

A List of the Pselaphine Species (Insecta, Coleoptera, Staphylinidae) Collected from the Kaeng Krachan National Park, West Thailand

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Abstract Faunistic survey of pselaphine beetles (Coleoptera, Staphylinidae) was conducted by the authors, Nomura and Sakchoowong in the Kaeng Krachan National Park, West Thailand in Apr. 2009. One hundred and twenty species of the subfamily Pselaphinae in 43 known genera were recognized. Three known species, *Physomerinus femoralis* (Motschulsky), *Batraxis raffrayana* (Blattný) and *Mastiger brevicornis* Raffray have been collected, which are the first records from Thailand. Fifty-two pselaphine species including them are known from Thailand.

Key words : Pselaphinae, Staphylinidae, fauna, Thailand, Kaeng Krachan.

Introduction

In the term from 7th to 15th April 2009, a collecting survey was conducted to the Kaeng Krachan National Park (Fig. 121A, B) in W Thailand by the authors, Nomura and Sakchoowong. As the result, one hundred and twenty species of the subfamily Pselaphinae (Coleoptera, Staphylinidae) were collected as shown below.

Most of the collected species were unnamed, though the following five species were identified with known species: *Physomerinus femoralis* (Motschulsky), *Reichenbachella buddha* (Raffray), *Batraxis raffrayana* (Blattný), *Articerodes thailandicus* Nomura, Sakchoowong et Chanpaisaeng, and *Mastiger brevicornis* Raffray. Three species of them, *P. femoralis*, *B. raffrayana* and *M. brevicornis* will be recorded for the first time from Thailand.

After Nomura *et al.* (2008a), thirty-six pselaphine species have been known from Thailand. Nomura, Sakchoowong and Chanpaisaeng (2008) described three new species of the genus *Ar-*

ticerodes from Thailand. Nomura *et al.* (2008b) recorded *Harmophorus gibbioides* Motschulsky and *Cerylambus reticulatus* (Raffray), the latter species of which was also treated by Nomura, Sakchoowong and Idris (2008). They described a new species of *Cerylambus*, *C. thailandicus* from Mt. Doi Suthep, N Thailand. Seven species were added to the Thai fauna by Nomura and Idris (2008). As the result, fifty-two species of the subfamily Pselaphinae are recorded from Thailand including the present paper.

Materials and Methods

The pselaphine specimens were collected by the following four collecting methods: light trap (LT), flight intercept trap (FIT), quantitative sampling using Tullgren funnels (TL) and hand sorting (HS) of leaf litter and decayed wood.

Two sets of portable light traps (4W) made by Mr. Yuta Nakase (Fig. 121C) were used for collecting pselaphines.

Many pselaphine species were collected by a new type of FIT named NG-5 (Fig. 121D). The

new type is the same in size and shape of the barrier as those shown in Nomura and Idris (2004) (NG-3), though it has a roof along the upper margin.

The quantitative sampling was made as follows: 1) a quadrat sized 1 m×1 m was set on the ground; 2) leaf litter inside the quadrat was gathered by hand; 3) the litter was sifted using a sifter (Fig. 121E); 4) the sifted litter was set into Tullgren extractors with 40% ethanol hydrate; 5) soil beetles were extracted within 48 hours lighting; 6) the extracted soil beetles including pselaphines were sorted, identified and counted; 7) the materials were preserved in 75% ethanol hydrate.

Some specimens were collected by hand sorting (Fig. 121F), namely sifting leaf litter and checking under bark and decayed wood.

Collected specimens are shared by the insect collection of the Department of National Parks (DNP), Bangkok, Thailand and that of the National Museum of Nature and Science, Tokyo, Japan.

Supertribe **Bythinoplectitae**

1. *Bythinoplectina*, gen. and sp. undet., 1 (Fig. 1)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

Remarks. This subtribe is separated from the subtribe Pyxidicerina by having the palpal cavities on the anterolateral sides of cranium. After Nomura *et al.* (2008a), one species of this subtribe, *Zethopsus opacus* (Schaufuss, 1877) has been known from Thailand.

2. *Bythinoplectina*, gen. and sp. undet., 2 (Fig. 2)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 4 females, 16 km Point, by FIT (NG-5), 8–11. iv. 2009, S. Nomura leg.; 1 male, 1 female, same data as above, but 11–14.iv.2009, S. Nomura leg.; 1 male, 6 females, 17 km Point, by TL,

11.iv.2009, W. Sakchoowong leg.

3. *Bythinoplectina*, gen. and sp. undet., 3 (Fig. 3)

Specimens examined. 1 male, 1 female, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 1 female, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 females, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

4. *Bythinoplectina*, gen. and sp. undet., 4 (Fig. 4)

Specimen examined. 1 male, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

5. *Bythinoplectina*, gen. and sp. undet., 5 (Fig. 5)

Specimen examined. 1 male, 16 km Point, by FIT (NG-5), 11–14 iv.2009, S. Nomura leg.

6. *Bythinoplectina*, gen. and sp. undet., 6 (Fig. 6)

Specimens examined. 2 males, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

7. *Bythinoplectina*, gen. and sp. undet., 7 (Fig. 7)

Specimens examined. 1 female, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 1 female, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 2 males, 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

8. *Parapyxidicerus* sp. 1 (Fig. 8)

Specimen examined. 1 female, 15 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Parapyxidicerus* was defined by Sawada (1964) from Japan with the type species, *P. carinatus*, which is separable from the other genus of the subtribe Pyxidicerina by the elongate, subparallel-sided and medium-sized body, the eleven-segmented antenna and the maxillary palpus consisting of short basal segments and large and semispherical terminal segment.

9. *Parapyxidicerus* sp. 2 (Fig. 9)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 1 female, 16 km Point, by FIT (NG-5), 8–

