

## NOWRAMP 2000 Terrestrial Arthropod Report

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The NOWRAMP Expedition 2000, though focused on marine elements, included a terrestrial arthropod component. This paper reports the findings on the terrestrial arthropods recovered during the expedition and includes previously unidentified specimens uncovered in the Bishop Museum collection and not reported. The dates and islands visited are listed in Table 1.

Table 1. Dates and Islands visited by the NOWRAMP 2000 Expedition.

Date(s)	Island or Atoll
September 9-21	Nihoa Island
September 21-23	Necker Island
September 24-27	French Frigate Shoals (Tern Island)
September 29-30	Midway Atoll (Sand Island)
October 1-5	Kure Atoll (Green Island)
October 6-7	Midway Atoll (Sand Island)
October 8-12	Pearl and Hermes Atoll (Southeast Island)
October 14	Laysan Island
October 15-16	Maro Reef (no terrestrial arthropods collected)
October 17	Gardner Pinnacles

As shown by Table 1, the amount of time spent on each island or atoll varied and so the species survey is uneven. Night collecting and Malaise trapping was not done on Laysan and Gardner Pinnacles. Lisianski was not surveyed for arthropods and may be underrepresented in species, particularly aliens. Though the most time was spent on Nihoa (10 days), the first leg of the expedition to Nihoa suffered from extremely dry conditions and collecting was not optimal. Early collections on Nihoa were most successful in areas of seeps. As the expedition moved northward, rain improved collecting conditions. During the Nihoa leg, towards the end of the stay there, rain squalls began passing over the island. The first large squall dropped a significant amount of moisture but only on the northern third of the island. Insect activity increased significantly in that area within a few days of that drenching as many of the plants flushed.

At this time, a few groups remain unidentified (e.g. springtails, aphids, thrips, scales), and so the analysis of the results must be considered carefully. A checklist of the species collected by island or atoll is available in Appendix 1. Preliminary results on the terrestrial arthropod surveys confirm the general impressions gathered during the expedition. Despite the extreme isolation of the islands and the protection afforded by the Fish & Wildlife Service, alien species preponderance and in some cases, domination, was the standard on most islands and atolls. The present checklist of species for the Northwestern Hawaiian Islands (excluding Midway) contains 2/3 (66.67%) non-native species. In contrast, the main Hawaiian Islands harbor about 1/3 (37.33%) alien species (see Table 2). As more species identifications are completed for the northwestern islands, the percentage of aliens is likely to increase.

Table 2. Numbers and percentage of native vs. non-native species by island or atoll.

	Nihoa	Necker	Laysan	French Frigate Shoals	Gardner	Lisianski	Pearl & Hermes	Kure
endemic	72	29	51	16	6	9	16	11
indigenous	11	11	34	9	1	8	10	9
adventive	118	40	140	78	6	40	76	132
introduced	9	2	4	4			2	9
status ?	23	3	6	2			2	3
<b>Totals</b>	<b>233</b>	<b>85</b>	<b>235</b>	<b>109</b>	<b>13</b>	<b>58</b>	<b>106</b>	<b>164</b>
%natives	35.62	47.06	36.17	22.94	53.85	29.31	24.53	12.20
%aliens	54.51	49.41	61.28	75.23	46.15	70.69	73.58	85.98

The total number of species now recorded from the Northwestern Hawaiian Islands (not including Midway) is 573. A breakdown of the number of species per island by ordinal group is listed in Table 3.

Table 3. Numbers of species by island by group.

	Nihoa	Necker	Laysan	French Frigate Shoals	Gardner Pinnacles	Lisianski	Pearl and Hermes	Kure
ARACHNIDA	42	9	35	13	4	6	16	36
Acari	31	2	22	5	2	4	13	25
Araneae	10	7	12	8	2	2	3	11
Pseudo-scorpionida			1					
INSECTA	181	70	194	94	12	45	87	124
Blattodea	4	2	5	3		2	3	4
Coleoptera	36	11	35	8	1	3	11	19
Collembola	2		5	3			10	4
Dermaptera	4	1	4	3	2	2	3	2
Diptera	31	13	31	19	1	20	16	25
Embiidina	1	2	2	1			1	
Heteroptera	15	4	9	9			8	8
Homoptera	10	7	15	9		4	8	12
Hymenoptera	41	7	21	14		4	7	23
Isoptera	1		1	1		1		
Lepidoptera	23	14	32	16	2	6	15	13
Neuroptera			1				1	2
Odonata				1				1
Orthoptera	5	2	1	4		1		3
Phthiraptera		3	24	1	1		3	3
Psocoptera	3		3	1		1		2
Siphonaptera	1		1				1	
Thysanoptera	2	3	4	1		1		3
Thysanura	2	1			1			
CHILOPODA	3	3	1	2			1	2
DIPLOPODA					1			
ANOSTRACA			1					
ISOPODA	3	3	4	3		3	5	3
AMPHIPODA			1					
<b>TOTALS</b>	<b>229</b>	<b>85</b>	<b>236</b>	<b>112</b>	<b>13</b>	<b>54</b>	<b>109</b>	<b>165</b>

In an effort to be as complete as possible, species listed in previous reports to the U.S. Fish & Wildlife Service (see Appendix 1) are included in these tables. By comparing species recovered by all recent visits to the Northwestern Hawaiian Islands to literature records, some trends are suggested.

Of some concern is the current status of many of the endemic species known to occupy the various islands and atolls. The high alien presence combined with the low level of recovery of native species (see Table 3), suggests that native populations of the Northwestern Hawaiian Islands may be highly threatened and some are likely already extinct. Table 3 indicates that 57% of the native fauna was not collected in recent years, 43% was recollected.

A large number of introduced species were not recovered either, perhaps suggesting that the pattern of occupation for invading species is a shifting mosaic, with species able to occupy for a brief period and then either dying out or being displaced by another species. Table 3 shows 67% not recollected, an even higher rate than the native species.

Low population levels or seasonal absence may be partial explanations for the poor recovery rate, but competitive displacement by alien species, incursion of weeds and other perturbations including climatic change should be studied to better understand their effects on ecological imbalance on each of the northwestern islands and atolls.

Table 3. Comparison of known species to those recovered by group. [note: groups that have not been completely identified yet are omitted; recovery from all islands lumped].

	Native: not recovered	Native: recovered	Native: total	Alien: not recovered	Alien: recovered	Alien: total	New Island records
Araneae	1	2	5	17	6	23	25
Pseudoscorpionida	1		1				1
Blattodea				10	10	20	3
Coleoptera	21	20	41	37	24	61	19
Dermaptera	8	5	13	4	2	6	1
Diptera	25	21	46	56	19	75	30
Embiidina				4	2	6	1
Heteroptera	13	9	22	10	13	23	10
Hymenoptera	3	6	9	45	20	65	40
Isoptera				3		3	1
Lepidoptera	20	9	29	45	20	65	21
Neuroptera				3		3	1
Odonata	1	1	2				
Orthoptera		3	3	3	8	11	2
Thysanura				1	1	2	1
CHILOPODA	4	1	5	1		1	6
DIPLOPODA							1
ANOSTRACA	1		1				1
ISOPODA	6		6	16		16	1
AMPHIPODA							1
<b>TOTALS</b>	<b>104</b>	<b>77</b>	<b>181</b>	<b>255</b>	<b>125</b>	<b>380</b>	<b>165</b>
Percentage	57%	43%		67%	33%		

Ants are responsible for the most serious disturbances and are particularly disruptive on Kure and somewhat less so on Pearl and Hermes. Many pest species are undoubtedly moving up the chain from source areas in the lower islands or spreading from areas of high alien presence such as Midway. An example of a highly visible species able to disperse in this fashion is the vagrant grasshopper, *Schistocerca nitens*, which was first collected on Sand Island on Oahu in 1964. This grasshopper has now spread as far north as French Frigate Shoals, and is likely to continue.

The limited number of resources on each of these atolls combined with the poor recovery rate of native species should be impetus for studies to establish the threatened or endangered status of the native arthropods in these poorly understood localities.

## Appendix 1.

### CHECKLIST OF TERRESTRIAL ARTHROPODS OF THE NORTHWEST HAWAIIAN ISLANDS (excluding Midway)

(Lit=literature record; Rpt=unpublished? report submitted to U.S. Fish & Wildlife; Coll=previously unidentified material in Bishop Museum collections)  
(Unpublished reports by J.W. Beardsley 1962,1964; S. Conant 1980-81; W.C. Gagné 1983; J. Strazanac 1990; A. Asquith 1994; P. Conant & C. Rowland 1996). 00=NOWRAMP Expedition 2000, G.M. Nishida. The entries in red are new island records.

#### FRENCH FRIGATE SHOALS

#### ARACHNIDA (13)

##### Acari (5)

Argasidae	Ornithodoros capensis Neumann, 1901 adventive .....	Lit	
Halarachnidae	Halarachne laysanae Furman & Dailey, 1980 endemic.....	Lit	
Ixodidae	Ixodes laysanensis Wilson, 1964 endemic?.....	Lit	Rpt
Oribatulidae	Phauloppia bryani Jacot, 1934 endemic.....	Lit	Rpt
Trombiculidae	Neoschoengastia atollensis Wharton & Hardcastle, 1946 adventive.....	Lit	Rpt

##### Araneae (8)

Clubionidae	Cheiracanthium mordax L. Koch, 1866 adventive <b>pale leaf spider</b> .....	Lit	
Lycosidae	Lycosa oahuensis Keyserling, 1890 endemic .....		Coll
Salticidae	Hasarius adansoni (Audouin, 1826) adventive.....	Lit	
	Menemerus bivittatus (Dufour 1831) adventive.....		00
Scytodidae	Scytodes striatipes (L. Koch, 1872) adventive.....		00
Theridiidae	Latrodectus geometricus C.L. Koch, 1841 adventive <b>brown widow spider</b> .....	Lit	
	Latrodectus hesperus Chamberlin & Ivie, 1935 adventive <b>western black widow spider</b> .....	Lit	
	Nesticodes rufipes (Lucas, 1846) adventive.....		00

#### INSECTA

##### Blattodea (3)

Blaberidae	Pycnoscelus indicus (Fabricius, 1775) adventive <b>burrowing cockroach</b> .....	Lit	
Blattidae	Neostylopyga rhombifolia (Stoll, 1813) adventive <b>harlequin cockroach</b> .....		Coll
	Periplaneta americana (Linnaeus, 1758) adventive <b>American cockroach</b> .....	Lit	Rpt

##### Coleoptera (8)

Coccinellidae	Diomus notescens (Blackburn, 1889) purposely introduced .....	Rpt	00
	Nephus bilucernarius (Mulsant, 1850) purposely introduced.....	Rpt	00
	Scymnus loewii Mulsant, 1850 purposely introduced .....	Lit	
Curculionidae	Dryotribus mimeticus Horn, 1873 adventive.....	Lit	Rpt
	Dryotribus wilderi Perkins, 1916 indigenous .....	Lit	Rpt
Dermestidae	Dermestes ater DeGeer, 1774 indigenous? <b>black larder beetle</b> .....	Lit	00
Scolytidae	genus? species?.....		Rpt
Tenebrionidae	Alphitobius laevigatus (Fabricius, 1781) adventive <b>black fungus beetle</b> .....	Lit	00

##### Collembola (3)

Entomobryidae	Entomobrya nyhusae Christiansen & Bellinger, 1992 endemic.....	Lit	
	Salina celebensis (Schaeffer, 1898) adventive.....	Lit	
	Seira terrestris (Folsom, 1932) adventive.....	Lit	

## Dermaptera (3)

### Carcinophoridae

- Anisolabis maritima (Bonelli, 1832) indigenous.....Lit ..... Rpt  
Euborellia annulipes (Lucas, 1847) adventive **ringlegged earwig**.....Lit  
Euborellia eteronoma (Borelli, 1909) endemic.....Lit

## Diptera (19)

### Agromyzidae

- Liriomyza sativae Blanchard, 1938 adventive **vegetable leafminer**..... 00  
Liriomyza trifolii (Burgess, 1880) adventive **celery leafminer**..... Coll

### Calliphoridae

- Lucilia graphita Shannon, 1926 endemic..... Coll  
Lucilia sericata (Meigen, 1826) adventive **greenbottle fly**..... Rpt

### Chloropidae

- Cadrema pallida (Loew, 1865) adventive..... Rpt 00  
Siphunculina striolata (Wiedemann, 1830) adventive.....Lit

### Dolichopodidae

- Dolichopus exsul Aldrich, 1922 adventive..... Coll  
Thambemyia acrosticalis (Parent, 1937) endemic?.....Lit ..... Rpt

### Ephydriidae

- Hecamede granifera (Thomson, 1869) adventive.....Lit

### Hippoboscidae

- Olfersia aenescens Thomson, 1869 indigenous?.....Lit ..... Rpt 00  
Olfersia spinifera (Leach, 1818) indigenous? **frigate bird fly**.....Lit ..... Rpt

### Sarcophagidae

- Goniophyto bryani Lopes, 1938 indigenous.....Lit ..... Rpt  
Sarcophaga peregrina (Robineau-Desvoidy, 1830) adventive..... Rpt  
Sarcophaga ruficornis (Fabricius, 1794) adventive..... Coll

### Sphaeroceridae

- Coproica hirtula (Rondani, 1880) adventive.....Lit

### Syrphidae

- Simosyrphus grandicornis (Macquart, 1842) adventive.....Lit

### Tephritidae

- Acinia picturata (Snow, 1894) purposely introduced **sourbush seed fly**..... Rpt Coll

### Tethinidae

- Dasyrhicnoessa insularis (Aldrich, 1931) indigenous?.....Lit ..... Rpt  
Tethina willistoni (Melander, 1913) adventive.....Lit

## Embiidina (1)

### Oligotomidae

- Oligotoma saundersii (Westwood, 1837) adventive **Saunders embiid**..... Coll

## Heteroptera (9)

### Anthocoridae

- Orius persequens (White, 1877) adventive..... Rpt

### Cydnidae

- Geotomus pygmaeus (Dallas, 1851) adventive **oceanic burrower bug**..... Rpt Coll

### Lygaeidae

- Nysius coenosulus Stal, 1859 endemic.....Lit  
Nysius frigatensis Usinger, 1942 endemic C2 **French Frigate Shoal seed bug**..... Rpt  
Nysius palor Ashlock, 1963 adventive?..... 00

### Miridae

- Coridromius variegatus (Montrouzier, 1861) adventive.....Lit ..... Rpt 00  
Rhinaclia forticornis Reuter, 1876 adventive **western plant bug**..... Rpt 00

