

**A CHECKLIST AND HOST INDEX OF THE ARMORED SCALE  
INSECTS OF THE PHILIPPINES  
(DIASPIDIDAE: HOMOPTERA)<sup>1</sup>**

**F. J. Velasquez and L. Rimando<sup>2</sup>**

**This checklist contains 64 species spread over 25 genera, 3 tribes and one subfamily of armored scale insects. *Pinnaspis uvariae* (Cockerell and Robinson) is proposed as a new combination, and new common names for the majority of the species are, likewise, recommended for standard use.**

**Ninety plants are listed as local hosts of this group of insects.**

The last comprehensive work (Robinson 1917, 1918) on Philippine armored scale insects included about 48 species. Since then no attempt has made to update this list and for the last fifty years or so, this group of insects had been largely ignored in spite of its role as important pest of field crops, fruit trees, and ornamentals. Capco (1957), for instance, whose listing of insect pests of plants is considered as the most authoritative in the Philippines, included about 32 species only. On the other hand, the *Philippine Agriculture: Field Crops* (ed. Uichanco 1959), a widely-used standard reference, listed but a few well-known species and designated the rest merely as "scales." Both references sadly betray an almost total lack of appreciation of the group which may be construed as a tacit acceptance that the knowledge on the composition of our scale fauna is fragmentary. With the growing importance of this group of insects, there is a need to study them more intensively and this checklist had been assembled to form a basis for a more detailed taxonomic treatment of the group.

This checklist contains 64 species spread over 25 genera, 3 tribes and one subfamily. This undoubtedly represents but a fraction of the total picture of our scale fauna. All the included species are presently considered as valid except those of Zehntner's which need further verification. Thus, their inclusion in the list is temporary. The scheme of classification adopted is mainly that of Ferris (1937-1942).

Ninety plants are so far listed as hosts of armored scale insects in the Philippines. The several species under the genus *Citrus* had been

<sup>1</sup> Contribution No. 17; Received for publication, 30 March 1969.

<sup>2</sup> Undergraduate major student and Assistant Professor, respectively; Department of Entomology, University of the Philippines, College, Laguna.

counted as one group. Like the scale fauna, the number of host plants is admittedly incomplete and further collection may perhaps yield a better picture.

New common names for the majority of the species are here proposed with the hope that a standard usage shall eventually develop.

### CHECKLIST

Subfamily DIASPIDINAE

#### I. Tribe DIASPIDINI

##### Pupillarial Form

##### A. Genus FIORINIA Targioni-Tozzetti 1868

1. *Fiorinia fiorinae* Targioni — avocado scale
2. *F. phantasma* Cockerell & Robinson — phantasma scale\*
3. *F. japonica* Kuwana — Japanese scale\*

##### Non-Pupillarial Forms

##### B. Genus AULACASPIS Cockerell 1893

4. *Aulacaspis rosae* (Bouche) — rose scale
5. *A. tagalensis* Zehntner\*\* — tagalog scale\*
6. *A. tubercularis* Newstead — cinnamomum scale\*

##### C. Genus PINNASPIS Cockerell 1893

7. *Pinnaspis aspidistrae* (Signoret) — fern scale
8. *P. buxi* (Bouche) — boxwood scale  
[= *P. siphonodontis* Cockerell & Robinson]
9. *P. strachani* (Cooley) — hibiscus snow scale  
[= *Hemichionaspis townsendi* Cockerell]
10. *P. uvariae* (Cockerell & Robinson), n. comb. — uvaria scale\*

##### D. Genus CHIONASPIS Signoret 1882

11. *Chionaspis depressa* Zehntner\*\* — depressed scale\*
12. *C. saccharifolii* Zehntner\*\* — tubo scale\*

##### E. Genus PHENACASPIS Cooley and Cockerell 1899

13. *Phenacaspis inday* (Banks) — mango scale\*
14. *P. mischocarpi* Cockerell & Robinson — mischocarpus scale\*
15. *P. pallida* Robinson — litsea scale\*
16. *P. pellucida* Robinson — macaranga scale\*
17. *P. sandwicensis* (Fullaway) — oleander scale  
[= *P. eugeniae* (Maskell)]
18. *P. thoracica* Robinson — morinda scale\*