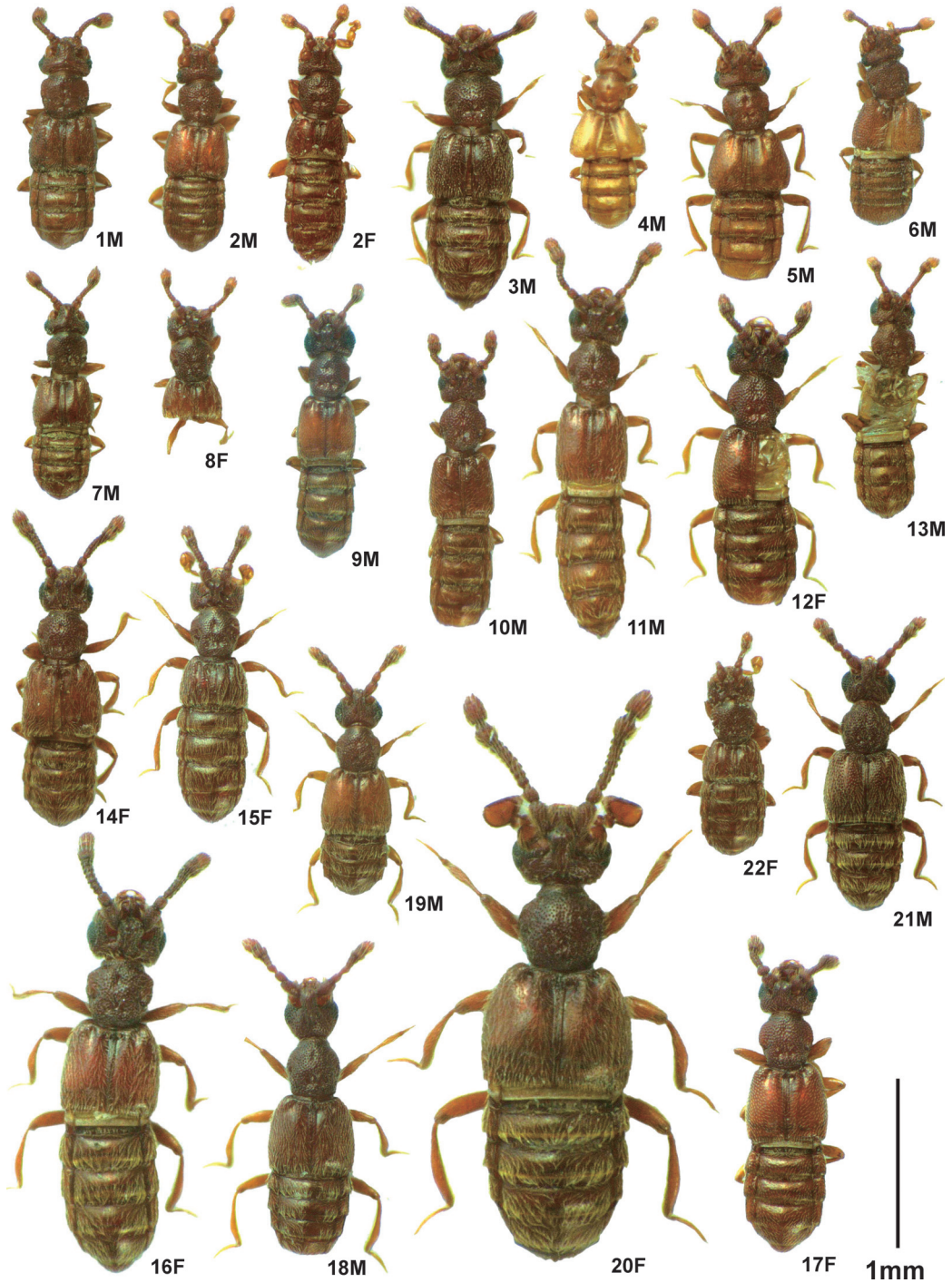


Fig. 1–22 (Bythinoplectinae; M: male; F: female). 1, *Bythinoplectina*, gen. and sp. undet., 1; 2, *B.*, gen. and sp. 2; 3, *B.*, gen. and sp. 3; 4, *B.*, gen. and sp. 4; 5, *B.*, gen. and sp. 5; 6, *B.*, gen. and sp. 6; 7, *B.*, gen. and sp. 7; 8, *Parapyxidicerus* sp. 1; 9, *P.* sp. 2; 10, *P.* sp. 3; 11, *P.* sp. 4; 12, *P.* sp. 5; 13, *P.* sp. 6; 14, *P.* sp. 7; 15, *P.* sp. 8; 16, *Pyxidicerina*, gen. and sp. undet., 1; 17, *P.*, gen. and sp. 2; 18, *P.*, gen. and sp. 3; 19, *P.*, gen. and sp. 4; 20, *P.*, gen. and sp. 5; 21, *P.*, gen. and sp. 6; 22, *P.*, gen. and sp. 7.

11.iv.2009, S. Nomura leg.

10. *Parapyxidicerus* sp. 3 (Fig. 10)

Specimens examined. 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

1 male, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

11. *Parapyxidicerus* sp. 4 (Fig. 11)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

12. *Parapyxidicerus* sp. 5 (Fig. 12)

Specimen examined. 1 female, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

13. *Parapyxidicerus* sp. 6 (Fig. 13)

Specimen examined. 1 male, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

14. *Parapyxidicerus* sp. 7 (Fig. 14)

Specimen examined. 1 female, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

15. *Parapyxidicerus* sp. 8 (Fig. 15)

Specimens examined. 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

16. Pyxidicerina, gen. and sp. undet., 1 (Fig. 16)

Specimens examined. 2 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

Remarks. This subtribe is different from the subtribe Bythinoplectina by the narrow palpal cavities opening only at the frontal side of the cranium. The Asian fauna of this subtribe is still poorly studied. The species 3, 4, and 6 shown below are probably included in an unnamed genus characterized by the elongately ovoidal head and the prolonged antennal segment III.

17. Pyxidicerina, gen. and sp. undet., 2 (Fig. 17)

Specimens examined. 2 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

18. Pyxidicerina, gen. and sp. undet., 3 (Fig. 18)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, same data as above, but 11–14.iv.2009, S. Nomura leg.

19. Pyxidicerina, gen. and sp. undet., 4 (Fig. 19)

Specimens examined. 3 males, 2 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 1 female, same data as above, but 11–14.iv.2009, S. Nomura leg.

20. Pyxidicerina, gen. and sp. undet., 5 (Fig. 20)

Specimens examined. 1 male, 2 females, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 1 female, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

21. Pyxidicerina, gen. and sp. undet., 6 (Fig. 21)

Specimens examined. 1 female, 15 km Point, by TL, 8. iv. 2009, W. Sakchoowong leg.; 1 male, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.

22. Pyxidicerina, gen. and sp. undet., 7 (Fig. 22)

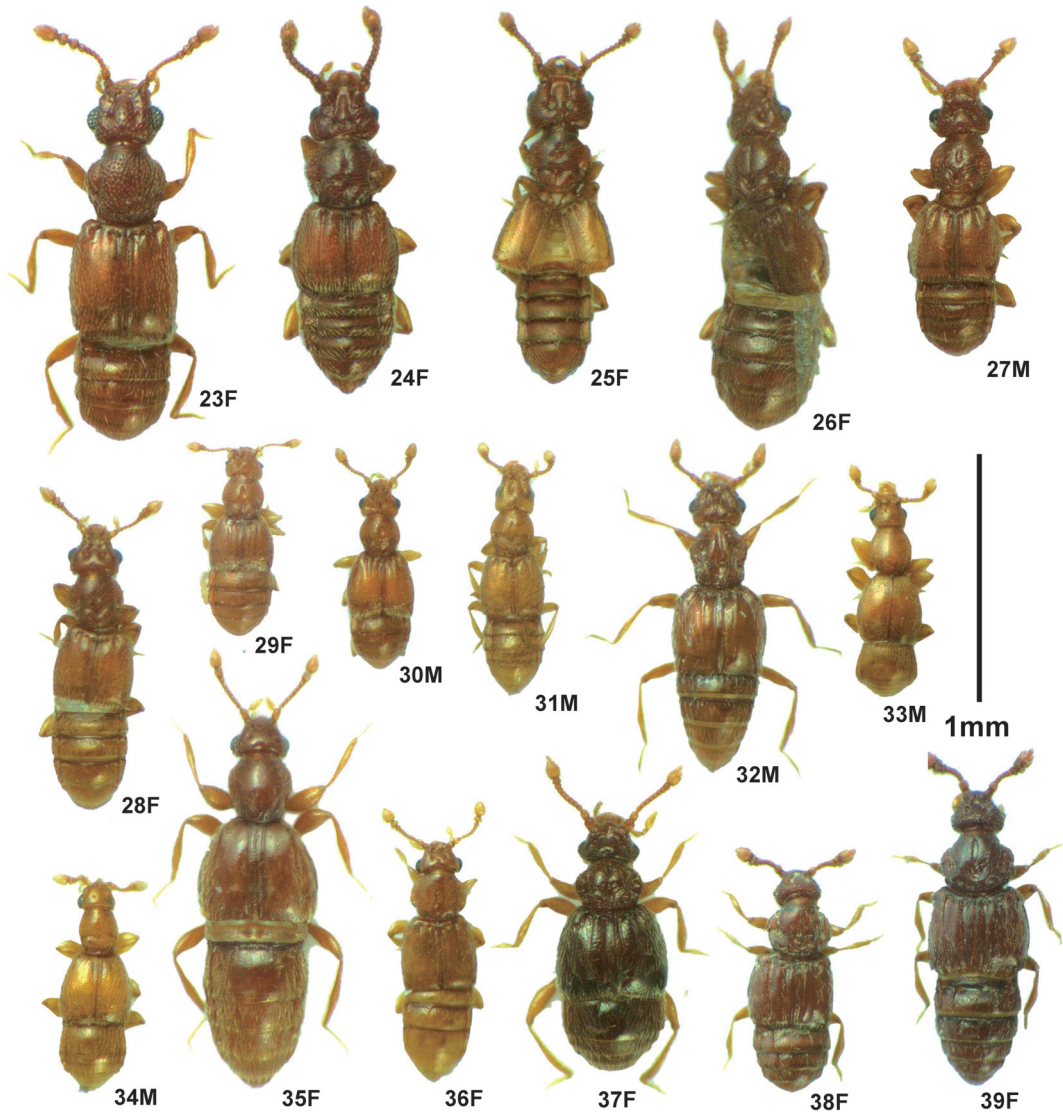
Specimens examined. 1 female, 17 km Point, by TL, 11.iv. 2009, W. Sakchoowong leg.

