthribidae				
Anthribidae sp.	Unk	Unknown	Desender and Baert (1996) (as Anthribidae spec. 2)	
<i>Araecerus fasciculatus</i> (De Geer, 1775)	Acc	Cosmopolitan	Aurivillius (1926) (as <i>Araecerus fasciculatus</i>); Campos and Peña (1973); Desender and Baert (1996); Elgueta and Marvaldi (2006); SAG, 2008, 2010, 2011, 2012, 2013, 2014, 2015–2021; Wynne et al. (2016) (as <i>Araecerus cf fasciculatus</i> (De Geer, 1775))	Native distribution: Oriental (Zimmermann, 1924)
<i>Araecerus lutatus</i> (Fairmaire, 1849)	Acc	Indopacific	Olalquiaga Faure (1946) (as <i>Araecerus vieillardi</i> (Montrouzier, 1860))	
<i>Dinema filicorne</i> Fairmaire, 1849	Acc	Indopacific	Campos and Peña (1973) (as <i>Proscopus veitchi</i> Jordan); SAG, 2012 (as <i>Jordanopus vietchi</i>); Elgueta and Marvaldi (2006)	
Bostrichidae				
<i>Lyctus brunneus</i> (Stephens, 1830)	Acc	Cosmopolitan	Desender and Baert (1996) (as <i>Lyctus ? brunneus</i>); SAG, 2011, 2012	Primarily occurring in tropical, subtropical, and temperate regions (Borowski, 2020)
* <i>Lyctus cinereus</i> Blanchard, 1851	Acc	Neotropical	SAG, 2011 (as <i>Lyctus chilensis</i> Gerberg, 1957)	Native distribution: South America
* <i>Xylopsocus castanoptera</i> (Fairmaire, 1850)	Acc	Cosmopolitan	SAG, 2011	Native distribution: Indochina
Carabidae				
<i>Metius chilensis</i> (Dejean, 1831)	Acc	Neotropical	Desender and Baert (1996)	
* <i>Metius flavipes</i> (Dejean, 1828)	Acc	Neotropical	SAG, 2009, 2011, 2012	
<i>Notiobia cupripennis</i> (Germar, 1823)	Acc	Nearly cosmopolitan	Perrault (1984); Desender and Baert (1996); Wynne & Howarth, unpublished data (2009)	
* <i>Notiobia peruviana</i> (Dejean, 1829)	Acc	Neotropical	SAG, 2009 (as <i>Anisotarsus peruviana</i>)	
Cerambycidae				
<i>Ceresium unicolor</i> (Fabricius, 1787)	Acc	Australia; Pacific Islands	Cerda-G. (1991); SAG, 2008, 2009, 2010, 2011, 2013, 2014 (as <i>Cerecium unicolor</i>)	
<i>Lagocheirus obsoletus</i> Thomson, 1860	Acc	Neotropical	SAG, 2007, 2008, 2011, Mondaca (2008), Mondaca et al. (2016) (as <i>Lagocheirus undatus</i> (Voet))	
<i>Sybra alternans</i> (Wiedemann, 1823)	Acc	Indomalayan; Oceania	Mondaca et al. (2016)	
Chrysomelidae				
* <i>Acanthoscelides</i> sp.	Acc?	Neotropical	SAG, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014	
* <i>Acanthoscelides mankinsi</i> Johnson, 1983	Acc	Neotropical	SAG, 2009, 2010, 2011, 2012, 2013, 2014	
<i>Acanthoscelides obtectus</i> (Say, 1831)	Acc	Nearctic; Neotropical	Campos and Peña (1973); SAG, 2010, 2011, 2012, 2013, 2014	
<i>Diabrotica viridula</i> (Fabricius, 1801)	Acc	Neotropical	Campos and Peña (1973); SAG, 2007, 2010, 2013; Wynne & Howarth, unpublished data (2009)	
* <i>Diachus auratus</i> (Fabricius, 1801)	Acc	Nearly pantropical	SAG, 2012, 2013, 2014, 2015–2021	
* <i>Lithraeus</i> sp.	Acc?	Unknown	SAG, 2009, 2014	
* <i>Specularius</i> sp.	Acc?	Unknown	SAG, 2011, 2012, 2013	
* <i>Stator limbatus</i> (Horn, 1873)	Acc	Nearctic	SAG, 2012	Native distribution: continental U.S. and Mexico
Cleridae				

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Necrobia rufipes</i> (Fabricius, 1781)	Acc	Cosmopolitan	Fuentes (1914); Campos and Peña (1973)	
Coccinellidae				
<i>Adalia bipunctata</i> (Linnaeus, 1758)	Acc	Nearly cosmopolitan	Campos and Peña (1973); Rojas (1981) (not reviewed); Ripa et al. (1995); Desender and Baert (1996)	Introduced from Chile as biocontrol for aphids
<i>Adalia deficiens</i> Mulsant, 1850	Pur	Neotropical	Ripa et al. (1995)	May not be established (González, pers. comm.)
<i>Apolinus lividigaster</i> (Mulsant, 1853)	Acc	Australasian; Neotropical	Rothmann and González (2021)	Native distribution: Australia
<i>Chilocorus bipustulatus</i> (Linnaeus, 1758)	Pur	Palaearctic; Neotropical	Ripa et al. (1995)	Widely introduced for biocontrol; may not be established (González, 2010); Native distribution: Europe
* <i>Coccidophilus citricola</i> sl Brèthes, 1905	Acc?	Neotropical	SAG, 2012, 2013, 2014	<i>Coccidophilus citricola</i> sl represents a pool of 14 cryptic species in South America (González, 2012), which cannot be identified using external characteristics only.
<i>Cryptolaemus montrouzieri</i> Mulsant, 1853	Pur	Nearly cosmopolitan	Ripa et al. (1995); SAG, 2008, 2010, 2011, 2012, 2013, 2014	
<i>Cycloneda sanguinea</i> (Linnaeus, 1763)	Pur	Nearctic; Neotropical	Ripa et al. (1995)	May not be established (González, pers. comm.)
<i>Eriopsis chilensis</i> Hofmann, 1970	Acc	Neotropical	Museum records: MCZ Entomology 739362, MCZ Entomology 739363 (Ian E. Efford, 1965); Campos and Peña (1973) (as <i>Eriopsis connexa chilensis</i> Hoffmann), nomen nudum; Rojas (1981) (not reviewed), Desender and Baert (1996) (as <i>Eriopsis connexa</i> Germar, 1824)	
<i>Eriopsis loaensis</i> González, 2014	Acc	Neotropical	González et al. (2020)	
<i>Harmonia axyridis</i> (Pallas, 1772)	Acc	Nearly cosmopolitan	González et al. (2020)	
* <i>Harmonia quadripunctata</i> (Pontoppidan, 1763)	Acc	Palaearctic; Nearctic; Neotropical	SAG, 2012	Native distribution: Eurasia
<i>Heterodiomus</i> sp.	Unk	Unknown	Desender and Baert (1996) (as <i>Heterodiomus</i> spec. 1)	
<i>Hippodamia convergens</i> Guérin-Méneville, 1842	Pur	Nearctic; Neotropical; Palaearctic; South Africa	Ripa et al. (1995)	Introduced from Chile to control aphids; may not be established (González, pers. comm.); native distribution: North America; Palaearctic and South Africa based on a small number of detections
<i>Hippodamia variegata</i> (Goeze, 1777)	Pur	Cosmopolitan	Ripa et al. (1995); Desender and Baert (1996); González et al. (2020)	Introduced from Chile to control aphids
<i>Hyperaspis festiva</i> Mulsant, 1850	Pur	Nearctic; Neotropical	Desender and Baert (1996)	May not be established (González, pers. comm.)
<i>Hyperaspis funesta</i> (Germain, 1854)	Pur	Neotropical	Ripa et al. (1995)	May not be established (González, pers. comm.)
<i>Mimoscyrmus macula</i> (Germain, 1854)	Pur	Neotropical	Ripa et al. (1995) (as <i>Scymnus nitidus</i> Philippi & Philippi, 1864)	Introduced from Chile to control mealybugs; may not be established (González, pers. comm.)
<i>Novius cardinalis</i> (Mulsant, 1850)	Pur	Cosmopolitan	González (2008)	Likely introduced from Chile to control the cottony cushion scale (<i>Icerya purchasi</i>); native distribution: Australia
<i>Olla v-nigrum</i> (Mulsant, 1866)	Acc	Nearctic; Neotropical; Australasian	González et al. (2020); SAG, 2008, 2009, 2010, 2011, 2012, 2013, 2014	Native distribution: Mexico, North and South America
* <i>Parastethorus incompletus</i> Whitehead, 1967	Acc	Nearly cosmopolitan	SAG, 2010, 2011 (as <i>Parastethorus histrio</i> (Chazeau, 1974))	
<i>Psyllobora picta</i> (Germain, 1854)	Pur	Neotropical	Ripa et al. (1995)	Introduced from Chile to control powdery mildew (Order Erysiphales)
<i>Rhyzobius lophanthae</i> (Blaisdell, 1892)	Pur	Nearly cosmopolitan	Ripa et al. (1995), Desender and Baert (1996), SAG, 2011, 2012 (as <i>Lindorus lophanthae</i> (Blaisdell, 1892))	Introduced from Chile to control scale insects
* <i>Scymnus bicolor</i> (Germain, 1854)	Acc?	Neotropical	SAG, 2012	May not be established (González, pers. comm.)
<i>Scymnus loewii</i> Mulsant, 1850	Pur	Nearctic; Neotropical	Ripa et al. (1995); Desender and Baert (1996); SAG, 2011, 2012, 2013, 2014	Introduced from Chile to control aphids; native distribution: continental U.S. and Mexico
Corylophidae				
* <i>Corylophidae</i> sp.	Unk	Unknown	SAG, 2010, 2012	

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
Cryptophagidae				
<i>Atomaria</i> sp.	Unk	Unknown	Desender and Baert (1996) (as <i>Atomaria</i> spec. 1)	
* <i>Cryptophagus</i> sp.	Unk	Unknown	SAG, 2012	
Curculionidae				
Cryptorhynchinae sp.	Unk	Unknown	Desender and Baert (1996) (as Cryptorhynchinae spec. 1)	
<i>Atrichonotus taeniatus</i> (Berg, 1881)	Acc	Neotropical; Australia; Pacific Islands	Elgueta and Marvaldi (2006) ; SAG, 2008	Native distribution: South America
* <i>Cocotrypes carpophagus</i> (Hornung, 1842)	Acc	Cosmopolitan	SAG, 2009	
* <i>Euscepes postfasciatus</i> (Fairmaire, 1849)	Acc	Nearctic; Pacific Islands	SAG, 2007, 2008, 2011, 2012, 2014	
* <i>Gonipterus platensis</i> Marelli, 1926	Acc	Cosmopolitan	SAG, 2011, 2012, 2013, 2014	Occurs globally with <i>Eucalyptus</i> species
* <i>Hypothenemus</i> sp.	Unk	Unknown	SAG, 2008, 2010, 2011	Morphospecies is distinct from <i>H. eruditus</i>
* <i>Hypothenemus eruditus</i> Westwood, 1836	Acc	Nearly cosmopolitan	SAG, 2008, 2010	Native distribution: North America and Caribbean
<i>Listroderes costirostris</i> Schönherr, 1826	Acc	Nearly cosmopolitan	Desender and Baert (1996) (<i>L. obliquus</i> Schönherr, 1826); Klein Koch and Waterhouse (2000) ; SAG, 2009	
<i>Naupactus cervinus</i> Boheman, 1840	Acc	Cosmopolitan	Aurivillius (1926) (as <i>Aramigus fulleri</i>); SAG, 2010, 2011, 2012, 2013, 2015–2021 (as <i>Pantomorus cervinus</i> Boheman, 1840); Aurivillius (1926) , Desender and Baert (1996) (as <i>Pantomorus fulleri</i> Perkins, 1910); Olalquiaga Faure (1946) (as <i>Pantomorus godmani</i> Crotch, 1867); Wynne, unpublished data (2016)	
<i>Naupactus leucoloma</i> Boheman, 1840	Acc	Nearly cosmopolitan	Campos and Peña (1973) (<i>Graphognathus leucoloma</i> (Bah.)); Desender and Baert (1996) ; SAG, 2010, 2015–2021	
<i>Naupactus xanthographus</i> (Germar, 1824)	Acc	Neotropical	Elgueta and Marvaldi (2006) ; SAG, 2010, 2011, 2012	
* <i>Pagiocerus frontalis</i> (Fabricius, 1801)	Acc	Neotropical	SAG, 2007	
<i>Pentarthrum paschale</i> Aurivillius, 1931	End	Rapa Nui	Aurivillius (1926) ; Desender and Baert (1996) (as <i>Pancidonus bryani</i> (Swezey 1921))	Desender and Baert (1996) stated <i>Pentarthrum paschale</i> was possibly <i>Pancidonus bryani</i> ; no additional information is available beyond these three records.
<i>Otiorrhynchus</i> sp.	End?	Rapa Nui	Fuentes (1914) (as <i>Otiorrhynchus fuentesi</i>)	Considered an undescribed species by Filiberto Germain, but he was unable to formally describe it before he passed away (Fuentes, 1914).
<i>Sternochetus mangiferae</i> (Fabricius, 1775)	Acc	Nearly cosmopolitan	Elgueta and Marvaldi (2006)	
* <i>Xyleborinus saxesenii</i> (Ratzeburg, 1837)	Acc	Palaearctic	SAG, 2012	
Dryophthoridae				
<i>Cosmopolites sordidus</i> (Germar, 1823)	Acc	Pantropical	Olalquiaga Faure (1980) ; Desender and Baert (1996) ; SAG, 2010, 2011 (as <i>Cosmopolites sordidus</i>)	Unclear whether Desender and Baert (1996) was referring to the Olalquiaga Faure (1980) observation.
<i>Sitophilus granarius</i> (Linnaeus, 1758)	Acc	Nearly cosmopolitan (occurs globally in temperate regions)	Fuentes (1914) (as <i>Calandra granaria</i> Fabricius & J. C. 1801)	Native distribution: Mediterranean region
<i>Sitophilus zeamais</i> Motschulsky, 1855	Acc	Nearly pantropical	Campos and Peña (1973) (as <i>Sitophilus zea-mays</i> Mot.); Olalquiaga Faure (1980) ; SAG, 2012	Native distribution: North America; found in most tropical areas globally
Dermestidae				
<i>Dermestes</i> sp.	Unk	Unknown	Desender and Baert (1996) (as <i>Dermestes</i> spec. 5)	
<i>Dermestes maculatus</i> De Geer, 1774	Acc	Cosmopolitan	Fuentes (1914)	
<i>Dermestes rufofuscus</i> Solier, 1849	Acc	Neotropical	Fuentes (1914)	
* <i>Reesa</i> sp.	Unk	Unknown	SAG, 2011	

