The chennelli group of the Genus Therates Latreille (Coleoptera: Cicindelidae) 114. Contribution towards the knowledge of Cicindelidae

Jürgen Wiesner
Wolfsburg, Germany, juergen.wiesner@wolfsburg.de

Follow this and additional works at: http://digitalcommons.unl.edu/insectamundi

http://digitalcommons.unl.edu/insectamundi/820

This Article is brought to you for free and open access by the Center for Systematic Entomology, Gainesville, Florida at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Insecta Mundi by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
The chennelli group of the Genus Therates Latreille (Coleoptera: Cicindelidae) 114. Contribution towards the knowledge of Cicindelidae

Jürgen Wiesner
Dresdener Ring 11
D-38444 Wolfsburg
Germany

Date of Issue: September 12, 2013
The chennelli group of the Genus *Therates* Latreille (Coleoptera: Cicindelidae) 114. Contribution towards the knowledge of Cicindelidae

Jürgen Wiesner
Dresdener Ring 11
D-38444 Wolfsburg
Germany
juergen.wiesner@wolfsburg.de

**Abstract.** A key is provided for the twelve taxonomic groups within the genus *Therates* Latreille (Coleoptera: Cicindelidae). The chennelli group is reviewed here and a key to the 53 species known for this group is provided. Each species is illustrated, and a detailed description of its morphology and distributional records are provided. *Therates khaoyaii*, *Th. pearsoni*, *Th. safraneki*, *Th. schuelei* and *Th. sigridgeissleri* are described as **new to science**. *Therates differens* Sawada and Wiesner, 1999 is placed into synonymy under *Th. concinnus* Gestro, 1888. *Therates tonkinensis kubani* Wiesner, 1988 is placed into synonymy under *Th. tonkinensis* Horn, 1902 and *Th. belokobylskiyi* Matalin and Wiesner, 2006 is placed into synonymy under *Th. haucki* Moravec and Wiesner, 2001. **Lectotypes are designated** for *Th. waagenorum* Horn, 1900, *Th. clavicornis* Horn, 1902, *Th. tonkinensis* Horn, 1902 and *Th. annandalei* Horn, 1908. *Therates baolocensis* Wiesner, 1996 is elevated to species rank.

**Key words:** Coleoptera, Cicindelidae, *Therates*, tiger beetle, new species

**Introduction**

The genus *Therates* Latreille, 1817 (Coleoptera: Cicindelidae) occurs from Nepal, through Indochina and Indonesia to New Guinea, the Solomon Islands, the Philippines, and Taiwan. Currently 112 species of this genus are known to science. Wiesner (1988) divided the genus into 12 groups, one of them represented the chennelli group.

Prior to Wiesner’s (1988) review of the genus *Therates*, 11 taxa of the chennelli group were known to science. Wiesner (1988) described four additional species belonging to the chennelli group; and in subsequent years, an additional 38 taxa belonging to this group have been described.

Ten entomologists contributed to the descriptions of these taxa. Henry Bates, Great Britain (1 taxon), Raffaelo Gestro, Italy (1 taxon), Walther Horn, Germany (8 taxa), Karl Mandl, Austria (1 taxon), Andrey Matalin, Russia (1 taxon), Karl Werner, Germany (1 taxon), Jürgen Wiesner (40 taxa, 1 together with Andrey Matalin, 3 together with Jirí Moravec, Czech Republic, 8 together with Johann Probst, Austria, 19 together with Hirofumi Sawada, Japan). In this present article, 5 additional species are described. Due to the quantity of new species, a summary of all members of the group, together with an identification key and faunistic records is presented.

**Specimens and Methods**

All measurements were made using a stereomicroscope. Measurements were made from the front of the clypeus to apex of elytra. The label data of type specimens were collated using the following system: in order from pinhead to pin point the label data were copied with label sides divided by slanted lines, and additional labels divided by semicolons. White label color and rectangular shape, however, were not explicitly noted. All remaining pertinent variants were recorded within brackets.

Specimens mentioned here are deposited in the following collections:

- **CMNC** Canadian Museum of Nature, Ottawa, Canada.
- **HNHM** Hungarian Natural History Museum, Budapest, Hungary.
- **HSJC** Hirofumi Sawada Collection, Aomori, Japan.
- **JMCC** Jirí Moravec Collection, Adamov u Brna, Czech Republic.
- **JWGC** Jürgen Wiesner Collection, Wolfsburg, Germany (long term loan of SMNS).
- **MNHN** Muséum National d’Histoire Naturelle, Paris, France.
chennelli group


Nomenclatural note. The alternative spelling with one n used by several workers is incorrect. The name should properly be spelled with two n’s, as established by Bates (1878: 335).

Characters. For the adult specimens of the chennelli group a standard description protocol was followed (Figure 1): body length, excluding labrum (4.8 mm-11.2 mm); general ground color shining black or greenish black or violet black, pronotum and parts of head in some species reddish. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum mostly as wide as long, yellowish, with dark margin or blackish, lacking basal tooth, with five to seven apical teeth and one lateral tooth. Labial and maxillary palpi completely yellowish or darker distally. Antennae long, medium size or short, slender or lanceolate, distal two antennomeres of male enlarged in some species, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennomeres brownish or blackish. Clypeus glabrous. Frons smooth with two shallow bumps or a furrow in the posterior part of the orbital plates. Eyes large, prominent. Pronotum glabrous and rounded, generally as wide as long, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line often with several transverse short branches. Scutellum triangular and obvious. Flight wings always present. Elytra with basal and apical hump. distinctly punctate in frons, shallower or absent in the apical part. Elytral apex with or without rounded or angular lateral corner and with angular sutural corner or sutural tooth, recurved or straight between them. Maculations bright and variable in size and shape. including a short, long or broken humeral lunule, a basal dot, that is sometimes absent, a central dot of characteristic shape (e. g. subsquare, fascia like, acutely angled inwards toward the suture, acutely angled outwards toward the front), and an apical dot that may be absent or with an apex that is transparent brownish or yellowish. A central band, if present, is not oriented outward at its anterior end. All or some maculae may connect with others. Mesoepisterna with or without grooves and pits. Elytral epipleura distinct. Ventral body brownish or black, ventrites dark, sometimes brownish marginally. Legs yellowish, femora, tibiae and tarsomeres sometimes darker distally. Legs of females darker as a whole in some species, Metatibiae of females bicolored in some species. Femora nearly glabrous; tibiae sparsely setose, tarsi somewhat more thickly setose; tarsomeres 1 to 4 of males are slightly widened and thickly setose. Length of the aedeagus 1.3 to 2.3 mm, shape straight or curved, with various distinct shaped points distally. Larval forms of the chennelli group are undescribed.