Supertribe **Euplectitae**

23. *Euplectus* sp. 1 (Fig. 23)

Specimens examined. 1 male, 2 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, same data as above, but 11–14.iv.2009, S. Nomura leg.

Remarks. The supertribe Euplectitae includes two tribes, Euplectini and Trichonychini in the Oriental region. The tribe Euplectini is poorly studied in this area and no species of this tribe is known from Thailand, though two genera of this tribe, *Euplectus* and *Leptoplectus* are known to be distributed in Thailand as shown in Nomura *et al.* (2008b).



Figs. 23–39 (Euplectitae; M: male; F: female). 23, *Euplectus* sp. 1; 24, *E.* sp. 2; 25, *E.* sp. 3; 26, *E.* sp. 4; 27, *Biblopectus* sp. 1; 28, *B.* sp. 2; 29, *Pseudoplectus* sp. 1; 30, *Philiopsis* sp. 1; 31, *Trimium?* sp. 1; 32, *Prophilus* sp. 1; 33, *Aphilia* sp. 1; 34, *A.* sp. 2; 35, *A.* sp. 3; 36, *Bibloporus* sp. 1; 37, *Amauronyx?* sp. 1; 38, *Pareuplectops* sp. 1; 39, *P.* sp. 2

24. *Euplectus* sp. 2 (Fig. 24)

Specimens examined. 1 male, 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

25. *Euplectus* sp. 3 (Fig. 25)

Specimen examined. 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

26. *Euplectus* sp. 4 (Fig. 26)

Specimen examined. 1 female, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

27. *Biblopectus* sp. 1 (Fig. 27)

Specimens examined. 4 males, 4 females, 15 km Point, by FIT (NG-5), 8–11. iv. 2009, S. Nomura leg.; 1 female, same data as above, but

11–14.iv.2009, S. Nomura leg.; 12 males, 11 females, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 6 males, same data as above, but 11–14.iv.2009, S. Nomura leg.

Remarks. This genus belongs to the tribe Trichonychini, the subtribe Panaphantina, many species of which are known from Europe. It is not so popular in the Oriental region.

28. *Biblopectus* sp. 2 (Fig. 28)

Specimen examined. 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

29. *Pseudoplectus* sp. 1 (Fig. 29)

Specimens examined. 2 males, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 3 males, 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This genus is closely allied to the genus *Biblopectus*, but is separable by very small body (less than 1 mm).

30. *Philiopsis* sp. 1 (Fig. 30)

Specimens examined. 2 males, 21 females, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 2 males, same locality as above, but by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 3 males, 88 females, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 4 males, same locality as above, but by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 3 females, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Philiopsis* is very similar to the genus *Pseudoplectus* in having very small and elongate body, but is easily distinguished by the predominantly large abdominal tergite IV.

31. *Trimium?* sp. 1 (Fig. 31)

Specimens examined. 2 males, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 1 male, 1 female, same locality as above, but by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 female, same data as above, but 11–14.iv.2009, S. Nomura leg.; 3 females, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 female, same data as above, but 11–14.iv.2009, S. Nomura leg.

Remarks. The two genera, *Trimium* and *Prophilus* belong to the subtribe Trimiina in the tribe Trichonychini. This subtribe differs from the other subtribes of this tribe by having the predominantly large antennal segment XI.

32. *Prophilus* sp. 1 (Fig. 32)

Specimens examined. 1 male, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 3 males, 11 females, same locality as above, but by TL, 9.iv.2009, W. Sakchoowong leg.; 1 male, 1 female, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This genus is similar to the genus *Trimium*, but is separated by having the asymmetrical antennal club formed by antennal segments X and XI.

33. *Aphilia* sp. 1 (Fig. 33)

Specimens examined. 2 males, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, same data as above, but 11–14.iv.2009, S. Nomura leg.

Remarks. The genus *Aphilia* is very common in some Asian countries by collecting with FITs. It is easily separated from the other euplectine genera by having the small and constricted body at the base of abdomen and the smooth dorsal side of pronotum.

34. *Aphilia* sp. 2 (Fig. 34)

Specimens examined. 5 males, 5 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, same data as above, but 11–14.iv.2009, S. Nomura leg.; 5 males, 5 females, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 3 males, same data as above, but 11–14.iv.2009, S. Nomura leg.; 1 female, same locality as above, but by TL, 9.iv.2009, S. Nomura leg.

35. *Aphilia* sp. 3 (Fig. 35)

Specimens examined. 2 females, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 1 female, 17 km Point, by TL, 11.iv.2009, W. Sak-

choowong leg.

36. *Bibloporus* sp. 1 (Fig. 36)

Specimens examined. 1 female, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 female, same locality as above, but by TL, 9.iv.2009, W. Sakchoowong leg.

Remarks. This genus is widely distributed in the Palearctic and Oriental regions. It is characterized by the flattened and broadened body and the transverse pronotum with three longitudinal sulci.

37. *Amauronyx?* sp. 1 (Fig. 37)

Specimen examined. 1 female, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

Remarks. The genus *Amauronyx* is popular in Europe. It belongs to the nominotypical subtribe of Trichonychini by having the completely separated hind coxal cavities. This Thai species is similar to the typical *Amauronyx* in the hind coxal character, but differs by the broad and blackish body.

38. *Pareuplectops* sp. 1 (Fig. 38)

Specimens examined. 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This genus was defined by Jeannel (1957) with the type species, *P. coomani* Jeannel from Tonkin (=Ha Noi), Vietnam. *P. coomani* was recorded also from Thailand and China by Nomura and Idris (2008). Five unnamed species of this genus were reported from Khao Yai National Park by Nomura *et al.* (2008b).

39. *Pareuplectops* sp. 2 (Fig. 39)

Specimen examined. 1 female, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Supertribe **Batrisitae**

40. *Tribasodites* sp. 1 (Fig. 40)

Specimens examined. 2 females, 15 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 1 female, 15 km Point, by TL, 8.iv.2009, W. Sak-

choowong leg.; 3 males, 3 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 female, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 16 males, 15 females, 16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 14 males, 4 females, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 8 males, 4 females, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 female, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 1 female, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.; 1 female, 17 km Point, by HS, 10.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Tribasodites* belongs to the genus-group of *Tribasodes* defined by Nomura and Idris (2003). It is highly diversified in Tropical Asia and some Asian species known as *Batrisus* should be transferred to this genus.

41. *Tribasodites* sp. 2 (Fig. 41)

Specimens examined. 3 males, 1 female, 27 km Point, by HS, 10.iv.2009, S. Nomura leg.; 6 males, 3 females, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.; 1 male, 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

42. *Tribasodites* sp. 3 (Fig. 42)

Specimens examined. 1 male, 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 female, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.

43. *Tribasodites* sp. 4 (Fig. 43)

Specimens examined. 2 females, 16 km Point, by LT, 11–12.iv.2009, Y. Nakase leg.