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
* <i>Trogoderma</i> sp.	Unk	Unknown	SAG, 2011	Morphospecies is distinct from <i>Trogoderma granarium</i> Everts, 1898
Dytiscidae				
<i>Allodessus skottsbergi</i> (Zimmermann, 1924)	End	Rapa Nui	Zimmermann, 1924 (as <i>Bidesus skottsbergi</i> Zimmermann, 1924)	
Elateridae				
* <i>Conoderus chilensis</i> (Schwarz, 1904)	Acc	Neotropical	SAG, 2010, 2011, 2013, 2014	
<i>Simodactylus delfini</i> Fleutiaux, 1907	Ind	Polynesia	Fleutiaux (1907); Campos and Peña (1973); Desender and Baert (1996)	Native distribution: Rapa Nui, Pitcairn Islands, American Samoa, and Raiatea, French Polynesia (Ramage and LaGarde, 2021)
Mycetophagidae				
<i>Mycetophagus</i> sp. 1	Unk	Unknown	Desender and Baert (1996) (as <i>Mycetophagus</i> spec. 1)	
<i>Mycetophagus</i> sp. 2	Unk	Unknown	Desender and Baert (1996) (as <i>Mycetophagus</i> spec. 2)	
Nitidulidae				
<i>Aethina concolor</i> (Macleay, 1872)	Unk	Australia; Oceania	Desender and Baert (1996) (as <i>Eपुरaea concolor</i> (Murray, 1864))	
* <i>Caplothorax lugubris</i> (Murray, 1864)	Acc	Nearctic; Neotropical	SAG, 2015–2021 (as <i>Carpophilus lugubris</i>)	
* <i>Carpophilus</i> sp.	Unk	Unknown	SAG, 2010, 2012	
<i>Carpophilus dimidiatus</i> (Fabricius, 1792)	Acc	Cosmopolitan	Olalquiaga Faure (1946); Desender and Baert (1996)	
* <i>Carpophilus hemipterus</i> (Linnaeus, 1758)	Acc	Cosmopolitan	SAG, 2014	Native distribution: North America
<i>Carpophilus maculatus</i> Murray, 1864	Ind?	Nearctic; Australia; Oceania	Campos and Peña (1973); Brown et al. (2012); SAG, 2015–2021	Native distribution: Oceania
<i>Carpophilus oculus</i> Murray, 1864	Acc	Oceania	Desender and Baert (1996); Brown et al. (2012) (as <i>Carpophilus oculus gilloglyi</i> Dobson 1993)	Native distribution: South Pacific
* <i>Stelidota</i> sp.	Unk	Unknown	SAG, 2010, 2011, 2012, 2013, 2014, 2015–2021	
<i>Urophorus humeralis</i> (Fabricius, 1798)	Acc	Cosmopolitan	Prado (1987), SAG, 2010, 2014 (as <i>Carpophilus humeralis</i>); Desender and Baert (1996)	Native distribution: continental U.S.
Phalacridae				
*Phalacridae sp.	Unk	Unknown	SAG, 2012, 2014	
Ptinidae				
* <i>Mirosternus</i> sp.	Unk	Unknown	SAG, 2015–2021	
Scarabaeidae				
<i>Labarrus cincticulus</i> Hope, 1847	Acc	Nearctic; Neotropical; Afrotropical; Australia	Campos and Peña (1973) (as <i>Aphodius lividus</i> Oliver, 1789); Desender and Baert (1996), SAG, 2009, 2010, 2011, 2012, 2013, 2014, Mondaca (2023) (as <i>Labarrus pseudolividus</i> Balthasar, 1941)	Native distribution: North America; records for <i>A. lividus</i> and <i>L. pseudolividus</i> were misidentified (Mondaca and Rothmann, 2024).
<i>Onitis vanderkelleni</i> Lansberge, 1886	Pur	Afrotropical; Australia	Ripa et al. (1995) (as <i>Onitis vanderkelleny</i>); Desender and Baert (1996); SAG, 2009, 2010, 2011, 2014	Introduced from Tasmania to reduce livestock dung; misspelling: <i>vanderkelleny</i> (Ripa et al., 1995)
<i>Digitonthophagus gazella</i> (Fabricius, 1787)	Pur	Pantropical	Ripa et al. (1995); Desender and Baert (1996); SAG, 2008, 2009, 2010, 2011, 2012, 2013, 2014	Introduced from Tasmania to reduce livestock dung
<i>Parataenius simulator</i> (Harold, 1868)	Acc	Nearly cosmopolitan	Mondaca and Rothmann (2024)	Native distribution: Neotropical
<i>Pleurophorus micros</i> (Bates, 1887)	Acc	Nearctic; Neotropical	Campos and Peña (1973); Desender and Baert (1996); Mondaca and Rothmann (2024)	
Silvanidae				
<i>Cryptamorpha desjardinsii</i> (Guérin-Méneville, 1844)	Acc	Cosmopolitan	Campos and Peña (1973) (as <i>Psammoeucus (Cryptamorpha) desjardinsi</i> (Guer.)); Desender and Baert (1996) (as <i>Psammoeucus desjardinsi</i> Guérin-Méneville, 1844); SAG, 2010, 2011, 2012, 2013, 2014	Pest in stored food
* <i>Silvanus</i> sp.	Unk	Unknown	SAG, 2008	
Staphylinidae				
<i>Atheta</i> sp. 1	Acc	Unknown	Campos and Peña (1973)	
<i>Atheta</i> sp. 2	Acc	Unknown	Campos and Peña (1973)	

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Creophilus erythrocephalus</i> (Fabricius, 1775)	Pur	Australasian; Oceania;	Ripa et al. (1995) (as <i>Creophilus erythrocephalus</i>); Desender and Baert (1996); SAG, 2010	Introduced from Chile to reduce flies in poultry manure; misspelling: <i>eritrocephalus</i> (Ripa et al., 1995)
<i>Creophilus maxillosus</i> s. str. (Linnaeus, 1758)	Pur	Nearctic; Neotropical	Ripa et al. (1995)	Introduced from Chile to reduce flies in manure; one of two wide-ranging subspecies, <i>C. m. maxillosus</i> or <i>C. m. villosus</i> , with the latter mostly known from North America (Clarke, 2011)
<i>Lithocharis</i> sp.	Acc	Unknown	Desender and Baert (1996) (as <i>Lithocharis</i> spec. 1)	
<i>Oxytelus</i> sp.	Acc	Unknown	Desender and Baert (1996) (as <i>Oxytelus</i> spec. 1)	
<i>Philonthus</i> sp.	Acc?	Unknown	Desender and Baert (1996) (as <i>Philonthus</i> spec. 1)	
<i>Philonthus longicornis</i> Stephens, 1832	Acc	Cosmopolitan	Bernhauer (1924); Campos and Peña (1973) (as <i>Spatulonthus perplexus</i> (Fairm. & Germ.))	
<i>Carpelimus (Trogophloeus)</i> sp. 1	Acc?	Unknown	Desender and Baert (1996) (as <i>Trogophloeus</i> spec. 1)	
<i>Carpelimus (Trogophloeus)</i> sp. 2	Acc?	Unknown	Desender and Baert (1996) (as <i>Trogophloeus</i> spec. 2)	
Tenebrionidae				
<i>Blapstinus punctulatus</i> Solier, 1851	Acc	Neotropical	Desender and Baert (1996)	No collection information was provided.
<i>Cymatothes unicolor</i> Solier, 1848	Acc	Nearctic; Neotropical	Desender and Baert (1996) (as <i>Cymatothes tristis</i> (Laporte, 1840))	No collection information was provided; <i>C. tristis</i> is a junior synonym.
DERMAPTERA				
Anisolabididae				
<i>Anisolabis maritima</i> Bonelli, 1832	Ind	Oceania	Kevan (1965)	Widespread on tropical seacoasts
<i>Euborellia annulipes</i> (Lucas, 1847)	Acc	Cosmopolitan	Fuentes (1914), Rehn (1948), (1949), Olalquiaga Faure, 1948 (as <i>Anisolabis annulipes</i> Lucas); Sjöstedt (1924) (as <i>Anisolabis bormansi</i> Scudder, 1893); Kevan (1965); Campos and Peña (1973); Wynne et al. (2016), (2018)	
Labiduridae				
*Labiduridae sp.	Unk	Unknown	SAG, 2008, 2013	
DIPTERA				
Agromyzidae				
<i>Liriomyza andina</i> (Malloch, 1934)	Acc	Neotropical	Shewell (1967); Campos and Peña (1973); SAG, 2010, 2012, 2013, 2014	
<i>Liriomyza huidobrensis</i> (Blanchard, 1926)	Acc	Nearctic; Neotropical	Campos and Peña (1973), SAG, 2011 (as <i>Liriomyza cucumifoliae</i> Blanchard, 1938); Rojas (1981) (not reviewed); Ripa et al. (1995); SAG, 2008, 2010, 2012, 2013, 2014	<i>L. cucumifoliae</i> and <i>L. huidobrensis</i> were combined.
<i>Nemomyza maculosa</i> (Malloch, 1913)	Acc?	Nearctic; Neotropical; Hawai'i	Shewell (1967) (as <i>Phylobia (Amauromyza) maculosa</i> (Malloch)); SAG, 2008, 2011, 2012, 2013	<i>A. maculosa</i> and <i>N. maculosa</i> were combined.
Anisopodidae				
*Anisopodidae sp.	Unk	Unknown	SAG, 2014	
Anthomyiidae				
* <i>Delia</i> sp.	Unk	Unknown	SAG, 2011, 2012, 2013, 2014	
<i>Fucellia tergina</i> (Zetterstedt, 1845)	Acc?	Cosmopolitan	Campos and Peña (1973)	Marine littoral species
Calliphoridae				
<i>Comptosyrops fulvicrura</i> (Robineau-Desvoidy, 1830)	Acc	Neotropical	Campos and Peña (1973)	
* <i>Cochliomyia macellaria</i> (Fabricius, 1775)	Acc	Neotropical	SAG, 2008	
<i>Lucilia sericata</i> (Meigen, 1826)	Acc	Cosmopolitan	Campos and Peña (1973) (as <i>Phaenicia sericata</i> (Meigen, 1826))	
<i>Neta cf chilensis</i> (Walker, 1836)	Acc	Neotropical	Fuentes (1914) (as <i>Callysphora chilensis</i> c.f.)	Misspelling: <i>Callysphora</i> ; <i>C. chilensis</i> and <i>N. chilensis</i> were combined.
<i>Sarconesia chlorogaster</i> (Wiedemann, 1830)	Acc	Neotropical	Enderlein (1938); Olalquiaga Faure (1946); Campos and Peña (1973)	Native distribution: South America
Canacidae				
<i>Dasyrhicnoessa insularis</i> (Aldrich, 1931)	Ind?	Pantropical; Subtropical	Evenhuis (2016a)	Widespread on warm seacoasts

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Dasyrhicnoessa mathisi</i> Munari, 2002	End	Rapa Nui	Munari (2002)	
<i>Tethina</i> sp.	Ind?	Unknown	Campos and Peña (1973)	
Cecidomyiidae				
<i>Aphidoletes</i> sp.	Acc?	Unknown	Rojas (1981) (not reviewed)	Introduced from Chile to control aphids, but not known whether this morphospecies was purposefully introduced; species is distinct from <i>A. aphidimyza</i> (Ripa et al., 1995).
<i>Aphidoletes aphidimyza</i> (Rondani, 1847)	Acc	Cosmopolitan	Rojas (1981) (not reviewed) (as <i>Aphidoletes cucumeris</i> (Lint.))	Widely introduced for biocontrol of aphids
Chamaemyiidae				
<i>Leucopis</i> sp.	Pur	Unknown	Ripa et al. (1995)	Introduced from Czech Republic to control mealybugs; species is distinct from <i>L. ninae</i> (Ripa et al., 1995).
<i>Leucopis ninae</i> Tanasijtshuk, 1966	Pur	Palaearctic	Ripa et al. (1995)	Introduced from Czech Republic to control mealybugs
Chironomidae				
<i>Chironomus</i> sp.	Acc?	Unknown	Dumont (2002)	Larvae identified in crater lake
<i>Tarytarsus</i> sp.	Acc?	Unknown	Dumont (2002)	Larvae identified in crater lake
<i>Limnophyes</i> sp.	Acc?	Unknown	Dumont (2002)	Larvae identified in crater lake
<i>Coryneura/Thienemanniella</i> sp.	Acc?	Unknown	Dumont (2002)	Larvae identified in crater lake
Chloropidae				
<i>Cadrema</i> sp.	Unk	Unknown	Campos and Peña (1973)	
<i>Ceratobarys</i> cf <i>sacculicornis</i> (Enderlein, 1911)	Unk	Southern South America	Campos and Peña (1973) (as <i>Elachiptera</i> sp. cf <i>secculicornis</i>)	Misspelling: <i>secculicornis</i> ; <i>E. secculicornis</i> and <i>C. secculicornis</i> were combined.
<i>Ceratobarys rubida</i> (Becker, 1912)	Acc	Neotropical	Olalquiaga Faure (1946); Campos and Peña (1973) (as <i>Elachiptera rubida</i> Becker, 1912)	
<i>Oscinella</i> sp.	Unk	Unknown	Campos and Peña (1973)	
Clusiidae				
* <i>Craspedochaeta</i> sp.	Unk	Unknown	SAG, 2012	
Culicidae				
<i>Aedes (Stegomyia)</i> <i>polynesiensis</i> Marks, 1951	Ind?	Australia; Pacific Islands	Evenhuis (2011)	
<i>Culex (Culex)</i> <i>quinquefasciatus</i> Say, 1823	Acc	Cosmopolitan	Olalquiaga Faure (1946); Campos and Peña (1973)	
Drosophilidae				
<i>Drosophila (Drosophila)</i> <i>immigrans</i> Sturtevant, 1921	Acc	Nearly cosmopolitan	Campos and Peña (1973)	
<i>Drosophila (Sophophora)</i> <i>simulans</i> Sturtevant, 1919	Acc	Cosmopolitan	Campos and Peña (1973)	
* <i>Leucophenga maculosa</i> (Coquillett, 1895)	Acc	Nearctic; Neotropical	SAG, 2014	
<i>Scaptomyza (Bunostoma)</i> sp.	Unk	Unknown	Campos and Peña (1973)	
Ephydriidae				
<i>Disomyza maculipennis</i> (Wiedemann, 1824)	Ind?	Pacific Islands	Campos and Peña (1973)	Littoral
<i>Scatella</i> cf <i>fernandezensis</i> Wirth, 1955	Ind?	Juan Fernandez Islands; Rapa Nui	Campos and Peña (1973) (as <i>Scatella fernandezensis?</i> Wirth)	
Fanniidae				
<i>Euryomma peregrinum</i> (Meigen, 1826)	Acc	Pantropical	Campos and Peña (1973)	
<i>Fannia pusio</i> (Wiedemann, 1830)	Acc	Nearly cosmopolitan	Campos and Peña (1973)	
Hippoboscidae				
* <i>Olfersia</i> sp.	Ind	Pantropical?	SAG, 2013	
Lonchaeidae				
* <i>Lonchaeidae</i> sp.	Unk	Unknown	SAG, 2011	
Milichiidae				
<i>Milichiella lacteipennis</i> (Loew, 1866)	Acc	Cosmopolitan	Campos and Peña (1973)	Spread by commerce
<i>Phyllomyza</i> sp.	Acc	Australasian	Campos and Peña (1973)	
Muscidae				
<i>Atherigona (Acritochaeta)</i> <i>orientalis</i> Schiner, 1868	Acc	Pantropical	Campos and Peña (1973)	
<i>Hydrotaea aenescens</i> (Wiedemann, 1830)	Acc	Nearly cosmopolitan	Campos and Peña (1973) (as <i>Ophyra aenescens</i> Wiedemann, 1830)	