### Nabidae

- Nabis capsiformis Germar, 1837 adventive **pale damsel bug**.....Lit ..... Rpt

### Rhopalidae

- Liorhyssus hyalinus (Fabricius, 1794) adventive **hyaline grass bug**..... Rpt  
00,Coll

## Homoptera (9)

### Aphididae

- Aphis craccivora C.L. Koch, 1854 adventive **cowpea aphid**.....Lit  
Aphis gossypii Glover, 1877 adventive **cotton aphid, melon aphid**.....Lit

### Cicadellidae

- Deltocephalus sonorus Ball, 1900 adventive..... 00

### Coccidae

- Saissetia oleae (Olivier, 1791) adventive **black scale**.....Lit

Delphacidae			
	<i>Sardia rostrata</i> pluto (Kirkaldy, 1906) adventive .....	Rpt	
Diaspididae			
	<i>Hemiberlesia lataniae</i> (Signoret, 1869) adventive <b>latania scale</b> .....	Lit	
	<i>Odonaspis ruthae</i> Kotinsky, 1915 adventive <b>ruth grass scale</b> .....	Lit	
Margarodidae			
	<i>Icerya purchasi</i> Maskell, 1878 adventive <b>cottony cushion scale</b> .....	Lit	00
Pseudococcidae			
	<i>Ferrisia virgata</i> (Cockerell, 1893) adventive <b>striped mealybug</b> .....	Lit	
<b>Hymenoptera (14)</b>			
Braconidae			
	<i>Apanteles</i> cf. <i>carpatus</i> (Say, 1836) adventive .....		Coll
	<i>Cotesia marginiventris</i> (Cresson, 1865) purposely introduced <b>lawn armyworm parasite</b> .....	Rpt	
Eulophidae			
	<i>Hemiptarsenus semialbiclavus</i> (Girault, 1916) adventive.....	Lit	Coll
Formicidae			
	<i>Cardiocondyla nuda</i> (Mayr, 1866) adventive .....	Lit	
	<i>Hypoconera punctatissima</i> (Roger, 1859) adventive.....	Lit	
	<i>Monomorium destructor</i> (Jerdon, 1851) adventive.....	Lit	
	<i>Monomorium floricola</i> (Jerdon, 1851) adventive .....	Lit	Rpt
	<i>Monomorium pharaonis</i> (Linnaeus, 1758) adventive <b>Pharaoh ant</b> .....	Lit	
	<i>Paratrechina longicornis</i> (Latreille, 1802) adventive <b>crazy ant</b> .....	Lit	
	<i>Pheidole megacephala</i> (Fabricius, 1793) adventive <b>bigheaded ant</b> .....	Rpt	00
	<i>Tapinoma melanocephalum</i> (Fabricius, 1793) adventive <b>tiny yellow house ant</b> .....	Rpt	
	<i>Tetramorium bicarinatum</i> (Nylander, 1847) adventive <b>Guinea ant</b> .....	Lit	Rpt
	<i>Tetramorium tonganum</i> Mayr, 1870 adventive.....	Lit	00
Megachilidae			
	<i>Megachile</i> sp.....		Rpt
<b>Isoptera (1)</b>			
Kalotermitidae			
	<i>Cryptotermes brevis</i> (Walker, 1853) adventive <b>West Indian drywood termite</b> .....	Lit	
<b>Lepidoptera (16)</b>			
Cosmopterygidae			
	<i>Asymphorodes dimorpha</i> (Busck, 1914) adventive .....	Rpt	00
	<i>Hyposmocoma</i> sp.....	Rpt	
Crambidae			
	<i>Herpetogramma licarsisalis</i> (Walker, 1859) adventive <b>grass webworm</b> .....		Coll
	<i>Spoladea recurvalis</i> (Fabricius, 1775) adventive <b>Hawaiian beet webworm</b> .....	Lit	00
Noctuidae			
	<i>Agrotis dislocata</i> (Walker, 1856) endemic <b>smaller Hawaiian cutworm</b> .....	Rpt	
	<i>Agrotis ipsilon</i> (Hufnagel, 1767) adventive <b>black cutworm</b> .....	Lit	
	<i>Agrotis kerri</i> (Swezey, 1920) endemic C3A <b>Kerr's agrotis noctuid moth</b> .....	Lit	
	<i>Chrysodeixis eriosoma</i> (Doubleday, 1843) adventive <b>green garden looper</b> .....	Lit	Rpt
	<i>Spodoptera exempta</i> (Walker, 1856) adventive <b>nutgrass armyworm</b> .....	Lit	
	<i>Spodoptera mauritia</i> (Boisduval, 1833) adventive <b>lawn armyworm</b> .....	Lit	
Olethreutidae			
	<i>Crociosema leprara</i> (Walsingham, 1907) endemic?.....		Rpt
Pterophoridae			
	<i>Megalorhipida leucodactylus</i> (Fabricius, 1793) adventive.....	Lit	
Sphingidae			
	<i>Agrius cingulata</i> (Fabricius, 1775) adventive <b>sweetpotato hornworm</b> .....		Coll
Tineidae			
	<i>Decadarchis kerri</i> (Swezey, 1926) adventive.....	Lit	
	<i>Monopis meliorella</i> (Walker, 1863) adventive .....		Rpt
	<i>Phereoeca allutella</i> (Rebel, 1892) adventive.....	Lit	
<b>Odonata (1)</b>			
Libellulidae			
	<i>Pantala flavescens</i> (Fabricius, 1798) indigenous <b>globe skimmer</b> .....	Lit	
<b>Orthoptera (4)</b>			
Acrididae			
	<i>Schistocerca nitens</i> (Thunberg, 1915) adventive <b>vagrant grasshopper</b> .....	Rpt	
			00, Coll
Gryllidae			

Grylloides sigillatus (Walker, 1869) adventive **flightless field cricket**.....Lit..... Rpt  
 Teleogryllus oceanicus (Le Guillou, 1841) adventive **oceanic field cricket**.....Lit  
 Trigonidomorpha sjostedti Chopard, 1926 adventive.....Lit

**Phthiraptera (1)**

Philopteridae

Pectinopygus sulae (Rudow, 1869) indigenous ..... Coll

**Psocoptera (1)**

Lepidopsocidae

Cyrtophania hirsuta Banks, 1931 adventive..... Rpt

**Thysanoptera (1)**

Thripidae

Frankliniella schultzei (Trybom, 1910) adventive **yellow flower thrips**.....Lit

**CHILOPODA**

**Lithobiomorpha (2)**

Lithobiidae

Lithobius sp. nr. forficatus (Linnaeus, 1758) adventive ..... Coll

Schendylidae

Nyctunguis bryanus Chamberlin, 1926 endemic..... 00?

**CRUSTACEA**

**Isopoda (3)**

Ligiidae

Ligia hawaiiensis (Dana, 1853) endemic.....Lit

Porcellionidae

Porcellio lamellatus Budde-Lund, 1885 adventive.....Lit

Porcellionides pruinosus (Brandt, 1833) adventive.....Lit

**GARDNER PINNACLES**

**ARACHNIDA**

**Acari (2)**

Argasidae

Ornithodoros capensis Neumann, 1901 adventive .....Lit

Ixodidae

Ixodes laysanensis Wilson, 1964 endemic?.....Lit

**Araneae (2)**

Lycosidae

Lycosa sp. endemic?..... 00

Segestriidae

Ariadna perkinsi Simon, 1900 endemic ..... 00

**INSECTA**

**Coleoptera (1)**

Curculionidae

Nothoperissops frenata Marshall, 1959 adventive.....Lit

**Dermaptera (2)**

Carcinophoridae

Anisolabis maritima (Bonelli, 1832) indigenous .....Lit ..... 00

Euborellia eteronoma (Borelli, 1909) endemic.....Lit

**Diptera (1)**

Milichiidae

Milichia orientalis Malloch, 1913 adventive.....Lit

**Lepidoptera (2)**

Cosmopterigidae

Hyposmocoma neckerensis (Swezey, 1926) endemic C2\* **Necker petrochroan leaf miner**.....Lit ..... 00

Tineidae

Monopis meliorella (Walker, 1863) adventive .....Lit

**Phthiraptera (1)**

## Phloptoridae

Brueelia vulgata (Kellogg, 1896) adventive.....Lit

**Thysanura (1)**

## Lepismatidae

Acrotelsa hawaiiensis (Silvestri, 1904) adventive..... 00

**DIPLOPODA****Spirostreptida**

## Cambalidae

Nannolene sp. .... 00

**KURE****ARACHNIDA****Acari (25)**

## Argasidae

Ornithodoros capensis Neumann, 1901 adventive.....Lit

## Ascidae

Asca pineta De Leon, 1967 adventive.....Lit

Asca quinquesetosa Wharton, 1941 adventive.....Lit

Protogamasellus massula [sp.nr.](Athias Henriot, 1961) endemic?.....Lit

## Bdellidae

Bdellodes longirostris (Hermann, 1804) adventive.....Lit

## Bimichaeliidae

Bimichaelia sp. - 1983 ?.....Lit

## Carabodidae

Carabodes sp. - 1963 ?.....Lit

## Cheyletidae

Hemicheyletia bakeri (Ehara, 1962) adventive.....Lit

Hemicheyletia granula Summers &amp; Price, 1970 endemic.....Lit

Hemicheyletia kureatollensis Goff, 1982 endemic.....Lit

## Cunaxidae

Dactyloscirus inermis (Tragardh, 1905) adventive.....Lit

## Halarachnidae

Halarachne laysanae Furman &amp; Dailey, 1980 endemic.....Lit

## Laelapidae

Hypoaspis miles (Berlese, 1892) adventive.....Lit

Hypoaspis scimita (Womersley, 1956) adventive.....Lit

Laelaps echidnina Berlese, 1887 adventive.....Lit

Laelaps nuttalli Hirst, 1915 adventive.....Lit

## Myobiidae

Radfordia ensifera (Poppe, 1896) adventive.....Lit

## Phytoseiidae

Amblyseius largoensis (Muma, 1955) adventive.....Lit

## Rhodacaridae

Rhodacarus sp. - 1983 ?.....Lit

## Stigmaeidae

Eustigmaeus segnis (C.L. Koch, 1836) adventive.....Lit

## Tenuipalpidae

Brevipalpus obovatus Donnadieu, 1875 adventive **privet mite**.....Lit

## Tetranychidae

Tetranychus cinnabarinus (Boisduval, 1867) adventive **carmine spider mite**.....LitTetranychus neocalidonicus (Andre, 1933) adventive **vegetable mite**.....Lit

Tetranychus telarius (Linnaeus, 1758) adventive.....Lit

## Uropodidae

Uropoda sp. - 1947 ?.....Lit

**Araneae (11)**

## Araneidae

Neoscona oaxacensis (Keyserling, 1864) adventive.....Lit

Neoscona theisi (Walckenaer, 1841) adventive..... 00

## Clubionidae

Cheiracanthium mordax L. Koch, 1866 adventive **pale leaf spider**.....Lit..... 00

## Pholcidae

Smeringopus pallidus (Blackwall, 1858) adventive..... 00



Salticidae		
Hasarius adansoni (Audouin, 1826) adventive.....	Lit	
Menemerus bivittatus (Dufour 1831) adventive.....		00
Messua sp. cf. felix (Peckham & Peckham, 1901) adventive.....		00
Plexipus paykulli (Audouin, 1826) adventive.....		00
Sandalodes sp.....		00
Scytodidae		
Scytodes lugubris (Thorell, 1887) adventive.....	Lit	
Scytodes striatipes (L. Koch, 1872) adventive.....	Lit	

## INSECTA

### Blattodea (4)

Blaberidae		
Pycnoscelus indicus (Fabricius, 1775) adventive <b>burrowing cockroach</b> .....	Lit	
Blattellidae		
Balta notulata (Stal, 1861) adventive.....	Lit	00
Blattidae		
Periplaneta australasiae (Fabricius, 1775) adventive <b>Australian cockroach</b> .....	Lit	
Platzosteria soror (Brunner, 1865) adventive <b>whitemargined cockroach</b> .....	Lit	

### Coleoptera (19)

Anthribidae		
Araecerus fasciculatus (DeGeer, 1775) adventive <b>coffee bean weevil</b> .....	Lit	
Coccinellidae		
Ceolophora inaequalis (Fabricius, 1775) purposely introduced <b>common Australian lady beetle</b> .....	Lit	00
Cryptolaemus montrouzieri Mulsant, 1853 purposely introduced <b>mealybug destroyer</b> .....		00
Diomus notescens (Blackburn, 1889) purposely introduced.....	Lit	00
Rodolia cardinalis (Mulsant, 1850) purposely introduced <b>vedalia</b> .....		00
Scymnus loewii Mulsant, 1850 purposely introduced.....	Lit	
Corylophidae		
Sericoderus minutus Matthews, 1894 adventive?.....	Lit	
Cucujidae		
Cryptomorpha desjardinsi (Guerin-Meneville, 1844) adventive.....	Lit	
Curculionidae		
Dryophthorus distinguendus Perkins, 1900 endemic.....	Lit	
Dryotribus wilderi Perkins, 1916 indigenous.....	Lit	
Pentarthrum halodorum Perkins, 1926 adventive.....	Lit	
Dermestidae		
Dermestes ater DeGeer, 1774 indigenous? <b>black larder beetle</b> .....	Lit	
Dermestes maculatus DeGeer, 1774 indigenous <b>hide beetle</b> .....	Lit	
Elateridae		
Conoderus pallipes (Eschscholtz, 1830) adventive.....	Lit	
Scarabaeidae		
Pleurophorus micros (Bates, 1887) adventive?.....	Lit	
Saprosites pygmaeus Harold, 1877 adventive.....	Lit	
Scolytidae		
Hypothenemus eruditus (Westwood, 1835) adventive.....	Lit	00
Staphylinidae		
Sunius debilicornis (Wollaston, 1857) adventive.....	Lit	
Tenebrionidae		
Gonocephalum adpressiforme Kaszab, 1951 adventive.....	Lit	

### Collembola (4)

Entomobryidae		
Entomobrya marginata (Tullberg, 1871) adventive.....	Lit	
Seira terrestris (Folsom, 1932) adventive.....	Lit	
Hypogastruridae		
Brachystomella parvula (Schaeffer, 1896) adventive.....	Lit	
Isotomidae		
Cryptopygus thermophilus (Axelson, 1902) adventive.....	Lit	

### Dermaptera (2)

Carcinophoridae		
Anisolabis maritima (Bonelli, 1832) indigenous.....	Lit	
Euborellia annulipes (Lucas, 1847) adventive <b>ringlegged earwig</b> .....	Lit	