44. *Tribasodites* sp. 5 (Fig. 44)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 males, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 4 males, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

45. *Tribasodites* sp. 6 (Fig. 45)

Specimens examined. 2 males, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1

male, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

46. *Tribasodites* sp. 7 (Fig. 46)

Specimens examined. 1 male, 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

47. *Tribasodes* sp. 8 (Fig. 47)

Specimens examined. 1 male, 1 female, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 2 males, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 3 males, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

48. *Tribasodes* sp. 9 (Fig. 48)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 female, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

49. *Tribasodites* sp. 10 (Fig. 49)

Specimens examined. 1 male, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

50. *Tribasodites* sp. 11 (Fig. 50)

Specimens examined. 1 male, 1 female, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

51. *Tribasodites* sp. 12 (Fig. 51)

Specimen examined. 1 female, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

52. *Anama* sp. 1 (Fig. 52)

Specimens examined. 1 male, 13 km Point, by FIT (M?), 11.iii.2009, W. Sakchoowong leg.; 1 female, 15 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 1 female, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 2 males, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 female, 16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 1 male, 16 km Point, by TL,

9.iv.2009, W. Sakchoowong leg.; 4 males, 2 females, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 3 males, 2 females, 16 km Point, by LT, 9–10.iv.2009, Y. Nakase leg.; 4 males, 3 females, 16 km Point, by LT, 10–11.iv.2009, Y. Nakase leg.; 3 females, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 3 males, 16 km Point, by LT, 11–12.iv.2009, Y. Nakase leg.; 10 males, 16 km Point, by LT, 12–13.iv.2009, Y. Nakase leg.; 3 males, 16 km Point, by LT, 13–14.iv.2009, Y. Nakase leg.; 1 male, 16 km Point, by LT, 14–15.iv.2009, Y. Nakase leg.; 1 female, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.; 1 male, 27 km Point, ca. 800 m alt., by FIT (M?), 12.iii.2009, W. Sakchoowong leg.; 1 female, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.; 1 male, 1 female, 27 km Point, ca. 800 m alt., by HS, 12.iv.2009, W. Sakchoowong leg.

Remarks. This genus was originally described by Raffray (1890) as *Amana*. Later, Newton and Chandler (1989) gave a new name *Anama* for it, since the generic name *Amana* was preoccupied. It includes two species from Singapore and Sumatra, and some unnamed species were discovered from Thailand as listed here. It is closely allied to the genus *Oxyomela* in having the pronotum with a pair of lateral denticles and a median longitudinal sulcus, but is separable by lacking the median longitudinal carina on abdominal tergite IV and the very long spine on hind trochanter in the male.

53. *Anama* sp. 2 (Fig. 53)

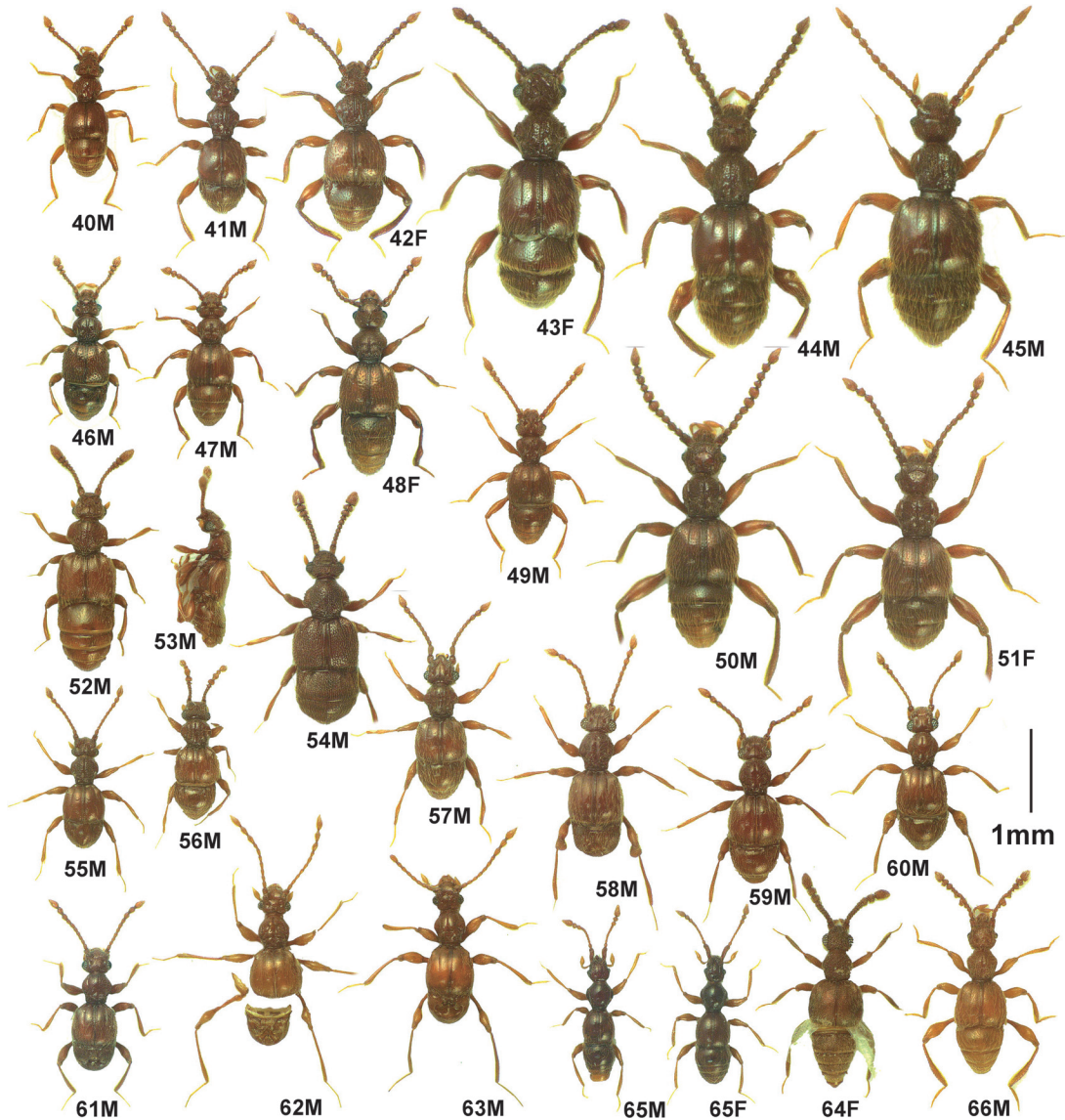
Specimen examined. 1 male, 16 km Point, by LT, 10–11.iv.2009, Y. Nakase leg.

54. *Anama* sp. 3 (Fig. 54)

Specimens examined. 2 males, 16 km Point, by LT, 12–13.iv.2009, Y. Nakase leg.

55. *Batrisoplisus* sp. 1 (Fig. 55)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 1 male, 16 km Point, by LT, 10–



Figs. 40–66 (Batrisitae; M: male; F: female). 40, *Tribasodites* sp. 1; 41, *T.* sp. 2; 42, *T.* sp. 3; 43, *T.* sp. 4; 44, *T.* sp. 5; 45, *T.* sp. 6; 46, *T.* sp. 7; 47, *T.* sp. 8; 48, *T.* sp. 9; 49, *T.* sp. 10; 50, *T.* sp. 11; 51, *T.* sp. 12; 52, *Anama* sp. 1; 53, *A.* sp. 2; 54, *A.* sp. 3; 55, *Batrisoplisus* sp. 1; 56, *Batrisoplisus* sp. 2; 57, *B.* sp. 3; 58, *Batrisiella* sp. 1; 59, *B.* sp. 2; 60, *Physomerinus femoralis* (Motschulsky); 61, *Batriscenaulax* sp. 1; 62, *B.* sp. 2; 63, *Arthromelodes* sp. 1; 64, *Sathytes* sp. 1; 65, *Mnia* sp. 1; 66, *Batrisina*, gen. and sp. undet. 1.

11.iv.2009, Y. Nakase leg.; 1 male, 4 females, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.; 1 male, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This genus was described by Raffray (1908) from Japan. It is probably synonymous with the genus *Trisinus* defined by Raffray (1894).

56. *Batrisoplisus* sp. 2 (Fig. 56)

Specimen examined. 1 male, 16 km Point, by LT, 10–11.iv.2009, Y. Nakase leg.

57. *Batrisoplisus* sp. 3 (Fig. 57)

Specimens examined. 1 male, 16 km Point, by LT, 13–14.iv.2009, Y. Nakase leg.

58. *Batrisiella* sp. 1 (Fig. 58)

Specimens examined. 1 male, 16 km Point, by LT, 10–11.iv.2009, Y. Nakase leg.; 1 female, 16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Batrisiella* is included in a genus-group of *Batriscenellus* Jeannel, 1958 characterized by the antennal segment I with a conical trichome in both the sexes.