##### F. Genus GENAPARLATORIA MacGillivray 1921

19. *Genaparlatoria pseudoaspidiotus* (Lindinger) — vanda scale

##### G. Genus PARLATORIA Targioni-Tozzetti 1869

20. *Parlatoria crotonis* Douglas — croton parlatoria  
[= *Parlatoria greeni* Banks]

\* New common name

\*\* Of doubtful occurrence

21. *P. pergandei* Comstock — chaff scale  
 [= *P. sinensis* Maskell]  
 22. *P. proteus* (Curtis) — sanseveria scale  
 23. *P. ziziphus* (Lucas) — Mediterranean scale

## H. Genus UNASPIS MacGillivray 1921

24. *Unaspis yanonensis* (Kuwana)\*\* — yanone scale

## I. Genus LEPIDOSAPHES Shimer 1868

25. *Lepidosaphes beckii* (Newman) — purple scale  
 26. *L. cocculi* (Green) — cocculus scale\*  
 27. *L. duponti* Green — Dupont scale\*  
 28. *L. esakii* Takahashi — Esaki scale\*  
 29. *L. gloverii* (Packard) — Glover scale  
 30. *L. ixorae* Cockerell & Robinson — santan scale\*  
 31. *L. luzonica* Robinson — Luzon scale\*  
 32. *L. mcgregori* Banks — McGregor scale\*  
 33. *L. rubrovittatus* Cockerell — tampoi scale\*  
 34. *L. tokionis* (Kuwana) — croton scale  
 [= *L. lasianthi* (Green)]  
 35. *L. tubulorum* Ferris — tube scale\*  
 36. *L. unicolor* Banks — buko scale\*

## II. Tribe ASPIDIOTINI

## J. Genus PSEUDAONIDIA Cockerell 1897

37. *Pseudaonidia curculiginis* (Green) — buli scale\*  
 38. *P. obsita* Cockerell & Robinson — isis scale\*  
 39. *P. trilobitiformis* (Green) — gingging scale\*

## K. Genus MORGANELLA Cockerell 1897

40. *Morganella longispina* (Morgan) — champaca scale\*

## L. Genus CLAVASPIS MacGillivray 1921

41. *Clavaspis herculeana* (Hadden) — cassia bark scale\*

## M. Genus HEMIBERLESIA Cockerell 1897

42. *Hemiberlesia lataniae* (Signoret) — latania scale  
 [= *Aspidiotus cydoniae* Comstock]  
 [= *Aspidiotus cydoniae* var. *greeni* Cockerell]  
 43. *H. palmae* (Cockerell) — tropical palm scale  
 44. *H. rapax* (Comstock) — greedy scale

## N. Genus AONIDIELLA Leonardi 1895

45. *Aonidiella aurantii* (Maskell) — California red scale  
 46. *A. comperei* McKenzie — Compere scale\*  
 47. *A. inornata* McKenzie — yellow scale  
 48. *A. orientalis* (Newstead) — oriental scale\*  
 [= *Chrysomphalus pedroniformis* Cockerell & Robinson]

## O. Genus FURCASPIS Lindinger 1908

49. *Furcaspis oceanica* Lindinger\*\* — oceanic scale\*

\* New common name

\*\* Of doubtful occurrence

## P. Genus ACUTASPIS Ferris 1937

50. *Acutaspis tingi* McKenzie — ting scale\*

## Q. Genus CHRYSOMPHALUS Ashmead 1880

51. *Chrysomphalus dictyospermi* (Morgan) — palmera scale\*  
 [= *Aspidiotus mangifera* Cockerell]  
 52. *C. ficus* Ashmead — Florida red scale  
 [= *C. aonidum* (Linn.)]  
 [= *C. propsimus* Banks]