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Musca domestica</i> Linnaeus, 1758	Acc	Cosmopolitan	Fuentes (1914); Enderlein (1938); Olalquiaga Faure (1946); Campos and Peña (1973); SAG, 2013	
<i>Synthesiomyia nudiseta</i> (Wulp, 1883)	Acc	Pantropical	Campos and Peña (1973)	
Mycetophilidae				
*Mycetophilidae sp.	Unk	Unknown	SAG, 2010, 2011, 2013, 2014	
Neriidae				
*Neriidae sp.	Unk	Unknown	SAG, 2012, 2013	
Phoridae				
<i>Dohrniphora cornuta</i> (Bigot, 1857)	Acc	Cosmopolitan	Campos and Peña (1973)	
<i>Megaselia</i> cf <i>brunneipalpata</i> Beyer, 1964	Acc	Unknown	Wynne et al. (2018)	
Piophilidae				
<i>Piophila casei</i> (Linnaeus, 1758)	Acc	Cosmopolitan	Campos and Peña (1973)	
Psychodidae				
Psychodidae sp.	Unk	Unknown	SAG, 2010, 2013, 2014; Wynne et al. (2018)	
Sarcophagidae				
<i>Oxysarcodexia terminalis</i> (Wiedemann, 1830)	Acc	Neotropical	Olalquiaga Faure (1946) (as <i>Sarcophaga complicata</i> Hall, 1937); Souza et al. (2020)	
<i>Sarcophaga africa</i> Wiedemann, 1824	Acc	Nearly cosmopolitan	Evenhuis (2016b)	
Scatopsidae				
*Scatopsidae sp.	Unk	Unknown	SAG, 2013	
Sciaridae				
<i>Bradysia</i> sp.	Unk	Unknown	Campos and Peña (1973)	
Sphaeroceridae				
<i>Coproica insulaepasqualis</i> Enderlein, 1938	End	Rapa Nui	Enderlein (1938)	
<i>Thoracochoeta brachystoma</i> (Stenhammar, 1854)	Ind?	Cosmopolitan	Campos and Peña (1973) (as <i>Limosina brachystoma</i> (Stenh.))	Marine littoral species
Syrphidae				
<i>Allograpta exotica</i> (Wiedemann, 1830)	Acc	Nearctic; Neotropical	Thompson (2015)	Native distribution: United States to Argentina; Introduced: Hawaii (Ramage et al., 2018)
<i>Allograpta pulchra</i> Shannon, 1927	Acc?	Neotropical	Evenhuis (2016c)	
<i>Eristalis tenax</i> (Linnaeus, 1758)	Acc	Cosmopolitan	Olalquiaga Faure (1946) (as <i>Tubifera tenax</i> (Linnaeus)); Campos and Peña (1973); SAG, 2012	
<i>Syritta flaviventris</i> Macquart, 1842	Acc	Cosmopolitan	Campos and Peña (1973)	
Tachinidae				
<i>Ectophasiopsis arcuata</i> Bigot, 1876	Pur	Neotropical	Ripa et al. (1995); Waterhouse (1998)	Introduced from Chile to control the stink bug (<i>Nezara viridula</i>)
* <i>Trichopoda/Eutrichopoda</i> sp.	Pur?	Neotropical	SAG, 2010 (as <i>Trichopoda</i> sp.)	Introduced to control the stink bug (<i>Nezara viridula</i>)
Tephritidae				
* <i>Acinia</i> sp.	Unk	Unknown	SAG, 2010, 2014	
<i>Bactrocera (Bactrocera) tryoni</i> (Froggatt, 1897)	Acc	Australasian	Campos and Peña (1973) (as <i>Dacus tryoni</i> Frog)	Detected but eradicated; not known to be established (Vargas et al., 2015)
<i>Dioxyina picciola</i> (Bigot, 1857)	Acc	Pantropical	Campos and Peña (1973) (as <i>Dioxyina plicicollis</i> (Bigot))	Misspelling: <i>plicicollis</i>
<i>Rhagoletis conversa</i> (Brèthes, 1919)	Acc	Neotropical	Olalquiaga Faure (1946) (as <i>Eurtbia conversa</i> (Brèthes))	
* <i>Rhagoletis nova</i> (Schiner, 1868)	Acc	Neotropical	SAG, 2012	
* <i>Tephritis</i> sp.	Unk	Unknown	SAG, 2010	
Ulidiidae				
* <i>Euxesta ammonae</i> (Fabricius, 1794)	Acc	Neotropical; Pacific Islands	SAG, 2009, 2012, 2013	
<i>Euxesta eluta</i> Loew, 1868	Acc	Neotropical; French Polynesia	Campos and Peña (1973); SAG, 2007, 2008, 2010, 2011, 2012, 2013, 2014	
<i>Euxesta penacamposi</i> Steyskal, 1973	End	Rapa Nui	Campos and Peña (1973)	Brief species description for <i>E. penacamposi</i> was provided by Steyskal (1973) in Campos and Peña (1973).

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Physiphora insulaepaschalis</i> Enderlein, 1938	End	Rapa Nui	Enderlein, 1938 (as <i>Lipsana insulaepaschalis</i> (Enderlein, 1938))	
EMBIOPTERA				
Oligotomidae				
<i>Aposthonia oceania</i> (Ross, 1951)	Ind?	Australasian; Oceania	Silvestri (1924) (as <i>Aposthonia vosseleri</i> Krauss); Kevan (1965); Campos and Peña (1973); SAG, 2010, 2011, 2013; Wynne & Howarth, unpublished data (2009)	
HEMIPTERA				
Aleyrodidae				
<i>Aleurothrixus floccosus</i> (Maskell, 1896)	Acc	Pantropical	Ripa et al. (1995); SAG, 2008, 2009, 2010, 2011, 2013, 2015–2021	
* <i>Trialeurodes</i> sp.	Unk	Unknown	SAG, 2013, 2014	
Anthocoridae				
<i>Alofa sodalis</i> (White, 1878)	Acc	Nearly cosmopolitan	Campos and Peña (1973) (as <i>Buchananiella sodalis</i> (White))	
<i>Orius</i> sp.	Unk	Unknown	Campos and Peña (1973); SAG, 2011, 2014	
Aphalaridae				
* <i>Ctenarytaina eucalypti</i> (Maskell, 1890)	Acc	Nearly cosmopolitan	SAG, 2010, 2011, 2012, 2013, 2014	Widespread where eucalyptus occur
* <i>Glycaspis brimblecombei</i> Moore, 1964	Acc	Pantropical; Subtropical	SAG, 2010, 2011, 2012, 2013, 2014	
Aphididae				
<i>Aphis craccivora</i> Koch, 1854	Acc	Cosmopolitan	Campos and Peña (1973)	
<i>Aphis gossypii</i> Glover, 1877	Acc	Cosmopolitan	Campos and Peña (1973); SAG, 2010, 2014	
<i>Aphis spiraeicola</i> Patch, 1914	Acc	Cosmopolitan	Ripa et al. (1995); SAG, 2007, 2009, 2010	
<i>Brevicoryne brassicae</i> (Linnaeus, 1758)	Acc	Cosmopolitan	Ripa et al. (1995)	
* <i>Eriosoma pyricola</i> Baker & Davidson, 1916	Acc	Cosmopolitan	SAG, 2015–2021	
<i>Hysteronera setariae</i> (Thomas, 1878)	Acc	Australasian; Indomalayan	Campos and Peña (1973); Carver (1976)	
<i>Myzus persicae</i> (Sulzer, 1776)	Acc	Cosmopolitan	Campos and Peña (1973); SAG, 2013	
* <i>Pentalonia nigronervosa</i> Coquerel, 1859	Acc	Indomalayan	SAG, 2011	
<i>Rhopalosiphum maidis</i> (Fitch, 1856)	Acc	Cosmopolitan	Campos and Peña (1973)	
<i>Rhopalosiphum padi</i> (Linnaeus, 1758)	Acc	Cosmopolitan	Campos and Peña (1973)	
<i>Toxoptera aurantii</i> (Fonscolombe, 1841)	Acc	Cosmopolitan	Olalquiaga Faure (1946); Rojas (1981) (not reviewed); Ripa et al. (1995); SAG, 2015–2021	
Berytidae				
* <i>Berytidae</i> sp.	Unk	Unknown	SAG, 2012	
Cicadellidae				
* <i>Amplicephalus</i> sp.	Unk	Unknown	SAG, 2013	
* <i>Atanus</i> sp.	Unk	Unknown	SAG, 2009, 2010, 2011	
<i>Balclutha hebe</i> (Kirkaldy, 1906)	Acc	Pantropical	Campos and Peña (1973) (as <i>Balchitha hebe</i> (Kirk.))	Misspelling: <i>Balchitha</i>
<i>Balclutha saltuella</i> (Kirschbaum, 1868)	Acc	Cosmopolitan	Olalquiaga Faure (1946) (as <i>Nesosteles incisus</i> (Matsa.))	
* <i>Empoasca</i> sp.	Unk	Unknown	SAG, 2007, 2008, 2010, 2011, 2013, 2014	
<i>Homalodisca vitripennis</i> (Germar, 1821)	Acc	Nearctic; Pacific Islands	Pilkington et al. (2005) (as <i>Homalodisca coagulata</i> (Say, 1832)); Triapitsyn (2006); SAG, 2008, 2010, 2012, 2013, 2014	
Cixiidae				
* <i>Cixiidae</i> sp.	Unk	Unknown	SAG, 2007; Wynne, unpublished data (2016)	
Coccidae				
* <i>Ceroplastes cirripediformis</i> (Comstock, 1881)	Acc	Palaearctic; Nearctic; Neotropical	SAG, 2015–2021	Native Distribution: South America and Caribbean

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Coccus hesperidum</i> Linnaeus, 1758	Acc	Cosmopolitan	Olalquiaga Faure (1946) ; SAG, 2010, 2011, 2013, 2015–2021	
* <i>Coccus viridis</i> (Green, 1889)	Acc	Pantropical	SAG, 2007, 2009, 2010, 2011, 2013, 2015–2021	
* <i>Parasaissetia nigra</i> (Nietner, 1861)	Acc	Cosmopolitan	SAG, 2010, 2012, 2014, 2015–2021	Native distribution: Africa
* <i>Phenacoccus</i> sp.	Unk	Unknown	SAG, 2010	
* <i>Protospulvinaria pyriformis</i> (Cockerell, 1894)	Acc	Nearly cosmopolitan	SAG, 2009, 2010	
* <i>Saissetia coffeae</i> (Walker, 1852)	Acc	Cosmopolitan	SAG, 2010, 2011, 2014, 2015–2021	
* <i>Saissetia oleae</i> (Olivier, 1791)	Acc	Cosmopolitan	SAG, 2011, 2014	
Cydnidae				
<i>Melanaethus spinolae</i> (Signoret, 1864)	Acc	Neotropical	Vargas et al. (2021)	
Delphacidae				
<i>Delphacodes</i> sp.	Unk	Unknown	Olalquiaga Faure (1946) ; Campos and Peña (1973)	Campos and Peña (1973) suggested it may be same species as Olalquiaga Faure, 1946 .
* <i>Neodelphax cf acheron</i> (Fennah, 1957)	Acc?	Mainland Chile; Juan Fernández Islands	Wynne, unpublished data (2016)	
<i>Peregrinus maidis</i> (Ashmead, 1890)	Acc	Pantropical	Olalquiaga Faure (1946)	Native distribution: southeastern U.S., Caribbean
Diaspididae				
* <i>Abgrallaspis cyanophylli</i> (Signoret, 1869)	Acc	Oceania	SAG, 2010, 2013	
* <i>Aonidiella aurantii</i> (Maskell, 1879)	Acc	Nearly cosmopolitan	SAG, 2011, 2012, 2015–2021	
<i>Aspidiotus destructor</i> Signoret, 1869	Acc	Pantropical	Charlin (1973) ; SAG, 2008, 2010, 2015–2021	
<i>Aspidiotus nerii</i> Bouché, 1833	Acc	Cosmopolitan	Charlin (1973) (as <i>Aspidiotus hederæ</i> (Vallot)); SAG, 2010, 2013, 2014, 2015–2021	
* <i>Carulaspis</i> sp.	Unk	Unknown	SAG, 2014	
<i>Carulaspis minima</i> (Signoret, 1869)	Acc	Nearly cosmopolitan	Williams and Watson (1988) ; SAG, 2014	
* <i>Chrysomphalus aonidum</i> (Linnaeus, 1758)	Acc	Cosmopolitan	SAG, 2010, 2011, 2012, 2013, 2015–2021	
* <i>Chrysomphalus dictyospermi</i> (Morgan, 1889)	Acc	Cosmopolitan	SAG, 2010, 2011, 2012, 2013, 2014	
* <i>Fiorinia fioriniae</i> (Targioni Tozzetti, 1869)	Acc	Cosmopolitan	SAG, 2007, 2010, 2011, 2012, 2013	
<i>Hemiberlesia lataniae</i> (Signoret, 1869)	Acc	Pantropical	Charlin (1973) ; SAG, 2010, 2011, 2012	
* <i>Hemiberlesia rapax</i> (Comstock, 1881)	Acc	Cosmopolitan	SAG, 2007, 2010	
* <i>Lepidosaphes beekii</i> (Newman, 1869)	Acc	Cosmopolitan	SAG, 2007, 2008, 2010, 2011, 2012, 2014, 2015–2021	
* <i>Morganella longispina</i> (Morgan, 1889)	Acc	Pantropical; Subtropical	SAG, 2007	
<i>Odonaspis ruthae</i> Kotinsky, 1915	Acc	Pantropical; Subtropical	Charlin (1973)	
* <i>Pinnaspis strachani</i> (Cooley, 1899)	Acc	Cosmopolitan	SAG, 2007, 2011	
Flatidae				
* <i>Siphanta acuta</i> (Walker, 1851)	Acc	Australasian; Pacific Islands	SAG, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015–2021	Native distribution: Australia
Miridae				
Miridae sp.	Ind?	Unknown	Campos and Peña (1973) (as Miridae (sp. 7))	
Monophlebidae				
* <i>Icerya purchasi</i> Maskell, 1878	Acc	Cosmopolitan	SAG, 2009	
Nabidae				
<i>Nabis capsiformis</i> Germar, 1838	Acc	Cosmopolitan	Bergroth (1924) ; Olalquiaga Faure (1946) ; Campos and Peña (1973) (as	