59. *Batrisiella* sp. 2 (Fig. 59)

Specimen examined. 1 male, 16 km Point, by LT, 12-13. iv. 2009, Y. Nakase leg.

60. *Physomerinus femoralis* (Motschulsky) (Fig. 60)

Specimen examined. 1 male, 16 km Point, by LT, 11–12.iv.2009, Y. Nakase leg.

Remarks. The genus *Physomerinus* was separated by Jeannel (1952) from *Batriscocenus* on the basis of the hind femur with sexual modification in the male. This species was described by Motschulsky (1851) from “Ind. or.” (=Inde orientale, probably Tenasserim, E Myanmar). It is recorded from Thailand for the first time.

61. *Batriscenaulax* sp. 1 (Fig. 61)

Specimens examined. 1 male, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.; 2 males, 1 female, 27 km Point, by HS, 10.iv.2009, S. Nomura leg.; 8 males, 15 females, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.; 12 males, 26 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This genus was described by Jeannel (1958) from Japan. Later, it was discovered from a large area including East to Southeast Asia.

62. *Batriscenaulax* sp. 2 (Fig. 62)

Specimens examined. 1 male, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 1 female, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.

63. *Arthromelodes* sp. 1 (Fig. 63)

Specimens examined. 1 male, 27 km Point, ca. 800 m alt., 12.iii.2009, W. Sakchoowong leg.; 1 male, 27 km Point, by HS, 12.iv.2009, S. Nomura

leg.; 8 males, 1 female, 27 km Point, by TL, 10. iv.2009, W. Sakchoowong leg.

Remarks. This genus is similar to the genus *Batrisiella* usually in having large sexual patch on abdominal tergite IV in the male, but is separable by lacking trichome on the antennal segment I and the structure of the male genitalia.

64. *Sathytes* sp. 1 (Fig. 64)

Specimen examined. 1 female, 27 km Point, ca. 800 m alt., 12.iii.2009, W. Sakchoowong leg.

Remarks. This genus is known from Subtropical to Tropical Asia. One unnamed species each of this genus was already recorded from Doi Inthanon and Khao Yai National Parks (Nomura *et al.*, 2008b).

65. *Mnia* sp. 1 (Fig. 65)

Specimen examined. 1 male, 1 female, 27 km Point, ca. 800 m, by HS, 12.iv.2009, W. Sakchoowong leg.; 1 male, 5 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. One species of this genus, *M. franzi* was described by Löbl (1973) from Thailand (see Nomura *et al.*, 2008a). The male of this species recorded above is easily separated from the females by having the frons with a short horn.

66. *Batriscina*, gen. and sp. undet. 1 (Fig. 66)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by FIT (NG-5), 11–14.iv. 2009, S. Nomura leg.

Remarks. This species belongs to an undescribed genus. It is characterized by the elongate body, large and ovoid head, and sexual modification on the antennal funicle.

Supertribe **Goniaceritae**67. *Harmophorus* sp. 1 (Fig. 67)

Specimens examined. 1 male, 27 km Point, by HS, 10.iv.2009, S. Nomura leg.; 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This genus is well known from Trop-

ical Asia as *Arnyllium*, which was synonymized with *Harmophorus* Motschulsky, 1851. It is already recorded from Doi Intanon (1 sp.) and Kao Yai (2 spp.) National Parks by Nomura *et al.* (2008b).

68. *Harmophorus* sp. 2 (Fig. 68)

Specimen examined. 1 male, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.

69. *Harmophorus* sp. 3 (Fig. 69)

Specimens examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 3 females, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by LT, 12–13.iv.2009, Y. Nakase leg.; 1 male, 16 km Point, by LT, 14–15.iv.2009, Y. Nakase leg.; 4 females, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

70. *Harmophorus* sp. 4 (Fig. 70)

Specimens examined. 2 males, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 4 males, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by LT, 11–12.iv.2009, Y. Nakase leg.; 1 male, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

71. *Harmophorus* sp. 5 (Fig. 71)

Specimens examined. 1 male, 6 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 6 males, 4 females, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 7 females, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 female, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

72. *Harmophorus* sp. 6 (Fig. 72)

Specimens examined. 1 male, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

73. *Harmophorus* sp. 7 (Fig. 73)

Specimen examined. 1 female, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.

74. *Morana* sp. 1 (Fig. 74)

Specimens examined. 1 male, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 2 males, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 males, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.; 2 males, 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Morana* distributed in a wide area including East and Southeast Asia is well known as a member of the subtribe *Natypleurina*, tribe *Iniocyphini*.

75. *Morana* sp. 2 (Fig. 75)

Specimens examined. 2 males, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 males, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

76. *Morana* sp. 3 (Fig. 76)

Specimen examined. 1 male, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

77. *Morana* sp. 4 (Fig. 77)

Specimens examined. 5 males, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 8 males, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

78. *Takaorites?* sp. 1 (Fig. 78)

Specimens examined. 3 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

Remarks. The genus *Takaorites* was described by Jeannel (1958) from Japan. The Thai species shown above is most closely allied to *Takaorites*, but cannot be identified with *Takaorites* certainly, because it is lacking male sexual character.

79. *Nedarassus* sp. 1 (Fig. 79)

Specimens examined. 1 male, 16 km Point, by LT, 14–15.iv.2009, Y. Nakase leg.; 1 male, 27 km

Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This genus was defined by Raffray (1895) together with only one species, *N. punctatus* Raffray from Penang Is., Malaysia. It is recorded from Thailand for the first time. It is closely allied to the genus *Natyleurus* in the short and thick body, and the symmetrical male genitalia.

80. *Natyleurus* sp. 1 (Fig. 80)

Specimen examined. 1 male, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

Remarks. The generic name, *Natyleurus* Newton et Thayer, 1992 is the replacement name for the former name of this genus (junior homonym), *Tanypleurus* Raffray, 1890. This genus is already recorded from Thailand (Doi Inthanon N. P.) by Nomura *et al.* (2008b).

81. *Sunorfa* sp. 1 (Fig. 81)

Specimens examined. 2 males, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

Remarks. The genus *Sunorfa* is well known from Oriental and Australian regions. According to Newton and Chandler (1989), it belongs to the subtribe Natyleurina, but was transferred to the subtribe Iniocyphina by Chandler (2001).

82. *Reichenbachella buddha* (Raffray) (Fig. 82)

Specimens examined. 1 male, Hotel (at light) near the entrance, 14.iv.2009, W. Sakchoowong leg.; 1 female, 16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.

Remarks. This species was already recorded from Thailand as suggested by Nomura *et al.* (2008a), but its exact locality in Thailand is still unknown.

83. *Trissemus* sp. 1 (Fig. 83)

Specimens examined. 2 males, 1 female, 16 km Point, by LT, 12–13.iv.2009, Y. Nakase leg.; 1 male, 3 females, 16 km Point, by LT, 14–15.iv.2009, Y. Nakase leg.

Remarks. The genus *Trissemus* was separated from the large genus *Reichenbachia* by having the three basal foveae on each elytron. One

species of this genus, *T. mamilla* (Schaufuss) was described from Bangkok.

84. *Trissemus* sp. 2 (Fig. 84)

Specimen examined. 1 male, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.

85. *Batraxis raffrayana* (Blattný) (Fig. 85)

Specimens examined. 3 males, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 11 males, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 males, 2 females, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

Remarks. This species was described by Blattný (1925) as the type species of a new genus *Raffrayella* from Tenasserim, E Myanmar. Later, the genus was synonymized with *Batraxis* by Besuchet (1986). It is also recorded from Yangon, C Myanmar by Nomura et Idris (2008).

86. *Batraxis* sp. 1 (Fig. 86)

Specimens examined. 1 female, 16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 8 males, 8 females, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

87. *Batraxis* sp. 2 (Fig. 87)

Specimens examined. 2 females, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.

