

# TARC Report

## The Scolytidae (Coleoptera) of the Philippines\*

BY AKIRA NOBUCHI

Forest Protection Division, Forestry and Forest Products Research Institute  
(Kukizaki, Inashiki, Ibaraki, 305 Japan)

The Scolytidae, bark beetles and ambrosia beetles, contains a great number of species which are more destructive to forest trees and newly felled timbers than any other group of insect pests. The bark beetles are usually secondary insect pests but, occasionally under conditions favorable for rapid breeding some species such as *Ips calligraphus* in Luzon may increase to large numbers so that they attack healthy trees and become important primary insect pests. On the other hand, the ambrosia beetles or pin-hole borers cause not only mechanical damage to timber, but also provide avenues for the invasion of blue stain or wood rotting fungi from the entrance holes.

As far as the author knows, the fauna of the Philippine Scolytidae contains 277 species belonging to 36 genera<sup>1-10</sup>). It is not too much to say that the survey of its fauna is incomplete in comparison with that of Japanese fauna. In this paper, a key to genera and a check list of Scolytidae from the Philippines are presented.

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### Key to genera of Philippine Scolytidae\*\*

1. Pronotum with lateral margins emarginated in basal half; in female pronotum with a conspicuous elongate pore before center; maxillary lobes with both spines and setae on inner edge; xylomycetophagous (Scolytoplatypinae) . . . . .  
.....*Scolytoplatypus* Schauffuss
- Pronotum with lateral margins not emarginated in basal half, without central pore in both sexes; maxillary lobes with either spines or setae on inner edge . . . . . 2
2. Abdominal sternites strongly ascending; phloepagous . . . . . 3
- Abdominal sternites not strongly ascending; usually horizontal . . . . . 4
3. Antennal funicles 4-segmented; antennal clubs solid . . . . .*Scolytogenes* Eichhoff
- Antennal funicles 6-segmented; antennal clubs with a sutures . . . . .  
.....*Scolytomimus* Blandford
4. Head suboblong and prominent, partially visible from above; pronotum nearly evenly punctured, not asperate on anterior portion; basal margin of elytra usually elevated and transversely crenulate (except Hylastini) (Hylesininae) . . 5
- Head globose, not visible from above, almost entirely concealed by pronotum;

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\*\* *Coriacephilus* Schedl in Cryphalini and *Ozopemon* Hagedorn in Cryptugini are omitted in this key, because the original descriptions are not enough to include them in this key.

- pronotum usually distinctly roughened, with backwardly directed asperities on anterior portion (except a few species of *Poecilips* in Crypturgini); basal margin of elytra smooth, neither elevated nor crenulate (*Ipinae*) ..... 12
5. Fore tibiae strongly projected outwardly on outer apical angle ..... 6
- Fore tibiae with a row of several tooth-like processes on outside, not projected on outer apical angle ..... 7
6. Eyes divided into two parts; antennal funicles 7-segmented; antennal clubs multi-segmented, appearance by two sutures and some rows of setae; phloeophagous ..... *Sphaerotrypes* Blandford
- Eyes elongate, undivided into two parts; antennal funicles 6-segmented; antennal clubs solid; phloeophagous ..... *Cladoctonus* Strohmeyer
7. Fore coxae rather widely separated at base by a broad prosternal process .... 8
- Fore coxae almost touching each other ..... *Cladoctonus* Strohmeyer.
8. Maxillary lobes with spine-like setae on inside; antennal clubs with septum or annulate; phloeophagous ..... 9
- Maxillary lobes with hair-like setae on inside; antennal clubs solid; antennal funicles 7-segmented; xylophagous .... *Dactylipalpus* Chapuis
9. Eyes distinctly emarginated in anterior margin, the emargination extending to middle of eyes; pronotum devoid of asperities; antennal clubs with two septa; antennal funicles 5-segmented ..... *Phloeosinus* Chapuis
- Eyes not emarginated in anterior margin; pronotum usually with a few asperities on antero-lateral portion; antennal funicles 5- or 7-segmented ..... 10
10. Antennal funicles with an oblique septum, 5-segmented ..... *Phloeoditica* Schedl
- Antennal funicles without septum .. 11
11. Antennal funicles 5-segmented; elytra curved down abruptly before apex; abdominal sternites horizontal ..... *Xylechinus* Chapuis
- Antennal funicles 7-segmented; elytra gradually descending behind middle; abdominal sternites weakly ascending behind ..... *Hylesinus* Fabricius
12. Pronotum with comparatively few, large, isolated asperities, with a distinctly elevated summit behind center; elytra usually covered with fine squamiform setae; antennal clubs compressed; phloeophagous, spermatophagous, or xylophagous (*Cryphalini*) ..... 13
- Pronotum not or covered with numerous, small asperities; usually with a weakly elevated summit (except *Dryocoetiops* in Crypturgini and a few species of *Xyleborus* in Xyleborini with a rather strongly elevated summit); elytra usually devoid of squamiform setae (except a few species of *Xyleborus* in Xyleborini) ..... 21
13. Antennal clubs with a distinct septum ..... 14
- Antennal clubs devoid of septum ... 15
14. Antennal clubs with an oblique septum on one side, no suture indicated by row of setae, evenly rounded on sides; fore tibiae rather broad, dilated in middle .. *Cryphalomorphus* Schaufuss
- Antennal clubs with narrow septum between 1st and 2nd sutures, three distinct sutures indicated by rows of setae, sinuate on sides; fore tibiae slender, gradually increasing in width distally ..... *Hypothenemus* Westwood
15. Antennal clubs with sutures indicated by rows of setae ..... 16
- Antennal clubs devoid of suture .... 19
16. Tarsi with 3rd segment stout or emarginated; antennal funicles 4-segmented ..... 17
- Tarsi with 3rd segment simple; antennal funicles 3-segmented ..... *Margadillius* Hopkins
17. Antennal funicles 4-segmented .... 18
- Antennal funicles 5-segmented ..... *Hypocryphalus* Hopkins
18. Antennal funicles with 4th segment distinctly wider than the 3rd, nearly as wide as the 2nd; antennal clubs with