**Diptera (25)**

Agromyzidae	
Calycomyza humeralis (Roser, 1840) adventive <b>aster leafminer</b> .....	Lit
Liriomyza sativae Blanchard, 1938 adventive <b>vegetable leafminer</b> .....	00
Pseudonapomyza spicata (Malloch, 1914) adventive.....	Lit
Asteiidae	
Bryania bipunctata Aldrich, 1931 endemic C2 <b>Nihoa two-spotted asteriid fly</b> .....	Lit
Calliphoridae	
Chrysomya megacephala (Fabricius, 1794) adventive <b>oriental blow fly</b> .....	Lit 00
Lucilia cuprina (Wiedemann, 1830) adventive <b>bronzebottle fly</b> .....	Lit
Chloropidae	
Cadrema pallida (Loew, 1865) adventive.....	Lit
Liohippelates collusor (Townsend, 1895) adventive.....	Lit
Siphunculina striolata (Wiedemann, 1830) adventive.....	Lit 00
Culicidae	
Culex quinquefasciatus Say, 1823 adventive <b>southern house mosquito</b> .....	Lit
Dolichopodidae	
Chrysosoma globiferum (Wiedemann, 1830) adventive.....	Lit 00
Sciapodinae sp.....	00
Ephydriidae	
Hecamede granifera (Thomson, 1869) adventive.....	Lit
Fanniidae	
Fannia canicularis (Linnaeus, 1761) adventive <b>little house fly</b> .....	Lit
Hippoboscidae	
Olfersia aenescens Thomson, 1869 indigenous?.....	Lit
Milichiidae	
Milichiella lacteipennis (Loew, 1865) adventive.....	Lit 00
Muscidae	
Hydrotaea chalcogaster (Wiedemann, 1824) adventive.....	Lit
Musca domestica Linnaeus, 1758) adventive <b>house fly</b> .....	Lit
Otitidae	
Genus? species?.....	00
Sarcophagidae	
Goniophyto bryani Lopes, 1938 indigenous.....	Lit
Sarcophaga argyrostoma (Robineau-Desvoidy, 1830) adventive.....	Lit
Scenopinidae	
Scenopinus lucidus Becker, 1902 adventive.....	Lit
Sciaridae	
Bradysia molokaiensis (Grimshaw, 1901) endemic.....	Lit
Sphaeroceridae	
Coproica hirtula (Rondani, 1880) adventive.....	Lit
Syrphidae	
Simosyrphus grandicornis (Macquart, 1842) adventive.....	Lit 00

**Heteroptera (8)**

Anthocoridae	
Orius persequens (White, 1877) adventive.....	Lit
Cydnidae	
Microporus shiromai Froeschner, 1977 adventive.....	00
Gerridae	
Halobates sericeus Eschscholtz, 1822 indigenous <b>Pacific pelagic water strider</b> .....	00
Lygaeidae	
Nysius fullawayi fullawayi Usinger, 1942 endemic C2 <b>Fullaway's seed bug</b> .....	Lit
Nysius palor Ashlock, 1963 adventive?.....	Lit 00
Miridae	
Coridromius variegatus (Montrouzier).....	Lit Rep
Engytatus modestus (Distant, 1893) adventive <b>tomato bug</b> .....	Lit 00
Nabidae	
Nabis capsiformis Germar, 1837 adventive <b>pale damsel bug</b> .....	Lit

**Homoptera (12)**

Aphididae	
Rhopalosiphum maidis (Fitch, 1854) adventive <b>corn leaf aphid</b> .....	Lit
Cicadellidae	
Circulifer tenellus (Baker, 1896) adventive <b>beet leafhopper</b> .....	Lit
Deltocephalus sonorus Ball, 1900 adventive.....	Lit Rpt 00
Empoasca solana DeLong, 1931 adventive <b>southern garden leafhopper</b> .....	Lit

Delphacidae		
Opiconsiva paludum (Kirkaldy, 1910) adventive.....	Lit	
Syndelphax disonymus (Kirkaldy) adventive <b>New State Record</b> .....		00
Toya dryope (Kirkaldy, 1907) adventive.....		00
Diaspididae		
Hemiberlesia lataniae (Signoret, 1869) adventive <b>latania scale</b> .....	Lit	
Odonaspis ruthae Kotinsky, 1915 adventive <b>ruth grass scale</b> .....	Lit	
Margarodidae		
Icerya purchasi Maskell, 1878 adventive <b>cottony cushion scale</b> .....	Lit	00
Pseudococcidae		
Antonina graminis (Maskell, 1897) adventive <b>rhodesgrass mealybug</b> .....	Lit	
Ferrisia virgata (Cockerell, 1893) adventive <b>striped mealybug</b> .....	Lit	
<b>Hymenoptera (23)</b>		
Anthophoridae		
Ceratina arizonensis Cockerell, 1898 adventive.....		00
Aphidiidae		
Lysiphlebus testaceipes (Cresson, 1880) purposely introduced/adventive.....		00
Braconidae		
Chelonus blackburni Cameron, 1887 adventive.....	Lit	00
Cotesia marginiventris (Cresson, 1865) purposely introduced <b>lawn armyworm parasite</b> .....	Lit	
Encyrtidae		
Anagyrus swezeyi Timberlake, 1919 adventive.....	Lit	
Blepyrus insularis (Cameron, 1886) adventive.....	Lit	
Leptomastidea abnormis (Girault, 1915) purposely introduced/adventive <b>Sicilian mealybug parasite</b> .....		00
Metaphycus flavus (Howard, 1881) adventive.....		00
Eucoilidae		
Disorygma pacifica (Yoshimoto, 1962) adventive.....	Lit	
Eulophidae		
Neochrysocharis formosa (Westwood, 1833) adventive.....		00
Hemiptarsenus semialbiclavus (Girault, 1916) adventive.....		00
Formicidae		
Cardiocondyla nuda (Mayr, 1866) adventive.....	Lit	
Hypoconerina punctatissima (Roger, 1859) adventive.....	Lit	
Pheidole megacephala (Fabricius, 1793) adventive.....		00
Tapinoma melanocephalum (Fabricius, 1793) adventive <b>tiny yellow house ant</b> .....	Lit	
Tetramorium bicarinatum (Nylander, 1847) adventive <b>Guinea ant</b> .....	Lit	
Tetramorium tonganum Mayr, 1870 adventive.....	Lit	
Ichneumonidae		
Diplazon laetatorius (Fabricius, 1781) adventive.....	Lit	
Venturia sp. - 1963 ?.....	Lit	
Mymaridae		
Stephanodes reduvioli (Perkins, 1905) adventive.....	Lit	
Pteromalidae		
Halticoptera circulus (Walker, 1833) adventive.....		00
Idris sp.....		00
Vespidae		
Polistes aurifer Saussure, 1853 adventive <b>golden paper wasp</b> .....	Lit	
<b>Lepidoptera (13)</b>		
Cosmopterigidae		
Asymphorodes dimorpha (Busck, 1914) adventive.....	Lit	00
Crambidae		
Hellula phidilealis (Walker, 1859) adventive.....	Lit	
Hellula undalis (Fabricius, 1781) adventive.....		00
Noctuidae		
Agrotis ipsilon (Hufnagel, 1767) adventive <b>black cutworm</b> .....	Lit	
Chrysodeixis eriosoma (Doubleday, 1843) adventive <b>green garden looper</b> .....	Lit	
Helicoverpa zea (Boddie, 1850) adventive <b>bollworm, corn earworm, tomato fruitworm</b> .....	Lit	
Spodoptera exempta (Walker, 1856) adventive <b>nutgrass armyworm</b> .....	Lit	
Spodoptera litura (Fabricius, 1775) adventive.....	Lit	
Oecophoridae		
Stoerberhinus testaceus Butler, 1881 adventive.....	Lit	
Plutellidae		
Plutella xylostella (Linnaeus, 1758) adventive <b>diamondback moth</b> .....	Lit	
Pterophoridae		
Megalorhipida leucodactylus (Fabricius, 1793) adventive.....	Lit	

Sphingidae	Hyles lineata (Fabricius, 1775) adventive <b>whitelined sphinx</b> .....Lit.....	00
Tineidae	Mecomodica fullawayi (Swezey, 1926) adventive?.....Lit	
<b>Neuroptera (2)</b>		
Chrysopidae	Chrysoperla comanche (Banks, 1938) adventive <b>comanche lacewing</b> .....Lit	
Hemerobiidae	Symphorobius barberi (Banks, 1903) purposely introduced <b>Barber brown lacewing</b> .....Lit	
<b>Odonata (1)</b>		
Libellulidae	Pantala flavescens (Fabricius, 1798) indigenous <b>globe skimmer</b> .....Lit..... Coll	
<b>Orthoptera (3)</b>		
Pyrgomorphidae	Atractomorpha sinensis Bolivar, 1905 adventive <b>pinkwinged grasshopper</b> .....Lit.....	00
Tettigoniidae	Conocephalus saltator (Saussure, 1859) adventive <b>longhorned grasshopper</b> .....Lit	
	Scudderia paronae Griffini, 1896 adventive.....Lit.....	00
<b>Phthiraptera (3)</b>		
Hoplopleuridae	Hoplopleura pacifica Ewing, 1924 adventive <b>tropical rat louse</b> .....Lit	
Phloptoridae	Halipeurus mirabilis Thompson, 1940 indigenous.....Lit	
	Harrisoniella copei Timmermann, 1969 indigenous.....Lit	
<b>Psocoptera (2)</b>		
Ectopsocidae	Ectopsocus perkinsi Banks, 1931 adventive.....Lit	
Trogiidae	Lepinotus reticulatus Enderlein, 1905 adventive <b>reticulatewinged trogiid</b> .....Lit	
<b>Thysanoptera (3)</b>		
Phlaeothripidae	Haplothrips gowdeyi (Franklin, 1908) adventive <b>black flower thrips</b> .....Lit	
Thripidae	Frankliniella schultzei (Trybom, 1910) adventive <b>yellow flower thrips</b> .....Lit	
	Thrips tabaci Lindeman, 1889 adventive <b>onion thrips</b> .....Lit	

#### CHILOPODA

<b>Geophilomorpha (1)</b>		
Geophilidae	Honuaphilus alohanus Chamberlin, 1926 endemic?.....Lit	
<b>Lithobiomorpha (1)</b>		
Lithobiidae	Onebius moanans Chamberlin, 1926 endemic.....Lit	

#### CRUSTACEA

<b>Isopoda (3)</b>		
Armadillidae	Venezillo parvus (Budde-Lund, 1885) adventive.....Lit	
Platyarthridae	Trichorhina tomentosa (Budde-Lund, 1893) adventive.....Lit	
Porcellionidae	Porcellionides pruinosus (Brandt, 1833) adventive.....Lit	

#### LAYSAN

#### ARACHNIDA

<b>Acari (22)</b>		
Argasidae	Ornithodoros capensis Neumann, 1901 adventive.....Lit..... Rpt	

Bdellidae	Bdellodes longirostris (Hermann, 1804) adventive.....	Lit	
Ceratozetidae	Ceratozetes incurvus Aoki, 1964 endemic?.....	Lit	Rpt
	Hypozetes laysanensis Aoki, 1964 endemic?.....	Lit	Rpt
Cymbaeremaeidae	Scapheremaeus sinuosus Aoki, 1964 endemic?.....	Lit	Rpt
Epilohmannidae	Epilohmannia cylindrica (Berlese, 1904) adventive.....	Lit	
	Epilohmannia pallida pacifica Aoki, 1965 endemic.....	Lit	Rpt
Galumnidae	Galumna flabellifera Hammer, 1958 adventive.....	Lit	
Halarachnidae	Halarachne laysanae Furman & Dailey, 1980 endemic.....	Lit	Rpt
Ixodidae	Ixodes laysanensis Wilson, 1964 endemic?.....	Lit	Rpt
Microzetidae	Berlesezetes auxiliaris (Grandjean, 1936) adventive.....	Lit	
Ologamasidae	Gamasiphis sp. - 1979 ?.....	Lit	
Oppiidae	Multioppia wilsoni Aoki, 1964 endemic?.....	Lit	Rpt
Oribatulidae	Exoribatula pacifica (Aoki, 1964) endemic.....	Lit	Rpt
Phytoseiidae	Amblyseius largoensis (Muma, 1955) adventive.....	Lit	
Scheloribatidae	Scheloribates calcaratus Jacot, 1934 endemic.....	Lit	Rpt
Tectocepheidae	Tectocepheus sarekensis Tragardh, 1910 adventive.....	Lit	
Tenuipalpidae	Brevipalpus obovatus Donnadieu, 1875 adventive <b>privet mite</b> .....	Lit	
Trombiculidae	Guntheria domrowi (Brennan, 1965) adventive.....	Lit	
	Neoschoengastia gallinarum (Hatori, 1920) adventive.....	Lit	
	Schoengastia pobsa Brennan & Amerson, 1971 indigenous.....	Lit	Rpt
Xolalgidae	n.gen. n.sp. - 1980 ?.....	Lit	
<b>Araneae (12)</b>			
Araneidae	Neoscona theisi (Walckenaer, 1841) adventive.....	Lit	
	Neoscona sp.....		00
Clubionidae	Cheiracanthium mordax L. Koch, 1866 adventive <b>pale leaf spider</b> .....	Lit	00
Gnaphosidae	Urozelotes rusticus (L. Koch, 1872) adventive.....	Lit	
Lycosidae	Lycosa oahuensis Keyserling, 1890 endemic.....	Lit	Rpt
	Lycosa sp.....		00
Pholcidae	Smeringopus pallidus (Blackwall, 1858) adventive.....	Lit	
Salticidae	Menemerus bivittatus (Dufour, 1831) adventive.....	Lit	
Scytodidae	Scytodes striatipes (L. Koch, 1872) adventive.....	Lit	
Tetragnathidae	Tetragnatha nitens (Audouin, 1826) adventive.....	Lit	00
Theridiidae	Coleosoma floridanum Banks, 1900 adventive.....	Lit	
	Nesticodes rufipes (Lucas, 1846) adventive.....	Lit	
<b>Pseudoscorpionida (1)</b>			
Withiidae	Withius laysanensis (Simon, 1899) endemic.....	Lit	

INSECTA

**Blattodea (5)**

Blaberidae	Pycnoscelus indicus (Fabricius, 1775) adventive <b>burrowing cockroach</b> .....	Lit.....	00
Blattellidae	Balta notulata (Stal, 1861) adventive.....	Lit	
	Blattella germanica (Linnaeus, 1767) adventive <b>German cockroach</b> .....	Lit	
Blattidae	Periplaneta americana (Linnaeus, 1758) adventive <b>American cockroach</b> .....	Lit.....	Rpt 00
	Platyzosteria soror (Brunner, 1865) adventive <b>whitemargined cockroach</b> .....	Lit	