## R. Genus LINDINGASPIS MacGillivray 1921

53. *Lindingaspis rossi* (Maskell) — australian black scale

## S. Genus TARGIONIA Signoret 1869

53. *Targionia merrilli* Cockerell — mangrove scale\*

## T. Genus SELENASPIDUS Cockerell 1897

55. *Selenaspis articulatus* (Morgan) — rufous scale

## U. Genus ASPIDIOTUS Bouche 1833

56. *Aspidiotus coryphae* Cockerell & Robinson — corypha scale\*  
 51. *A. destructor* Signoret — coconut scale  
 [= *A. translucens* Cockerell]  
 [= *A. lataniae* of Robinson, Green, Cockerell]  
 58. *A. tayabanus* Cockerell — rosalia scale\*

## V. Genus ASPIDIELLA Leonardi 1897

59. *Aspidiella hartii* (Cockerell) — ubi scale\*  
 60. *A. zingiberi* Mamet — luya scale\*

## W. Genus TEMNASPIDIOTUS MacGillivray 1921

61. *Temnaspidotus excisus* (Green) — cyanotis scale\*

## X. Genus SCHIZASPIS Cockerell &amp; Robinson 1915

62. *Schizaspis lobata* Cockerell & Robinson — tibig scale\*

## III. Tribe ODONASPIDINI

## Y. Genus ODONASPIS Leonardi 1897

62. *Odonaspis schizostachyi* Cockerell & Robinson — anos scale\*  
 64. *Odonaspis saccharicaulis* Zehntner\*\* — paragrass scale

\* New Common name

\*\* Of doubtful occurrence

## HOST INDEX

HOST PLANTS	HOST INDEX	Species of ARMORED SCALES
1. <i>Abies veitchii</i>		a. <i>Fiorinia japonica</i> Kuwana
2. <i>Acacia farnesiana</i> (Linn.) Willd. Leguminosae	(aroma)	a. <i>Clavaspis herculeana</i> (Hadden)
3. <i>Achras sapota</i> Linn. Sapotaceae	(chico)	a. <i>Hemiberlesia lataniae</i> (Signoret)
4. <i>Agave cantala</i> Roxb. Agavaceae	(maguey)	a. <i>Aonidiella aurantii</i> (Maskell) b. <i>Aspidiotus destructor</i> Signoret c. <i>Pinnaspis aspidistrae</i> (Signoret)
5. <i>Agave sisalana</i> (Engl.) Perr Agavaceae	(sisal)	a. <i>Aonidiella aurantii</i> (Maskell) b. <i>Aspidiotus destructor</i> Signoret c. <i>Pinnaspis aspidistrae</i> (Signoret)
6. <i>Aleurites moluccana</i> (Linn.) Willd. Euphorbiaceae	(lumbang)	a. <i>Aspidiotus destructor</i> Signoret
7. <i>Ananas comosus</i> (Linn.) Merr. Bromeliaceae	(pinya)	a. <i>Aonidiella aurantii</i> (Maskell) b. <i>Aspidiotus destructor</i> Signoret c. <i>Pinnaspis aspidistrae</i> (Signoret)
8. <i>Annona squamosa</i> Linn. Annonaceae	(ates)	a. <i>Aspidiotus destructor</i> Signoret
9. <i>Annona</i> spp. Annonaceae		a. <i>Aspidiotus destructor</i> Signoret b. <i>Chrysomphalus ficus</i> Ashmead a. <i>Clavaspis herculeana</i> (Hadden)
10. <i>Areca catechu</i> Linn. Palmae	(bunga)	a. <i>Aspidiotus destructor</i> Signoret b. <i>Lepidosaphes tubulorum</i> Ferris
11. <i>Arenga saccharifera</i> Labill. Palmae	(Florida palm)	a. <i>Aonidiella aurantii</i> (Maskell) b. <i>Chrysomphalus ficus</i> Ashmead c. <i>Lindingaspis rossi</i> (Maskell)