Natural History. Knowledge about the natural history of these species is limited, however, it appears that most, if not all, of these species are found exclusively within the forest in shady and moist areas (Naviaux and Pinratana 2004: 62). Adults occur primarily on leaves of undergrowth shrubs, much like
species of Collyris, watching for their prey. They are extremely shy and their flight is powerful. Sometimes, after flying away, they return to land on the same leaf.

Key to the Therates species groups (based on Wiesner 1988).

1. Fourth metatarsomere lacking setigerous bottom, instead with rigid and erected bristles distally. ................................................................................................................................................ spectabilis group
   — Fourth metatarsomere with setigerous bottom ........................................................................ 2

2(1). Clypeus with two erect setae .................................................................................................... 3
   — Clypeus glabrous ......................................................................................................................... 4

3(2). Frons entirely curvate ................................................................................................................ festivus group
   — Frons geniculate in front ............................................................................................................. labiatus group

4(2). Elytra containing apical hump only .......................................................................................... cribratus group
   — Elytra with more than one hump ............................................................................................... 5

5(4). Elytra with basal, central and apical hump ................................................................................ batesii group
   — Elytra with basal and apical hump only ...................................................................................... 6

6(5). Labrum with basal tooth ............................................................................................................. 9
   — Labrum lacking basal tooth ......................................................................................................... 7

7(6). Elytra with bright central band, oriented outward at its anterior end ....................................... obliquus group
   — Elytra with bright central dot or transverse rectangular central band ........................................ 8

8(7). Palpi bright .................................................................................................................................. chennelli group
   — Distal segment of labial palpi and maxillary palpi as a whole dark ........................................... tuberosus group

9(6). Elytra with bright central band, oriented outward at its anterior end ....................................... obliquus group
   — Maculation of elytra not as above .............................................................................................. 10

10(9). Basal three metatarsomeres cylindrically enlarged ................................................................. hennigi group
   — Metatarsi not as above ............................................................................................................... 11

11(10). Elytral apex rounded or elytral apex drawn backwards or pronotum more constricted in front than at back ....................................................................................................................... coerulescus group
   — Elytral apex not rounded or elytral apex not drawn backwards or pronotum more constricted at back than in front or equally in front and at back ......................................................................... 12

12(11). Elytral apex with produced sutural spine or prominent triangular sutural angle; pronotum as a rule similarly constricted in front and at back ....................................................................................... spinipennis group
   — Elytral apex without produced sutural spine; pronotum more constricted at back than in front ................................................................................................................................. fasciatus group

Remarks. The specimens studied were also analyzed using numerical cladistics (Camin and Sokal 1965). Figure 2 lists the characters used together with the matrix of OTU’s (operational taxonomic units). Figure 3 shows the provisional tree resulting from the cladistic analysis of the species. I tentatively use the order, in which the species appear in the tree, to arrange them within this paper.
List of the species of chennelli group

One species is known from Nepal, eight from India, seven from Myanmar, 11 from Thailand, three from Malaysia, 21 from Laos, 13 from Vietnam, and three from China. At the time of its description (Werner 1991: 230), *Therates hiermeieri* was included in chennelli group, but later placed it close to the *Th.* *fleutiauxi* Horn, 1898 by Sawada and Wiesner (2003: 50). *Th. hiermeieri*, due to its basal tooth on the labrum, will key out in the identification key to *Therates* groups as belonging to coeruleus group.

1. *montaneus* Werner, 1992  
2. *moraveci* Sawada and Wiesner, 1999  
3. *pseudorugifer pseudorugifer* Sawada and Wiesner, 1999  
3a. *pseudorugifer pentalabiodentatus* Matalin, 2001  
4. *baolocensis* Wiesner, 1996, **new rank**  
5. *apiceflavus* Sawada and Wiesner, 1999  
6. *laotiensis* Sawada and Wiesner, 1999  
7. *topali* Mandl, 1972  
8. *bannokcolus* Sawada and Wiesner, 1999  
10. *probsti* Wiesner, 1988  
11. *vietnamensis* Wiesner, 1988  
12. *concinnus* Gestro, 1888  
13. *bannapecolus* Sawada and Wiesner, 1999  
14. *major* Probst and Wiesner, 1994  
15. *annandalei* Horn, 1908  
17. *gestroi* Horn, 1900  
18. *dembickyi* Sawada and Wiesner, 2002  
19. *kraatzi* Horn, 1900  
20. *similis* Probst and Wiesner, 1994  
21. *pearsoni** new species**  
22. *myanmarensis* Wiesner, 1999  
23. *confluens* Wiesner, 1988  
24. *pacholatkoi* Sawada and Wiesner, 2004  
25. *pseudoconfluens* Sawada and Wiesner, 1999  
26a. *pseudochenelli rufus* Probst and Wiesner, 1994  
27. *safraneki** new species**  
28. *nagaii* Sawada and Wiesner, 2000  
29. *schuelei** new species**  
30. *rugifer* Horn, 1902  
31. *phongsalyensis* Sawada and Wiesner, 2004  
32. *namthacolus* Sawada and Wiesner, 1999  
33. *sigridgeissleri** new species**  
34. *tonkinensis* Horn, 1902  
35. *jendeki* Sawada and Wiesner, 1997  
36. *csorbai* Wiesner, 1999  
37. *apicenigrus* Sawada and Wiesner, 1999  
38. *rihai* Moravec and Wiesner, 2001  
39. *chennelli* Bates, 1878  
40. *pseudoprobsti* Probst and Wiesner, 1994  
41. *arunachalcolus* Sawada and Wiesner, 2006  
42. *ingridae* Sawada and Wiesner, 2006  
43. *nigromarginalis* Probst and Wiesner, 1994  
44. *murzini* Wiesner, 1999  

China.  
Laos.  
Laos.  
China.  
Vietnam.  
Laos.  
Laos.  
Vietnam.  
Vietnam.  
Myanmar, Thailand, Laos, Vietnam.  
Laos.  
India.  
Nepal, India.  
Laos.  
China.  
Thailand, Malaysia.  
Laos.  
Vietnam.  
Myanmar.  
Laos.  
Laos.  
Laos.  
Vietnam.  
Laos.  
Laos.  
Laos.  
Vietnam.  
Laos.  
Thailand.  
Myanmar.  
Laos.  
Laos.  
Laos.  
Thailand.  
Myanmar, Thailand.  
India.  
Laos.  
Myanmar.
**Key to the members of chennelli group**

In cases of doubt, comparison of the aedeagus with the figures in this paper may be helpful.