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
			<i>Reduviolus capsiformis</i> (Gormar); Wynne et al. (2016)	
<i>Nabis punctipennis</i> Blanchard, 1852	Acc	Neotropical	SAG, 2010; Faúndez and Carvajal (2014)	
Pentatomidae				
<i>Nezara viridula</i> (Linnaeus, 1758)	Acc	Cosmopolitan	Ripa et al. (1995); SAG, 2008, 2014	
<i>Oechalia?</i> sp.	Unk	Unknown	Olalquiaga Faure (1946)	One nymph identified as "probably" belonging to the genus, <i>Oechalia</i> .
Pseudococcidae				
<i>Dysmicoccus brevipes</i> (Cockerell, 1893)	Acc	Cosmopolitan	Charlin (1973); Ripa et al. (1995); SAG, 2008, 2010, 2012, 2013	
<i>Planococcus citri</i> (Risso, 1813)	Acc	Cosmopolitan	Charlin (1973); Rojas (1981) (not reviewed); Ripa et al. (1995); SAG, 2010, 2011	
<i>Pseudococcus elisae</i> Borchsenius, 1947	Acc	Neotropical	Charlin (1973); Ripa et al. (1995)	
<i>Pseudococcus longispinus</i> (Targioni Tozzetti, 1867)	Acc	Cosmopolitan	Ripa et al. (1995); SAG, 2008, 2010, 2011, 2013, 2014, 2015–2021	
<i>Pseudococcus maritimus</i> (Ehrhorn, 1900)	Acc	Nearly cosmopolitan	Olalquiaga Faure (1946)	
<i>Pseudococcus viburni</i> Signoret, 1875	Acc	Cosmopolitan	Ripa et al. (1995) (as <i>Pseudococcus</i> <i>affinis</i>); SAG, 2010, 2015–2021	
Psyllidae				
* <i>Heteropsylla cubana</i> Crawford, 1914	Acc	Pantropical	SAG, 2007, 2008, 2009, 2010, 2011, 2012, 2014	
Reduviidae				
* <i>Empicoris rubromaculatus</i> (Blackburn, 1888)	Acc	Nearly cosmopolitan	SAG, 2011, 2013, 2014	
<i>Zelus renardii</i> (Kolenati, 1857)	Acc	Nearly cosmopolitan	SAG, 2014, 2015–2021; Faúndez et al. (2023)	
Rhyparochromidae				
<i>Clerada apicicornis</i> Signoret, 1862	Acc	Nearly cosmopolitan	Bergroth (1924)	
Thaumastocoridae				
* <i>Thaumastocoris peregrinus</i> Carpintero & Dellapé, 2006	Acc	Australasian; Neotropical; Afrotropical	SAG, 2015–2021	
Tropiduchidae				
<i>Kallitaxila granulata</i> (Stål, 1870)	Acc	Indomalayan	Campodonico (2016); SAG, 2010, 2011, 2012, 2013, 2014, 2015–2021	
HYMENOPTERA				
Aphelinidae				
<i>Aphelinus asychis</i> Walker, 1839	Pur	Nearly cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control aphids
<i>Aphytis</i> sp. 1	Unk	Unknown	Campos and Peña (1973)	
<i>Aphytis</i> sp. 2	Unk	Unknown	Campos and Peña (1973)	
<i>Aphytis hispanicus</i> (Mercet, 1912)	Acc	Cosmopolitan	Campos and Peña (1973); De Santis (1979); Noyes (2019)	
<i>Aphytis lingnanensis</i> Compere, 1955	Acc	Cosmopolitan	Campos and Peña (1973) (identified as possibly this species); De Santis (1979); Noyes (2020)	Widely introduced for biocontrol
<i>Cales cf noacki</i> Howard, 1907	Pur	Nearly cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control woolly whitefly (<i>Aleurothrixus floccosus</i>); Native distribution: South America; <i>Cales</i> contains a complex of cryptic species (Mottorn and Heraty, 2014)
<i>Coccophagus gurneyi</i> Compere, 1929	Pur	Nearly cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control aphids
<i>Encarsia formosa</i> Gahan, 1924	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control whiteflies (Family Aleyrodidae)
<i>Encarsia haitiensis</i> Dozier, 1932	Pur	Neotropical	Ripa et al. (1995)	Introduced from Chile to control whiteflies (Family Aleyrodidae)
<i>Encarsia lounsburyi</i> (Berlese & Paoli, 1916)	Acc	Palaearctic; Oriental; Neotropical	Campos and Peña (1973) (as <i>Asphidiotiphagus lounsburyi</i> (B. & P.))	Native distribution: north Africa
<i>Encarsia lycopersici</i> De Santis, 1957	Pur	Neotropical	Ripa et al. (1995)	Introduced from Chile to control whiteflies (Family Aleyrodidae)
<i>Encarsia porteri</i> (Mercet, 1928)	Pur	Neotropical	Ripa et al. (1995)	Introduced from Chile to control whiteflies (Family Aleyrodidae)

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Eretmocerus corni</i> Haldeman, 1850	Pur	Nearly cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control whiteflies (Family Aleyrodidae); Native distribution: South America
Apidae * <i>Apis mellifera</i> Linnaeus, 1758	Pur	Cosmopolitan	SAG, 2011, 2012; Wynne, unpublished data (2016)	As there is at least one apiculturist on the island, the species could ultimately form a feral population—if this has not occurred already.
Braconidae <i>Apanteles</i> sp.	Pur	Unknown	Ripa et al. (1995)	Introduced from Chile to control diamondback moth (<i>Plutella xylostella</i>); identified as distinct from other <i>Apanteles</i> species.
<i>Apanteles gelechiidivoris</i> Marsh, 1975	Pur	Neotropical	Ripa et al. (1995)	
<i>Apanteles piceotrichosus</i> Blanchard, 1947	Acc	Neotropical	Rojas (1981) (not reviewed); Ripa et al. (1995)	
<i>Aphidius colemani</i> Viereck, 1912	Acc	Neotropical	Rojas (1981) (not reviewed); Ripa et al. (1995)	
<i>Aphidius matricariae</i> Haliday, 1834	Acc	Neotropical	Rojas (1981) (not reviewed)	
<i>Aphaereta cf laeviuscula</i> (Spinola, 1851)	Acc	Neotropical	Ripa et al. (1995) (as <i>Aphaereta</i> <i>lauriuscata</i>), nomen nudem.	Not known to be established
<i>Apanteles piceotrichosus</i> Blanchard, 1947	Pur?	Neotropical	Ripa et al. (1995)	Introduced from Chile to control diamondback moth (<i>Plutella xylostella</i>)
<i>Centistes</i> sp.	Pur	Neotropical	Ripa et al. (1995) (as <i>Centiste</i> sp.)	Introduced from Chile to control snout-beetles (Curculionidae); Misspelling: <i>Centiste</i> Introduced from Chile to control aphids
<i>Diaeretiella rapae</i> (McIntosh, 1855)	Pur	Cosmopolitan	Ripa et al. (1995)	
<i>Dolichogenidea</i> <i>gelechiidivoris</i> (Marsh, 1975)	Pur	Neotropical	Ripa et al. (1995) (as <i>Apanteles</i> <i>gelechiidivoris</i>)	Introduced from Columbia to control diamondback moth (<i>Plutella xylostella</i>); Native distribution: Columbia
<i>Ephedrus plagiator</i> (Nees, 1811)	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from Czech Republic to control aphids
<i>Lysiphlebus testaceipes</i> (Cresson, 1880)	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control aphids
Chalcididae *Chalcididae sp.	Unk	Unknown	SAG, 2010	
Charipidae <i>Alloxysta</i> sp.	Pur	Unknown	Ripa et al. (1995)	Possibly from Chile; secondary parasitoid of parasites of the pea leaf miner (<i>Liriomyza</i> <i>huidobrensis</i>)
Colletidae * <i>Hylaeus punctatus</i> (Brullé, 1832)	Acc	Palaearctic; Nearctic; Neotropical	SAG, 2014	Native distribution: Palaearctic
Crabronidae *Crabronidae sp.	Unk	Unknown	SAG, 2010, 2011, 2012, 2013, 2014	
* <i>Pison</i> sp.	Unk	Unknown	SAG, 2010, 2011	
Encyrtidae <i>Acerophagus angelicus</i> (Howard, 1898)	Pur	Nearly cosmopolitan	Ripa et al. (1995) (as <i>Pseudaphycus</i> <i>angelicus</i>)	Introduced from Chile to control mealybugs (Family Pseudococcidae); Native distribution: South America
<i>Acerophagus flavidulus</i> (Brèthes, 1916)	Pur	Neotropical	Ripa et al. (1995) (as <i>Pseudaphycus</i> <i>flavidulus</i>)	Introduced from Chile to control mealybugs (Family Pseudococcidae)
<i>Aenasius punctatus</i> Compere, 1937	Pur	Neotropical	Ripa et al. (1995)	Introduced from Chile to control mealybugs (Family Pseudococcidae)
<i>Anagyrus</i> sp.	Pur	Unknown	Ripa et al. (1995) (as <i>Apoanagyrus</i> sp.)	Introduced from Chile to control mealybugs (Family Pseudococcidae)
<i>Coccidoxenoides perminutus</i> (Girault, 1915)	Pur	Cosmopolitan	Ripa et al. (1995) (as <i>Pauridia peregrina</i> Timberlake, 1919)	Introduced from Chile to control mealybugs (Family Pseudococcidae); Native distribution: South America
<i>Copidosoma desantisi</i> Annecke & Mynhardt, 1974	Pur	Nearly cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control the tomato moth (<i>Tuta absoluta</i>)
<i>Leptomastidea abnormis</i> (Girault, 1915)	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control mealybugs (Family Pseudococcidae); Native distribution: South America
<i>Leptomastix dactylopii</i> Howard, 1885	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control mealybugs (Family Pseudococcidae)
* <i>Metaphycus</i> sp.	Unk	Unknown	SAG, 2010, 2011	
* <i>Psyllaephagus pilosus</i> Noyes, 1988	Acc	Nearly cosmopolitan	SAG, 2014	

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Tachinaephagus zealandicus</i> Ashmead, 1904	Acc	Cosmopolitan	Ripa et al. (1995)	Biocontrol of filth flies (several species of Order Diptera)
<i>Tetracnemoidea brevicornis</i> (Girault, 1915)	Pur	Nearly cosmopolitan	Ripa et al. (1995) (as <i>Tetracnemos pretiosus</i> Timberlake, 1929)	Introduced from Chile to control mealybugs (Family Pseudococcidae)
Eulophidae				
<i>Chrysocharis flacilla</i> (Walker, 1842)	Pur	Neotropical	Ripa et al. (1995) (as <i>Euparacrias phytomyzae</i> (Brèthes))	Introduced from Chile to control the pea leaf miner (<i>Liriomyza huidobrensis</i>)
* <i>Closterocerus chamaeleon</i> (Girault, 1922)	Acc	Neotropical	SAG, 2011	
<i>Dineulophus phthorimaeae</i> De Santis, 1985	Pur	Neotropical	Ripa et al. (1995)	Introduced from Chile to control the tomato moth (<i>Tuta absoluta</i>)
<i>Oomyzus sokolowskii</i> (Kurdjumov, 1912)	Pur	Cosmopolitan	Ripa et al. (1995) (as <i>Tetrastichus sokolowskii</i>)	Introduced from Chile to control the diamondback moth (<i>Plutella xylostella</i>); not known to be established
* <i>Ophelimus</i> sp.	Unk	Unknown	SAG, 2010, 2012	At least three species are known from mainland Chile; it is possible this represents one of these undocumented mainland species.
* <i>Ophelimus eucalypti</i> (Gahan, 1922)	Acc	Australasian; Palearctic	SAG, 2011, 2012, 2013	Native distribution: Australia
<i>Proacrias xenodice</i> Walker, 1842	Pur	Neotropical	Ripa et al. (1995) (as both <i>Achrysocharis bicarinata</i> De Santis and <i>Didymotropis cercius</i> Walker)	Introduced from Chile to control the pea leaf miner (<i>Liriomyza huidobrensis</i>)
Formicidae				
<i>Cardiocondyla minutior</i> Forel, 1899	Acc	Cosmopolitan	Wilson (1973), Morrison (1997) (as <i>Cardiocondyla nuda</i> (Mayr))	Wilson and Taylor (1967) synonymized <i>C. nuda</i> with <i>C. minutior</i> ; Wetterer (2014) concluded these were two distinct species.
<i>Hypoponera punctatissima</i> (Roger, 1859)	Acc	Cosmopolitan	Wheeler (1922) (as <i>Ponera trigona</i> var. <i>opacior</i> Forel)	<i>Ponera trigona</i> var. <i>opacior</i> synonymized with <i>H. punctatissima</i> (Wilson, 1973)
<i>Linepithema humile</i> (Mayr, 1868)	Acc	Nearly cosmopolitan	Ripa et al. (1995) (as <i>Iridomyrmex humilis</i> Mayr.); Morrison (1997); SAG, 2008, 2010, 2011, 2012, 2013, 2014; Wynne et al. (2018); Wynne, unpublished data (2016)	
<i>Nylanderia bourbonica</i> (Forel, 1886)	Acc	Cosmopolitan	Wheeler (1922) (as <i>Prenolepis bourbonica</i>); Wilson and Taylor (1967); Campos and Peña (1973); Wilson (1973) (as <i>Paratrechina bourbonica</i>); Museum Records: CSIRO ANIC 32-053544-015, CSIRO ANIC 32-053545-017, CSIRO ANIC 32-053542-013, CSIRO ANIC 32-053546-018, CSIRO ANIC 32-053543-014, CSIRO ANIC 32-052277-968, CSIRO ANIC 32-052279-970, CSIRO ANIC 32-052276-967, CSIRO ANIC 32-052275-966, CSIRO ANIC 32-052278-969, CSIRO ANIC 32-052280-971 (Efford, I. E. & Mathias, J. A. 1964-1965)	Possibly extirpated due to <i>L. humile</i> (Morrison, 1997)
<i>Paratrechina longicornis</i> (Latreille, 1802)	Acc	Cosmopolitan	Wilson (1973); Museum Records: CSIRO ANIC 32-053912-467, CSIRO ANIC 32-053912-466, CSIRO ANIC 32-053915-470, CSIRO ANIC 32-053914-469, CSIRO ANIC 32-053913-468 (Efford, I. E. & Mathias, J. A. 1965); CSIRO ANIC 32-053751-293 (Filshie, B. K. 1978)	Not detected, nor mentioned, by Morrison (1997)
<i>Plagiolipsis alluaudi</i> Emery, 1894	Acc	Cosmopolitan	Wheeler (1922), Wilson (1973) (as <i>Plagiolipsis mactavishi</i>); Wilson, and Taylor (1967); Campos and Peña (1973) Morrison (1997)	Possibly extirpated due to <i>L. humile</i> (Morrison, 1997)
<i>Solenopsis</i> sp.	Acc	Unknown		
<i>Tetramorium bicarinatum</i> (Nylander, 1846)	Acc	Cosmopolitan	Wheeler (1922); Campos and Peña (1973) (as <i>T. guineense</i> (Fabr))	Possibly extirpated due to <i>L. humile</i> (Morrison, 1997); see also Wetterer (2009)
<i>Tetramorium simillimum</i> (Smith, 1851)	Acc	Cosmopolitan	Wilson and Taylor (1967); Wilson (1973)	Possibly extirpated due to <i>L. humile</i> (Morrison, 1997)
Halictidae				
* <i>Corynura</i> sp.	Unk	Neotropical	SAG, 2011	
* <i>Lasioglossum</i> sp.	Unk	Unknown	SAG, 2011, 2013, 2014	