12. *Artocarpus* spp.  
Moraceae
13. *Astronia* sp.  
Melastomaceae
14. *Blumea balsamifera* (Linn.) DC  
Compositae (sambong)
15. *Camellia* sp.  
Ternstroemiaceae (papaya)
16. *Carica papaya* Linn.  
Caricaceae (kapok)
17. *Ceiba pentandra* (Linn.) Gaertn.  
[= *Eriodendron anfractuosum* DC.]  
Bombacaceae (malaikmo)
18. *Celtis philippinensis* Blanco  
Ulmaceae (manzanilla)
19. *Chrysanthemum indicum* Linn.  
Compositae (alkampor)
20. *Cinnamomum camphora* (Linn.) Sieb.  
Lauraceae
21. *Citrus* spp.  
Rutaceae
- a. *Aonidiella aurantii* (Maskell)  
b. *Chrysomphalus ficus* Ashmead  
c. *Morganella longispina* (Morgan)  
d. *Pseudanidia trilobitiformis* (Green)  
a. *Aonidiella aurantii* (Maskell)
- a. *Hemiberlesia lataniae* (Signoret)
- a. *Morganella longispina* (Morgan)
- a. *Aspidiotus destructor* Signoret
- a. *Aonidiella orientalis* (Newstead)
- a. *Fiorinia fiorinae* (Targioni-Tozzetti)  
b. *Parlatoria pergandei* Comstock  
c. *Pinnaspis buxi* (Bouche)  
a. *Hemiberlesia lataniae* (Signoret)
- a. *Aulacaspis tubercularis* Newstead  
b. *Clavaspis herculeana* (Hadden)
- a. *Aonidiella aurantii* (Maskell)  
b. *Aonidiella inornata* McKenzie  
c. *Aonidiella orientalis* (Newstead)  
d. *Aspidiotus destructor* Signoret  
e. *Chrysomphalus dictyospermi* (Morgan)  
f. *Chrysomphalus ficus* Ashmead  
g. *Hemiberlesia rapax* (Comstock)

- h. *Lepidosaphes beckii* (Newman)
- i. *Lepidosaphes gloverii* (Packard)
- j. *Lepidosaphes tokionis* (Kuwana)
- k. *Morganella longispina* (Morgan)
- l. *Parlatoria pergandei* (Comstock)
- m. *Parlatoria proteus* (Curtis)
- n. *Parlatoria ziziphus* (Lucas)
- o. *Pinnaspis aspidistrae* (Signoret)
- p. *Selenaspisus articulatus* Morgan
- q. *Tennaspidotus excisus* (Green)
- r. *Unaspis yanomensis* (Kuwana)
- a. *Aonidiella aurantii* (Maskell)
- b. *Aonidiella comperei* McKenzie
- c. *Aonidiella inornata* McKenzie
- d. *Aonidiella orientalis* (Newstead)
- e. *Aspidiotus destructor* Signoret
- f. *Chrysomphalus dictyospermi* Morgan
- g. *Chrysomphalus ficus* Ashmead
- h. *Furcaspis oceanica* Lindinger
- i. *Hemiberlesia palmarum* Cockerell
- j. *Lepidosaphes dupontii* Green
- k. *Lepidosaphes esakii* Takahashi
- l. *Lepidosaphes gloverii* Packard
- m. *Lepidosaphes mcgregori* Banks
- n. *Lepidosaphes unicolor* Banks
- o. *Parlatoria crotonis* Douglas
- p. *Phenacaspis inday* Banks
- q. *Pinnaspis strachani* (Cooley)
- a. *Aspidiotus destructor* Signoret
- b. *Lepidosaphes tokionis* (Kuwana)
- a. *Aspidiotus coryphae* Cockerell and Robinson
- b. *Pseudaonidia curculiginis* (Green)