1. Ventral aspect completely pale; metaepisternum yellow to reddish brown ................................. 2
   — Ventral aspect partly to almost dark; metaepisternum black .................................................... 7

2(1). Elytral maculation including the middle suture from base to apex (6.4 mm, Thailand) ........ 51. *Th. rogeri* Probst and Wiesner
   — Elytral maculation not as above ............................................................................................... 3

3(2). Pronotum brownish ................................................................................................................ 4
   — Pronotum black ......................................................................................................................... 5

4(3). Male with distal two antennomeres obviously elongated (6.2 mm-7.4 mm, Vietnam) .......... 50. *Th. clavicornis* Horn
   — Male without distal antennomeres elongated (6.4 mm-6.6 mm, Laos) ................................ 49. *Th. ottomerkli* Wiesner

5(3). Central dot forming a narrow band (6.3 mm-7.6 mm, India) ........................................ 48. *Th. dohertyi* Horn
   — Central dot not as above .......................................................................................................... 6

6(5). Distance between elytral apical hump and lateral tooth short; aedeagus short, less prominent (5.8 mm-7.5 mm, Laos) .............................................................. 28. *Th. nagaii* Sawada and Wiesner
   — Distance between elytral apical hump and lateral tooth long; aedeagus long and prominent (6.5 mm-7.4 mm, Myanmar) .......................................................... 44. *Th. murzini* Wiesner

7(1). Frons mostly reddish ................................................................................................................ 8
   — Frons mostly black ..................................................................................................................... 9

8(7). Elytral punctures isolated (5.7 mm-6.2 mm, India) ........................................................ 53. *Th. waagenorum* Horn
   — Elytral punctures connected in short rows (6.6 mm-8.0 mm, Thailand) .............................. 52. *Th. khaoyaii* new species

9(7). Elytral maculae variably connected throughout .................................................................... 10
   — Elytral maculae isolated, or at most humeral lunule and basal dot connected at base and/or humeral lunule connected with central dot ................................................. 22

10(9). Labrum entirely bright yellow .............................................................................................. 12
   — Labrum dark at outer margin .................................................................................................. 11

11(10). Labrum with complete broad black outer margin (6.0 mm-7.0 mm, Myanmar, Thailand) ....... 43. *Th. nigromarginalis* Probst and Wiesner
Labrum with incomplete blackish outer margin from lateral tooth up to base (6.2 mm-8.1 mm, India) ........................................ 46. *Th. sausai* Sawada and Wiesner

12(10). Dark wedge shaped recession between humeral lunule and central dot absent or small .......... 13
— Dark wedge shaped recession between humeral lunule and central dot obvious and extends from marginal suture to center ................................................................. 17

13(12). Ventrites black or with narrow yellow lateral margin (6.8 mm-7.5 mm, Malaysia, Vietnam) ......
— Ventrites with broad and distinctive lateral yellow margins................................................................................................................................. 23. *Th. confluens* Wiesner

14(13). Basal hump without black spot ................................................................................................. 16
— Basal hump with black spot ........................................................................................................ 15

15(14). Humeral lunule and central dot not extending to the middle suture (7.3 mm-8.2 mm, Laos) ......
— Humeral lunule and central dot extending to the middle suture (6.3 mm-8.3 mm, Laos, China) ................................................................. 25. *Th. pseudoconfluens* Sawada and Wiesner

16(14). Apical dot extended forward medially (6.3 mm-8.0 mm, Thailand, Laos, Vietnam) ................. 45. *Th. haucki* Moravec and Wiesner
— Apical dot not extended forward medially (5.8 mm-7.6 mm, Laos) ................................................................. 24. *Th. pacholatkoi* Sawada and Wiesner

17(12). Posterior margin of central dot angled gradually outwards toward the front .................... 19
— Posterior margin of central dot nearly right-angled to elytral edge ................................................ 18

18(17). Humeral lunule and central dot almost completely connected (7.5 mm-8.5 mm, Myanmar) .......
— Humeral lunule and central dot almost isolated from each other (7.2 mm-9.1 mm, Myanmar, Thailand, Laos, Vietnam) ................................................................. 12. *Th. concinnus* Gestro

19(17). Central dot acutely angled outwards toward the front ............................................................. 20
— Central dot not as above; aedeagus with roundish tip ........................................................................ 21

20(19). Ventrites with narrow yellowish lateral margin; aedeagus with club-shaped tip (6.5 mm-7.6 mm, Thailand) ................................................................. 20. *Th. similis* Probst and Wiesner
— Ventrites with broad yellowish lateral margin; aedeagus with evenly pointed tip (6.8 mm-8.2 mm, Thailand) ................................................................. 38. *Th. rihai* Moravec and Wiesner

21(19). Elytral maculation yellowish (7.0 mm-8.7 mm, Thailand, Malaysia) ........................................ 26. *Th. pseudochenelli pseudochenelli* Probst and Wiesner
— Elytral maculation red brown (7.5 mm-8.6 mm, Thailand) ................................................................. 26a. *Th. pseudochenelli* rufus Probst and Wiesner

22(9). Humeral lunule short, not extended onto disk ........................................................................ 23
— Humeral lunule long, extended onto disk and diverging away from marginal suture .......... 29

23(22). Central dot subsquare or trapezoidal ..................................................................................... 24
— Central dot not as above ........................................................................................................ 27

24(23). Antennae short, male with distal two antennomeres obviously enlarged (8.0 mm-11.2 mm, Vietnam) ........................................................................ 34. *Th. tonkinensis* Horn
— Antennae longer, male without distal two antennomeres enlarged .................................................. 25
25(24). Labrum dark at outer margin (6.5 mm-7.5 mm, Laos) ................................................................. 31. *Th.* _phongsalyensis_ Sawada and Wiesner
   — Labrum uniformly pale .................................................................................................................. 26

26(25). Labrum with six apical teeth; body size smaller (8.2 mm-8.7 mm, Laos) ........................................ 3. *Th.* _pseudorugifer pseudorugifer_ Sawada and Wiesner
   — Labrum with five apical teeth; body size larger (9.5 mm, China) .................................................... 3a. *Th.* _pseudorugifer pentalabiodentatus_ Matalin

27(23). Labrum dark at outer margin ................................................................................................... 28
   — Labrum uniformly pale (7.4 mm, Laos) .......................................................................................... 9. *Th.* _circumsicptus_ Moravec and Wiesner

28(27). Male with distal two antennomeres obviously elongated; body size usually less than 8 mm (6.7
   mm-8.2 mm, Vietnam) .................................................................................................................... 30. *Th.* _rugifer_ Horn
   — Male without distal two antennomeres elongated; body size usually greater than 8 mm (8.0 mm-
   9.2 mm, Laos) ................................................................................................................................. 32. *Th.*_namthacolus_ Sawada and Wiesner

29(22). Central dot subsquare or a trapezoidal band ................................................................................. 30
   — Central dot more or less roundish, not forming a band ................................................................. 34