- three recurved sutures on anterior face, three procurved sutures on posterior face ..... *Cryphalus* Erichson
- Antennal funicles with 4 segment nearly as wide as the 3rd, narrower than the 2nd; antennal clubs with four sutures, the 4th obscure ..... *Piperius* Hopkins
19. Antennal funicles 3-segmented ..... *Erioschidias* Schedl
- Antennal funicles 4-segmented ..... 20
20. Elytral striae and strial punctures distinct; in male 5th abdominal sternite devoid of tooth .... *Ptiopodius* Hopkins
- Elytral striae and strial punctures obscure; in male 5th abdominal sternite with four rather prominent teeth .... *Stephanorhopalus* Hopkins
21. Metepisternum largely covered by elytra, only anterior portion visible; antennal clubs compressed; pronotum finely marginated in basal margin; phloeophagous, xylophagous. (Pityophthorini) ..... *Pityophthorus* Eichhoff
- Metepisternum distinctly visible for entire length; pronotum usually not emarginated in basal margin (except *Coccotrypes* in Crypturgini); if basal margin emarginated, antennal clubs subtruncate ..... 22
22. Maxillary lobes with radiating spines on inner edge; middle and hind tibiae rather slender, abruptly narrowing apically, covered with some teeth outside; anterior plate of proventriculus well developed. Male similar to female in size and general shape (except *Poecilips* and *Coccotrypes* in Crypturgini); phloeophagous, spermatophagous ..... 23
- Maxillary lobes pilose, without radiating spine or inner edge; middle and hind tibiae rather broadly dilated in middle, gradually narrowing apically, armed with many teeth; anterior plate of proventriculus very small and nearly vestigial. Male differs from female in size and general shape; spermatophagous, xylo-mycetophagous ..... 30
23. Elytral declivity with teeth on lateral sides; pronotum with short transverse asperities arranged in concentric and parallel rows on anterior half, usually punctured or granulate on posterior third (Ipinii) ..... 24
- Elytral declivity devoid of tooth; pronotum punctured or irregularly covered with asperities; phloeophagous, spermatophagous, xylophagous (Crypturgini) ..... 25
24. Antennal clubs compressed with strongly procurved sutures ornamented by long setae, basal one of which reaches apical third ..... *Acanthotomicus* Blandford
- Antennal clubs obliquely truncate or flattened, with straight or bisinuate sutures, basal one of which does not reach middle ..... *Ips* Degeer
25. Basal suture of antennal clubs strongly procurved, the shining area semicircular ..... *Ozodendron* Schedl
- Basal suture of antennal clubs weakly recurved or straight, the basal shining area winecup-shaped ..... 26
26. Pronotal summit distinctly elevated; pronotum distinctly declivous in front, rather sparsely intermixed with wide and narrow asperities ..... *Dryocoetiops* Schedl
- Pronotal summit absent or indistinct; pronotum not or slightly declivous in front, with fine and dense asperation, the asperities devoid in some species of *Poecilips* ..... 27
27. Pronotum marginated in posterior margin, serrate in anterior margin ..... *Coccotrypes* Eichhoff
- Pronotum not marginated in posterior margin, not serrate in anterior margin ..... 28
28. Antennal funicles 4-segmented ..... *Cyrtogenius* Strohmeier
- Antennal funicles 5-segmented ..... 29
29. Pronotum acute at least basal half of lateral margins .... *Poecilips* Schaufuss
- Pronotum not acute in lateral margins ..... *Dryocoetes* Eichhoff
30. Hind tibiae and tarsi strongly compressed and broadly dilated (Eccoapterini)