22. *Cocos nucifera* Linn.)  
Palmae

23. *Codiaeum variegatum* (Linn.) Blume.  
Euphorbiaceae

24. *Corypha elata* Roxb.  
Palmae

25. *Cupania sapida* (Perhaps a misidentification)  
Sapindaceae
26. *Cyanotis* sp.  
Comelinaceae
27. *Cycas circinalis* Linn.  
Cycadaceae
28. *Cycas revoluta* Thunb.  
Cycadaceae
29. *Dendrobium* sp.  
Orchidaceae
30. *Dioscorea elata* Linn.  
Dioscoreaceae
30. *Erythrina* sp.  
Leguminosae
32. *Erythralium scandens* Blume.  
Olacaceae
33. *Eugenia calubcob* C. B. Rob.  
Myrtaceae
34. *Eugenia malaccensis* Linn.  
Myrtaceae
35. *Euphoria longama* Lam.  
Sapindaceae
36. *Euphorbia pulcherrima* Willd.  
Euphorbiaceae
37. *Ficus caudatifolia* Warb.  
Moraceae
38. *Ficus nota* (Blanco) Merr  
Moraceae
- a. *Morganella longispina* (Morgan)
- a. *Temaspidiotus excisus* (Green)
- a. *Lindingaspis rossi* (Maskell)
- a. *Aonidiella inornata* McKenzie
- a. *Acutaspis tingi* McKenzie
- a. *Aspidiella hartii* (Cockerell)
- b. *Aspidiotus destructor* Signoret
- a. *Clavaspis herculeana* (Hadden)
- a. *Lepidosaphes cocculi* (Green)
- b. *Pinnaspis aspidistrae* (Signoret)
- a. *Aspidiotus destructor* Signoret
- b. *Chrysomphalus dictyospermi* (Morgan)
- a. *Lepidosaphes rubrovittatus* Cockerell
- a. *Parlatoria proteus* (Curtis)
- a. *Pseudaonidia trilobitiformis* (Green)
- a. *Aspidiotus destructor* Signoret
- a. *Pseudaonidia obsita* Cockerell & Robinson
- a. *Schizaspis lobata* Cockerell & Robinson
- (pitogo)
- (oliba)
- (ubi)
- (dapdap)
- (balingayo)
- (kalubkob)
- (yambu)
- (gingging)
- (pascuas)
- (malaisis)
- (tibig)



- |   |               |  |  |  |
|---|---------------|--|--|--|
| 39. <i>Ficus</i> sp.<br>Moraceae                      |               |  |  | <i>Lepidosaphes luzonica</i> Robinson  |
| 40. <i>Garcinia mangostana</i> Linn.<br>Guttiferae    | (mangosteen)  |  |  | a. <i>Aspidiotus destructor</i> Signoret   |
| 41. <i>Garcinia</i> sp.<br>Guttiferae                 |               |  |  | a. <i>Chrysomphalus ficus</i> Ashmead  |
| 42. <i>Gardenia</i> sp.<br>Rubiaceae                  |               |  |  | a. <i>Aspidiotus tayabanus</i> Cockerell   |
| 43. <i>Gossypium</i> sp.<br>Malvaceae                 | (cotton)      |  |  | a. <i>Pinnaspis strachani</i> (Cooley)   |
| 44. <i>Hibiscus cannabinus</i> Linn.<br>Malvaceae     | (Indian hemp) |  |  | a. <i>Aspidiotus destructor</i> Signoret<br>b. <i>Lepidosaphes rubrovittatus</i> Cockerell<br>c. <i>Pinnaspis aspidistrae</i> (Signoret) |
| 45. <i>Hibiscus esculentus</i> Linn.<br>Malvaceae     | (okra)        |  |  | a. <i>Aspidiotus destructor</i> Signoret<br>b. <i>Lepidosaphes rubrovittatus</i> Cockerell<br>c. <i>Pinnaspis aspidistrae</i> (Signoret) |
| 46. <i>Hibiscus mutabilis</i> Linn.<br>Malvaceae      | (amapola)     |  |  | a. <i>Hemiberlesia lataniae</i> (Signoret)   |
| 47. <i>Hibiscus sabdariffa</i> Linn.<br>Malvaceae     | (roselle)     |  |  | a. <i>Aspidiotus destructor</i> Signoret<br>b. <i>Lepidosaphes rubrovittatus</i> Cockerell<br>c. <i>Pinnaspis aspidistrae</i> (Signoret) |
| 48. <i>Homalonema philippinensis</i> Engl.<br>Araceae | (payaw)       |  |  | a. <i>Pinnaspis buxi</i> (Bouche)  |
| 49. <i>Ixora coccinea</i> Linn.<br>Rubiaceae          | (santan-pula) |  |  | a. <i>Lepidosaphes itorae</i> Cockerell & Robinson   |
| 50. <i>Jasminum sambac</i> Linn. Ait.<br>Oleaceae     |               |  |  | a. <i>Aspidiotus tayabanus</i> Cockerell   |
| 51. <i>Lactuca sativa</i> Linn.<br>Compositae         | (lettuce)     |  |  | a. <i>Clavaspis herculeana</i> (Hadden)  |
| 52. <i>Lagerstroemia</i> sp.<br>Lythraceae            |               |  |  | a. <i>Morganella longispina</i> (Morgan)   |