**Coleoptera (35)**

Anthribidae	Araecerus fasciculatus (DeGeer, 1775) adventive <b>coffee bean weevil</b> .....	Lit	
Bruchidae	Megacerus leucospilus (Sharp, 1885) adventive.....	Rpt	00
Buprestidae	Buprestis aurulenta Linnaeus, 1767) adventive <b>golden buprestid</b> .....	Rpt	
Carabidae	Tachys oahuensis Blackburn, 1878 endemic.....	Lit	Rpt
Cerambycidae	Placosternus crinicornis (Chevrolat, 1860) adventive <b>kiawe roundheaded borer</b> .....	Lit	
Chrysomelidae	Chaetocnema confinis Crotch, 1873 adventive <b>sweetpotato flea beetle</b> .....		00
Cleridae	Necrobia rufipes (DeGeer, 1775) adventive <b>redlegged ham beetle</b> .....	Lit.....	00
Coccinellidae	Diomus debilis (LeConte, 1852) purposely introduced.....	Lit	
	Scymnus loewii Mulsant, 1850 purposely introduced.....	Lit.....	00
Corylophidae	Sericoderus minutus Matthews, 1894 adventive?.....	Lit	
Cucujidae	Cryptomorpha desjardinsi (Guerin-Meneville, 1844) adventive.....	Lit	
	Oryzaephilus surinamensis (Linnaeus, 1758) adventive <b>sawtoothed grain beetle</b> .....	Lit	
Curculionidae	Dryophthorus distinguendus Perkins, 1900 endemic.....	Lit	
	Dryotribus mimeticus Horn, 1873 adventive.....	Lit	
	Dryotribus wilderi Perkins, 1916 indigenous.....	Lit	
	Macrancylus linearis LeConte, 1876 adventive.....	Lit	
	Oodemas erro Perkins, 1926 endemic C2 wandering <b>oodemas weevil</b> .....	Lit	
	Oodemas laysanensis Fullaway, 1914 endemic C2 <b>Laysan oodemas weevil</b> .....	Lit	
	Oxydema fusiforme Wollaston, 1873 adventive.....	Lit.....	Rpt
	Pentarthrum blackburni Sharp, 1878 adventive C2 <b>Blackburn's pentarthrum weevil</b> .....	Lit	
	Rhyncogonus bryani Perkins, 1919 endemic C2 <b>Laysan rhyncogonus weevil</b> .....	Lit	
	Sitophilus oryzae (Linnaeus, 1763) adventive <b>rice weevil</b> .....	Lit	
Dermestidae	Attagenus fasciatus (Thunberg, 1795) adventive <b>wardrobe beetle</b> .....	Lit	
	Dermestes ater DeGeer, 1774 indigenous? <b>black larder beetle</b> .....	Lit	
Endomychidae	Eidoreus minutus Sharp, 1885 endemic.....	Lit	Rpt
Nitidulidae	Carpophilus dimidiatus (Fabricius, 1792) adventive <b>corn sap beetle</b> .....	Lit	
Scarabaeidae	Pleurophorus micros (Bates, 1887) adventive?.....	Lit	
Scolytidae	Hypothenemus eruditus (Westwood, 1835) adventive.....	Lit	
Staphylinidae	Carpelimus sp. ....	Lit	Rpt
	Genus? species? .....	Rpt	
Tenebrionidae	Alphitobius diaperinus (Panzer, 1796) adventive <b>lesser mealworm</b> .....	Lit	
	Alphitobius laevigatus (Fabricius, 1781) adventive <b>black fungus beetle</b> .....	Lit.....	00
	Blapstinus histricus Casey, 1890 adventive.....	Lit	
	Tribolium castaneum (Herbst, 1797) adventive <b>red flour beetle</b> .....	Lit	
Trogositidae	Tenebroides mauritanicus (Linnaeus, 1758) adventive <b>cadelle</b> .....	Lit	

**Collembola (5)**

## Entomobryidae

- Cyphoderus similis Folsom, 1927 adventive .....Lit  
 Entomobrya griseoolivata (Packard, 1873) adventive.....Lit  
 Entomobrya marginata (Tullberg, 1871) adventive.....Lit  
 Seira terrestris (Folsom, 1932) adventive.....Lit

## Hypogastruridae

- Oudemansia esakii (Kinoshita, 1932) adventive.....Lit

**Dermaptera (4)**

## Carcinophoridae

- Anisolabis maritima (Bonelli, 1832) indigenous .....Lit ..... Rpt 00  
 Anisolabis perkinsi Burr, 1910 endemic.....Lit  
 Euborellia annulipes (Lucas, 1847) adventive ringlegged earwig .....Lit  
 Euborellia eteronoma (Borelli, 1909) endemic.....Lit

**Diptera (31)**

## Agromyzidae

- Liriomyza trifolii (Burgess, 1880) adventive **celery leafminer**..... Coll

## Asteiidae

- Bryania bipunctata Aldrich, 1931 endemic C2 **Nihoa two-spotted asteriid fly**.....Lit ..... Rpt

## Calliphoridae

- Lucilia graphita Shannon, 1926 endemic .....Lit ..... Rpt  
 Rhinia apicalis (Wiedemann, 1830) adventive.....Lit

## Canacidae

- Canaceoides angulatus Wirth, 1969 adventive.....Lit ..... Rpt

## Ceratopogonidae

- Dasyhelea calvescens Macfie, 1938 indigenous ..... Rpt

## Chironomidae

- Telmatogeton pacificus Tokunaga, 1935 indigenous.....Lit ..... Rpt

## Chloropidae

- Siphunculina striolata (Wiedemann, 1830) adventive.....Lit

## Dolichopodidae

- Chrysosoma globiferum (Wiedemann, 1830) adventive .....Lit ..... 00  
 Dolichopus exsul Aldrich, 1922 adventive ..... Coll  
 Hydrophorus pacificus Van Duzee, 1933 endemic .....Lit ..... Rpt

## Drosophilidae

- Scaptomyza cnecosoma Hardy, 1965 endemic .....Lit ..... Rpt

## Ephydriidae

- Scatella hawaiiensis Grimshaw, 1901 endemic .....Lit  
 Scatella sexnotata Cresson, 1926 indigenous.....Lit ..... Rpt 00

## Hippoboscidae

- Olfersia aenescens Thomson, 1869 indigenous? .....Lit ..... Rpt  
 Olfersia spinifera (Leach, 1818) indigenous? **frigate bird fly**.....Lit ..... Rpt

## Milichiidae

- Leptomtopa beardsleyi Hardy & Delfinado, 1980 endemic ..... Rpt  
 Milichiella lacteipennis (Loew, 1865) adventive .....Lit ..... 00

## Muscidae

- Haematobia irritans (Linnaeus, 1758) adventive **horn fly**..... Coll  
 Musca domestica Linnaeus, 1758 adventive **house fly**.....Lit ..... Rpt

## Phoridae

- Megaselia scalaris (Loew, 1866) adventive.....Lit

## Sarcophagidae

- Goniophyto bryani Lopes, 1938 indigenous.....Lit ..... Rpt

## Sciaridae

- Bradysia tritici (Coquillett, 1895) adventive.....Lit

## Sphaeroceridae

- Coproica ferruginata (Stenhammar, 1854) adventive.....Lit  
 Leptocera fuscipennis (Haliday, 1833) adventive .....Lit  
 Poecilosomella punctipennis (Wiedemann, 1824) adventive.....Lit  
 Thoracochaeta brachystoma (Stenhammar, 1854) adventive.....Lit  
 Trachypopella nuda Rohacek & Marshall, 1986 adventive.....Lit

## Stratiomyidae

- Brachycara latifrons James, 1960 adventive .....Lit ..... 00

## Tachinidae

- Leucostoma aterrimum (Villers, 1789) adventive.....Lit  
 Leucostoma simplex (Fallen, 1815) adventive.....Lit

**Embiidina (2)**

## Oligotomidae

- Aposthonia oceania (Ross, 1951) adventive **oceanic embiid**.....Lit  
 Oligotoma saundersii (Westwood, 1837) adventive **Saunders embiid**.....Lit

**Heteroptera (9)**

## Anthocoridae

- Orius persequens (White, 1877) adventive.....Lit..... 00

## Cydnidae

- Geotomus pygmaeus (Dallas, 1851) adventive **oceanic burrower bug**.....Lit

## Gerridae

- Halobates sericeus Eschscholtz, 1822 indigenous **Pacific pelagic water strider**.....Lit

## Lygaeidae

- Nysius fullawayi fullawayi Usinger, 1942 endemic C2 **Fullaway's seed bug**.....Lit ..... Rpt 00

## Miridae

- Engytatus modestus (Distant, 1893) adventive **tomato bug**.....Lit

- Trigonotylus hawaiiensis (Kirkaldy, 1902) endemic **Hawaiian grass bug**.....Lit

## Nabidae

- Nabis blackburni White, 1878 endemic **Blackburn damsel bug**.....Lit

- Nabis capsiformis Germar, 1837 adventive **pale damsel bug**.....Lit

## Reduviidae

- Empicoris rubromaculatus (Blackburn, 1889) adventive **thread bug**.....Lit

**Homoptera (15)**

## Aphididae

- Aphis craccivora C.L. Koch, 1854 adventive **cowpea aphid**.....Lit

- Aphis gossypii Glover, 1877 adventive **cotton aphid, melon aphid**.....Lit

- Rhopalosiphum maidis (Fitch, 1854) adventive **corn leaf aphid**.....Lit

## Cicadellidae

- Circulifer tenellus (Baker, 1896) adventive **beet leafhopper**.....Lit

- Deltocephalus sonorus Ball, 1900 adventive.....Lit ..... Rpt

## Coccidae

- Parasaissetia nigra (Nietner, 1861) adventive **nigra scale**.....Lit ..... Rpt

## Delphacidae

- Opiconsiva paludum (Kirkaldy, 1910) adventive.....Lit

- Sardia rostrata pluto (Kirkaldy, 1906) adventive ..... Rpt 00

- Toya dryope (Kirkaldy, 1907) adventive..... 00

## Diaspididae

- Hemiberlesia lataniae (Signoret, 1869) adventive **latania scale**.....Lit ..... Rpt

## Pseudococcidae

- Antonina graminis (Maskell, 1897) adventive **rhodesgrass mealybug**.....Lit

- Ferrisia virgata (Cockerell, 1893) adventive **striped mealybug**.....Lit

- Planococcus citri (Risso, 1813) adventive **citrus mealybug**.....Lit

- Pseudococcus n.sp. - 1966 adventive .....Lit

- Trionymus insularis Ehrhorn, 1916 endemic.....Lit

**Hymenoptera (21)**

## Braconidae

- Chelonus blackburni Cameron, 1887 adventive.....Lit..... 00

- Cotesia marginiventris (Cresson, 1865) purposely introduced **lawn armyworm parasite**.....Lit

## Encyrtidae

- Rhopus laysanensis (Timberlake, 1919) endemic.....Lit ..... Rpt

## Eucoilidae

- Pseudeucoila hygrophila (Perkins, 1910) endemic.....Lit ..... Rpt

## Eulophidae

- Euderus metallicus (Ashmead, 1901) adventive?.....Lit

## Eupelmidae

- Zaischnopsis sp. - 1939 adventive?.....Lit ..... Rpt

## Formicidae

- Camponotus variegatus (F. Smith, 1858) adventive **Hawaiian carpenter ant**.....Lit

- Cardiocondyla nuda (Mayr, 1866) adventive .....Lit

- Hypoconera punctatissima (Roger, 1859) adventive.....Lit

- Monomorium destructor (Jerdon, 1851) adventive.....Lit

- Monomorium floricola (Jerdon, 1851) adventive .....Lit

- Monomorium minimum (Buckley, 1867) adventive **little black ant**.....Lit

- Monomorium monomorium Bolton, 1987 adventive.....Lit

- Monomorium pharaonis (Linnaeus, 1758) adventive **Pharaoh ant**.....Lit ..... Rpt