88. *Brachyglutina*, gen. and sp. undet. 1 (Fig. 88)

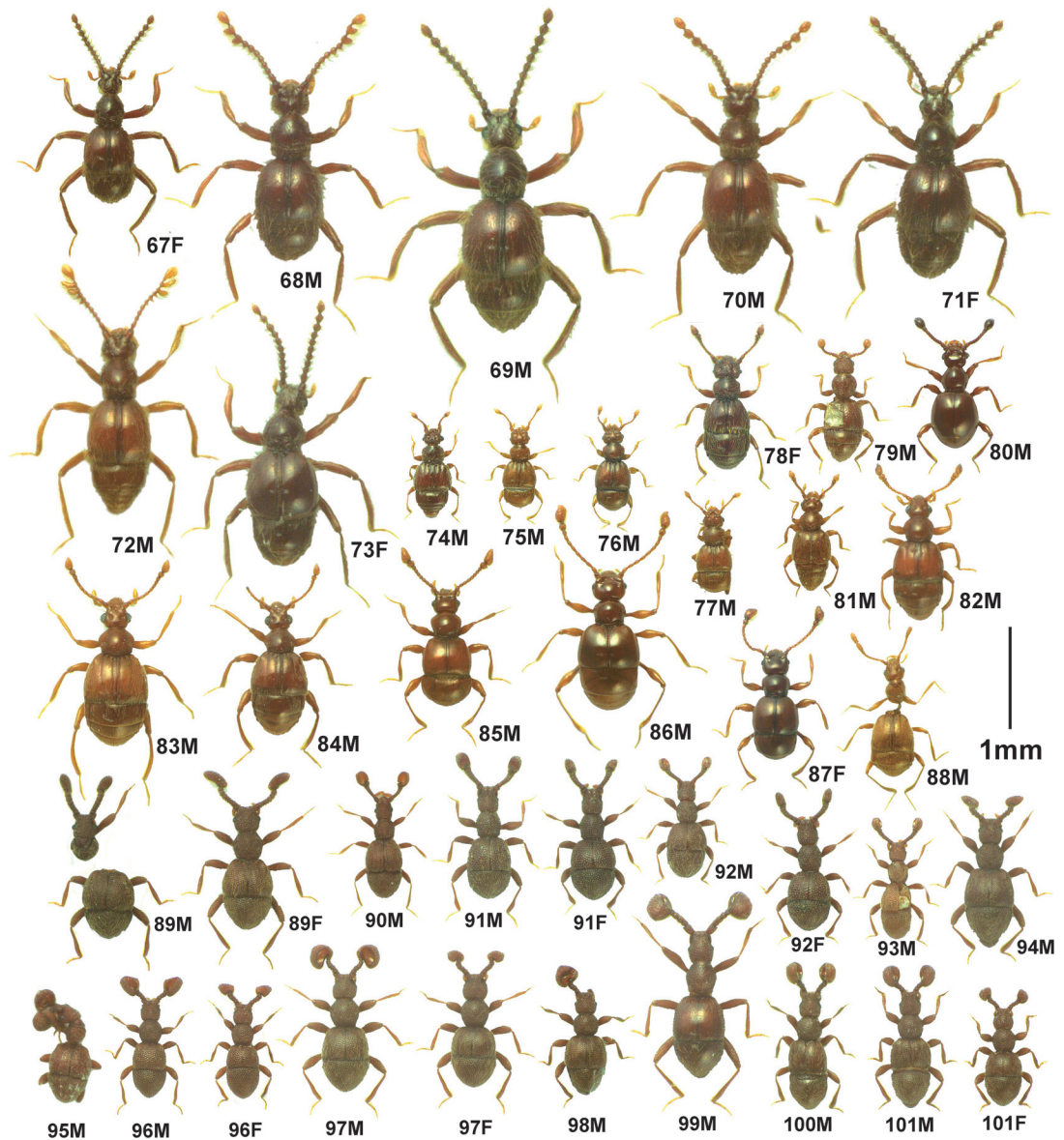
Specimen examined. 1 male, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

Remarks. A special type of the subtribe *Brachyglutina* was discovered from Kaeng Krachan, which is regarded as an undescribed genus. It is characterized by slightly flattened and posteriorly broadened body and the male antenna with very large antennal segments X and XI.

89. *Plagiophorus* sp. 1 (Fig. 89)

Specimens examined. 1 male, 2 females, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Plagiophorus* is much diversified in Subtropical and Tropical Asia, and



Figs. 67–101 (Goniaceritae; M: male; F: female). 67, *Harmophorus* sp. 1; 68, *H.* sp. 2; 69, *H.* sp. 3; 70, *H.* sp. 4; 71, *H.* sp. 5; 72, *H.* sp. 6; 73, *H.* sp. 7; 74, *Morana* sp. 1; 75, *M.* sp. 2; 76, *M.* sp. 3; 77, *M.* sp. 4; 78, *Takaorites?* sp. 1; 79, *Nedarassus* sp. 1; 80, *Natypleurus* sp. 1; 81, *Sunorfa* sp. 1; 82, *Reichenbachella buddha* (Raffray); 83, *Trissemus* sp. 1; 84, *T.* sp. 2; 85, *Batraxis raffrayana* (Blattný); 86, *B.* sp. 1; 87, *B.* sp. 2; 88, *Brachyglutina*, gen. and sp. undet. 1; 89, *P.* sp. 1; 90, *P.* sp. 2; 91, *P.* sp. 3; 92, *P.* sp. 4; 93, *P.* sp. 5; 94, *P.* sp. 6; 95, *P.* sp. 7; 96, *P.* sp. 8; 97, *P.* sp. 9; 98, *P.* sp. 10; 99, *P.* sp. 11; 100, *P.* sp. 12; 101, *P.* sp. 13.

includes many unnamed species. After Nomura *et al.* (2008b), seven unnamed species were recorded from Doi Inthanon N. P. and three from Khao Yai N. P. This species is distinct in the species-group formed by spp. 1 to 5 with ten-

segmented antenna in having ovoid antennal club without excavation in the male.

90. *Plagiophorus* sp. 2 (Fig. 90)

Specimens examined. 1 male, 15 km Point, by

FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 male, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. *P* sp. 2 to sp. 5 are characterized by the ten-segmented antenna with subglobose club with a large excavation on the inner side in the male.

91. *Plagiophorus* sp. 3 (Fig. 91)

Specimens examined. 1 male, 17 km Point, by HS, 10.iv.2009, W. Sakchoowong leg.; 1 male, 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

92. *Plagiophorus* sp. 4 (Fig. 92)

Specimens examined. 3 males, 4 females, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 2 males, 3 females, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.

93. *Plagiophorus* sp. 5 (Fig. 93)

Specimens examined. 1 male, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

94. *Plagiophorus* sp. 6 (Fig. 94)

Specimens examined. 1 female, 15 km Point, by HS, 8.iv.2009, W. Sakchoowong leg. 2 males, 1 female, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

Remarks. Each species of *P*. sp. 6 to 13 is easily separated from sp. 1 to 5 by having the seven-segmented antenna. This species is different from sp. 7 to 13 by the antennal club without excavation in the male.

95. *Plagiophorus* sp. 7 (Fig. 95)

Specimens examined. 1 male, 17 km Point, by HS, 10.iv.2009, W. Sakchoowong leg.

96. *Plagiophorus* sp. 8 (Fig. 96)

Specimens examined. 1 male, 1 female, 16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 12 males, 17 females, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 2 female, 16 km Point, by HS, 14.iv.2009, S. Nomura leg.; 2 males, 13 fe-

males, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.; 10 males, 12 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

97. *Plagiophorus* sp. 9 (Fig. 97)

Specimens examined. 2 females, 16 km Point, by HS, 8.iv.2009, S. Nomura leg.; 7 males, 10 females, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 13 females, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 21 males, 35 females, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

98. *Plagiophorus* sp. 10 (Fig. 98)

Specimen examined. 1 male, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.