30(29). Labrum uniformly yellow ........................................................................................................... 31
   — Labrum dark at outer margin (7.8 mm, India) ................................................................................ 41. *Th.* _arunachalcolus_ Sawada and Wiesner

31(30). Humeral lunule slender (6.9 mm-8.2 mm, China) ................................................................. 1. *Th.* _montaneus_ Werner
   — Humeral lunule broad ...................................................................................................................... 32

32(31). Yellow color of elytral apex reaches the apical humps (7.7 mm-8.2 mm, Nepal, India) .......... 16. *Th.* _nepalensis_ Probst and Wiesner
   — Yellow apical dot does not reach the apical humps ...................................................................... 33

33(32). Humeral lunule long, tongue like and enlarged towards central dot (8.2 mm-9.6 mm, Laos) .... 13. *Th.* _bannapecolus_ Sawada and Wiesner
   — Humeral lunule shorter and uniform in width throughout (9.0 mm, Thailand) .......................... 14. *Th.* _major_ Probst and Wiesner

34(29). Central dot acutely angled outwards toward the front .............................................................. 35
   — Central dot not as above .............................................................................................................. 45

35(34). Elytral apex with a yellow dot .................................................................................................. 42
   — Elytral apex with no yellow dot .................................................................................................. 36

36(35). Labrum uniformly pale ............................................................................................................... 38
   — Labrum dark at outer margin ....................................................................................................... 37

37(36). Ventrites black to margins (6.7 mm-7.6 mm, Vietnam) ......................................................... 29. *Th.* _schuelei_ new species
   — Ventrites with brownish margins (4.8 mm-6.7 mm, India) ............................................................. 42. *Th.* _ingridae_ Sawada and Wiesner

38(36). Male with antennae short, reaching elytral shoulders (5.7 mm-6.9 mm, Laos) ....................... 8. *Th.* _bannokcolus_ Sawada and Wiesner
   — Male with antennae longer, reaching behind elytral shoulders .................................................... 39

39(38). Apex of elytra black .................................................................................................................. 40
INSECTA MUNDI 0315, September 2013

— Apex of elytra transparent brownish or yellowish .......................................................... 41

40(39). Elytra without basal dot (7.0 mm-7.4 mm, Laos) ......................................................... 37. Th. apicenigrus Sawada and Wiesner
— Elytra with basal dot (6.9 mm-7.5 mm, Laos) ................................................................. 2. Th. moraveci Sawada and Wiesner

41(39). Central dot horizontal (6.8 mm-7.1 mm, Laos) ............................................. 18. Th. dembickyi Sawada and Wiesner
— Central dot acutely angled outwards toward the front (5.4 mm-7.2 mm, Laos, Vietnam) ............................................................ 17. Th. gestroi Horn

42(35). Humeral lunule short ........................................................................................................ 43
— Humeral lunule long, nearly reaching the central dot ....................................................... 44

43(42). Labrum uniformly yellowish (7.3 mm-8.8 mm, Laos, Vietnam) .................. 10. Th. probsti Wiesner
— Labrum brownish laterally (6.9 mm-7.5 mm, Laos) ......................................................... 33. Th. sigridgeissleri new species

44(42). Ventrites black to margins (7.5 mm-8.4 mm, Vietnam) .................... 4. Th. baolocensis Wiesner
— Ventrites with yellowish margins (6.5 mm-7.5 mm, Laos) ........................................... 36. Th. csorbai Wiesner

45(34). Humeral lunule long, connected with the central dot or nearly reaching it ........... 46
— Humeral lunule shorter ........................................................................................................ 49

46(45). Humeral lunule broad and strongly extended onto disk ........................................... 47
— Humeral lunule narrow and barely extending onto disk ..................................................... 48

47(46). Light color of elytral apex reaching but not extending onto apical humps (6.7 mm-8.4 mm, Thailand, Malaysia) ................................................................. 19. Th. kraatzi Horn
— Light color of elytral apex covering apical humps (7.2 mm-8.2 mm, India) ................................................ ......................................................... 15. Th. annandalei Horn

48(46). Apex of elytra broadly yellow (6.1 mm-7.8 mm, Laos) ........................................... 5. Th. apiceflavus Sawada and Wiesner
— Apex of elytra yellow only at a small area near the suture (5.8 mm-7.7 mm, Vietnam) ...................... 7. Th. topali Mandl

49(45). Elytral apex black with large and bright apical dot .................................................... 50
— Elytra with small, yellow apical dot at suture or apex transparent dark brown ............... 51

50(49). Central elytral dot broad; male without distal two antennomeres elongated (6.4 mm-9.1 mm, Laos) ................................................................. 6. Th. laotiensis Sawada and Wiesner
— Central elytral dot slender; male with distal two antennomeres obviously elongated (7.3 mm-8.6 mm, Myanmar) ................................................................. 22. Th. myanmarensis Wiesner

51(49). Basal elytral dot longish and located near middle suture ........................................... 52
— Basal elytral dot subsquare roundish and located besides the scutellum ......................... 54

52(51). Basal elytral dot broad; male with distal two antennomeres obviously elongated (8.2 mm-9.2 mm, Vietnam) ................................................................. 21. Th. pearsoni new species
— Basal elytral dot narrow, male without distal two antennomeres elongated ....................... 53

53(52). Central elytral dot broad (7.2 mm-8.7 mm, Thailand) ........................................... 40. Th. pseudoprobsti Probst and Wiesner
— Central elytral dot slender (5.8 mm-7.3 mm, Myanmar) ................................................ 47. Th. miyamai Sawada and Wiesner
Species

1. Therates montaneus Werner (Fig. 4)

Therates montaneus Werner 1992: 403, f. 8, 9.

Type depository. Holotype male, allotype female and paratype female in ZSMC, paratype female in JWCG.


Diagnosis. Distinguished by the combination of acutely angled and irregularly fringed central band and slender humeral lunule.

Re-description. Size: Total length (without labrum) 6.9 mm-8.2 mm, (mean=7.7 mm, n=4). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 8, female Fig. 9) longer than wide, yellowish, with six apical teeth (five in the male, eight in one female and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in males, somewhat shorter in females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all remaining antennomeres blackish, distal antennomeres in the male slightly broader. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in the apical third (Fig. 5). Several of the punctures are connected in short rows, especially behind the basal humps and near the middle suture. Apex somewhat transparent brown, with lateral and sutural corner, slightly recurved between. Maculation brownish yellow, composed of a long slender humeral lunule, a long basal dot, and an acutely angled and irregularly fringed central band (Figs. 6, 7). Ventral aspect: Venter black. Legs brownish, base of meso- and metafemura lighter; tarsomeres somewhat darker distally.

Distribution. China (Fujian).

Remarks. Abdomen of the only known male specimen is missing.