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
Ichneumonidae				
<i>Diadegma leontinae</i> (Brethes, 1923)	Pur	Neotropical	Ripa et al. (1995) (as <i>Angitia leontinae</i>)	Introduced from Chile to control the diamondback moth (<i>Plutella xylostella</i>)
* <i>Diplazon laetatorius</i> (Fabricius, 1781)	Acc	Cosmopolitan	SAG, 2010, 2011, 2013, 2014	
<i>Echthromorpha agrestoria pascuensis</i> Mason, 1974	End	Rapa Nui	Campos and Peña (1973) (as <i>Echthromorpha agrestoria</i> (Swederus, 1787))	Later described by Mason (1974)
<i>Ichneumon promissorius</i> Erichson, 1842	Acc	Australasian	Campos and Peña (1973) (as <i>Pterocornus promissorius</i> (Erich.))	Misspelling: <i>Pterocornus</i>
* <i>Pimpla fuscipes</i> Brullé, 1846	Acc	Neotropical	SAG, 2010, 2014	
Mymaridae				
* <i>Anaphes nitens</i> (Girault, 1928)	Acc	Cosmopolitan	SAG, 2014	
<i>Gonatocerus ashmeadi</i> Girault, 1915	Acc	Nearctic; Neotropical; Oceania	Triapitsyn (2006)	
Platygasteridae				
<i>Amitus spiniferus</i> (Brèthes, 1914)	Pur	Pantropical	Ripa et al. (1995)	Introduced from Chile to control the woolly whitefly (<i>Aleurothrixus floccosus</i>)
<i>Fidiobia asina</i> (Loiacono, 1982)	Pur	Neotropical	Ripa et al. (1995) (as <i>Platystasius asinus</i>)	Introduced from Chile to control snout-beetles (Family Curculionidae)
Pompilidae				
*Pompilidae sp.	Unk	Unknown	SAG, 2011, 2014	
Pteromalidae				
<i>Halticoptera</i> sp.	Pur	Unknown	Ripa et al. (1995) (as <i>Halticoptera</i> sp.)	Likely introduced from Chile; control of the pea leaf miner (<i>Liriomyza huidobrensis</i>)
<i>Muscidifurax raptor</i> Girault & Sanders, 1910	Pur	Nearly cosmopolitan	Ripa et al. (1995)	Introduced from La Cruz (Chile), Trendelburg (Germany), and Florida (USA) to control filth flies (several species of Order Diptera); not known to be established
<i>Muscidifurax zaraptor</i> Kogan & Legner, 1970	Pur	Nearctic; Neotropical	Ripa et al. (1995)	Introduced from Denver (Colorado, USA) to control filth flies (several species of Order Diptera); not known to be established
<i>Pachycrepoideus vindemmiae</i> (Rondani, 1875)	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from Mauritius via Florida to control filth flies (several species of Order Diptera); not known to be established
* <i>Scutellista caerulea</i> (Fonscolombe, 1832)	Acc	Cosmopolitan	SAG, 2010, 2011, 2012, 2013, 2014	Widely introduced for biocontrol
<i>Spalangia cameroni</i> Perkins, 1910	Pur	Cosmopolitan	Ripa et al. (1995)	Biocontrol of filth flies (several species of Order Diptera)
<i>Spalangia endius</i> Walker, 1839	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from La Cruz (Chile), Florida (USA), Thailand, and New Zealand to control filth flies (several species of Order Diptera)
Scelionidae				
<i>Trissolcus basalis</i> sl (Wollaston, 1858)	Pur	Cosmopolitan	Ripa et al. (1995); Waterhouse (1998)	Introduced from Brazil to control the stink bug (<i>Nezara viridula</i>); not known to be established; <i>T. basalis</i> is a complex of several species (Clarke, 1990).
Signiphoridae				
*Signiphoridae sp.	Unk	Unknown	SAG, 2011	
Sphecidae				
*Sphecidae sp.	Unk	Unknown	SAG, 2008, 2009, 2010, 2014	
Trichogrammatidae				
<i>Trichogramma</i> sp.	Pur	Unknown	Ripa et al. (1995); SAG, 2009, 2010	Introduced from Chile to control the tomato moth (<i>Tuta absoluta</i>); identified as distinct from other <i>Trichogramma</i> spp. (Ripa et al., 1995)
<i>Trichogramma bezdencovii</i> Bezdenko, 1968	Pur	Palaearctic; Neotropical	Ripa et al. (1995) (as <i>Trichogramma telengai</i> (Sorokina, 1987))	Native distribution: Palaearctic; introduced from Chile to control the tomato moth (<i>Tuta absoluta</i>)
<i>Trichogramma dendrolimi</i> Matsumura, 1926	Pur	Nearctic; Neotropical; Indomalayan	Ripa et al. (1995)	Introduced from Chile to control the tomato moth (<i>Tuta absoluta</i>)
<i>Trichogramma pretiosum</i> Riley, 1879	Pur	Cosmopolitan	Ripa et al. (1995)	Introduced from Chile to control the tomato moth (<i>Tuta absoluta</i>)
Vespidae				
<i>Pachodynerus nasidens</i> (Latreille, 1817)	Acc	Nearctic; Neotropical; Oceania	Barrera-Medina (2010); SAG, 2011, 2012, 2014	

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Polistes olivaceus</i> (De Geer, 1773)	Acc	Afrotropical; Oriental; Palearctic; Oceania	Roman (1924), Olalquiaga Faure (1946) (as <i>Polistes hebraeus</i>); Campos and Peña (1973); Harris (1979); Museum records: NZAC04044793 (B. A. Holloway, 1994; as <i>P. olivaceus</i>); SAG, 2010, 2013, 2014	Misspelling: <i>olivacaeus</i> (Holloway, 1994)
ISOPTERA				
Kalotermitidae				
<i>Cryptotermes brevis</i> (Walker, 1853)	Acc	Cosmopolitan	Campos and Peña (1973); SAG, 2010, 2011, 2012, 2013, 2014	
Rhinotermitidae				
<i>Reticulitermes flavipes</i> (Kollar, 1837)	Acc	Holarctic; Neotropical	Austin et al. (2005); Vargo et al. (2017)	
LEPIDOPTERA				
Cosmopterigidae				
<i>Asymphorodes trichogramma</i> Clarke, 1986	Ind?	Pacific Islands	Campos and Peña (1973) (as Cosmopterigidae: <i>Asymphorodes</i> sp. nov.); Heppner et al. (2016)	Described by Clarke (1986) as <i>A. trichogramma</i>
Crambidae				
* <i>Nomophila</i> sp.	Unk	Unknown	SAG, 2012, 2013	
<i>Spoladea recurvalis</i> (Fabricius, 1775)	Acc	Nearly cosmopolitan	Viette (1950) (as <i>Hymenia recurvalis</i>); Campos and Peña (1973); SAG, 2010, 2011, 2013; Heppner et al. (2016)	
* <i>Udea tetragramma</i> Clarke, 1965	Acc	Galápagos Islands; Juan Fernandez Island	SAG, 2014	
Erebidae				
<i>Achaea janata</i> (Linnaeus, 1758)	Acc	Nearly pantropical	Aurivillius et al. (1922) (as <i>Achaea melicerta</i>); Campos and Peña (1973); Museum records: USNM 1237367, USNM 1642264, USNM 1642264.1, USNM 1642264.2 (Gaskin, D., & Gaskin, M., 1977); Holloway (1990); Olivares (1992); SAG, 2008; Heppner et al. (2016)	
<i>Anticarsia irrorata</i> (Fabricius, 1781)	Acc	India to Pacific Islands	Olivares et al. (2012) (as <i>Mocis frugalis</i> (Fabricius, 1775)); Heppner et al. (2016)	<i>M. frugalis</i> was misidentified (Heppner et al., 2016).
Gelechiidae				
* <i>Phthorimaea operculella</i> (Zeller, 1873)	Acc	Cosmopolitan	SAG, 2011	
<i>Sitotroga cerealella</i> (Olivier, 1789)	Acc	Cosmopolitan	Olalquiaga Faure (1946); Heppner et al. (2016)	
<i>Tuta absoluta</i> (Meyrick, 1917)	Acc	Neotropical	Ripa et al. (1995) (as <i>Scrobipalpuloides absoluta</i>); SAG, 2011	Native distribution: South America; Incidentally introduced: Mediterranean (Europe-Africa) (Guillemaud et al., 2015)
Geometridae				
<i>Gymnoscelis concinna</i> Swinhoe, 1902	Ind?	Pacific Islands	Holloway (1990); Heppner et al. (2016)	
Lasiocampidae				
* <i>Lasiocampidae</i> sp.	Unk	Unknown	SAG, 2013	
Noctuidae				
<i>Agrotis ipsilon</i> (Hüfnagel, 1766)	Acc	Nearly cosmopolitan	Aurivillius et al. (1922); Viette (1950); Campos and Peña (1973) (as <i>Agrotis ypsilon</i> (Rott.)); Olivares (1992); SAG, 2009, 2010, 2011, 2014; Heppner et al. (2016)	
<i>Chrysodeixis eriosoma</i> (Doubleday, 1843)	Acc	Australasian; Pacific Islands	Aurivillius et al. (1922) (as <i>Phytometra chalcites</i>); Viette (1950), Olivares (1992) (as <i>C. chalcites</i>); SAG, 2010, 2011, 2012, 2014; Heppner et al. (2016) (as <i>C. chalcites</i>)	
<i>Chasmia tibialis</i> (Fabricius, 1775)	Acc	Pantropical; Pacific Islands	Olivares et al. (2012); Heppner et al. (2016)	
<i>Ctenoplosia albostrigata</i> (Bremer & Grey, 1853)	Acc	Indomalayan; Pacific Islands	Museum records: USNM 1237368, USNM 1642265, USNM 1642265.1, USNM 1642265.2 (Gaskin, D., & Gaskin, M., 1977); Holloway (1990); Olivares (1992); SAG, 2010, 2013, 2014; Heppner et al. (2016)	

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>*Feltia subterranea</i> (Fabricius, 1794)	Acc	Nearctic; Neotropical	SAG, 2010, 2011, 2012 (as <i>Agrotis lutescens</i> Blanchard)	
<i>*Heliothis</i> sp.	Unk	Unknown	SAG, 2013	
<i>Helicoverpa zea</i> (Boddie, 1850)	Acc	Nearctic; Neotropical; Hawai'i	SAG, 2009, 2010, 2011, 2012; Olivares et al. (2012); Heppner et al. (2016)	This may be <i>Helicoverpa armigera</i> , as <i>H. zea</i> is Nearctic with incursions into subtropical northern South America, Hawai'i, and occasional interceptions elsewhere, while <i>H. armigera</i> is palaeotropical. In the last two decades, <i>H. armigera</i> has been invading the Pacific Islands and South America. These two species can be distinguished only via molecular analysis.
<i>Leucania loreyi</i> (Duponchel, 1827)	Acc	Cosmopolitan	Aurivillius et al. (1922) (as <i>Cirphis loreyi</i>); Museum records: USNMMENT01642268, USNMMENT01642268.1, USNMMENT01642268.2 (Gaskin, D., & Gaskin, M., 1977), Olivares (1992), SAG, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 (as <i>Mythimna loreyi</i>); Heppner et al. (2016)	
<i>Megalographa biloba</i> (Stephens, 1830)	Acc	Nearctic; Neotropical; Hawai'i	SAG, 2010 (as <i>Autographa</i> cf sp.); Olivares et al. (2012); Heppner et al. (2016)	
<i>*Mythimna impuncta</i> (Guenée, 1852)	Acc	Neotropical	SAG, 2012, 2013 (<i>Pseudaletia impuncta</i> Guenée, 1852)	<i>Mythimna impuncta</i> is known from South America, while <i>M. unipuncta</i> is from the Pacific Islands. Although Rapa Nui is part of the "Pacific Islands", there are many non-native arthropod introductions from Chile; thus, we deemed it reasonable to retain the initial identification.
<i>Spodoptera mauritia</i> (Boisduval, 1833)	Acc	Indomalayan; Pacific Islands	Museum records: USNMMENT 1642268, USNMMENT 1642268.1, USNMMENT 1642268.2 (Gaskin, D., & Gaskin, M., 1977); Olivares (1992); SAG, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014; Heppner et al. (2016)	
<i>*Trichoplusia ni</i> (Hubner, 1803)	Acc	Cosmopolitan	SAG, 2008	
Nymphalidae				
<i>Hypolimnys bolina otaheitae</i> (C. Felder, 1862)	Ind	Indomalayan; Pacific Islands	Clarke and Sheppard (1975); Heppner et al. (2016)	Possibly a vagrant; able to migrate long distances
<i>Vanessa carye</i> (Hübner [1812])	Ind	Neotropical	Field (1971); Heppner et al. (2016)	Vagrant on Rapa Nu (Tennent, 2006)
Oecophoridae				
<i>*Oecophoridae</i> sp.	Unk	Unknown	SAG, 2010	
Pieridae				
<i>Pieris brassicae</i> (Linnaeus, 1758)	Acc	Palaearctic; South Africa; Mainland Chile	Cotoras & Y.-Pakarati, 2023	Native distribution: Palaearctic
Plutellidae				
<i>Plutella xylostella</i> (Linnaeus, 1767)	Acc	Cosmopolitan	Campos and Peña (1973); Ripa et al. (1995); SAG, 2010, 2011, 2012, 2013; Heppner et al. (2016)	
Pterophoridae				
<i>Lantanophaga pusillidactyla</i> (Walker, 1864)	Acc	Pantropical	Heppner (2016)	
Pyralidae				
<i>Cadra cautella</i> (Walker, 1863)	Acc	Cosmopolitan	Viette (1950) (as <i>Ephestia cautella</i> Walker); Heppner et al. (2016)	
<i>Pyralis</i> sp.	Acc?	Unknown	Viette (1950)	
Tineidae				
<i>*Erechthias</i> sp.	Acc?	Unknown	SAG, 2014 (as <i>Erechthias</i> sp.)	
<i>Opogona aurisquamosa</i> (Butler, 1881)	Acc	Oceania	Clarke, 1971; Campos and Peña (1973); SAG, 2010, 2011, 2012, 2013, 2014, 2015–2021; Heppner et al. (2016)	
<i>*Opogona trissostacta</i> Meyrick, 1934	Acc	Oceania	SAG, 2015–2021	
Tortricidae				
<i>*Crociosema aporema</i> (Walsingham, 1914)	Acc	Nearctic; Neotropical	SAG, 2012, 2013, 2014 (as <i>Epinotia aporema</i>)	