99. *Plagiophorus* sp. 11 (Fig. 99)

Specimen examined. 1 male, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

100. *Plagiophorus* sp. 12 (Fig. 100)

Specimen examined. 1 male, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

101. *Plagiophorus* sp. 13 (Fig. 101)

Specimens examined. 1 male, 3 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Supertribe **Pselaphitae**

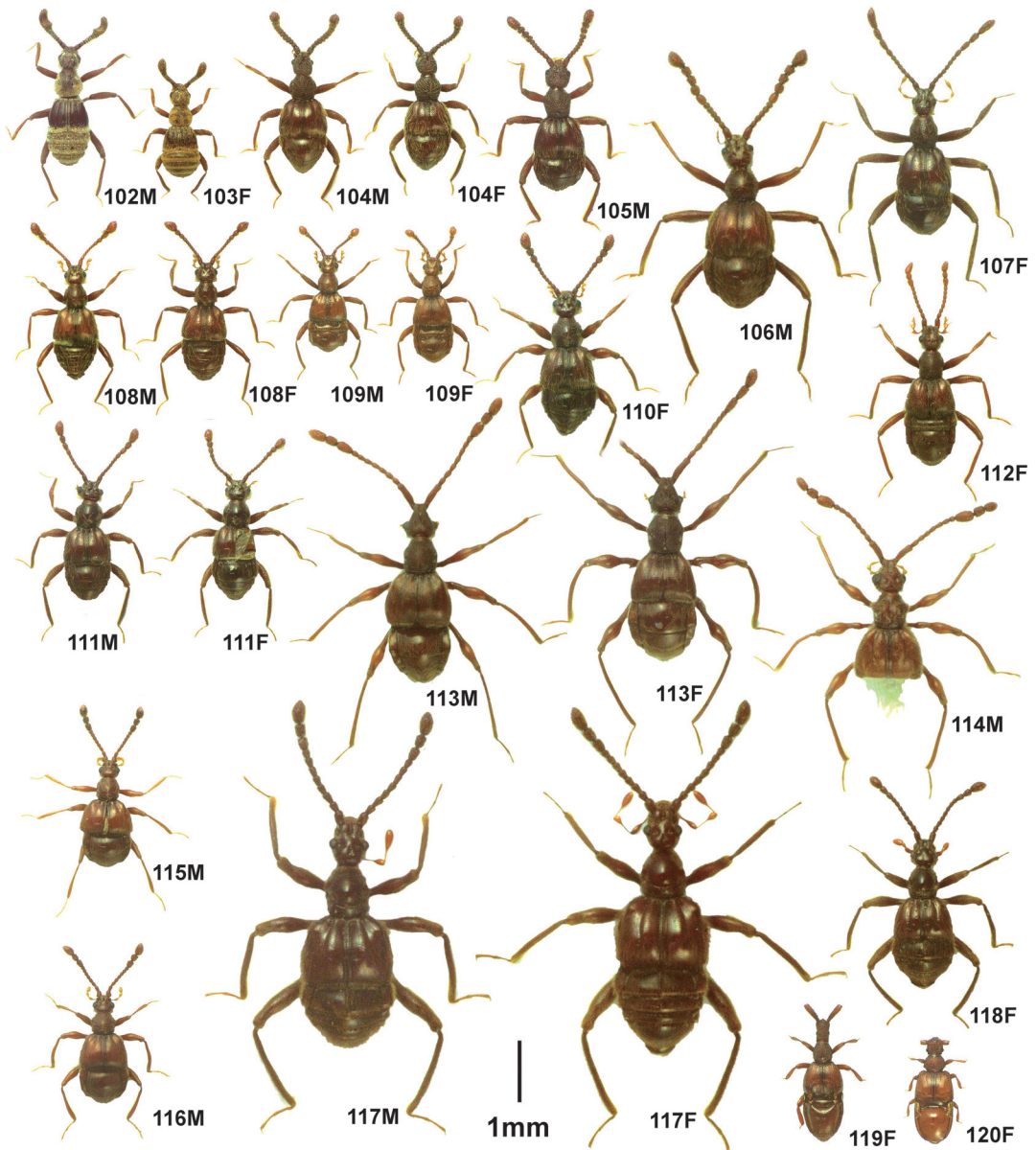
102. *Apharinodes* sp. 1 (Fig. 102)

Specimen examined. 1 male, 27 km Point, ca. 800 m alt., 12.iii.2009, W. Sakchoowong leg.

Remarks. The genus *Apharinodes* is easily separated from the other hybocephaline genera by very large antennal club formed only by the terminal segment. It is distributed in East to Southeast Asia, and is classified into two species-groups, large-sized and small-sized groups. *A*. sp. 1 shown above is a member of the large-sized group.

103. *Apharinodes* sp. 2 (Fig. 103)

Specimens examined. 2 females, 27 km Point,



Figs. 102–120 (Pselaphitae and Clavigeritae; M: male; F: female). 102, *Apharinodes* sp. 1; 103, *A.* sp. 2; 104, *Pseudophanias* sp. 1; 105, *P.* sp. 2; 106, *Chandleriella* sp. 1; 107, *Ancystrocerus* sp. 1; 108, *Tmesiphorus* sp. 1; 109, *T.* sp. 2; 110, *T.* sp. 3; 111, *T.* sp. 4; 112, *Raphitreus* sp. 1; 113, *Labomimus* sp. 1; 114, *Pselaphodes* sp. 1; 115, *Tyrus* sp. 1; 116, *T.* sp. 2; 117, *Megatyryus* sp. 1; 118, *Horniella* sp. 1; 119, *Articerodes thailandicus* Nomura, Sakchoowong et Chanpaisaeng; 120, *Mastiger brevicornis* Raffray.

by HS, 10.iv.2009, S. Nomura leg.; 1 female, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.

Remarks. This species belongs to the small-sized group. An undescribed species of this group was already recorded from Doi Inthanon

N. P. (Nomura *et al.*, 2008b).

104. *Pseudophanias* sp. 1 (Fig. 104)

Specimens examined. 2 males, 13 km Point, 10.iii.2009, W. Sakchoowong leg.; 1 female,

16 km Point, by HS, 8.iv.2009, W. Sakchoowong leg.; 3 males, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.; 1 male, 1 female, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.; 1 male, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. This species is similar to *P.* sp. 1 recorded from Doi Inthanon by Nomura *et al.* (2008b) in the simple modification in the male antenna. However, it differs by the antennal segments IV to VII evenly thickened in the male (segment VI is very large in the species of Doi Inthanon).

105. *Pseudophanias* sp. 2 (Fig. 105)

Specimen examined. 1 male, 27 km Point, by HS, 12.iv.2009, S. Nomura leg.

Remarks. *P.* sp. 2 is different from sp. 1 by the large body and the large eyes.

106. *Chandleriella* sp. 1 (Fig. 106)

Specimen examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

Remarks. This genus is closely allied to the genus *Pseudophanias*, but is separable by very large body (more than 3 mm) usually covered with minute punctures.

107. *Ancyrocerus* sp. 1 (Fig. 107)

Specimen examined. 1 female, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Ancyrocerus* belonging to the tribe Tmesiphorini is similar to the genus *Tmesiphorus*, but is distinct in having the simple and elongate maxillary palpus without penicillum on the outer side.

108. *Tmesiphorus* sp. 1 (Fig. 108)

Specimens examined. 1 male, 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 males, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 female, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 females, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

Remarks. The genus *Tmesiphorus* is a large

genus including about sixty species. It is characterized by the maxillary palpus with the two penicillate basal segments and the externally thickened or swollen terminal segment.

109. *Tmesiphorus* sp. 2 (Fig. 109)

Specimens examined. 3 males, 6 females, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 3 males, 4 females, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 2 males, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 2 males, 2 females, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

110. *Tmesiphorus* sp. 3 (Fig. 110)

Specimen examined. 1 female, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

111. *Tmesiphorus* sp. 4 (Fig. 111)

Specimens examined. 4 males, 2 females, 16 km Point, by TL, 9.iv.2009, W. Sakchoowong leg.