2. Therates moraveci Sawada and Wiesner (Fig. 11)

**Type depository.** Holotype male in JWGC, paratype female in NHMW.

**Type status.** Holotype male! *Type labels:* “LAOS centr., Bolikhamsai prov., BAN NOK env., 9.-14. 5. 1998, alt. 220 ± 50 m, Route No. 8, N 18°08.7' E104°28.1' GPS, E. Jendek, O. Šauša leg.” [printed, white, with yellow borders]; “HOLOTYPOUS THERATES moraveci Sawada and Wiesner” [printed, red]. Paratype female! *Type labels:* “Laos centr., Bolikhamsai prov., BAN NAPE-Kaew Nua Pass, 18. 4.-1. 5. 1998, alt. 600 ± 100 m, N 18°22.3, E 105°09.1 (GPS), M. Štrba and R. Hergovits leg.” [printed, white]; “Paratype THERATES moraveci Sawada and Wiesner” [printed, red].

**Diagnosis.** Distinguished by the combination of length of the antennae, absence of maculae on the elytral apex, and presence of a basal dot.

**Re-description.** *Size:* Total length (without labrum) 6.9 mm-7.5 mm (mean=7.2 mm, n=2). *Head:* Shining greenish black. Mandibles yellowish, teeth brownish marginally. Labrum (male Fig. 15, female 16) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in male, somewhat shorter in female, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the remaining antennomeres brownish black, distal two antennomeres in male flattened. Clypeus glabrous. Frons smooth with a transverse furrow and two shallow bumps in the posterior part of the orbital plates. *Thorax:* Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra:* Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in the apical third (Fig. 12). Apex with lateral and sutural corner, recurved between. Maculation composed of a brownish yellow humeral lunule, a brownish yellow basal dot, and a small yellow central dot which is acutely angled outwards toward the front (Fig. 13). *Ventral aspect:* Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. *Aedeagus:* (Fig. 14) straight, with produced tip, total length 2.0 mm.

**Distribution.** Laos (Borikhamxai).

3. *Therates pseudorugifer pseudorugifer* Sawada and Wiesner (Fig. 17)


**Type depository.** Holotype male in ZSMC, paratype female in JWGC.

**Type status.** Holotype male! *Type labels:* “LAOS, Louang Namtha pr., 21°09’N 101°19’E, Namtha Muang Sing, 5-31.v.1997, 900-1200m, Vit Kubá leg. [printed]; PARATYPUS THERATES pseudorugifer Sawada and Wiesner [printed, red]. Paratype female *Type labels:* LAOS north, 5-11.v.1997, 20 km NW Louang Namtha, N21°09.2, E101°18.7, alt 900±100 m, E. Jendek and O. Šauša leg.” [printed, white, with yellow borders]; “PARATYPUS THERATES pseudorugifer Sawada and Wiesner” [printed, red].

**Diagnosis.** Distinguished by the combination of short humeral lunule, yellow labrum, and antennae which extends beyond the elytral shoulders.

**Re-description.** *Size:* Total length (without labrum) 8.2 mm-8.7 mm, (mean=8.5 mm, n=2). *Head:* Shining violet black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 21, female Fig. 22) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in the male, somewhat shorter in the female, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 and evenly pubescent; scape yellowish above, black on underside, remaining antennomeres blackish, distal two antennomeres in the male slightly broader. Clypeus gla-
INSECTA MUNDI 0315, September 2013 • 11

CHENNELLI GROUP OF Therates

brous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining violet black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining violet black, with basal and apical humps, slightly punctate in front, nearly absent in the apical half (Fig. 18). Apex somewhat transparent brown with lateral and sutural corner, straight or slightly recurved between. Maculations yellow, composed of a short humeral lunule, a narrow basal dot, and trapezoid horizontal central dot (Figs. 19, 20). Ventral aspect: Venter black. Legs of male yellowish, tibiae and tarsomeres somewhat darkened distally, femora darkened in distal half. Legs of female dark brown. Aedeagus: (Fig. 26) curved, broadly rounded distally, total length 2.0 mm.

Distribution. Laos (Louangnamtha).

3a. Therates pseudorugifer pentalabiodentatus Matalin (Fig. 23)


Type depository. Holotype female in ZIN.

Type status. Holotype female! Type labels: “319. Yunnan, Xiaomengyang, NE of Cheli and 64th km) 850 m, 6.V.1957, D. Panfilov” [handwritten, cyrillic]; “HOLOTYPUS, Therates, pseudorugifer, pentalabiodentatus n. species, det. A. V. Matalin, 2000” [printed, red].

Diagnosis. Distinguished from the nominate subspecies by the five dentate labrum.

Re-description. Size: Total length (without labrum) 9.5 mm, (n=1). Teneral! Head: Shining blackish. Mandibles yellowish, teeth brownish marginally. Labrum (Fig. 27) as wide as long, yellowish, with five apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, remaining antennomeres blackish. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining blackish, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining blackish, with basal and apical humps, slightly punctate in front, nearly absent in the apical half (Fig. 24). Elytral apex transparent brown. Apex with lateral and sutural corner, slightly recurved between. Maculation yellow elytral markings composed of a short humeral lunule, a narrow basal dot, and trapezoid horizontal central dot (Fig. 25). Ventral aspect: Venter blackish. Legs brownish.

Distribution. China (Yunnan).

4. Therates baolocensis Wiesner, new rank (Fig. 28)


Type depository. Holotype female in JWGC.

Type status. Holotype female! Type labels: “S.VIETNAM, 5./6. 1994, Bao loc, leg., Dembicky and Pacholatko” [printed, yellow]; “THERATES, probsti baolocensis, nov. subspec., det. J. Wiesner 96” [printed, white]; “HOLOTYPUS” [printed, red, with double black borders].
Nomenclatural note. Wiesner (1996: 507) tentatively placed *baolocensis* as a subspecies of *proasti* Wiesner 1988 “unless the corresponding male has been studied”. Subsequently, one male and one female of this species were available for study, examination of the male aedeagus shows significant difference to justify its elevation to specific rank.

**Diagnosis.** Distinguished by the combination of broad humeral lunule and large, acutely angled central dot.

**Re-description.** Size: Total length (without labrum) 7.5 mm-8.4 mm, (mean=7.9 mm, n=3). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 34, female Fig. 35) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in the male, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, remaining antennomeres blackish. Clypeus glabrous. Frons smooth, with a transverse shallow furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in apical half (Figs. 29, 30). Apex with angular lateral and sutural corner, recurved between. Maculations composed of a slender brownish yellow humeral lunule which is enlarged distally, a brownish yellow basal dot, and a large brownish yellow central dot that is acutely angled outwards toward the front (Figs. 31, 32). Humeral lunule and basal dot are connected at the base. Apex with a yellow dot at the suture, not reaching the apical humps. Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 33) curved, with produced tip, total length 1.8 mm.