53. *Lansium domesticum* Correa  
Meliaceae (lansones)
54. *Litsea* sp.  
Lauraceae (binunga)
55. *Lonchocarpus* sp.  
MueLL.-Arg.  
Euphorbiaceae (balumo)
56. *Macaranga tanarius* (Linn.)  
Euphorbiaceae (mangga)
57. *Machilus* sp.  
Lauraceae
58. *Machura* sp.  
Anacardiaceae
59. *Mangifera caesia* Jack  
[*Mangifera verticillata* C. B. Rob.]  
Anacardiaceae
60. *Mangifera indica* Linn.  
Anacardiaceae
61. *Michelia* sp.  
Magnoliaceae
62. *Mischocarpus fuscescens* Blume  
Sapindaceae
63. *Morinda bracteata* Roxb.  
Rubiaceae
64. *Musa sapientum* Linn.  
Musaceae
- a. *Lepidosaphes* sp.
- a. *Phenacaspis pallida* Robinson
- a. *Clavaspis herculeana* (Hadden)
- a. *Phenacaspis pellucida* Robinson
- a. *Fiorinia phantasma* Cockerell & Robinson
- a. *Clavaspis herculeana* (Hadden)
- a. *Aspidiotus destructor* Signoret
- b. *Chrysomphalus dictyospermi* (Morgan)
- a. *Anidiella orientalis* (Newstead)
- b. *Aspidiotus destructor* Signoret
- c. *Aulacaspis tubercularis* Newstead
- d. *Chrysomphalus dictyospermi* (Morgan)
- e. *Clavaspis herculeana* (Hadden)
- f. *Genaparatoria pseudoaspidiotus* (Lindinger)
- g. *Lepidosaphes* sp.
- h. *Morganella longispina* (Morgan)
- i. *Phenacaspis inday* Banks
- a. *Morganella longispina* (Morgan)
- a. *Phenacaspis mischocarpi* Cockerell & Robinson
- a. *Phenacaspis thoracica* Robinson
- a. *Aspidiotus destructor* Signoret
- b. *Chrysomphalus ficus* Ashmead
- c. *Hemiberlesia lataniae* (Signoret)