112. *Raphitreus* sp. 1 (Fig. 112)

Specimens examined. 1 female, 16 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

Remarks. This genus is very similar to *Tmesiphorus* in general structures, but is separated by the terminal segment of the maxillary palpus with a penicillum on the outer side as in the basal segments. It is recorded for the first time from Thailand.

113. *Labomimus* sp. 1 (Fig. 113)

Specimens examined. 1 male, 16 km Point, by LT, 9–10.iv.2009, Y. Nakase leg.; 1 female, 16 km Point, by HS, 14.iv.2009, S. Nomura leg.; 1 male, 16 km Point, by LT, 14–15.iv.2009, Y. Nakase leg.; 2 females, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. The four genera, *Labomimus*, *Pselaphodes*, *Tyrus* and *Megatyris* are included in the subtribe Tyrina of the tribe Tyrini. Their diagnostic characters were revised by Hlaváč and Chandler (2005). The genus *Labomimus* includ-

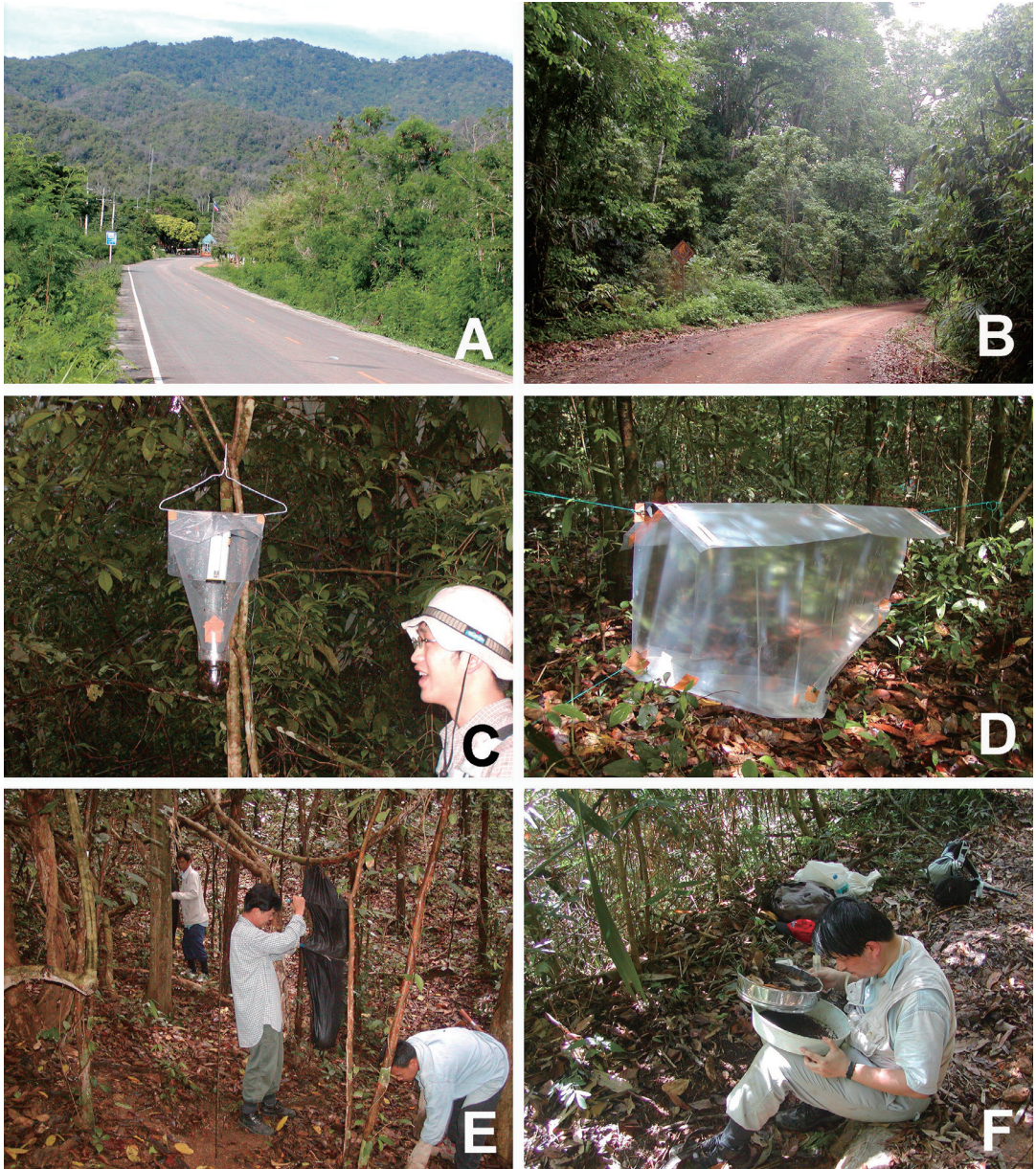


Fig. 121. A, A view of Kaeng Krachan National Park (near the first gate); B, ditto (16 km point); C, A light trap used in Kaeng Krachan; D, A FIT (NG-5); E, quantitative sampling of pselaphines by Sakchoowong; F, hand sorting (sifting leaf litter) by Nomura.

ing seven species is known from the eastern part of the Palearctic region and the Oriental region. It is recorded also from Doi Inthanon and Khao Yai National Parks by Nomura *et al.* (2008b).

114. *Pselaphodes* sp. 1 (Fig. 114)

Specimen examined. 1 male, 16 km Point, by LT, 10–11.iv.2009, Y. Nakase leg.

Remarks. After Hlaváč and Chandler (2005), this genus is separated from *Labomimus* by lacking median fovea on the metasternum. It includes

nine known species, and is recorded from Thailand for the first time.

115. *Tyrus* sp. 1 (Fig. 115)

Specimen examined. 1 male, 16 km Point, by LT, 12–13.iv.2009, Y. Nakase leg.

Remarks. This genus including 14 known species is widely distributed in the Palearctic, Nearctic and Oriental regions. It is characterized by the middle-sized body and the maxillary palpus strongly swollen on each segment.

116. *Tyrus* sp. 2 (Fig. 116)

Specimen examined. 1 male, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.

117. *Megatyrus* sp. 1 (Fig. 117)

Specimens examined. 1 female, nr. 1st gate, 12.iv.2009, Y. Nakase leg.; 1 male, 15 km Point, by TL, 8.iv.2009, W. Sakchoowong leg.; 1 male, 17 km Point, by TL, 11.iv.2009, W. Sakchoowong leg.

Remarks. The genus *Megatyrus* was defined by Hlaváč and Nomura (2003) together with three new species from China and Vietnam. It is very distinct in very large and stout body and the large and elongate maxillary palpus with ovoid and pedunculate terminal sement.

118. *Horniella* sp. 1 (Fig. 118)

Specimens examined. 1 female, 27 km Point, by TL, 10.iv.2009, W. Sakchoowong leg.

Remarks. After Hlaváč and Chandler (2005), the genus *Horniella* is separated from very similar genus *Hamotopsis* known from Australia by having the pronotum without paranotal carinae and the male genitalia lacking parameres. As far as the first author observed, this group collected from East to Southeast Asia is identified as *Horniella*. The *Hamotopsis* sp. 1 recorded from Khao Yai N. P. by Nomura *et al.* (2008b) should be corrected to *Horniella*.

Supertribe *Clavigeritae*

119. *Articerodes thailandicus* Nomura, Sakchoowong et Chanpaisaeng (Fig. 119)

Specimens examined. 1 female, 15 km Point, by FIT (NG-5), 8–11.iv.2009, S. Nomura leg.; 1 female, 15 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.; 1 female, 16 km Point, by TL, 9.iv.2009, S. Nomura leg.

Remarks. This species was described by Nomura, Sakchoowong and Chanpaisaeng (2008) from Khao Ang Rue Nai, E Thailand.

120. *Mastiger brevicornis* Raffray (Fig. 120)

Specimen examined. 1 female, 16 km Point, by FIT (NG-5), 11–14.iv.2009, S. Nomura leg.

Remarks. This species was described by Raffray (1890) from Singapore. Both the genus and species are recorded for the first time from Thailand.

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