**Distribution.** Vietnam (Lam Dong).

**Localities.** VIETNAM, Lam Dong, 15 km SW Bao Loc, 22.-24.iv.1995, 900 m (ZSMC), Lam Dong, near Bao Lok, 6.v.1997 (JWCG).

5. *Therates apiceflavus* Sawada and Wiesner (Fig. 36)


**Type depository.** Holotype male in JWGC, paratypes in JMCC, JWCG, RNFC and ZSMC.

**Type status.** Holotype male! *Type labels:* “LAOS centr., Bolikhamsai prov., BAN NAPE-Kaew Nua Pass, 18.4.-1.5.1998, alt. 600 ± 100 m., N 18°22.3’ E105°09.1’ (GPS), E. Jendek and O. Šauša leg.” [printed, white, with yellow borders]; “Holotype THERATES apiceflavus Sawada and Wiesner” [printed, red]. Paratypes! *Type labels:* “LAOS centr., Bolikhamsai prov., BAN NAPE-Kaew Nua Pass, 18.4.-1.5.1998, alt. 600 ± 100 m., N 18°22.3’ E105°09.1’ (GPS), E. Jendek and O. Šauša leg.” [printed, white, with yellow borders]; “Paratype THERATES apiceflavus Sawada and Wiesner” [printed, red]; “LAOS centr., Bolikhamsai prov., BAN NAPE-Kaew Nua Pass, 18.4.-1.5.1998, alt. 600 ± 100 m., N 18°22.3’ E105°09.1’ (GPS), M. Štrba and R. Hergovits leg.” [printed]; “Paratype THERATES apiceflavus Sawada and Wiesner” [printed, red].

**Diagnosis.** Distinguished by the combination of yellow elytral apex, long humeral lunule, and acutely angled central dot.

**Re-description.** Size: Total length (without labrum) 6.1 mm-7.8 mm (mean=6.8 mm, n=239). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally.
**Labrum (male Fig. 42, female 43) as wide as long, yellowish, with six apical teeth (seven in one male) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in male, somewhat shorter in female, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, remaining antennomeres brownish black. Clypeus glabrous. Frons smooth with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in the apical half (Fig. 37). Apex with lateral and sutural corners, recurved between. Maculation composed of a long brownish yellow humeral lunule, a long brownish yellow basal dot, and a yellow central dot that is acutely angled inwards toward the suture and sometimes connected with the humeral lunule (Figs. 38-41). Apex yellow, extending to apical humps in most specimen. Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 44) straight, with roundish tip, total length 1.7 mm.**

**Distribution.** Laos (Houaphan, Borikhamxai).

**Localities.** LAOS, Bolikhamxai, 8 km NE Ban Nape, 1.-18.v.2001, ~ 600 m (JWCG, OSCC), Nakai Nam Theun Nat. Park, 7.-16.v.2004, 500±100 m (JWCG), Houaphan, 25 km SE Vieng Xai, Ban Kangpabong env., 14.-18.v.2001 (ZSMC).

6. **Therates laotiensis** Sawada and Wiesner (Fig. 45)


**Type depository.** Holotype male in JWGC, paratypes in JMCC, JWGC, RNFC and ZSMC.

**Type status.** Holotype male! Type labels: “Laos cent., Bolikhamsai prov., BAN NAPE-Kaew Nua Pass, 18. 4.-1. 5. 1998, alt. 600 ± 100 m, N 18°22.3, E 105°09.1 (GPS), E. Jendek and O. Šauša leg.” [printed, with yellow border; “Holotype THERATES laotiensis Sawada and Wiesner” [printed, red, with black borders]. Paratypes! Type labels: “Laos cent., Bolikhamsai prov., BAN NAPE-Kaew Nua Pass, 18. 4.-1. 5. 1998, alt. 600 ± 100 m, N 18°22.3, E 105°09.1 (GPS), E. Jendek and O. Šauša leg.” [printed, with yellow borders]; “Paratype THERATES laotiensis Sawada and Wiesner” [printed, red, with black borders].

**Diagnosis.** Distinguished by the combination of lanceolate antennae, yellow elytral apex, and large central dot.

**Re-description.** Size: Total length (without labrum) 6.4 mm-9.1 mm (mean=7.6 mm, n=80). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 50, female Fig. 51) as wide as long, yellowish, brownish at lateral base, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in males, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth with a shallow furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, nearly absent in the apical half (Fig. 46). Apex with lateral and sutural corner, recurved between. Maculation composed of a brownish yellow humeral lunule, a long brownish yellow basal dot, a rather large central dot, and a light yellow apex which does not reach the apical humps (Figs. 47, 48). Ventral aspect: Venter black. Legs of
males yellowish, tibiae and tarsomeres somewhat darkened distally, legs of females somewhat darker. Aedeagus: (Fig. 49) straight, with long produced tip, total length 2.0 mm.

**Distribution.** Laos (Borikhamxai).

**Localities.** LAOS, Annam (HNHM), Bolikhamsai, 8 km NE Ban Nape, 1.-18.v.2001, 600 m (JWCG).

7. Therates topali Mandl (Fig. 52)


**Type depository.** Holotype male in HNHM. Six paratype males in HNHM, three in SDEI, one paratype female in JWCG.


**Diagnosis.** Distinguished by the combination of long slender humeral lunule reaching or nearly reaching the central dot and the light color of the elytral apex, which is generally absent or, if present, restricted to the sutural area.

**Re-description.** Size: Total length (without labrum) 5.8 mm-7.7 mm (mean=6.8 mm, n=38). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 58, female Fig. 59) barely wider than long, yellowish, with six apical teeth (seven in one female) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders, slightly shorter in the female, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth with two shallow bumps or one shallow furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining brownish black, with basal and apical humps, shallow punctate in front, nearly absent in apical half (Fig. 53). Apex with or without angular lateral corner and sutural corner, in the first case slightly recurved between. Maculation composed of a long narrow yellow humeral lunule, a yellow basal dot, and a yellow central dot (Figs. 54-57). The humeral lunule is reaching or nearly reaching the central dot. Apex is transparent brownish or has a small yellow dot, not or nearly reaching the apical humps. Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 60) straight with short knobbed tip, total length 1.9 mm.

**Distribution.** Vietnam (Son La, Cao Bang, Hoa Binh, Vinh Phuc, Nin Binh, Quang Binh).

Remarks. As stated by Wiesner (1988: 19) and Sawada and Wiesner (1997: 78) the type series of Mandl’s *topali* included specimens of four different species (*topali*, *vietnamensis*, *probsti* and *jendeki*).

8. *Therates bannokcolus* Sawada and Wiesner (Fig. 61)

*Therates bannokcolus* Sawada and Wiesner 1999b: 301, 302, f. 9, 19.