65. *Musa textilis* Nees  
(abaca)  
a. *Aspidiotus destructor* Signoret  
b. *Chrysomphalus ficus* Ashmead  
c. *Hemiberlesia lataniae* (Signoret)
66. *Persea americana* Mill.  
Lauraceae  
(avocado)  
a. *Aspidiotus destructor* Signoret  
b. *Fiorinia fiorinae* (Targioni-Tozzetti)
67. *Phalaenopsis* sp.  
Orchidaceae  
(datepalm)  
a. *Acutaspis tingi* McKenzie  
b. *Genaparlatoria pseudoaspidiotus* (Lindinger)  
a. *Aspidiotus destructor* Signoret
69. *Piper* sp.  
Piperaceae  
kalachuching-pula  
a. *Pinnaspis aspidistrae* (Signoret)
70. *Plumiera subra* Linn.  
Apocynaceae  
a. *Clavaspis herculeana* (Hadden)
71. *Psidium araca* Raddi  
Myrtaceae  
a. *Aspidiotus destructor* Signoret
72. *Psidium guajava* Linn.  
Myrtaceae  
(bayabas)  
a. *Aspidiotus destructor* Signoret  
b. *Chrysomphalus ficus* Ashmead
73. *Rhizophora mucronata* Lamark  
Rhizophoraceae  
(bakawan-babae)  
a. *Targionia merrilli* Cockerell
74. *Rosa* sp.  
Rosaceae  
(rose)  
a. *Aulacaspis rosae* (Bouche)
75. *Sabal palmetto* (Walt.) Lodd.  
Palmaceae  
(palmetto)  
a. *Aspidiotus destructor* Signoret
76. *Saccharum officinarum* Linn.  
Graminae  
(tubo)  
a. *Aulacaspis tagaiensis* Zehntner  
b. *Chionaspis depressa* Zehntner  
c. *Chrysomphalus saccharifolii* Zehntner  
d. *Lepidosaphes* sp.  
e. *Odonaspis saccharicaullis* Zehntner
77. *Sandoricum koetjape*  
(Burm. f.) Merr.  
Meliaceae  
(santol)  
a. *Pinnaspis buxi* (Bouche)

78. *Schizostachyum diffusum*  
(Blanco) Merr.  
[= *Schizostachyum acutiflorum* Munro]  
Graminae  
(bikal)  
a. *Odonaspis schizostachyi* Cockerell
79. *Siphonodon celastrineus* Griff.  
Celastraceae  
(malagsak-tilos)  
a. *Pinnaspis buxi* (Bouche)  
a. *Aonidiella inornata* McKenzie  
a. *Aspidiotus destructor* Signoret
80. *Spathoglottis* sp.  
Orchidaceae  
(sineguelas)  
a. *Aspidiotus destructor* Signoret  
b. *Clavaspis herculeana* (Hadden)  
a. *Lepidosaphes rubronitatus* Cockerell  
b. *Parlatoria proteus* (Curtis)
81. *Spondias purpurea* Linn.  
Anacardiaceae  
(sampilok)  
a. *Aspidiotus destructor* Signoret  
b. *Parlatoria ziziphus* (Lucas)  
a. *Aspidiotus destructor* Signoret
82. *Spondias* spp.  
Anacardiaceae  
(talisay)  
a. *Acutaspis tingi* McKenzie
83. *Syzygium* spp.  
Myrtaceae  
(luya)  
a. *Pinnaspis uvariae* (Cockerell & Robinson),  
n. comb.  
a. *Genaparlatoria pseudoaspidiotus* (Lindinger)
84. *Tamarindus indica* Lnn.  
Leguminosae  
(luya)  
a. *Aonidiella orientalis* (Newstead)  
a. *Aspidiella hartii* Cockerell  
b. *Aspidiella zingiberi* Mamet
85. *Terminalia catappa* Linn.  
Combretaceae
86. *Thrixpernum* sp.  
Orchidaceae
87. *Uzaria* sp.  
Annonaceae
88. *Vanda* sp.  
Orchidaceae
89. *Vitis vinifera* Linn.  
Vitaceae
90. *Zingiber officinale* Rosc.  
Zingiberaceae