- Pheidole megacephala (Fabricius, 1793) adventive **bigheaded ant**.....Lit



Plagiolepis alluaudi Emery, 1894 adventive <b>little yellow ant</b> .....	Lit	
Tapinoma melanocephalum (Fabricius, 1793) adventive <b>tiny yellow house ant</b> .....	Lit	
Tetramorium bicarinatum (Nylander, 1847) adventive <b>Guinea ant</b> .....	Lit	00
<b>Mymaridae</b>		
Stephanodes reduvioli (Perkins, 1905) adventive.....	Lit	
<b>Pteromalidae</b>		
Spalangia drosophilae Ashmead, 1887 purposely introduced.....	Lit	
<b>Scelionidae</b>		
Telenomus vulcanus Perkins, 1910 endemic? .....	Lit	Rpt
<b>Isoptera (1)</b>		
<b>Kalotermitidae</b>		
Cryptotermes brevis (Walker, 1853) adventive <b>West Indian drywood termite</b> .....	Lit	
<b>Lepidoptera (32)</b>		
<b>Cosmopterigidae</b>		
Asymphorodes dimorpha (Busck, 1914) adventive .....	Lit	
Hyposmocoma notabilis Walsingham, 1907 endemic .....	Lit	
Hyposmocoma spp. ....		Rpt
Pyroderces rileyi (Walsingham, 1882) adventive <b>pink scavenger caterpillar</b> .....	Lit	
<b>Crambidae</b>		
Omiodes laysanensis Meyrick, 1914 endemic C3 <b>Laysan hedyleptan moth</b> .....	Lit	
Spoladea recurvalis (Fabricius, 1775) adventive <b>Hawaiian beet webworm</b> .....	Lit	00
Udea dryadopa (Meyrick, 1899) endemic C2 <b>'ohenaupaka oebian moth</b> .....	Lit	
<b>Noctuidae</b>		
Agrotis crinigera (Butler, 1881) endemic C3 larger Hawaiian cutworm ("Poko" mo).....	Lit	
Agrotis dislocata (Walker, 1856) endemic <b>smaller Hawaiian cutworm</b> .....	Lit	Rpt
Agrotis evanescens (Rothschild, 1894) endemic.....	Lit	Rpt
Agrotis fasciata (Rothschild, 1894) endemic C3 <b>Midway agrotis noctuid moth</b> .....	Lit	
Agrotis ipsilon (Hufnagel, 1767) adventive <b>black cutworm</b> .....		Coll
Agrotis laysanensis (Rothschild, 1894) endemic C3 <b>Laysan agrotis noctuid moth</b> .....	Lit	
Agrotis procellaris Meyrick, 1900 endemic C3A <b>procellaris agrotis noctuid moth</b> .....	Lit	
Chrysodeixis eriosoma (Doubleday, 1843) adventive <b>green garden looper</b> .....	Lit	Rpt
Elaphria nucicolora (Guenee, 1852) adventive.....	Lit	Rpt
Helicoverpa zea (Boddie, 1850) adventive <b>bollworm, corn earworm, tomato fruitworm</b> .....		Rpt
Hypena laysanensis (Swezey, 1914) endemic C3 <b>Laysan dropseed noctuid moth</b> .....	Lit	
Leucania loreyimima Rungs, 1953 adventive .....		Coll
Lycophotia porphyrea (Denis & Schiffermueller, 1775) adventive.....	Lit	
Peridroma chersotoides (Butler, 1881) endemic.....	Lit	
Pseudaletia unipuncta (Haworth, 1809) adventive <b>armyworm</b> .....	Lit	
Spodoptera exigua (Huebner, 1808) adventive <b>beet armyworm</b> .....	Lit	
Trichoplusia ni (Huebner, 1802) adventive <b>cabbage looper</b> .....	Lit	
<b>Plutellidae</b>		
Plutella xylostella (Linnaeus, 1758) adventive <b>diamondback moth</b> .....	Lit	
<b>Pterophoridae</b>		
Megalorhipida leucodactylus (Fabricius, 1793) adventive.....	Lit	
<b>Pyalidae</b>		
Cadra cautella (Walker, 1863) adventive <b>almond moth</b> .....	Lit	
Pyalis manihotalis Guenee, 1854 adventive.....	Lit	Rpt
<b>Sphingidae</b>		
Agrius cingulata (Fabricius, 1775) adventive <b>sweetpotato hornworm</b> .....	Lit	
<b>Tineidae</b>		
Decadarchis kerri (Swezey, 1926) adventive.....	Lit	
Phereoeca allutella (Rebel, 1892) adventive.....	Lit	
Praeacedes atomosella (Walker, 1863) adventive.....	Lit	
<b>Neuroptera (1)</b>		
<b>Chrysopidae</b>		
Chrysoperla comanche (Banks, 1938) adventive <b>comanche lacewing</b> .....		Rpt
<b>Orthoptera (1)</b>		
<b>Tettigoniidae</b>		
Euconocephalus nasutus (Thunberg, 1815) adventive <b>aggravating grasshopper</b> .....	Lit	Rpt
<b>Phthiraptera (24)</b>		
<b>Menoponidae</b>		
Actornithophilus incisus (Piaget, 1880) indigenous .....	Lit	

Ancistrona vagelli (Fabricius, 1787) indigenous.....	Lit	.....	Rpt
Austromenopon atrofulvum (Piaget, 1880) indigenous.....	Lit	.....	Rpt
Austromenopon paululum (Kellogg & Chapman, 1899) indigenous.....	Lit	.....	Rpt
Longimenopon puffinus Thompson, 1948 indigenous.....	Lit	.....	Rpt
Myrsidea invadens (Kellogg & Chapman, 1902) adventive.....	Lit		
<b>Phloptoridae</b>			
Docophoroides ferrisi Harrison, 1937 indigenous.....	Lit	.....	Rpt
Docophoroides niethammeri Timmermann, 1969 indigenous.....	Lit	.....	Rpt
Halipeurus mirabilis Thompson, 1940 indigenous.....	Lit		
Halipeurus theresae Timmermann, 1969 indigenous.....	Lit	.....	Rpt
Harrisoniella copei Timmermann, 1969 indigenous.....	Lit	.....	Rpt?
Harrisoniella densa (Kellogg, 1896) indigenous.....	Lit	.....	Rpt?
Longimenopon puffinus Thompson, 1948 indigenous.....	Lit	.....	Rpt
Paraclisis confidens (Kellogg, 1899) indigenous.....	Lit	.....	Rpt
Paraclisis giganticola (Kellogg, 1896) indigenous.....	Lit	.....	Rpt
Pectinopygus annulatus (Piaget, 1880) indigenous.....	Lit	.....	Rpt
Pectinopygus gracilicornis (Piaget, 1880) indigenous.....	Lit	.....	Rpt
Pectinopygus sulae (Rudow, 1869) indigenous.....	Lit	.....	Rpt
Perineus concinnus (Kellogg & Chapman, 1899) indigenous.....	Lit	.....	Rpt
Quadriceps birostris (Giebel, 1874) indigenous.....	Lit	.....	Rpt
Quadriceps separatus (Kellogg & Kuwana, 1902) indigenous.....	Lit	.....	Rpt
Saemundssonina petersi Ward, 1955 indigenous.....	Lit		
Saemundssonina snyderi (Kellogg & Paine, 1910) indigenous.....	Lit	.....	Rpt
Trabeculus mirabilis (Kellogg, 1896) indigenous.....	Lit	.....	Rpt
<b>Psocoptera (3)</b>			
<b>Ectopsocidae</b>			
Ectopsocus fullawayi Enderlein, 1913 indigenous?.....	Lit		
<b>Lepidopsocidae</b>			
Cytophania hirsuta Banks, 1931 adventive.....	Lit		
Lepolepis pictus Thornton, 1981 adventive.....	Lit		
<b>Siphonaptera (1)</b>			
<b>Rhopalopsyllidae</b>			
Parapsyllus laysanensis Wilson, 1972 endemic.....	Lit	.....	Rpt
<b>Thysanoptera (4)</b>			
<b>Phlaeothripidae</b>			
Haplothrips gowdeyi (Franklin, 1908) adventive <b>black flower thrips</b> .....	Lit		
Haplothrips robustus Bagnall, 1918 adventive.....	Lit		
<b>Thripidae</b>			
Caliothrips punctipennis (Hood, 1912) adventive.....	Lit		
Frankliniella schultzei (Trybom, 1910) adventive <b>yellow flower thrips</b> .....	Lit		
<b>CHILOPODA</b>			
<b>Geophilomorpha (1)</b>			
<b>Geophilidae</b>			
Honuaphilus alohanus Chamberlin, 1926 endemic?.....	Lit	.....	Rpt
<b>CRUSTACEA</b>			
<b>Anostraca (1)</b>			
<b>Artemiidae</b>			
Artemia salina pacifica Sars, 1904 endemic?.....	Lit		
<b>Isopoda (4)</b>			
<b>Ligiidae</b>			
Ligia hawaiiensis (Dana, 1853) endemic.....			Rpt
<b>Philosciidae</b>			
Littorophiloscia hawaiiensis Taiti & Ferrara, 1986 endemic.....	Lit		
<b>Platyarthridae</b>			
Trichorhina tomentosa (Budde-Lund, 1893) adventive.....	Lit		
<b>Porcellionidae</b>			
Porcellionides pruinosus (Brandt, 1833) adventive.....	Lit		
<b>Amphipoda (1)</b>			
Genus? species?.....			Rpt

**LISIANSKI** (56 arthropods) [Not visited by NOWRAMP Expedition]

## ARACHNIDA

### Acari (4)

Argasidae	
Ornithodoros capensis Neumann, 1901 adventive .....	Lit
Hypoderidae	
Neottialges fregatae Fain & Amerson, 1968 indigenous?.....	Lit
Neottialges hawaiiensis Fain & Amerson, 1968 indigenous?.....	Lit
Trombiculidae	
Guntheria domrowi (Brennan, 1965) adventive.....	Lit

### Araneae (2)

Araneidae	
Neoscona theisi (Walckenaer, 1841) adventive.....	Lit
Clubionidae	
Cheiracanthium mordax L. Koch, 1866 adventive <b>pale leaf spider</b> .....	Lit ..... Rpt

## INSECTA

### Blattodea (2)

Blattellidae	
Blattella germanica (Linnaeus, 1767) adventive <b>German cockroach</b> .....	Lit
Blattidae	
Periplaneta americana (Linnaeus, 1758) adventive <b>American cockroach</b> .....	Lit ..... Rpt

### Coleoptera (3)

Coccinellidae	
Scymnus loewii Mulsant, 1850 purposely introduced .....	Lit
Dermestidae	
Dermestes ater DeGeer, 1774 indigenous? <b>black larder beetle</b> .....	Lit
Scolytidae	
Hypothenemus eruditus (Westwood, 1835) adventive .....	Coll

### Dermoptera (2)

Carcinophoridae	
Anisolabis maritima (Bonelli, 1832) indigenous .....	Lit
Euborellia eteronoma (Borelli, 1909) endemic.....	Lit

### Diptera (20)

Calliphoridae	
Lucilia graphita Shannon, 1926 endemic .....	Lit
Canacidae	
Canaceoides angulatus Wirth, 1969 adventive.....	Lit
Chloropidae	
Cadrema pallida (Loew, 1865) adventive.....	Lit
Siphunculina striolata (Wiedemann, 1830) adventive.....	Lit
Dolichopodidae	
Thambemyia acrosticalis (Parent, 1937) endemic?.....	Lit
Ephydriidae	
Discomyza maculipennis (Wiedemann, 1824) adventive .....	Lit
Hecamede granifera (Thomson, 1869) adventive .....	Lit
Hippoboscidae	
Olfersia aenescens Thomson, 1869 indigenous?.....	Lit
Olfersia spinifera (Leach, 1818) indigenous? <b>frigate bird fly</b> .....	Lit
Milichiidae	
Leptomtopa beardsleyi Hardy & Delfinado, 1980 endemic.....	Lit
Milichiella lacteipennis (Loew, 1865) adventive .....	Lit
Muscidae	
Haematobia irritans (Linnaeus, 1758) adventive <b>horn fly</b> .....	Coll
Musca domestica Linnaeus, 1758 adventive <b>house fly</b> .....	Lit ..... Rpt
Phoridae	
Diplonevra peregrina (Wiedemann, 1830) adventive.....	Lit
Megaselia scalaris (Loew, 1866) adventive.....	Lit
Sphaeroceridae	
Coproica ferruginata (Stenhammar, 1854) adventive.....	Lit
Thoracochaeta brachystoma (Stenhammar, 1854) adventive.....	Lit
Trachypopella nuda Rohacek & Marshall, 1986 adventive.....	Lit

Tethinidae  
 Dasyrhicnoessa insularis (Aldrich, 1931) indigenous?.....Lit  
 Tethina willistoni (Melander, 1913) adventive.....Lit

**Heteroptera (4)**

Gerridae  
 Halobates sericeus Eschscholtz, 1822 indigenous **Pacific pelagic water strider** .....Lit  
 Lygaeidae  
 Nysius fullawayi fullawayi Usinger, 1942 endemic C2 **Fullaway's seed bug**.....Lit  
 Nysius fullawayi flavus Usinger, 1942 endemic .....Lit  
 Nabidae  
 Nabis capsiformis Germar, 1837 adventive **pale damsel bug**.....Lit

**Homoptera (4)**

Aphididae  
 Aphis craccivora C.L. Koch, 1854 adventive **cowpea aphid**.....Lit  
 Coccidae  
 Parasaissetia nigra (Nietner, 1861) adventive **nigra scale**.....Lit ..... Rpt  
 Diaspididae  
 Hemiberlesia lataniae (Signoret, 1869) adventive **latania scale**.....Lit ..... Rpt  
 Pseudococcidae  
 Trionymus insularis Ehrhorn, 1916 endemic .....Lit ..... Rpt

**Hymenoptera (4)**

Braconidae  
 Chelonus blackburni Cameron, 1887 adventive..... **Coll**  
 Formicidae  
 Cardiocondyla emeryi Forel, 1881 adventive ..... **Rpt**  
 Monomorium pharaonis (Linnaeus, 1758) adventive **Pharaoh ant** ..... **Rpt**  
 Pteromalidae  
 Halticoptera sp. adventive ..... **Coll**

**Isoptera (1)**

Kalotermitidae  
 Cryptotermes brevis (Walker, 1853) adventive **West Indian drywood termite**.....Lit

**Lepidoptera (6)**

Cosmopterigidae  
 Asymphorodes dimorpha (Busck, 1914) adventive .....Lit  
 Noctuidae  
 Helicoverpa minuta Hardwick, 1965 endemic C3A **minute helioverpan noctuid moth**.....Lit  
 Leucania loreyimima Rungs, 1953 adventive ..... **Coll**  
 Pseudaletia unipuncta (Haworth, 1809) adventive **armyworm** .....Lit  
 Pterophoridae  
 Megalorhipida leucodactylus (Fabricius, 1793) adventive.....Lit  
 Tineidae  
 Decadarchis kerri (Swezey, 1926) adventive.....Lit

**Orthoptera (1)**

Tettigoniidae  
 Euconocephalus nasutus (Thunberg, 1815) adventive **aggravating grasshopper** .....Lit ..... Rpt

**Psocoptera (1)**

Trogiidae  
 Cerobasis annulata (Hagen, 1865) adventive.....Lit

**Thysanoptera (1)**

Phlaeothripidae  
 Karnyothrips melaleucus (Bagnall, 1911) adventive .....Lit

**CRUSTACEA**

**Isopoda (3)**

Philosciidae  
 Littorophiloscia culebrae (Moore, 1901) adventive .....Lit  
 Porcellionidae  
 Porcellio laevis Latreille, 1804 adventive.....Lit  
 Porcellionides pruinosus (Brandt, 1833) adventive.....Lit

**NECKER** (74 arthropods)

**ARACHNIDA**

**Acari** (2)

Argasidae		
Ornithodoros capensis Neumann, 1901 adventive	.....Lit	
Xolalgidae		
n.gen. n.sp. - 1980 ?	.....Lit	

**Araneae** (7)

Barychelidae		
Nihoa hawaiiensis (Raven, 1988) endemic	.....Lit	
Lycosidae		
Lycosa sp. endemic?	.....	00
Salticidae		
Sandalodes sp. endemic?	.....	00
Scytodidae		
Scytodes striatipes (L. Koch, 1872) adventive	.....Lit	
Theridiidae		
Coleosoma floridanum Banks, 1900 adventive	.....	00
Theridion sp. endemic?	.....	00
Thomisidae		
Mecaphesa insulanus (Keyserling, 1890) endemic	.....	00

**INSECTA**

**Blattodea** (2)

Blattidae		
Periplaneta americana (Linnaeus, 1758) adventive <b>American cockroach</b>	.....Lit	
Genus? species? adventive?	.....	00