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Crociosema plebejana</i> Zeller, 1847	Acc	Cosmopolitan	Campos and Peña (1973); SAG, 2009, 2010, 2011, 2012; SAG, 2013, 2014 (as <i>Crociosema insulana</i>); Heppner et al. (2016)	
* <i>Strepsicrates semicanella</i> (Walker, 1866)	Acc	Australasian; Indomalayan; Pacific Islands	SAG, 2010, 2011, 2012, 2013, 2014, 2015–2021	
Yponomeutidae				
*Yponomeutidae sp.	Unk	Unknown	SAG, 2010, 2011, 2012, 2013, 2014	
Ypsolophidae				
* <i>Ypsolopha</i> sp.	Unk	Unknown	SAG, 2014	
NEUROPTERA				
Chrysopidae				
<i>Chrysoperla congrua</i> (Walker, 1853)	Acc?	Afrotropical; Australasian; Indomalayan; Oceania	Brooks (1994); Penny (2005)	
<i>Chrysoperla externa</i> (Hagen, 1861)	Acc	southern Nearctic; Neotropical	Esben-Petersen (1924) (as <i>Chrysopa lanata</i> Banks, 1910), TAMU ENTO X0688953, TAMU ENTO X0688980, TAMU ENTO X0689014, TAMU ENTO X0689025, TAMU ENTO X0689122, TAMU ENTO X0689139, TAMU ENTO X0690032, TAMU ENTO X0690252, TAMU ENTO X0690269, TAMU ENTO X0690405, TAMU ENTO X0690419, TAMU ENTO X0690494, TAMU ENTO X0690586, TAMU ENTO X0690720, TAMU ENTO X0690818, TAMU ENTO X0690973, TAMU ENTO X0691359, TAMU ENTO X0691411, TAMU ENTO X0691617, TAMU ENTO X0691747, TAMU ENTO X0691890 TAMU ENTO X0692124, TAMU ENTO X0692184 TAMU ENTO X0692376, TAMU ENTO X0692392, TAMU ENTO X0692427, TAMU ENTO X0692534, TAMU ENTO X0692659 TAMU ENTO X0692667. TAMU ENTO X0692677. TAMU ENTO X0692780, TAMU ENTO X0692853, TAMU ENTO X0692890, TAMU ENTO X0693110, TAMU ENTO X0693347, TAMU ENTO X0693532, TAMU ENTO X0693779, TAMU ENTO X0693839, TAMU ENTO X0693876, TAMU ENTO X0693968, TAMU ENTO X0693974, TAMU ENTO X0694002, TAMU ENTO X0694035, TAMU ENTO X0694236, TAMU ENTO X0694446	
<i>Mallada basalis</i> (Walker, 1853)	Acc	Australasian; Indomalayan; Oceania	Esben-Petersen, 1924, Olalquiaga Faure (1946), Kuschel (1963), Campos and Peña (1973), Rojas (1981) (not reviewed) (as <i>Chrysopa skottsbergi</i> Esben-Petersen, 1924); Museum records: TAMU ENTO X0658810, ENTO X0658833 (1965)	
Hemerobiidae				
* <i>Hemerobius</i> sp.	Unk	Unknown	SAG, 2013	
<i>Symphorobius gayi</i> Navás, 1910	Acc	Neotropical	Monserrat (1998)	Introduced from Chile to control mealy bugs
Myrmeleontidae				
*Myrmeleontidae sp.	Unk	Unknown	SAG, 2010	
ODONATA				
Libellulidae				
<i>Pantala flavescens</i> (Fabricius, 1798)	Ind	Cosmopolitan	Fuentes (1914); Sjöstedt (1924); Olalquiaga Faure (1946); Campos and Peña (1973); Dumont and Verschuren (1993); Samways and Osborn (1998); Alvia et al. (2019)	The "globe skimmer" is widespread in warmer regions

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Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
ORTHOPTERA				
Gryllidae				
<i>Teleogryllus oceanicus</i> (Le Guillou, 1841)	Acc	Australasian; Oceania	Olalquiaga Faure (1946) ; Chopard (1924) (as <i>Achaeta oceanicus</i>); Kevan (1965) (as <i>T. commodus/ oceanicus</i>); Campos and Peña (1973) ; Ripa et al. (1995) ; SAG, 2008, 2014; Wynne et al. (2018)	
Trigonidiidae				
<i>Pteronemobius</i> sp.	End	Rapa Nui	Wynne et al. (2018) (as <i>Pteronemobius</i> n. sp.); Wynne et al. (2024) (as <i>Pteronemobius</i> n. sp.); Wynne, unpublished data (2016)	
PSOCOPTERA				
Caeciliidae				
<i>Stenocaecilius casarum</i> (Badonnel, 1931)	Acc	Pantropical	Mockford (1972)	
Lepidopsocidae				
<i>Cyrtophania pakaratii</i>	End	Rapa Nui	Mockford and Wynne (2013)	
<i>Lepolepis</i> sp.	End?	Rapa Nui?	Campos and Peña (1973) (as <i>Lepolepis</i> sp. nov.?)	Poor preservation of material; impossible to identify
Liposcelididae				
<i>Liposcelis</i> sp.	End?	Rapa Nui?	Mockford (1972)	
Peripsocidae				
<i>Ectopsocus fullawayi</i> Enderlein, 1913	Ind?	Pacific Islands	Mockford (1972) ; Campos and Peña (1973)	
Psyllipsocidae				
<i>Psyllipsocus ramburii</i> Selys-Longchamps, 1872	Acc	Cosmopolitan	Wynne et al. (2018)	Native distribution: Continental U.S. and Mexico
THYSANOPTERA				
Melanthripidae				
<i>*Dorythrips chilensis</i> Hood, 1931	Acc	Neotropical	SAG, 2014	
Phlaeothripidae				
<i>Haplothrips gowdeyi</i> (Franklin, 1908)	Acc	Pantropical; Subtropical	Ahlberg (1922) (as <i>Haplothrips usitatus inermis</i> Ahlberg, 1922); Campos and Peña (1973) ; SAG, 2009	
<i>*Karyothrips flavipes</i> (Jones, 1912)	Acc	Pantropical; Subtropical	SAG, 2014	
<i>*Liothrips</i> sp.	Unk	Unknown	SAG, 2013	
Thripidae				
<i>*Arorathrips mexicanus</i> (D. L. Crawford, 1909)	Acc	Pantropical; Subtropical	SAG, 2015–2021	
<i>*Drepanothrips reuteri</i> Uzel, 1895	Acc	Palaearctic	SAG, 2008	
<i>*Frankliniella australis</i> Morgan, 1925	Acc	Neotropical	SAG, 2011, 2014	
<i>*Frankliniella occidentalis</i> (Pergande, 1895)	Acc	Cosmopolitan	SAG, 2010, 2011, 2012, 2013, 2014, 2015–2021	
<i>*Frankliniella schultzei</i> (Trybom, 1910)	Acc	Cosmopolitan	SAG, 2010, 2011, 2012	
<i>Heliothrips haemorrhoidalis</i> (Bouché, 1833)	Acc	Cosmopolitan	Campos and Peña (1973) ; SAG, 2008, 2010, 2011	
<i>*Microcephalothrips abdominalis</i> (D. L. Crawford, 1910)	Acc	Cosmopolitan	SAG, 2010	
<i>Pseudodendrothrips stuardoi</i> (Moulton, 1930)	Acc	Neotropical	Campos and Peña (1973) (as <i>Graphidothrips stuardoi</i> Moulton, 1930)	
<i>*Scirtothrips</i> sp.	Unk	Unknown	SAG, 2010	
<i>*Thrips australis</i> (Bagnall, 1915)	Acc	Cosmopolitan	SAG, 2007, 2008, 2011	
<i>*Thrips imaginis</i> Bagnall, 1926	Acc	Australasian	SAG, 2010	Possibly confused <i>T. safrus</i> (see Mound et al., 2017)
<i>Thrips tabaci</i> Lindeman, 1889	Acc	Cosmopolitan	Campos and Peña (1973) ; SAG, 2008, 2010, 2011, 2013, 2014, 2015–2021	
MYRIAPODA				
CHILOPODA				

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
GEOPHILOMORPHA				
Geophilidae				
<i>Pachymerium ferrugineum</i> (C. L. Koch, 1835)	Acc	Cosmopolitan	Verhoeff (1924)	
Mecistocephalidae				
<i>Mecistocephalus</i> sp.	Acc?	Unknown	Wynne et al. (2011)	
LITHOBIOMORPHA				
Henicopidae				
<i>Lamyctes</i> sp.	Unk	Unknown	Verhoeff (1924)	
Lithobiidae				
<i>Lithobius obscurus</i> Meinert, 1872	Acc	Nearly cosmopolitan	Wynne et al. (2018)	Native distribution: Iberian Peninsula
DIPLOPODA				
JULIDA				
Julidae				
Julidae sp.	Acc?	Unknown	Wynne et al. (2016)	
<i>Cylindroiulus latestriatus</i> (Curtis, 1845)	Acc	Nearly cosmopolitan	Wynne et al. (2018)	
POLYDESMIDA				
Paradoxosomatidae				
<i>*Orthomorpha coarctata</i> (DeSaussure, 1860)	Acc	Cosmopolitan	Wynne, unpublished data (2016)	
<i>Oxidus gracilis</i> (Koch, 1847)	Acc	Cosmopolitan	Verhoeff (1924), Olalquiaga Faure (1946) (as <i>Orthomorpha gracilis</i> (Koch)); Wynne et al. (2018)	
SPIROSTREPTIDA				
Cambalidae				
Cambalidae sp.	Acc?	Unknown	Wynne et al. (2016)	
SYMPHYLA				
Scolopendrellida				
Scolopendrellida sp.	Unk	Unknown	Wynne et al. (2018) (as Symphyla sp.); Wynne, unpublished data (2016)	
CRUSTACEA				
BRANCHIOPODA				
CLADOCERA				
Chydoridae				
<i>Ovalona pascua</i> Van Damme, 2016	End	Rapa Nui	Dumont and Martens (1996) (as <i>Alona weinecki</i> Stüder); Van Damme (2016)	
COPEPODA				
CYCLOPOIDA				
Cyclopidae				
<i>Paracyclops chiltoni</i> (G. M. Thomson, 1883)	Ind	Cosmopolitan	Dumont and Martens (1996) (as <i>Paracyclops fimbriatus</i> (Fischer) sl); Van Damme (2016)	
MALACOSTRACA				
AMPHIPODA				
Talitridae				
<i>*Platorchestia platensis</i> (Krøyer, 1845)	Ind	Indopacific	Wynne et al. (2016) (as Talitridae sp.); Wynne, unpublished data (2016)	Known to Indopacific coastal areas
DECAPODA				
Grapsidae				
<i>Geograpsis crinipes</i> Dana, 1851	Ind	Indopacific	Garth (1973)	Facultatively terrestrial; possibly extirpated
ISOPODA				
Armadiilliidae				
<i>Armadiidium vulgare</i> (Latreille, 1804)	Acc	Cosmopolitan	Museum records: USNM 46441 (Eastern Pacific Expedition - Albatross R/V, 1904); Fuentes (1914); Taiti and Wynne (2015); Wynne & Howarth, unpublished data (2009)	Native distribution: Mediterranean region
Armadiillidae				
<i>Venezillo parvus</i> (Budde-Lund, 1885)	Acc	Pantropical; Subtropical	Taiti and Wynne (2015); Wynne & Howarth, unpublished data (2009)	
Ligiida				
<i>Ligia exotica</i> Roux, 1828	Acc	Pantropical	Fuentes (1914)	
Philosciidae				
<i>Hawaiioscia rapui</i> Taiti and Wynne, 2015	End	Rapa Nui; Motu Motiro Hiva	Taiti and Wynne (2015); Wynne et al. (2018), (2022)	Known only from Easter Island Province (Rapa Nui and Motu Motiro Hiva island; Wynne et al., 2022)
Platyarthridae				

(continued on next page)

Table 1 (continued)

Taxa	Status	Distribution	Records	Notes
<i>Trichorhina tomentosa</i> (Budde-Lund, 1893)	Acc	Pantropical	Taiti and Wynne (2015); Wynne et al. (2018)	
Porcellionidae				
<i>Porcellio laevis</i> Latreille, 1804	Acc	Cosmopolitan	Museum records: MCZ Invertebrate Zoology CRU-7672 (USFC Steamer Albatross, 1904), USNM 46420 (Eastern Pacific Expedition - Albatross R/V, 1904); Taiti and Wynne (2015); Wynne et al. (2018)	
<i>Porcellio scaber</i> Latreille, 1804	Acc	Cosmopolitan	Museum records: USNM 46422, Eastern Pacific Expedition - Albatross R/V, 1904 (as <i>Porcellio scaber marginata</i> Brandt & Ratzeburg); Fuentes (1914); Taiti and Wynne (2015); Wynne et al. (2016), (2018); Wynne & Howarth, unpublished data (2009)	
<i>Porcellionides pruinosus</i> (Brandt, 1833)	Acc	Cosmopolitan	Taiti and Wynne (2015); Wynne et al. (2018)	
Styloniscidae				
<i>Styloniscus manuvaka</i> Taiti and Wynne, 2015	Ind?	Rapa Nui; Rapa Iti, Austral Islands	Taiti and Wynne (2015); Wynne et al. (2018)	Possibly dispersed by early Polynesians to Rapa Nui (Taiti and Wynne, 2015)
OSTRACODA				
PODOCOPIDA				
Cyprididae				
<i>Cyprretta seurati</i> Gauthier, 1929	Ind?	Pantropical; Mediterranean	Dumont and Martens (1996)	
<i>Heterocypris incongruens</i> (Ramdohr, 1808)	Ind?	Cosmopolitan	Dumont and Martens (1996); De los Ríos-Escalante and Ibáñez (2015)	
<i>Sarsocypridopsis</i> sp.	Ind?	Unknown	Dumont and Martens (1996)	Subantarctic connection suggested (Dumont and Martens, 1996), yet actual affinities unknown (Van Damme, 2016)

species, *Geograpsus crinipes* Dana, 1851, a facultatively terrestrial crab, may be extirpated (Garth, 1973). Missing native species may persist at populations too small to detect, due to insufficient previous sampling efforts or their habitats were not specifically targeted during biological surveys.