- .....*Eccoptopterus* Motschulsky  
 - Hind tibiae not strongly compressed or broadly dilated; hind tarsi not compressed ..... 31  
 31. Fore tibiae strongly narrowing toward apex (Webbini) ..... *Webbia* Hopkins  
 - Fore tibiae broader toward apex (*Xyleborini*) ..... 32  
 32. Antennal clubs with two sutures on posterior face; abdominal sternies with sides nearly straight and acuminate from middle toward apex .....  
 .....*Coptoborus* Hopkins  
 - Antennal clubs without suture on posterior face; abdominal sternites with sides rounded from middle to apex .. 33  
 33. Antennal funicles 4-segmented .....  
 .....*Cnestus* Sampson  
 - Antennal funicles 5-segmented ..... 34  
 34. Fore tibiae with ventral sides rugose ..  
 .....*Arixyleborus* Hopkins  
 - Fore tibiae with ventral sides smooth ..  
 ..... 35  
 35. Fore coxae widely separated from each other at base .....*Xylosandrus* Reitter  
 - Fore coxae approximately contiguous at base .....*Xyleborus* Eichhoff

## A check list of Philippine Scolytidae

- Dactylipalpus niger* Schedl: *Philip. J. Sci.*, 90, 87 (1961).  
*Dactylipalpus transversus* Chapuis: *Synopsis des Scolytides*, 220 (1869).  
*Dactylopalpus unctus* Wood: *The Great Basin Naturalist* 21, 8 (1961).  
*Sphaerotrypes bangensis* Eggers: *Philip. J. Sci.*, 33, 73 (1927).  
*Sphaerotrypes biseriatus* Schedl: *Reichenbachia* 4, 243 (1964).  
*Sphaerotrypes boettcheri* Eggers: *Philip. J. Sci.*, 33, 72 (1927).  
*Sphaerotrypes insularis* Eggers: *Philip. J. Sci.*, 33, 74 (1927).  
*Sphaerotrypes inermis* Browne: *Kontyû, Tokyo*, 49, 127 (1981).  
*Sphaerotrypes moseri* Eggers: *Philip. J. Sci.*, 33, 73 (1927).  
*Sphaerotrypes palawanus* Eggers: *Philip. J. Sci.*, 33, 74 (1927).  
*Sphaerotrypes philippinensis* Strohmeier: *Philip. J. Sci.*, 6, 18 (1911).  
*Diamerus batoensis* Eggers: *Treubia*, 9, 392 (1927).  
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*Diamerus granulatus* Eggers: *Zool. Meded. R. Mus. nat. Hist. Leiden*, 7, 131 (1923).  
*Diamerus griseopubescens* Schedl: *Tijd. v. Ent.* 93, 52 (1950).  
*Diamerus interstitialis* (Lea): *Proc. r. Soc. Vict. N.S.*, 22, 145 (1910).  
*Diamerus merinjaki* Sampson: *Ann. Mag. nat. Hist.*, (9) 4, 107 (1919).  
*Diamerus puncticollis* Eggers: *Philip. J. Sci.*, 33, 68 (1927).  
*Diamerus striatus* Eggers: *Philip. J. Sci.*, 33, 67 (1927).  
*Cladoctonus banosus* (Eggers): *Zool. Meded. R. Mus. nat. Hist. Leiden*, 7, 141 (1923).  
*Phloeoditica phloeosinoides* Browne: *Ent. Medd.*, 34, 243 (1966).  
*Xylechinus formosanus* Schedl: *Philip. J. Sci.*, 57, 479 (1935).  
*Hylesinus birmanus* (Eggers): *Zool. Meded. R. Mus. nat. Hist. Leiden*, 7, 138 (1923).  
*Hylesinus despectus* Walker: *Ann. Mag. nat. Hist.*, (3), 3, 261 (1859).  
*Hylesinus nigrinus* Eggers: *Zool. Meded. R. Mus. nat. Hist. Leiden*, 7, 133 (1923).  
*Hylesinus porcatus* Chapuis: *Synopsis des Scolytides* (1869).  
*Hylesinus sumatranus* Eggers: *Zool. Meded. R. Mus. nat. Hist. Leiden*, 7, 134 (1923).  
*Phloeosinus asper* (Sampson): *Ann. Mag. nat. Hist.*, (9) 7, 35 (1927).  
*Phloeosinus australis nagaensis* Schedl: *Tijd. v. Ent.*, 82, 30 (1939).  
*Phloeosinus imitans* Eggers: *Philip. J. Sci.*, 33, 75 (1927).  
*Phloeosinus nonseptis* Schedl: *Kol.-forstl. Mitt.*, 5, 173 (1942).  