**Coleoptera** (11)

Anthribidae		
Araecerus fasciculatus (DeGeer, 1775) adventive <b>coffee bean weevil</b>	.....Lit	
Coccinellidae		
Scymnus loewii Mulsant, 1850 purposely introduced	.....Lit	00
Curculionidae		
Oodemas laysanensis Fullaway, 1914 endemic C2 <b>Laysan oodemas weevil</b>	.....Lit	
Oodemas neckeri Perkins, 1926 endemic C2 <b>Laysan oodemas weevil</b>	.....Lit	
Rhyncogonus biformis Perkins, 1926 endemic C2 <b>Necker rhyncogonus weevil</b>	.....Lit	00
Dermestidae		
Dermestes ater DeGeer, 1774 indigenous? <b>black larder beetle</b>	.....Lit	00
Dermestes maculatus DeGeer, 1774 indigenous <b>hide beetle</b>	.....Lit	
Elateridae		
Itodacnus novicornis Van Zwaluwenburg, 1926 endemic C2 <b>Necker itodacnus click beetle</b>	.....Lit	
Itodacnus paradoxus Samuelson & Van Zwaluwenburg, 1967 endemic C2 <b>strange itodacnus click beetle</b>	.....Lit	00
Nitidulidae		
Carpophilus dimidiatus (Fabricius, 1792) adventive <b>corn sap beetle</b>	.....Lit	00
Tenebrionidae		
Sciophagus pandanicola (Boisduval, 1835) indigenous	.....Lit	

**Dermaptera** (1)

Carcinophoridae		
Euborellia annulipes (Lucas, 1847) adventive <b>ringlegged earwig</b>	.....Lit	00

**Diptera** (13)

Asteiidae		
Asteia aberrans Hardy & Delfinado, 1980 endemic	.....Lit	
Chironomidae		
Telmatogeton pacificus Tokunaga, 1935 indigenous	.....Lit	
Chloropidae		
Siphunculina striolata (Wiedemann, 1830) adventive	.....Lit	00
Dolichopodidae		
Thambemyia acrosticalis (Parent, 1937) endemic?	.....Lit	
Ephydriidae		
Atissa antennalis Aldrich, 1931 endemic?	.....Lit	
Scatella sexnotata Cresson, 1926 indigenous	.....Lit	00

Hippoboscidae	Olfersia spinifera (Leach, 1818) indigenous? <b>frigate bird fly</b> .....	Lit	
Milichiidae	Leptometa beardsleyi Hardy & Delfinado, 1980 endemic.....	Lit	
	Milichia orientalis Malloch, 1913 adventive.....	Lit	
Muscidae	Musca domestica Linnaeus, 1758 adventive <b>house fly</b> .....		Rpt
Phoridae	Diplonevra peregrina (Wiedemann, 1830) adventive.....	Lit	
Sarcophagidae	Goniophyto bryani Lopes, 1938 indigenous.....	Lit	
Sphaeroceridae	Coproica hirtula (Rondani, 1880) adventive.....	Lit	
<b>Embiidina (2)</b>			
Oligotomidae	Aposthonia oceania (Ross, 1951) adventive <b>oceanic embiid</b> .....	Lit	
	Oligotoma saundersii (Westwood, 1837) adventive <b>Saunders embiid</b> .....	Lit	
<b>Heteroptera (4)</b>			
Gerridae	Halobates sericeus Eschscholtz, 1822 indigenous <b>Pacific pelagic water strider</b> .....	Lit	
Lygaeidae	Nysius chenopodii Usinger, 1942 endemic.....	Lit	00
	Nysius delectus White, 1878 endemic.....	Lit	
	Nysius neckerensis Usinger, 1942 endemic <b>C2 Necker goosefoot seed bug</b> .....	Lit	
<b>Homoptera (7)</b>			
Cicadellidae	Circulifer tenellus (Baker, 1896) adventive <b>beet leafhopper</b> .....	Lit	Rpt
	Empoasca solana DeLong, 1931 adventive <b>southern garden leafhopper</b> .....	Lit	Rpt
Diaspididae	Hemiberlesia lataniae (Signoret, 1869) adventive <b>latania scale</b> .....	Lit	Rpt
Pseudococcidae	Ferrisia virgata (Cockerell, 1893) adventive <b>striped mealybug</b> .....	Lit	
	Pseudococcus n.sp. - 1966 adventive.....	Lit	
	Rhizoecus hawaiiensis (Hambleton, 1946) adventive.....	Lit	
	Rhizoecus sp.....	Lit	Rpt
<b>Hymenoptera (7)</b>			
Eupelmidae	Eupelmus robustus (Timberlake, 1926) endemic?.....	Lit	
Formicidae	Cardiocondyla nuda (Mayr, 1866) adventive.....	Lit	
	Hypoconer punctatissima (Roger, 1859) adventive.....	Lit	
	Monomorium monomorium Bolton, 1987 adventive.....	Lit	
	Tetramorium bicarinatum (Nylander, 1847) adventive <b>Guinea ant</b> .....	Lit	00
Pteromalidae	Spalangia drosophilae Ashmead, 1887 purposely introduced.....	Lit	
Signiphoridae	Thysanus aspidioti (Ashmead, 1900) adventive.....	Lit	
<b>Lepidoptera (14)</b>			
Cosmopterigidae	Asymphorodes dimorpha (Busck, 1914) adventive.....	Lit	
	Hypsmocoma malornata Walsingham, 1907 endemic.....	Lit	
	Hypsmocoma mimica Walsingham, 1907 endemic.....	Lit	
	Hypsmocoma neckerensis (Swezey, 1926) endemic <b>C2* Necker petrochroan leaf miner</b> .....	Lit	
	Hypsmocoma new species 28 Zimmerman, 1978 endemic.....	Lit	
	Hypsmocoma quinquemaculata Walsingham, 1907 endemic.....	Lit	
Crambidae	Spoladea recurvalis (Fabricius, 1775) adventive <b>Hawaiian beet webworm</b> .....	Lit	Rpt
Gelechiidae	Dichomeris acuminata (Staudinger, 1876) adventive.....		00
Lycaenidae	Lampides boeticus (Linnaeus, 1767) adventive <b>bean butterfly</b> .....	Lit	
Noctuidae	Helicoverpa pallida pallida Hardwick, 1965 endemic.....	Lit	

	Helicoverpa zea (Boddie, 1850) adventive <b>bollworm, corn earworm, tomato fruitworm</b> .....Lit	
	Heliiothis sp. [probably Helicoverpa]..... Rpt	
Olethreutidae		
	Crociosema leprara (Walsingham, 1907) endemic?.....Lit	
Tineidae		
	Monopis meliorella (Walker, 1863) adventive .....Lit.....	00
<b>Orthoptera (2)</b>		
Acrididae		
	Schistocerca nitens (Thunberg, 1815) adventive <b>vagrant grasshopper</b> .....Lit..... Coll	
Gryllidae		
	Grylodes sigillatus (Walker, 1869) adventive <b>flightless field cricket</b> ..... Rpt	00
<b>Phthiraptera (3)</b>		
Philopteridae		
	Docophoroides ferrisi Harrison, 1937 indigenous .....Lit	
	Pectinopygus gracilicornis (Piaget, 1880) indigenous.....Lit	
	Pectinopygus sulae (Rudow, 1869) indigenous .....Lit	
<b>Thysanoptera (3)</b>		
Phlaeothripidae		
	Haplothrips gowdeyi (Franklin, 1908) adventive <b>black flower thrips</b> .....Lit	
	Haplothrips robustus Bagnall, 1918 adventive.....Lit	
Thripidae		
	Frankliniella schultzei (Trybom, 1910) adventive <b>yellow flower thrips</b> .....Lit	
<b>Thysanura (1)</b>		
Lepismatidae		
	Acrotelsa hawaiiensis (Silvestri, 1904) adventive.....Lit	

#### CHILOPODA

<b>Geophilomorpha (2)</b>		
Geophilidae		
	Honuaphilis alohanus Chamberlin, 1926 endemic?.....	00
Mecistocephalidae		
	Mecistocephalus spissus Wood, 1862 adventive.....Lit	
<b>Lithobiomorpha (1)</b>		
Schendylidae		
	Nyctunguis bryanus Chamberlin, 1926 endemic.....Lit	

#### CRUSTACEA

<b>Isopoda (3)</b>	
Ligiidae	
	Ligia hawaiiensis (Dana, 1853) endemic.....Lit
Porcellionidae	
	Porcellio laevis Latreille, 1804 adventive.....Lit
	Porcellionides pruinus (Brandt, 1833) adventive.....Lit

#### NIHOA

#### ARACHNIDA

<b>Acari (31)</b>	
Acaridae	
	Tyrophagus putrescentiae (Schrank, 1781) adventive <b>mold mite</b> .....Lit
Analgidae	
	Analges n.sp. - 1980 ?.....Lit
Argasidae	
	Ornithodoros capensis Neumann, 1901 adventive .....Lit ..... Rpt
Ascidae	
	Asca duosetosa Fox, 1946 adventive.....Lit
Bdellidae	
	Bdella captiosa Atyeo, 1963 adventive.....Lit
	Bdella nihoaensis Swift & Goff, 1987 endemic?.....Lit
Caligonellidae	
	Coptocheles solanii Swift, 1996 endemic?.....Lit
	Molothrognathus conantae Swift, 1996 endemic?.....Lit

Camerobiidae			
	Tycherobius superbus (G. Canestrini, 1889) adventive .....	Lit	
Cheyletidae			
	Hemicheyletia bakeri (Ehara, 1962) adventive.....	Lit	
	Hemicheyletia wellsii (Baker, 1949) adventive.....	Lit	
	Ker palmatus Muma, 1964 adventive.....	Lit	
Cryptognathidae			
	Favognathus goffi Swift, 1996 adventive? .....	Lit	
Ereynetidae			
	Boyaia agelaii Fain & Aitken, 1968 adventive .....	Lit	
Eriophyidae			
	genus? species?.....		Rpt
Ixodidae			
	Ixodes laysanensis Wilson, 1964 endemic?.....	Lit	
Liodidae			
	Liodes wakensis (Jacot, 1929) indigenous? .....	Lit	
Paratydeidae			
	Neotydeius sp. - 1987 ?.....	Lit	
Phytoseiidae			
	Amblyseius largoensis (Muma, 1955) adventive.....	Lit	
	Neoseiulus oahuensis (Prasad, 1968) endemic.....	Lit	
Proctophyllodidae			
	Proctophyllodes n.sp. - 1980 adventive .....	Lit	
Pteronyssidae			
	Pteroherpus oxyplax (Gaud & Mouchet, 1959) adventive.....	Lit	
	Pteroherpus oxyplax [sp.nr.](Gaud & Mouchet, 1959) adventive.....	Lit	
Tetranychidae			
	Tetranychus cinnabarinus (Boisduval, 1867) adventive <b>carmine spider mite</b> .....	Lit	
Trombiculidae			
	Eutrombicula conantae Goff, 1984 endemic?.....	Lit	
	Guntheria domrowi (Brennan, 1965) adventive.....	Lit	
	Neoschoengastia ewingi Wharton & Hardcastle, 1946 adventive.....	Lit	
	Toritrombicula nihoaensis Goff, 1984 endemic?.....	Lit	
Trouessartiidae			
	Trouessartia trouessarti Oudemans, 1904 adventive.....	Lit	
Uropodidae			
	Uropoda sp. - 1947 ? .....	Lit	
Xolalgidae			
	n.gen. n.sp. - 1980 ?.....	Lit	
<b>Araneae (10)</b>			
Barychelidae			
	Nihoa mahina Churchill & Raven, 1992 endemic .....	Lit	Rpt 00
Clubionidae			
	Cheiracanthium mordax L. Koch, 1866 adventive <b>pale leaf spider</b> .....	Lit	00
Lycosidae			
	Lycosa sp.....		00
Oecobiidae			
	Oecobius sp. ....		00
Salticidae			
	Menemerus bivittatus (Dufour 1831) adventive.....		00
	Plexippus paykulli (Audouin, 1826) adventive .....		00
	Sandalodes sp. endemic?.....		00
Scytodidae			
	Scytodes striatipes (L. Koch, 1872) adventive.....		00
Theridiidae			
	Theridion sp. endemic? .....		00
Thomisidae			
	Mecaphesa insulanus (Keyserling, 1890) endemic.....	Lit	
<b>Pseudoscorpionida (1)</b>			
Cheliferidae			
	genus? species?.....		Rpt 00



INSECTA

**Blattodea** (4)

Blaberidae

*Pycnoscelus indicus* (Fabricius, 1775) adventive **burrowing cockroach**.....Lit ..... Rpt 00

Blattidae

*Periplaneta americana* (Linnaeus, 1758) adventive **American cockroach**.....Lit

*Periplaneta australasiae* (Fabricius, 1775) adventive **Australian cockroach**.....Lit ..... Rpt 00

*Platyzosteria soror* (Brunner, 1865) adventive **whitemargined cockroach**.....Lit..... Rpt 00

**Coleoptera** (36)

Aderidae

*Xylophilus marquesanus* Blair, 1934 adventive..... **Rpt** 00

Aglycyderidae

*Proterhinus abundans* Perkins, 1926 endemic.....Lit ..... Rpt

*Proterhinus bryani* Perkins, 1926 endemic.....Lit

Anobiidae

*Xyletobius gossypii* Ford, 1954 endemic.....Lit ..... Rpt 00

Anthribidae

*Araecerus fasciculatus* (DeGeer, 1775) adventive **coffee bean weevil**.....Lit

*Araecerus* n.sp. (not *A. fasciculatus*) endemic?..... 00

Bostrichidae

*Amphicerus cornutus* (Pallas, 1772) adventive **powderpost bostrychid** ..... **Rpt** 00

Cerambycidae

*Plagithmysus nihoae* Perkins, 1926 endemic C2 **Nihoa long-horned beetle**.....Lit..... 00

Chrysomelidae

*Epitrix hirtipennis* (Melsheimer, 1847) adventive **tobacco flea beetle**.....Lit ..... Rpt 00

Ciidae

*Cis vagans* Perkins, 1926 endemic.....Lit

Cleridae

*Necrobia rufipes* (DeGeer, 1775) adventive **redlegged ham beetle**.....Lit

Coccinellidae

*Coccinella septempunctata* Linnaeus, 1758 purposely introduced **sevenspotted lady beetle**..... **Rpt** 00

*Coelophora inaequalis* (Fabricius, 1775) purposely introduced **common Australian lady beetle**....Lit

*Diomus debilis* (LeConte, 1852) purposely introduced.....Lit..... 00

*Nephus roepkei* (Fluiter, 1938) purposely introduced.....Lit..... 00

*Scymnus loewii* Mulsant, 1850 purposely introduced.....Lit ..... Rpt 00

Cucujidae

*Cryptomorpha desjardinsi* (Guerin-Meneville, 1844) adventive.....Lit..... Rpt

Curculionidae

*Oodemas breviscapum* Perkins, 1926 endemic C2 **Nihoa oodemas weevil**.....Lit ..... Rpt