Of the more than 80 % of species with known distributions, one-third (33.21 % or 179 species) were cosmopolitan or nearly cosmopolitan, 31 % (or 167 species) were regionally tropical to pantropical, 5.75 % (31 species) ranged from temperate to tropical regions, and a small number of species (1.67 % or nine species) were Holarctic. For taxa of Neotropical origin, there were 13.73 % (or 74 species) including 19 species of principally South American origin. Importantly, 5.2 % (28 species) were considered endemic to Rapa Nui and/or nearby Polynesian islands (refer to Retamal, 2002; Mockford and Wynne, 2013; Bernard et al., 2015; Taiti and

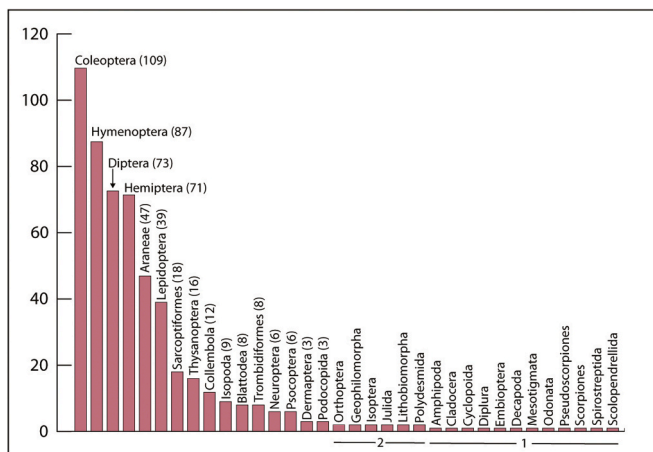


Fig. 2. Arthropod species by taxonomic order for Rapa Nui, Chile. Values in parentheses denote the number of species per taxonomic group; “2” and “1” (bottom right) represent species diversity for each taxonomic group.

Table 2

Summary table of the endemic (n=25) and indigenous (n=27) terrestrial species known from Rapa Nui, Chile. A † indicates the species has not been detected since it was first described or cataloged on the island and may now be extinct.

Taxa	Status	Records
ARACHNIDA		
ACARI		
SARCOPTIFORMES		
Carabodidae		
† <i>Austrocarabodes imperfectus squamosus</i>	End?	Hammer (1970)
Hammer, 1970		
Humerobatidae		
† <i>Anellozetes fusiformis</i>	End?	Hammer (1970)
Hammer, 1970		
ARANEAE		
Oonopidae		
† <i>Orchestina?</i> sp.	End?	Baert et al. (1997) (as <i>Orchestininae</i> n. sp.?)
Pholcidae		
<i>Holocnemius piritarsis</i> Berland, 1942	Ind?	Baert et al. (1997); Cotoras et al. (2017a)
Tetragnathidae		
<i>Tetragnatha paschae</i> Berland, 1924	End	Berland (1924); Cotoras et al. (2017b) (based on museum records)
Theridiidae		
<i>Theridion buxtoni</i> Berland, 1929	Ind?	Baert et al. (1997) (as <i>Theridion buxtoni</i> Berland, 1929)
ENTOGNATHA		
COLLEMBOLA		
Entomobryidae		
<i>Entomobrya manuhoko</i> Bernard, Soto-Adames and Wynne, 2015	End	Bernard et al. (2015)
<i>Pseudosinella hahoteana</i> Soto-Adames, Bernard & Wynne, 2015	End	Jordana and Baquero (2008); Bernard et al. (2015); Wynne et al. (2018)
<i>Coecobrya kennethi</i> Jordana and Baquero, 2008	End	Bernard et al. (2015); Wynne et al. (2018)
<i>Seira manukio</i> Soto-Adames, Bernard & Wynne, 2015	End	Bernard et al. (2015); Wynne et al. (2018)
<i>Coecobrya aitorererere</i> Bernard, Soto-Adames and Wynne, 2015	End	Bernard et al. (2015); Wynne et al. (2018)
Orchesellidae		
Orchesellidae sp.	End?	Wynne, unpublished data (2016)
Paronellidae		
<i>Cyphoderus manuneru</i> Bernard, Soto-Adames and Wynne, 2015	End	Bernard et al. (2015)
INSECTA		
COLEOPTERA		
Curculionidae		
<i>Otiorynchus</i> sp.	End	Fuentes (1914) (as <i>Otiorynchus fuentesi</i>)
† <i>Pentarthrum paschale</i> Aurivillius, 1931	End?	Aurivillius (1926); Desender and Baert (1996) (as <i>Pancidonus bryani</i> (Swezey, 1921))
Dytiscidae		
<i>Allodessus skottsbergi</i> (Zimmermann, 1924)	End	Zimmerman, 1924 (as <i>Bidesus skottsbergi</i>)
Elateridae		
<i>Simodactylus delfini</i> Fleutiaux, 1907	Ind	Fleutiaux (1907); Campos and Peña (1973); Desender and Baert (1996)
Nitidulidae		
<i>Carpophilus maculatus</i> Murray, 1864	Ind?	Campos and Peña (1973); Brown et al. (2012); SAG, 2015–2021
DERMAPTERA		
Carcinophoridae		
† <i>Anisolabis maritima</i> Bonelli, 1832	Ind	Kevan (1965)
DIPTERA		
Canacidae		
<i>Dasyrhicnoessa insularis</i> (Aldrich, 1931)	Ind?	Evenhuis (2016a)
<i>Dasyrhicnoessa mathisi</i> Munari, 2002	End	Munari (2002)
† <i>Tethina</i> sp.	Ind?	Campos and Peña (1973)
Culicidae		
<i>Aedes (Stegomyia) polynesiensis</i> Marks, 1951	Ind?	Evenhuis, 2011
Ephydriidae		
† <i>Discomyza maculipennis</i> (Wiedemann, 1824)	Ind?	Campos and Peña (1973)
† <i>Scatella cf fernandezensis</i> Wirth, 1955	Ind?	Campos and Peña (1973) (as <i>Scatella fernandezensis?</i> Wirth)
Hippoboscidae		
<i>Olfersia</i> sp.	Ind	SAG, 2013
Sphaeroceridae		
† <i>Coproica insulaepasqualis</i> Enderlein, 1938	End	Enderlein (1938)
† <i>Thoracochaeta brachystoma</i> (Stenhammar, 1854)	Ind?	Campos and Peña (1973) (as <i>Limosina brachystoma</i> (Stenh.))
Ulidiidae		
† <i>Euxesta penacamposi</i> Steyskal, 1973	End	Campos and Peña (1973)

(continued on next page)

Table 2 (continued)

Taxa	Status	Records
† <i>Physiphora insulaepaschalis</i> Enderlein, 1938	End	Enderlein (1938) (as <i>Lipsana insulaepaschalis</i> (Enderlein, 1938))
EMBIOPTERA		
Oligotomidae		
<i>Aposthonia oceania</i> (Ross, 1951)	Ind?	Silvesri, 1924 (as <i>Aposthonia vosseleri</i> Krauss); Kevan (1965); Campos and Peña (1973); SAG, 2010, 2011, 2013; Wynne & Howarth, unpublished data (2009)
HEMIPTERA		
Miridae		
† Miridae sp.	Ind?	Campos and Peña (1973) (as Miridae (sp. 7))
HYMENOPTERA		
Ichneumonidae		
† <i>Echthromorpha agrestoria pascuensis</i> Mason, 1974	End	Campos and Peña (1973) (as <i>Echthromorpha agrestoria</i> (Swederus, 1787))
LEPIDOPTERA		
Cosmopterigidae		
<i>Asymphorodes trichogramma</i> Clarke, 1986	Ind?	Campos and Peña (1973) (as Cosmopterigidae: <i>Asymphorodes</i> sp. nov.); Heppner et al. (2016)
Geometridae		
† <i>Gymnoscelis concinna</i> Swinhoe, 1902	Ind?	Holloway (1990)
Nymphalidae		
† <i>Hypolimnas bolina otaheita</i> (C. Felder, 1862)	Ind	Clarke and Sheppard (1975)
† <i>Vanessa carye</i> (Hübner, [1812])	Ind	Field (1971)
ODONATA		
Libellulidae		
<i>Pantala flavescens</i> (Fabricius, 1798)	Ind	Fuentes (1914); Sjöstedt (1924); Olalquiaga Faure (1946); Campos and Peña (1973); Dumont and Verschuren (1993); Samways and Osborn (1998); Alvial et al. (2019)
ORTHOPTERA		
Trigonidiidae		
<i>Pteronemobius</i> sp.	End	Wynne et al. (2018) (as <i>Pteronemobius</i> n. sp.); Wynne, unpublished data (2016)
PSOCOPTERA		
Lepidopsocidae		
<i>Cyrtophania pakaratii</i> Mockford and Wynne, 2013	End	Mockford and Wynne (2013)
† <i>Lepolepis</i> sp.	End?	Campos and Peña (1973) (as <i>Lepolepis</i> sp. nov.?)
Liposcelididae		
† <i>Liposcelis</i> sp.	End?	Mockford (1972)
Peripsocidae		
<i>Ectopsocus fullawayi</i> Enderlein, 1913	Ind?	Mockford (1972); Campos and Peña (1973)
COPEPODA		
CYCLOPOIDA		
Cyclopidae		
<i>Paracyclops chiltoni</i> (G.M. Thomson, 1883)	Ind	Dumont and Martens (1996) (as <i>Paracyclops fimbriatus</i> (Fischer) sl); Van Damme (2016)
CRUSTACEA		
BRANCHIOPODA		
CLADOCERA		
Chydoridae		
<i>Ovalona pascua</i> Van Damme, 2016	End	Dumont and Martens (1996) (as <i>Alona weinecki</i> Stüder); Van Damme (2016)
MALACOSTRACA		
AMPHIPODA		
Talitridae		
<i>Platorchestia platensis</i> (Krøyer, 1845)	Ind	Wynne et al. (2016) (as Talitridae sp.); Wynne, unpublished data (2016)
DECAPODA		
Grapsidae		
† <i>Geograpsis crinipes</i> Dana, 1851	Ind	Garth (1973)
ISOPODA		
Philosciidae		
<i>Hawaiioscia rapui</i> Taiti and Wynne, 2015	End	Taiti and Wynne (2015); Wynne et al. (2018), (2022)
Styloniscidae		
<i>Styloniscus manuvaka</i> Taiti and Wynne, 2015	Ind?	Taiti and Wynne (2015); Wynne et al. (2018)
OSTRACODA		
PODOCOPIDA		
Cyprididae		
† <i>Cyprretta seurati</i> Gauthier, 1929	Ind?	Dumont and Martens (1996)
<i>Heterocypris incongruens</i> (Ramdohr, 1808)	Ind?	Dumont and Martens (1996); De los Ríos-Escalante and Ibáñez (2015)
† <i>Sarscypridopsis</i> sp.	Ind?	Dumont and Martens (1996)

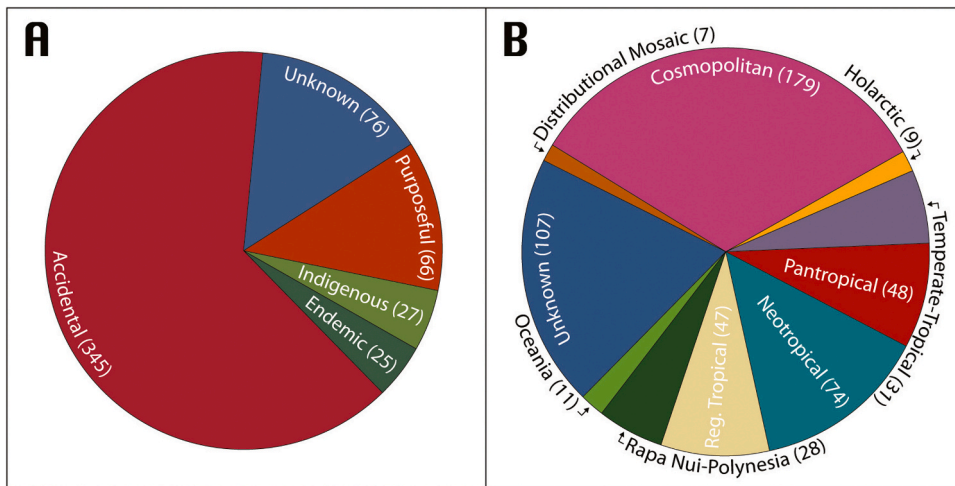


Fig. 3. Rapa Nui terrestrial arthropods by status (A) and distribution (B). Values in parentheses represent the number of species per category. “Temperate-Tropical” refers to species ranging from temperate to tropical regions, while “Reg. Tropical” represents species occurring within a specific region (or regions) in the tropics. “Distributional mosaic” was used to classify distributions that did not fit into the other categories.