## REFERENCES

- Banks, C.S.** 1906a. The principal insects attacking the coconut palm (Part I). *Philipp. Jour. Sci.* 1(2): 143-167, 11 pls.
- . 1906b. The principal insects attacking the coconut palm (Part II). *Philipp. Jour. Sci.* 1(3): 211-228. 10 pls.
- . 1906c. New Philippine insects. *Philipp. Jour. Sci.* 1(3): 299-238. 11 pls.
- Borchsenius, N.S.** 1964. New genera and species of scale insects (Homoptera, Coccoidea, Diaspididae) from Transcaucasia, Central and Eastern Asia. *Ent. Rev.* 43(1): 77-82.
- . 1964. On the Coccoidea of India 1. a new genus and three new species of Leucaspini (Diaspididae). *Ent. Rev.* 43(4): 442-444.
- . 1966. A Catalogue of the Armoured Scale Insects (Diaspidoidea) of the World. 449 pp., Acad. Sci. USSR: Moscow.
- Borchsenius, N.S. and D. J. Williams.** 1963. A study of the types of some little known genera of Diaspididae with descriptions of new genera (Hemiptera: Coccoidea). *Bull. Brit. Mus. Nat. Hist.* 13(B): 353-394.
- Capco, S.R.** 1957. A list of plant pests of the Philippines with special reference to field crops, fruit trees and vegetables. *Philipp. Jour. Agric.* 22(1-4): 3:80.
- Cockerell, T.D.A.** 1919. A new scale insect on Rhizophora. *Philipp. Jour. Sci.* 15: 385-386, fig. 1
- Dammerman, K.W.** 1929. The Agricultural Zoology of the Malay Archipelago. xi: 1-473, 40 pls., 169 figs., J.H. Bussy Ltd: Amsterdam.
- Ebeling, W.** 1959. Subtropical Fruit Pests. 436 pp., University of California, Div. Agric. Sci.
- Ferris, G.F.** 1937-1942. Atlas of the Scale Insects of North America. S I-IV: 1-445, Stanford Univ. Press: California.
- Green, E.E.** 1896-1922. The Coccidae of Ceylon. Parts I-5, 472 pp., Dulau and Co.: London.
- Kuwana, I.** 1925-1933. The Diaspine Coccidae of Japan. Parts 1-7. Japan Dept. of Finance, Imperial Plant Quarantine Serv. (Tokyo) Tech. Bull.
- MacGillivray, A.D.** 1921. The Coccidae. 502 pp., Scarab Press: Illinois.
- McKenzie, H.L.** 1956. The armored scale insects of California. *Bull. Calif. Ins. Surv.* 5: 1-209.
- Merrill, E.D.** 1926. An enumeration of Philippine flowering plants. *Bur. Sci. Publ.* No. 18, vol. 1-4. Manila. Reprint A. 1967. Ashner & Co.: Amsterdam.
- Merrill, G.B.** 1953. A revision of the scale insects of Florida. *State Plant Board of Florida Bull.* I: 11-43.
- Mumford, B.C.** 1965. List of intercepted plant pests in 1964. U.S.D.A. Agric. Res. Serv. Plt. Quarantine Div., 76 pp.
- . 1966. List of intercepted plant pests. U.S.D.A. Agric. Res. Serv. Plt. Quarantine Div., 88 pp.
- . 1967. List of intercepted plant pests. U.S.D.A. Agric. Res. Serv. Plt. Quarantine, 86 pp.
- Munting, J.** 1966. New and little known armoured scales (Homoptera: Diaspididae) from South Africa — 2. *Jour. Ent. Soc. Sth. Afr.* 28: 179-216.
- . 1968. New and little known armoured scales (Homoptera: Diaspididae) from South Africa — 4. *Jour. Ent. Soc. Sth. Afr.* 31(2): 417-433.

- Newstead, R.** 1900-1902. Monograph of the coccidae of the British Isles. vols. I & II. Ray Society: London.
- Robinson, E.** 1917. Coccidae of the Philippine Islands. *Philipp. Jour. Sci.* 12(1): 1-48.
- . 1918. Records and descriptions of Philippine Coccidae. *Philipp. Jour. Sci.* 13D: 145-150.
- Salvosa, F.M.** 1963. Lexicon of Philippine Trees. *Forest Prod. Res. Inst. Bull.* No. 1: 1-137.
- Uichanco, L. B.** ed. 1959. Philippine Agriculture: Field Crops. vol. I (second rev. ed.): 922 pp. UPCA.
- Woodworth, H.E.** 1921. A host index of insects injurious to Philippine crops I. *Philippine Agriculturist* 10(2): 9-35.
- . 1922a. A host index of insects injurious to Philippine crops II. *Philippine Agriculturist* 10(7): 321-329.
- . 1922b. A host index of insects injurious to Philippine crops III. *Philippine Agriculturist* II: 49-55.
- Zimmerman, E.C.** 1940. Insects of Hawaii (Homoptera: Sternorrhyncha) V: 1-451.