*Oodemas erro* Perkins, 1926 endemic C2 **wandering oodemas weevil**.....Lit ..... Rpt

*Oodemas laysanensis* Fullaway, 1914 endemic C2 **Laysan oodemas weevil**.....Lit ..... Rpt 00

*Rhyncogonus exsul* Perkins, 1926 endemic C2 **Nihoa rhyncogonus weevil**.....Lit ..... Rpt 00

*Stenotrupis pritchardiae* (Perkins, 1926) endemic C2 **Nihoa stenotrupis weevil**.....Lit ..... Rpt? 00

Dermestidae

*Dermestes ater* DeGeer, 1774 indigenous? **black larder beetle** .....Lit ..... Rpt 00

*Dermestes frischii* Kugelann, 1792 adventive?.....Lit..... 00

*Dermestes maculatus* DeGeer, 1774 indigenous **hide beetle**.....Lit

*Labrocerus auratus* Beal, 2000 endemic..... **Rpt** 00

Elateridae

*Itodacnus nihoae* Samuelson & Johnson, 1995 endemic.....Lit..... Rpt

*Itodacnus* n.sp. endemic..... 00

Histeridae

*Plaesius javanus* Erichson, 1834 purposely introduced.....Lit

*Saprinus lugens* Erichson, 1834 adventive..... 00

Lathridiidae

*Lathridius* sp. - 1967 ?.....Lit

Nitidulidae

*Carpophilus dimidiatus* (Fabricius, 1792) adventive **corn sap beetle**.....Lit..... Rpt 00

Scolytidae

*Hypothenemus eruditus* (Westwood, 1835) adventive..... **Rpt**

Staphylinidae

*Atheta coriaria* (Kraatz, 1856) adventive.....Lit..... Rpt

Tenebrionidae

*Sciophagus pandanicola* (Boisduval, 1835) indigenous.....Lit ..... Rpt 00

Trogidae

*Trox suberosus* Fabricius, 1775 adventive..... **Rpt**

<b>Collembola</b> (2)		
Entomobryidae		
genus? species?.....		Rpt
Hypogastruridae		
Brachystomella kiko Christiansen & Bellinger, 1992 endemic.....		Lit
<b>Dermaptera</b> (4)		
Carcinophoridae		
Anisolabis maritima (Bonelli, 1832) indigenous.....		Rpt
Anisolabis sp.....		Rpt
Euborellia annulipes (Lucas, 1847) adventive <b>ringlegged earwig</b> .....		Lit Rpt
Labiduridae		
Labidura riparia (Pallas, 1773) adventive <b>striped earwig</b> .....		Rpt
<b>Diptera</b> (31)		
Agromyzidae		
Liriomyza pusilla (Meigen, 1830) ! not Hawaiian?.....		Lit
Liriomyza sativae Blanchard, 1938 adventive <b>vegetable leafminer</b> .....		Rpt 00
Pseudonapomyza spicata (Malloch, 1914) adventive.....		Lit
Asteiidae		
Asteia aberrans Hardy & Delfinado, 1980 endemic.....		Lit Rpt
Bryania bipunctata Aldrich, 1931 endemic C2 <b>Nihoa two-spotted asteriid fly</b> .....		Lit Rpt
Calliphoridae		
Chrysomya megacephala (Fabricius, 1794) adventive <b>Oriental blow fly</b> .....		00
Lucilia sericata (Meigen, 1826) adventive <b>greenbottle fly</b> .....		Lit Rpt
Canacidae		
Canaceoides angulatus Wirth, 1969 adventive.....		Lit Rpt
Canaceoides hawaiiensis Wirth, 1969 endemic.....		Lit Rpt
Cecidomyiidae		
genus? species?.....		Rpt
Ceratopogonidae		
genus? species?.....		Rpt
Chironomidae		
Chironomus crassiforceps (Kieffer, 1916) adventive.....		Lit
Telmatogeton pacificus Tokunaga, 1935 indigenous.....		Lit
Chloropidae		
Siphunculina striolata (Wiedemann, 1830) adventive.....		Lit Rpt 00
Dolichopodidae		
Thambemyia acrosticalis (Parent, 1937) endemic?.....		Lit Rpt
Drosophilidae		
Scaptomyza hamata Hardy, 1965 endemic.....		Lit
Ephydriidae		
Atissa antennalis Aldrich, 1931 endemic?.....		Lit
Scatella sexnotata Cresson, 1926 indigenous.....		Lit Rpt
Hippoboscidae		
Olfersia aenescens Thomson, 1869 indigenous.....		00
Olfersia spinifera (Leach, 1818) indigenous? <b>frigate bird fly</b> .....		Lit Rpt 00
Keroplastidae		
Tylparua insularis (Grimshaw, 1901) endemic.....		Rpt
Milichiidae		
Desmometopa inaurata Lamb, 1914 adventive.....		Rpt
Leptomotopa beardsleyi Hardy & Delfinado, 1980 endemic.....		Lit
Milichia orientalis Malloch, 1913 adventive.....		Lit
Muscidae		
Musca domestica Linnaeus, 1758 adventive <b>house fly</b> .....		Rpt
Periscelididae		
Stenomicroa orientalis Malloch, 1927 adventive.....		Lit
Phoridae		
Diplonevra peregrina (Wiedemann, 1830) adventive.....		Lit Rpt
Sarcophagidae		
Goniophyto bryani Lopes, 1938 indigenous.....		Lit Rpt
Sphaeroceridae		
Coproica hirtula (Rondani, 1880) adventive.....		Lit Rpt
Syrphidae		
Simosyrphus grandicornis (Macquart, 1842) adventive.....		Lit
Tachinidae		
Lespesia archippivora (Riley, 1871 purposely introduced <b>lesser armyworm parasite fly</b> .....		Lit

**Embiidina (1)**

## Oligotomidae

Aposthonia oecania (Ross, 1951) adventive **oceanic embiid**.....Lit ..... Rpt**Heteroptera (15)**

## Anthocoridae

Orius persequens (White, 1877) adventive.....Lit

## Cydnidae

Geotomus pygmaeus (Dallas, 1851) adventive **oceanic burrower bug**.....Lit ..... Rpt

## Gerridae

Halobates sericeus Eschscholtz, 1822 indigenous **Pacific pelagic water strider**.....Lit

## Lygaeidae

Geocoris punctipes (Say, 1832) adventive.....Lit ..... Rpt

Nysius longicollis Blackburn, 1888 endemic.....Lit

Nysius nihoa Usinger, 1942 endemic C2 **Nihoa nysius seed bug**.....Lit ..... RptNysius suffusus Usinger, 1942 endemic C2 **Necker bunchgrass seed bug**.....Lit ..... Rpt 00

Reclada moesta White, 1878 adventive.....Lit ..... Rpt

## Miridae

Coridromius variegatus (Montrouzier, 1861) adventive..... **Rpt** 00Hyalopeplus pellucidus (Stal, 1859) endemic? **transparentwinged plant bug**.....Lit ..... RptRhinaclia forticornis Reuter, 1876 adventive **western plant bug**.....Lit ..... Rpt 00Trigonotylus hawaiiensis (Kirkaldy, 1902) endemic **Hawaiian grass bug**.....Lit ..... Rpt

## Nabidae

Nabis capsiformis Germar, 1837 adventive **pale damsel bug**.....Lit

Nabis kahavalu (Kirkaldy, 1907) endemic.....Lit ..... Rpt

## Rhopalidae

Liorhyssus hyalinus (Fabricius, 1794) adventive **hyaline grass bug**.....Lit ..... Rpt**Homoptera (10)**

## Aphididae

Aphis craccivora C.L. Koch, 1854 adventive **cowpea aphid**.....Lit

## Cicadellidae

Circulifer tenellus (Baker, 1896) adventive **beet leafhopper**.....Lit ..... Rpt

Deltocephalus sonorus Ball, 1900 adventive.....Lit ..... Rpt

Empoasca solana DeLong, 1931 adventive **southern garden leafhopper**.....Lit ..... RptScaphytopius loricatus (Van Duzee, 1894) adventive **yellowfaced leafhopper**.....Lit ..... Rpt 00

## Delphacidae

Sogatella kolophon (Kirkaldy, 1907) adventive **grass delphacid**.....Lit ..... Rpt

## Diaspididae

Odonaspis ruthae Kotinsky, 1915 adventive **ruth grass scale**.....Lit ..... Rpt

## Halimococcidae

Platyococcus tylocephalus Stickney, 1934 endemic.....Lit ..... Rpt

## Pseudococcidae

Clavicornis erinaceus Ferris, 1948 endemic C2\* **Oahu abutilon clavicornis mealybug**.....Lit

Rhizococcus hawaiiensis (Hambleton, 1946) adventive.....Lit

**Hymenoptera (41)**

## Bethyloidea

Holepyris glabratus (Fabricius, 1798) adventive..... **Rpt**Sclerodermus nihoaensis Timberlake, 1926 endemic C2 **Nihoa sclerodermus wasp**.....Lit

Sclerodermus sp..... Rpt

## Braconidae

Allorhogas pallidiceps (Perkins, 1910) adventive.....Lit..... 00

Apanteles carpatus (Say, 1836) adventive..... **00**

Chelonus blackburni Cameron, 1887 adventive.....Lit ..... Rpt 00

Cotesia marginiventris (Cresson, 1865) purposely introduced **lawn armyworm parasite**.....Lit ..... Rpt

## Colletidae

Hylaeus perkinsiana (Timberlake, 1926) endemic C2 **Perkins' yellow-faced bee**.....Lit..... Rpt

## Dryinidae

genus? species?..... **Rpt**

## Encyrtidae

Acerophagus texanus (Howard, 1898) adventive..... **Rpt**Blepyrus insularis (Cameron, 1886) adventive..... **Rpt**

Metaphycus flavus (Howard, 1881) adventive..... 00

## Eulophidae

Cirrospilus sp..... **Rpt**

Euderus metallicus (Ashmead, 1901) adventive?.....Lit

	Hemiptarsenus semialbiclavus (Girault, 1916) adventive.....	Lit	
	Neochrysocharis formosa (Westwood, 1833) adventive .....		00
	Sympiesis vagans (Timberlake, 1926) adventive .....	Lit	
Eupelmidae			
	Eupelmus bryani (Timberlake, 1926) endemic?.....	Lit	
	Eupelmus nihoaensis Timberlake, 1926 endemic C2 <b>Nihoa eupelmus wasp</b> .....	Lit	Rpt
	Eupelmus robustus (Timberlake, 1926) endemic?.....	Lit	Rpt
	Macroneura sp.....		Rpt
	Zaischnopsis sp.....		Rpt
Formicidae			
	Cardiocondyla emeryi Forel, 1881 adventive .....		Rpt
	Cardiocondyla nuda (Mayr, 1866) adventive .....		Rpt
	Cardiocondyla venustula Wheeler, 1908 adventive .....	Lit	Rpt
	Monomorium floricola (Jerdon, 1851) adventive .....	Lit	Rpt
	Paratrechina longicornis (Latreille, 1802) adventive <b>crazy ant</b> .....	Lit	Rpt 00
	Tapinoma melanocephalum (Fabricius, 1793) adventive <b>tiny yellow house ant</b> .....	Lit	Rpt
	Tetramorium bicarinatum (Nylander, 1847) adventive <b>Guinea ant</b> .....	Lit	Rpt 00
	Tetramorium tonganum Mayr, 1870 adventive.....		Rpt
Ichneumonidae			
	Diadegma blackburni (Cameron, 1883) adventive.....	Lit	Rpt
Mymaridae			
	Anagrus nigriventris Girault, 1911 adventive.....		Rpt
	Gonatocerus mexicanus Perkins, 1912 adventive .....	Lit	
	Gonatocerus ornatus Gahan, 1918 adventive?.....		Rpt
	Gonatocerus sp. ....		Rpt
	Stephanodes reduvioli (Perkins, 1905) adventive.....		00
Pteromalidae			
	Spalangia drosophilae Ashmead, 1887 purposely introduced.....	Lit	
	Spalangia sp. nr. lanaiensis Ashmead, 1901 endemic.....		Rpt
	genus? species? - - -.....	Lit	
Scelionidae			
	Telenomus sp. poss. vulcanus Perkins, 1910 endemic?.....		Rpt
Trichogrammatidae			
	genus? species?.....		Rpt
<b>Isoptera</b>			
Kalotermitidae			
	Neotermes connexus Snyder, 1922 adventive <b>forest tree termite</b> .....		00
<b>Lepidoptera (23)</b>			
Cosmopterigidae			
	Asymphorodes dimorpha (Busck, 1914) adventive .....	Lit	Rpt 00
	Hyposmocoma arenella Walsingham, 1907 endemic.....	Lit	
	Hyposmocoma malornata Walsingham, 1907 endemic .....	Lit	Rpt
	Hyposmocoma new species 23 Zimmerman, 1978 endemic.....	Lit	Rpt
	Hyposmocoma new species 28 Zimmerman, 1978 endemic.....	Lit	Rpt
	Hyposmocoma quinquemaculata Walsingham, 1907 endemic.....	Lit	
Crambidae			
	Lineodes ochrea Walsingham, 1907 adventive .....	Lit	Rpt
	Spoladea recurvalis (Fabricius, 1775) adventive <b>Hawaiian beet webworm</b> .....	Lit	Rpt
	Tamsica hyacinthina (Meyrick, 1899) endemic.....	Lit	
	Tamsica sp.....		Rpt
Gracillariidae			
	Philodoria marginestrigata (Walsingham, 1907) endemic <b>ilima leafminer</b> .....	Lit	Rpt
Lycaenidae			
	Lampides boeticus (Linnaeus, 1767) adventive <b>bean butterfly</b> .....	Lit	Rpt
Noctuidae			
	Achaea janata (Linnaeus, 1758) adventive <b>croton caterpillar</b> .....	Lit	Rpt
	Agrotis bryani (Swezey, 1926) endemic.....	Lit	Rpt 00
	Amyna natalis (Walker, 1858) adventive <b>ilima moth</b> .....		Rpt
	Helicoverpa hawaiiensis (Quaintance & Brues, 1905) endemic <b>Hawaiian bud moth</b> .....		00?
	Helicoverpa pallida nihoaensis Hardwick, 1966 endemic.....	Lit	Rpt
	Helicoverpa zea (Boddie, 1850) adventive <b>bollworm, corn earworm, tomato fruitworm</b> .....	Lit	
Oecophoridae			
	Thyrocopa n.sp. nr. abusa Walsingham, 1978 endemic.....	Lit	Rpt 00
Olethreutidae			
	Crociosema leprara (Walsingham, 1907) endemic?.....	Lit	