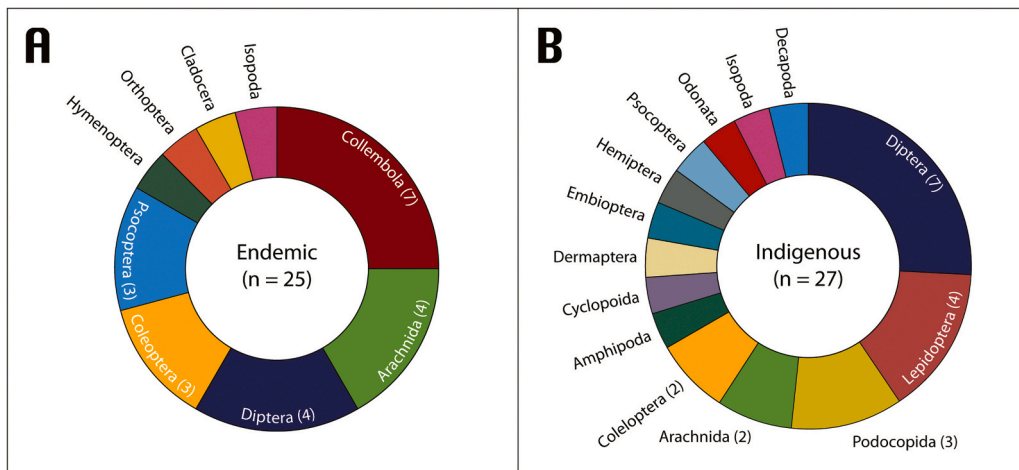


Fig. 4. Taxonomic groups represented for endemic (A) and indigenous (B) species with number of species provided in parentheses. The small, unnumbered slices are indicative of a singular species per slice. For several taxonomic groups, some species were considered possibly endemic (End?) or possibly indigenous (Ind?), which included members of Araneae, Coleoptera, and Psocoptera for endemic species and Coleoptera, Decapoda, and Lepidoptera for indigenous species. Refer to Table 2 for details.

Wynne, 2015; Van Damme, 2016; Wynne et al., 2022), while 2 % (11 species) were known to greater Oceania (Fig. 3B). Finally, seven species (or 1.3 %) had distributions that did not fit into any of the existing categories.

4. Discussion

Overall, our findings underscore the depauperate state of native arthropod species on Rapa Nui, while both providing a local perspective and highlighting the challenges confronting island ecosystems globally. Current community composition and ecological interactions on Rapa Nui are radically different from those that originally evolved on the island. Rapa Nui’s terrestrial arthropod community is now dominated by widespread cosmopolitan and tropical non-native species. This shift stresses the uncertainty concerning the long-term persistence of native species.

Despite constituting approximately 7 % of the Earth’s landmass, islands support nearly 20 % of the planet’s biodiversity (Fernández-Palacios et al., 2021). This high diversity is largely due to their geographic isolation, the diminutive size of habitats, young geologic age, mild marine-mediated climate, and disturbance history linked to volcanism (Mueller-Dombois, 1981). However, these factors (especially small extent and limited availability of refuge habitats) make islands highly vulnerable to anthropogenic-driven extinction events (Reaser et al., 2007; David et al., 2017; Fernández-Palacios et al., 2021). In fact, nearly 50 % of the species

identified as threatened or endangered by the International Union for Conservation of Nature (IUCN) are endemic to islands, and approximately 70 % of documented species extinctions that occurred during historic times were island species (Fernández-Palacios et al., 2021). Rapa Nui, marked by its small size, low elevation, and extensive human activities, represents a severe case of endemic species extinction on islands. Determining the precise causes of past extinction events and the drivers undergirding the loss of additional species in the future is complex (Samways, 2007). However, we provide some insights into the mechanisms currently impacting Rapa Nui native species and identify conservation interventions to aid in their protection.

Most native species on Rapa Nui described over the last decade were found in low numbers and restricted to remnant habitats offering some protection from livestock grazing, non-native species introductions, and other human activities (Wynne et al., 2014, 2016). These relict taxa may be operating under extinction debts (refer to Wynne et al., 2014; Fernández-Palacios et al., 2021). For example, studies of island archipelagos revealed nearly half of the endemic forest-dwelling arthropod species on the Azores were experiencing delayed extinction regimes (Triantis et al., 2010), while single-island endemic species on the Canary Islands were particularly sensitive to habitat loss (Otto et al., 2017). Given that these findings stem from larger island archipelagos with more expansive tracts of native habitats and greater topographic relief, it is reasonable to suggest that delayed extinction events may be occurring for the native species occurring in the low-lying, highly fragmented, and small patches (i.e., <5 m²) of native vegetation on Rapa Nui.

Climate change is expected to significantly impact the future distribution of arthropod species (Dunn and Fitzpatrick, 2012; Halsch et al., 2021; Sallé et al., 2021). Further range contractions of Rapa Nui's native arthropods could be a potential outcome. Most of the ten native species of Collembola, Psocoptera, and Isopoda discovered in the last decade appear largely restricted to small patches of native ferns (*Blechnum paschale*; DuBois et al., 2013) within cave entrances (Wynne et al., 2014, 2016). Given that tropical and subtropical pteridophytes are highly sensitive to drought and desiccation (Watkins et al., 2007; Anderson, 2021), fern garden habitats may be reduced or completely lost as surface temperatures continue to rise. The degree of drought intolerance of *B. paschale* is unknown and warrants further study.

Surviving native species may serve as keystone or indicator species, and thus may be used to identify habitats warranting protective management. Many Collembola species are considered biological indicators in natural and agricultural systems (Ponge et al., 2003; Cassagne et al., 2006; Greenslade, 2007; Fiera, 2009). Six of the endemic springtails discovered in the last decade (see Bernard et al., 2015) are largely restricted to caves. Additionally, the range extension of *E. manuhoko* and the discovery of the potentially undescribed and likely endemic Orchesellidae species in isolated cliff habitats emphasize that cave and cliff habitats may be somewhat insulated from anthropogenic perturbations. These findings illuminate the value of focused biological surveys, underscore the urgency for additional ecological research, and heighten the need for conservation interventions of these habitats.

In addition to cave and cliff environments, marine littoral and intertidal habitats may harbor a large portion of surviving native species. Among Diptera, the littoral ecotone supported the most native species. While not the focus of our study, we documented eight intertidal Decapoda and one Copepod native to Rapa Nui (refer to Supplemental Material, Appendix II-D). (Intertidal species were not included in the analysis.) In the aggregate, this emphasizes the importance of these overlapping ecotones. To obtain a greater comprehension of the island's remaining native species, a species list of intertidal species should be compiled. Moreover, conducting additional surveys in both littoral and marine habitats would both help to confirm the presence of previously known species (within the context of periodic monitoring), as well as potentially identify new species.

We recommend additional surveys be undertaken to determine the status for all 52 terrestrial native species. These efforts should prioritize assessing their threats, as well as elucidating potential mitigation strategies for their survival. Specifically, surveys should estimate the area of occupancy, habitat extent and quality, and examine the potential for wholesale habitat loss (Cardoso et al., 2011a). Additionally, studies should assess whether any of these species qualify as keystone or indicator species. Importantly, surveys should emphasize discovering additional surviving native species before they are lost. Unfortunately, this urgency faces the additional challenge of the current taxonomic impediment (Engel et al., 2021), which has resulted from diminishing support for taxonomic research and the steady decline of systematists across numerous taxonomic groups. Furthermore, periodic surveys should be undertaken to determine the presence and potentially the population status of native species at the known type localities. Monitoring these populations will provide some of the information required to guide conservation interventions, such as to implement measures to mitigate threats.

The importance of canoe plants to Rapa Nui native species should be fully assessed. When the Polynesians migrated eastward, they introduced numerous plant species across the South Pacific for food, utilitarian, and medicinal purposes (Whistler, 2009). On Rapa Nui, several canoe plant species were cultivated in *manavai* (circular and enclosed walled gardens) (Hunt and Lipo, 2012; Louwagie and Langohr 2016), and many of these gardens still exist today. As these canoe plants arrived around 800 years ago coinciding with human colonization (Hunt and Lipo, 2006; Wilmshurst et al., 2011; DiNapoli et al., 2020), habitats characterized by these plants may serve as habitat for some native arthropod species. Of the 10 largely cave-restricted (and relict epigeal) species (Wynne et al., 2014, 2022), six species were found within a native fern-canoe plant association of a cave supporting the second most extensive *manavai* on the island; smaller numbers of species occurred in other caves with canoe plant vegetation (Bernard et al., 2015; Mockford and Wynne, 2013; Taiti and Wynne, 2015). Moreover, three of these indigenous species may have been dispersed across the South Pacific in the soil of transplanted cultivars by the Polynesians (Bernard et al., 2015; Taiti and Wynne, 2015; Wynne et al., 2014, 2022, 2024). Subsequently, Rapa Nui native species may have persisted in native fern habitats within cave entrances and adjacent to *manavai* agriculture for nearly a millennium. These species may now select canoe plant habitats, especially since these habitats have been largely protected from more intense human activities including livestock grazing and wildfires (Wynne et al., 2014, 2016, 2024).

Cardoso et al. (2011b) intimated that policymakers and stakeholders are generally uninformed concerning invertebrate conservation issues. Besides pelagic birds (see Yancovic-Pakarati 2020), the only native terrestrial animals remaining on Rapa Nui are

invertebrates. To protect these native fauna, the development of strategies to manage native arthropod species and their habitats is urgently needed. Specifically, the IUCN Red List status should be assessed for the 52 native species, prioritizing the 10 largely cave-restricted species (see [Mockford and Wynne, 2013](#); [Bernard et al., 2015](#); [Taiti and Wynne, 2015](#)). [Wynne et al. \(2024\)](#) recently resampled the known type locality caves for these species and mapped the extent of fern garden habitats. This information is now available to begin assessing the status of these species, which will be coordinated with the IUCN SSC Cave Invertebrate Specialist Group.

Furthermore, conservationists should collaborate with local resource management agencies (e.g., Comunidad Indígena Ma'u Henua and Corporación Nacional Forestal) to develop and implement a cave resource management plan for the area supporting the type locality caves of the 10 native species. A skeletal frame for management was initially proposed by [Wynne et al. \(2016\)](#). Further development (and implementation) of a management plan should involve the Rapanui community to fully identify and evaluate current and future impacts of both subterranean and overlying surface environments, as well as to ascertain how best to monitor and protect these species and their habitat. Through these efforts, the importance of native arthropod species will be heightened for resource managers and the public (e.g., [Cardoso et al., 2011b](#)), potentially spurring additional studies on the remaining 42 native species.

To optimize conservation interventions, characterizing species distributions at multiple scales will be necessary ([Cardoso et al., 2011b](#)). This should include both understanding the distributions of established and colonizing non-native species, as well as more cogently defining the distributions of native species both on Rapa Nui and on other South Pacific islands. Long-term research and monitoring will iteratively and more accurately reveal the distributions of Rapa Nui's native species. For example, the terrestrial isopod *Hawaiioscia rapui* was initially considered a single-island endemic known only from Rapa Nui caves ([Taiti and Wynne, 2015](#)). Subsequent collection efforts extended the range of this species to Motu Motiro Hiva (approximately 414 km north-northeast of Rapa Nui) and littoral habitats on the north shore of Rapa Nui; incidentally, we now know this is a halophilic isopod ([Wynne et al., 2022](#)).

Today, the island receives all its commodities from continental Chile. Subsequently, multiple pathways exist for the introduction of non-native species. While daily flights from mainland Chile continue, flights between Tahiti and Rapa Nui were discontinued in March 2020 due to the COVID-19 pandemic. Additionally, a cargo ship arrives monthly from the mainland ferrying commerce to the island. Whether a newly arriving species becomes established depends on habitat availability, genetic repertoire, and interactions with already-established species. The latter can be either positive (e.g., availability of food resources) or negative (e.g., presence of predators or parasites). Counterintuitively, the higher the diversity, the greater the chance of establishment by a newly arriving species because each new arrival creates opportunities for their associates to become established ([Mueller-Dombois and Howarth, 1981](#)). Concomitantly, species turnover occurs among non-native species (e.g., [Russell et al., 2014](#)) and is caused by stochastic events and disturbances including extreme weather events, land-use change, and interactions with established species. Moreover, species turnover may partially explain the intermittent observations of several non-native species on Rapa Nui.

The urgency to identify, assess, and protect Rapa Nui's native arthropod species cannot be overstated. Specific threats and challenges to native species illuminated herein (i.e., habitat loss, climate change, and competition/predation with non-native species) have not been assessed. Through collaborative efforts involving the Rapanui community, resource managers, stakeholders, and conservationists, effective strategies may be developed to conserve these species and their habitats. These interventions will not only provide valuable insights into the natural history of Rapa Nui but contribute more broadly to the understanding of island ecosystems in the face of global environmental change.

5. Conclusion

We believe this checklist will facilitate monitoring of already established non-native species, spur additional research on native taxa, and aid in the detection of undocumented species. This work also serves as a valuable reference for municipalities with regular air and sea transportation connections with Rapa Nui including Santiago and Valparaíso, Chile, and Papeete, Tahiti (should flight service resume in the future). Agricultural inspection officers can use this list when examining cargo arriving on the island, as well as when inspecting shipments from Rapa Nui disembarking at other ports. (To help facilitate this, a Spanish translation of this paper is provided as [Supplemental Material](#), Appendix III). Finally, this list will be indispensable for future comparative studies on non-native terrestrial arthropod invasions and potential extinction dynamics on oceanic islands. As evidenced by the discovery of several endemic species ([Mockford and Wynne, 2013](#); [Bernard et al., 2015](#); [Taiti and Wynne, 2015](#); [Van Damme, 2016](#)), we posit that additional native arthropod species remain undiscovered on the island. Furthermore, given the range extensions of known endemic species ([Wynne et al., 2022](#) and reported herein), it is possible the ranges of additional Rapa Nui native species may extend to other South Pacific islands. At a minimum, we hope this reference will encourage additional biological surveys, as well as promote the discovery and protection of the surviving endemic species on Rapa Nui.

Ethical statement

The research presented in this article adheres to the highest ethical standards. Data collection were conducted in compliance with relevant institutional guidelines and research permitting was secured by relevant management agencies on Rapa Nui. During field data collection, efforts were made to minimize environmental impact. The authors declare there are no conflicts of interest and all data have been reported truthfully and transparently. Additionally, all co-authors have read and approved the manuscript, and consent to its submission.

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CRedit authorship contribution statement

Jut Wynne: Writing – original draft, review, and editing; Methodology, Investigation, Formal analysis, Field data collection, Data curation, Project administration, Resources, Visualization, Validation, Conceptualization. **Francis Howarth:** Writing – original draft, review, and editing; Methodology, Investigation, Resources, Data curation, Validation, Conceptualization. **Darko Cotoras:** Writing – original draft, review, and editing (and the Spanish translation); Methodology, Investigation, Resources, Data curation, Validation, Conceptualization. **Sergio Rothmann:** Writing – review and editing; Methodology, Resources, Investigation. **Sergio Rios:** Writing – review and editing; Methodology, Resources. **Carolina Valdez:** Writing – review and editing; Methodology, Resources. **Pedro Lazo Hucke:** Writing – review and editing; Resources. **Cristian Villagra:** Writing – review and editing, Formal analysis. **Luis Flores-Prado:** Writing – review and editing.

Declaration of Competing Interest

The authors declare they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.gecco.2024.e03280](https://doi.org/10.1016/j.gecco.2024.e03280).

Data Availability

All data is available as supplemental material.

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