Type depository. Holotype male in JWGC.

Type status. Holotype male! Type labels: “LAOS c, Bolikhamsai prov., BAN NOK env., alt. 220 m, Route No. 8, 9.-14. 5. 1998, N 18°08.7’ E104°28.1’ GPS, E. Jendek, O. Šauša leg.” [printed, white, with yellow borders]; “HOLOTYPUS, THERATES bannokcolus Sawada and Wiesner” [printed, red].

Diagnosis. Distinguished by the combination of short antennae and elytral apex which lacks maculae except for the short basal dot on some individuals.

Re-description. Size: Total length (without labrum) 5.7 mm-6.9 mm (mean=6.2 mm, n=13). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 67, female 68) barely wider than long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders in males, somewhat shorter in females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, transparent brown apically, with basal and apical humps, distinctly punctate in front, nearly absent in the apical third (Fig. 62). Apex with lateral and sutural corner, slightly recurved between. Maculation composed of a slender brownish yellow humeral lunule, a short or nearly absent brownish yellow basal dot, and a small yellow central dot which is acutely angled outwards forward (Figs. 63-65). Basal hump and sutureal space between basal hump and apex are brownish colored in some specimens. Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 66) curved, with thin and produced tip, total length 1.4 mm.

Distribution. Laos (Borikhamxai, Khommouan).

Localities. LAOS, Khommouan, Ban Khoun Ngeun, 17.v.-6.vi. 2007, 300 m (JWCG).

9. *Therates circumscriptus* Moravec and Wiesner (Fig. 69)


Type depository. Holotype male in NHMW.

Type status. Holotype male! Type labels: (L)AOS, Louang Namtha pr., (2)1°09’N 101°19’E, (N)amtha Muang Sing, (5)-31.v.1997, 900-1200 m, (V)ít Kubá leg. [printed, white, first letter of each line missing]; Holotype THERATES circumscriptus Moravec and Wiesner [printed, red].
Diagnosis. Distinguished by the combination of short humeral lunule and elytral apex which lacks maculae.

Re-description. Size: Total length (without labrum) 7.4 mm (n=1). Female unknown. Head: Shining greenish black. Mandibles yellowish, teeth brownish marginally. Labrum (male Fig. 73) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish. Clypeus glabrous. Frons smooth with two longish humps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in the apical third (Fig. 70). Apex with lateral and sutural corner, slightly recurved between. Maculation yellow, composed of a short humeral lunule connected with a short basal dot and a central dot which is acutely angled inwards toward the suture (Fig. 71). Central dot and base of humeral lunule are light yellow colored, the remainder brownish yellow. Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 72) curved, with roundish tip distally, total length 1.6 mm.

Distribution. Laos (Louangnamtha).

10. Therates probsti Wiesner (Fig. 74)


Type depository. Holotype male in SDEI. Paratypes in JWCG, NHMB, RNFC, SDEI and ZSMC.


Diagnosis. Distinguished by the combination of slender humeral lunule and acutely angled central dot.
shallow punctate in front, nearly absent in apical half (Fig. 75). Apex with angular lateral corner and sutural corner somewhat recurved between. Maculation composed of a slender brownish yellow humeral lunule, a brownish yellow basal dot, and a yellow central dot that is acutely angled outwards toward the front (Figs. 76, 77). Apex has a small yellow dot at the suture, not reaching the apical humps. Ventral aspect: Venter black, ventrites brownish at marginal suture. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 78) curved, with produced thin tip. Size: Total length 2.3 mm.

Distribution. Laos (Phongsali, Louangnamtha, Oudomxai, Houaphan, Attapeu), Vietnam (Son La, Bac Kan, Lao Cai, Vinh Phuc).


Remarks. As indicated by Wu (2011: 31, 32), the record from China, Xizang (Sawada and Wiesner 2006c: 463) is somewhat doubtful due to the unreliability of an insect dealer. The record is therefore not included in the distribution list.

11. Therates vietnamensis Wiesner (Fig. 81)

Therates topali vietnamensis Wiesner 1988: 19, f. 74, 75, 305.

Type depository. Holotype male in NHMW. Paratypes in NHMW, NHMB, JWCG and SDEI.


Diagnosis. Distinguished by the combination of short humeral lunule and acutely angled central dot.
Re-description. **Size**: Total length (without labrum) 6.3 mm-8.7 mm, (mean=7.3 mm, n=65). **Head**: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 87, female Fig. 88) as wide as long, yellowish all over or somewhat blackish laterally, with six apical teeth (one male with seven teeth) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in males, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. **Thorax**: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. **Elytra**: Shining black, with basal and apical humps, shallow punctate in front, nearly absent in apical half (Fig. 82). Apex with or without angular lateral corner and sutural corner, in the first case somewhat recurved between. Maculation composed of a short yellow humeral lunule, a yellow basal dot, and a yellow central dot that is acutely angled inwards toward the suture (Figs. 76, 77). Apex is transparent brownish or has a small yellow dot at the suture. **Ventral aspect**: Venter black, ventrites brownish marginally. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. **Aedeagus**: (Fig. 86) curved, with produced thick tip, total length 1.8 mm.

**Distribution.** Vietnam (Cao Bang, Vinh Phuc, Ninh Binh, Tuyen Quang, Quang Binh).


**12. Therates concinnus** Gestro (Fig. 89)

*Therates concinnus* Gestro 1888: 105, 106.  
*Therates chennelli concinnus.* Horn 1910: 194; Fowler 1912: 298; Horn 1926: 113; Heynes-Wood and Dover 1928: 42, 43.  

**Type depository.** Holotype female in MSNG.

**Type status.** Holotype male! Type labels: “Tenasserim, Thagatà, Fea. Apr. 1887” [printed, with black borders]; “concinnus Gestro” [handwritten, with black borders]; “Typus” [printed, letters red, borders red]; “Holotypus, Therates concinnus Gestro 1888” [printed and handwritten, red].

*Therates differens* Sawada and Wiesner 1999a: 32 - 35, f. 5, 6, 11, **new synonymy.**


**Type depository.** Holotype male in JWGC, paratypes in JWGC and ZSMC.

**Type status.** Holotype male! Type labels: “LAOS north, 5-11.v.1997, 20 km NW Louang Namtha, N21°09.2, E101°18.7, alt 900±100 m, E. Jendek and O. Šauša leg.” [printed, white, with yellow borders];

**Nomenclatural note.** A male of waagenorum from Myanmar, preserved in MSNG, bears the label “Therates concinnus Gestro, 1888, teste R. Gestro, 1893” and was the specimen upon which Wiesner (1988:15, f. 61, 297, 394) erroneously based his concept of Therates concinnus. After carefully studying the type of Th. concinnus Gestro on loan from MSNG, I determined that Therates differens, as described by Sawada and Wiesner (1999) is conspecific with Th. concinnus, and thus place it into synonymy herein.