Pterophoridae	Megalorhipida leucodactylus (Fabricius, 1793) adventive.....	Lit	
Tineidae	Erechthias minuscula (Walsingham, 1897) adventive.....	Rpt	
	Monopis meliorella (Walker, 1863) adventive .....	Lit	Rpt 00
<b>Orthoptera (5)</b>			
Acrididae	Schistocerca nitens (Thunberg, 1815) adventive <b>vagrant grasshopper</b> .....	Lit	Rpt 00
Gryllidae	Caconemobius nihoensis Otte, 1994 endemic .....	Lit	Rpt
	Thaumtogryllus conanti Otte, 1994 endemic.....	Lit	Rpt
Tettigoniidae	Banza nihoa Hebard, 1926 endemic C2 <b>Nihoa banza conehead katydid</b> .....	Lit	Rpt
	Euconocephalus nasutus (Thunberg, 1815) adventive <b>aggravating grasshopper</b> .....	Lit	Rpt
<b>Psocoptera (3)</b>			
Ectopsocidae	Ectopsocus perkinsi Banks, 1931 adventive.....	Lit	
Ellipsocidae	Kilauella sp.....	Rpt	
Lepidopsocidae	Lepidopsocus marmoratus (Banks, 1931) adventive.....	Lit	
<b>Siphonaptera (1)</b>			
	Parapsyllus sp.....	Rpt	
<b>Thysanoptera (2)</b>			
Phlaeothripidae	Haplothrips gowdeyi (Franklin, 1908) adventive <b>black flower thrips</b> .....	Lit	
Thripidae	Frankliniella schultzei (Trybom, 1910) adventive <b>yellow flower thrips</b> .....	Lit	
<b>Thysanura (2)</b>			
Lepismatidae	Acrotelsa hawaiiensis (Silvestri, 1904) adventive.....	Lit	
	genus? species?.....	Rpt	
<b>CHILOPODA</b>			
<b>Lithomorpha (1)</b>			
	genus? species?.....	Rpt	
<b>Geophilomorpha (1)</b>			
	genus? species?.....	Rpt	
<b>Scolopendromorpha (1)</b>			
Cryptopidae	Cryptops hortensis Leach, 1815 adventive.....		00
<b>CRUSTACEA</b>			
<b>Isopoda (3)</b>			
Armadillidae	Spherillo hawaiiensis Dana, 1853 endemic? .....	Lit	
Ligiidae	Ligia hawaiiensis (Dana, 1853) endemic .....	Lit	
Porcellionidae	Porcellionides pruinosus (Brandt, 1833) adventive.....	Lit	
<b>PEARL &amp; HERMES</b>			
<b>ARACHNIDA</b>			
<b>Acari (13)</b>			
Argasidae	Ornithodoros capensis Neumann, 1901 adventive .....	Lit	
Ixodidae	Ixodes laysanensis Wilson, 1964 endemic?.....	Lit	

Laelapidae		
	Hypoaspis aculeifer (G. Canestrini, 1884) adventive.....	Lit
	Hypoaspis queenslandicus (Womersley, 1956) adventive .....	Lit
	Pseudoparasitus tasmanicus (Womersley, 1956) adventive.....	Lit
	Pseudoparasitus vitzthumi (Womersley, 1956) adventive .....	Lit
Phytoseiidae		
	Neoseiulus oahuensis (Prasad, 1968) endemic.....	Lit
Raphignathidae		
	Raphignathus sp. - 1949 ? .....	Lit
Trombiculidae		
	Guntheria domrowi (Brennan, 1965) adventive.....	Lit
	Leptotrombidium intermedium (Nagayo, Mitamura & Tamiya, 1920) adventive.....	Lit
	Neoschoengastia gallinarum (Hatori, 1920) adventive.....	Lit
	Neotrombicula tamiyai (Philip & Fuller, 1950) adventive.....	Lit
Xolalgidae		
	n.gen. n.sp. - 1980 ? .....	Lit
<b>Araneae (3)</b>		
Clubionidae		
	Cheiracanthium mordax L. Koch, 1866 adventive <b>pale leaf spider</b> .....	00
Salticidae		
	Hasarius adansoni (Audouin, 1826) adventive.....	Lit..... 00
Scytodidae		
	Scytodes sp.....	00
<b>INSECTA (78)</b>		
<b>Blattodea (3)</b>		
Blaberidae		
	Pycnoscelus indicus (Fabricius, 1775) adventive <b>burrowing cockroach</b> .....	Lit..... 00
Blattidae		
	Periplaneta americana (Linnaeus, 1758) adventive <b>American cockroach</b> .....	Lit
	Periplaneta australasiae (Fabricius, 1775) adventive <b>Australasian cockroach</b> .....	00
<b>Coleoptera (11)</b>		
Anthribidae		
	Araecerus fasciculatus (DeGeer, 1775) adventive <b>coffee bean weevil</b> .....	Lit
Carabidae		
	genus? species? Not Tachys oahuensis .....	Coll
Cleridae		
	Necrobia rufipes (DeGeer, 1775) adventive <b>redlegged ham beetle</b> .....	Lit..... 00
Coccinellidae		
	Coelophora inaequalis (Fabricius, 1775) purposely introduced <b>common Australian lady beetle</b> .....	00
	Scymnus loewii Mulsant, 1850 purposely introduced .....	Lit..... 00
Cucujidae		
	Cryptomorpha desjardinsi (Guerin-Meneville, 1844) adventive.....	Lit
Curculionidae		
	Dryotribus solitarius Perkins, 1926 endemic.....	Lit
	Dryotribus wilderi Perkins, 1916 indigenous .....	Lit
Dermestidae		
	Dermestes ater DeGeer, 1774 indigenous? black larder beetle.....	Lit..... 00
	Dermestes maculatus DeGeer, 1774 indigenous hide beetle.....	Lit
Tenebrionidae		
	Alphitobius laevigatus (Fabricius, 1781) adventive black fungus beetle.....	Lit..... 00
<b>Collembola (10)</b>		
Entomobryidae		
	Cyphoderus similis Folsom, 1927 adventive .....	Lit
	Entomobrya atrocincta Schoett, 1896 adventive.....	Lit
	Entomobrya multifasciata (Tullberg, 1871) adventive .....	Lit
Hypogastruridae		
	Friesea ninau Christiansen & Bellinger, 1992 endemic.....	Lit
	Neanura muscorum (Templeton, 1835) adventive.....	Lit
	Oudemansia esakii (Kinoshita, 1932) adventive.....	Lit
Isotomidae		
	Axelonia sarahae Christiansen & Bellinger, 1992 endemic? .....	Lit
	Cryptopygus thermophilus (Axelson, 1902) adventive.....	Lit
	Folsomides parvulus Stach, 1922 adventive.....	Lit
	Folsomina onychiurina Denis, 1931 adventive.....	Lit

<b>Dermaptera (3)</b>		
Carcinophoridae		
Anisolabis maritima (Bonelli, 1832) indigenous.....	Lit.....	00
Euborellia annulipes (Lucas, 1847) adventive <b>ringlegged earwig</b> .....	Lit	
Euborellia eteronoma (Borelli, 1909) endemic.....	Lit	
<b>Diptera (16)</b>		
Agromyzidae		
Liriomyza sativae Blanchard, 1938 adventive <b>vegetable leafminer</b> .....		00
Liriomyza trifolii (Burgess, 1880) adventive <b>celery leafminer</b> .....	Coll	
Calliphoridae		
Lucilia graphita Shannon, 1926 endemic.....	Lit	
Chloropidae		
Siphunculina striolata (Wiedemann, 1830) adventive.....	Lit	
Ephydriidae		
Hecamede granifera (Thomson, 1869) adventive.....	Lit	
Milichiidae		
Leptometopa beardsleyi Hardy & Delfinado, 1980 endemic.....	Lit	
Milichiella lacteipennis (Loew, 1865) adventive.....	Lit.....	00
Muscidae		
Haematobia irritans (Linnaeus, 1758) adventive <b>horn fly</b> .....	Lit	
Musca domestica Linnaeus, 1758 adventive <b>house fly</b> .....	Rpt	
Phoridae		
Diplonevra peregrina (Wiedemann, 1830) adventive.....	Lit	
Megaselia scalaris (Loew, 1866) adventive.....	Lit	
Sarcophagidae		
Goniophyto bryani Lopes, 1938 indigenous.....	Lit	
Syrphidae		
Simosyrphus grandicornis (Macquart, 1842) adventive.....	Lit	
Tephritidae		
Bactrocera dorsalis (Hendel, 1912) adventive <b>oriental fruit fly</b> .....	Lit	
Ceratitis capitata (Wiedemann, 1824) adventive <b>Mediterranean fruit fly</b> .....	Lit	
Tethinidae		
Dasyrhicnoessa insularis (Aldrich, 1931) indigenous?.....	Lit	
<b>Embiidina (1)</b>		
Oligotomidae		
Oligotoma saundersii (Westwood, 1837) adventive <b>Saunders embiid</b> .....	Lit.....	00
<b>Heteroptera (8)</b>		
Anthocoridae		
Orius persequens (White, 1877) adventive.....	Lit.....	00
Cydnidae		
Geotomus pygmaeus (Dallas, 1851) adventive <b>oceanic burrower bug</b> .....	Lit	
Gerridae		
Halobates sp. ....		00
Lygaeidae		
Nysius fullawayi fullawayi Usinger, 1942 endemic C2 <b>Fullaway's seed bug</b> .....	Lit.....	00
Nysius fullawayi infuscatus Usinger, 1942 endemic.....	Lit	
Nysius palor Ashlock, 1963 adventive?.....	Lit.....	00
Miridae		
Engytatus modestus (Distant, 1893) adventive <b>tomato bug</b> .....	Lit	
Nabidae		
Nabis capsiformis Germar, 1837 adventive <b>pale damsel bug</b> .....	Lit.....	00
<b>Homoptera (8)</b>		
Aphididae		
Aphis craccivora C.L. Koch, 1854 adventive <b>cowpea aphid</b> .....	Lit	
Delphacidae		
Opiconsiva paludum (Kirkaldy, 1910) adventive.....	Lit	
Syndelphax disonymus (Kirkaldy) adventive <b>New State Record</b> .....		00
Toya dryope (Kirkaldy, 1907) adventive.....		00
Diaspididae		
Odonaspis ruthae Kotinsky, 1915 adventive <b>ruth grass scale</b> .....	Lit	
Pseudococcidae		
Antonina graminis (Maskell, 1897) adventive <b>rhodesgrass mealybug</b> .....	Lit	
Dysmicoccus brevipes (Cockerell, 1893) adventive <b>pineapple mealybug</b> .....	Lit	
Trionymus insularis Ehrhorn, 1916 endemic.....	Lit	

**Hymenoptera (7)**

Braconidae	Chelonus blackburni Cameron, 1887 adventive.....Lit	
Chalcididae	Proconura "migratoria" MSName of Yoshimoto.....	Coll
Encyrtidae	Neodusmetia sangwani (Subba Rao, 1957) adventive.....Lit	
Formicidae	Cardiocondyla nuda (Mayr, 1866) adventive.....Lit	
	Pheidole megacephala (Fabricius, 1793) adventive <b>bigheaded ant</b> .....Lit	00
	Plagiolepis alluaudi Emery, 1894 adventive <b>little yellow ant</b> .....	Rpt
	Tetramorium bicarinatum (Nylander, 1847) adventive <b>Guinea ant</b> .....Lit	00

**Lepidoptera (15)**

Cosmopterigidae	Asymphorodes dimorpha (Busck, 1914) adventive.....Lit	00
Crambidae	Chilo suppressalis (Walker, 1863) adventive <b>Asiatic rice borer</b> .....Lit	
	Hellula undalis (Fabricius, 1781) adventive <b>imported cabbage webworm</b> .....	00
	Spoladea recurvalis (Fabricius, 1775) adventive <b>Hawaiian beet webworm</b> .....Lit	00
Noctuidae	Helicoverpa zea (Boddie, 1850) adventive <b>bollworm, corn earworm, tomato fruitworm</b> .....Lit	00
	Hypena laysanensis (Swezey, 1914) endemic C3 <b>Laysan dropseed noctuid moth</b> .....Lit	
	Leucania loreyimima Rungs, 1953 adventive.....	00
	Spodoptera exempta (Walker, 1856) adventive <b>nutgrass armyworm</b> .....Lit	
	Spodoptera litura (Fabricius, 1775) adventive.....Lit	Rpt
	Spodoptera mauritia (Boisduval, 1833) adventive <b>lawn armyworm</b> .....Lit	
	Targalla delatrix (Guenee, 1852) adventive <b>eugenia caterpillar</b> .....Lit	
Olethreutidae	Crociosema leprara (Walsingham, 1907) endemic?.....	00
Plutellidae	Plutella xylostella (Linnaeus, 1758) adventive <b>diamondback moth</b> .....Lit	
Sphingidae	Hyles lineata (Fabricius, 1775) adventive <b>whitelined sphinx</b> .....Lit	Rpt
Tineidae	Decadarchis kerri (Swezey, 1926) adventive.....Lit	

**Neuroptera (1)**

Chrysopidae	Chrysoperla comanche (Banks, 1938) adventive <b>comanche lacewing</b> .....Lit
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**Phthiraptera (3)**

Menoponidae	Austromenopon transversum (Denny, 1842) indigenous.....Lit
Philopteridae	Harrisoniella densa (Kellogg, 1896) indigenous.....Lit
	Saemundssonina lari gonothorax (Giebel, 1874) indigenous.....Lit

**Siphonaptera (1)**

Rhopalopsyllidae	Polygenis gwyni (Fox, 1914) adventive.....Lit
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**CHILOPODA (1)****Geophilomorpha (1)**

Geophilidae	Honuaphilus alohanus Chamberlin, 1926 endemic?.....Lit
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**CRUSTACEA (5)****Isopoda (5)**

Eubelidae	Elumoides monocellatus Taiti & Ferrara, 1983 adventive.....Lit
Philosciidae	Australophiloscia societatis (Maccagno, 1932) indigenous.....Lit
	Littorophiloscia culebrae (Moore, 1901) adventive.....Lit
Porcellionidae	Porcellionides pruinosus (Brandt, 1833) adventive.....Lit
Trachelipodidae	Nagurus sundaicus (Dollfus, 1898) adventive.....Lit