*Scolytogenes major* (Eggers): *Philip. J. Sci.*, 33, 69 (1927).  
*Scolytogenes minor* (Eggers): *Philip. J. Sci.*, 33, 69 (1927).  
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- Scolytomimus pusillus* (Eggers): *Philip. J. Sci.*, 33, 88 (1927).
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- Erioschidias philippinensis* Schedl: *Kontyú*, 35, 126 (1967).
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- Margadillius erythrinae* Hopkins: *U.S. Dept. Agr., Off. Sea.*, 99, 38 (1915).
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- Ptilopodius minutissimus* Schedl: *Entomol. Blätter*, 39, 34 (1943).
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- Ptilopodius stephegynis* Hopkins: *U.S. Dept. Agr., Off. Sea.*, 99, 11 (1915).
- Stephanorhopalus melodorum* Schedl: *Entom. Abh. Mus. Tierk. Dresden*, 35, 19 (1966).
- Piperius pini* Hopkins: *U.S. Dept. Agr., Off. Sea.*, 99, 39 (1915).
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- Cryphalus brevisetosus* Schedl: *Entomol. Blätter*, 39, 36 (1943).
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- Cryphalus nigricans* Schedl: *Entomol. Blätter*, 39, 35 (1943).
- Cryphalus palawanus* Schedl: *Kol.-forstl. Mitt.*, 5, 174 (1942).
- Cryphalus pusillus* Schedl: *Entomol. Blätter*, 39, 38 (1943).
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- Cryphalomorphus ater* (Eggers): *Zool. Meded. R. Mus. nat. Hist. Leiden*, 7, 142 (1923).
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- Cryphalomorphus parvus* (Hopkins): *U.S. Dept. Agr., Off. Sea.*, 99, 11 (1915).
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- Hypothenemus diptercarpi* (Hopkins): *U.S. Dept. Agr., Off. Sea.*, 99, 17 (1915).
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- Hypothenemus webbi* Hopkins: *U.S. Dept. Agr., Off. Sea.*, 99, 17 (1915).
- Hypocryphalus bakeri* (Eggers): *Philip. J. Sci.*, 33, 77 (1927).



- Hypocryphalus bidentatus* Browne: *Kontyû, Tokyo*, 49, 383 (1981).
- Hypocryphalus brevior* Schedl: *Entomol. Blätter*, 39, 40 (1943).
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- Hypocryphalus minor* Schedl: *Entomol. Blätter*, 39, 40 (1943).
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- Cyrtogenius elongatus* (Eggers): *Philip. J. Sci.*, 33, 85 (1927).
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- Cyrtogenius rugicollis* (Eggers): *Tijd. v. Ent.*, 83, 132 (1940).
- Dryocoetiops laevis* (Strohmeyer): *Philip. J. Sci.*, 6, 22 (1911).
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- Poecilips acuminatus* Schedl: *Entom. Abh. Mus. Tierk. Dresden*, 35, 34 (1966).
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- Poecilips depressus* (Eggers): *Philip. J. Sci.*, 33, 82 (1927).
- Poecilips incognitus* Schedl: *Philip. J. Sci.*, 90, 89 (1961).
- Poecilips fallax* Eggers: *Treubia*, 9, 399 (1927).
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- Poecilips longior* Eggers: *Philip. J. Sci.*, 33, 83 (1927).
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- Poecilips myristicae* (Roepke): *Treubia*, 1, 24 (1919).
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- Xyleborus cylindricus* Eggers: *Philip. J. Sci.*, 33, 94 (1927).
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