**Diagnosis.** Distinguished by the combination of elytral maculation with large angular shaped central dot, confluent humeral lunule and basal dot.

**Description.** Size: Total length (without labrum) 7.2 mm-9.1 mm, (mean=8.1, n=88). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 97, female Fig. 98) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in female, somewhat longer in the male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish. Clypeus glabrous. Frons smooth with one shallow bump in the middle between and two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 90). Apex with roundish lateral corner and a sutural tooth, recurved between. Maculation composed of a brownish yellow humeral lunule, a brownish yellow basal dot, a large yellow horizontal central dot with angular shape, and a light yellow apex reaching the apical humps (Figs. 91-95). The humeral highly variable, often connected to the basal dot. In rare instances the humeral lunule is connected to the central dot at the middle of the suture. Venter black, ventrites with small brownish lateral margin. Legs yellowish, femora, tibiae and tarsomeres of metathoracic legs somewhat darker distally. Aedeagus: (Fig. 96) curved, with pin shaped and produced tip, total length 1.8 mm.

**Distribution.** Myanmar (Taninthyari = Tenasserim), Thailand (Chiang Mai), Laos (Phongsali Louangnamtha, Bokeo, Oudomxai, Louangphrabang, Houaphan), Vietnam (Lao Cai, Hoa Binh, Ninh Binh).


13. **Therates bannapecolus** Sawada and Wiesner (Fig. 99)

Therates bannapecolus Sawada and Wiesner 1999b: 304, f. 12, 13, 22.

**Type depository.** Holotype male in JWGC, paratypes in JWGC and JMCC.

**Type status.** Holotype male! *Type labels:* “LAOS c., Bolikhamsai pr., BAN NAPE - Kaew Nua Pass, 18.4.-1.5.1998, alt. 600m, N 18°22.3' E 105°09.1' GPS, E. Jendek, O. Sauša lgt.” [printed, white with yellow borders]; “Holotype THERATES bannapecolus Sawada and Wiesner” [printed, red]. Paratypes! *Type labels:* “LAOS c., Bolikhamsai pr., BAN NAPE - Kaew Nua Pass, 18.4.-1.5.1998, alt. 600m, N 18°22.3' E 105°09.1' GPS, E. Jendek, O. Sauša lgt.” [printed, white with yellow borders]; “Paratype THERATES bannapecolus Sawada and Wiesner” [printed, red]; “LAOS centr., Bolikhamsai prov., BAN NAPE - Kaew Nua Pass, 18.4.-1.5.1998, alt. 600±100 m, N 18°22.3, E 105°09.1 (GPS), M. Štrba and R. Hergovits leg.” [printed]; “Paratype THERATES bannapecolus Sawada and Wiesner” [printed, red].

**Diagnosis.** Distinguished by the combination of elytral maculation with long humeral lunule and short apical dot.

**Re-description.** *Size:* Total length (without labrum) 8.2 mm-9.6 mm (mean=9.0 mm, n=6). *Head:* Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 104, female Fig. 105) as wide as long, yellowish, with six apical teeth (one female with seven) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in female, somewhat longer in the male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth with two shallow humps or one shallow furrow in the posterior part of the orbital plates. *Thorax:* Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. *Elytra:* Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 100). Apex with lateral and sutureal corners, slightly recurved between. Maculation composed of a brownish yellow humeral lunule, a long brownish yellow basal dot, a large yellow fascia-like central dot, and a light yellow apex which does not reach the apical humps (Figs. 101, 102). Humeral lunule is connected with the basal dot at the base. *Ventral aspect:* Venter black, ventrites with narrow brownish lateral margin. Legs yellowish, two distal tarsomeres somewhat darker distally. *Aedeagus:* (Fig. 103) straight, with produced angled tip. Total length 2.1 mm.

**Distribution.** Laos (Borikhamxai).

**Localities.** LAOS, Borikhamxai, 8 km NE Ban Nape, 1.-18.v.2001, ~ 600 m (JWCG, ZSMC).

14. Therates major Probst and Wiesner (Fig. 106)

Therates major. Naviaux and Pinratana 2004: 63, T. 17, f. 1, 2, T. 40, f. 6, T. 58, f. 3.

**Type depository.** Holotype female in RNFC.

**Type status.** Holotype female! *Type labels:* “THAILANDE, Pilok. Alt. 1200 m, Kanchanaburi prov., 24.V .88 RN” [printed, with black borders]; “HOLOTYPUS” [printed, red]; “THERATES major PROBST and WIESNER, det. J. Wiesner 1994” [printed].

**Diagnosis.** Distinguished by the combination of elytral maculation with short humeral lunule, trapezoidal shaped central dot, and elytral apex which has yellow restricted to a small sutureal area.

**Re-description.** *Size:* Total length (without labrum) 9.0 mm, (n=1). Male unknown. *Head:* Shining greenish black. Mandibles yellowish, teeth brownish marginally. Labrum (female Fig. 109) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Anten-
Chennelli group of *Therates* Insecta Mundi 0315, September 2013 • 21

nae lanceolate, extending posteriorly behind elytral shoulders, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. *Thorax*: Pronotum shining greenish black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra*: Shining blackish violet, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 107). Apex with angular lateral and sutural corner, straight between. Maculation composed of a short yellow humeral lunule, a yellow basal dot, a yellow trapezoid central dot, and a light yellow apex (Fig. 108). The humeral lunule is slightly enlarged towards the elytral disk and connected with the basal dot at the base. *Ventral aspect*: Venter black, ventrites brownish marginally. Legs brownish yellow, metatarsi and metatibiae lighter.

**Distribution.** Thailand (Kanchanaburi).

15. *Therates annandalei* Horn (Fig. 111)

*Therates gestroi annandalei* Horn 1908b: 412.
*Therates kraatzi annandalei*. Horn 1926: 113c.

**Type depository.** Lectotype male and one syntype male in SDEI.

**Type status.** Lectotype male! (here designated) *Type labels*: “N. A., Kurseong, 5000 Feet, E. Himalayas, 5-VII-08” [printed]; “SYNTYPUS” [printed, red]; “Annandalei mihi” [handwritten, light yellow, with black borders]; “LECTOTYPE THERATES annandalei W.HORN, 1908, ded J. Wiesner 2013” [printed, red]. Syntype! *Type labels*: “N. A., Kurseong, 5000 Feet, E. Himalayas, 5-VII-08” [printed]; “SYNTYPUS” [printed, red].

**Diagnosis.** Distinguished by the elytral maculation with the humeral lunule which is strongly extended on disk and yellow apex which covers the apical humps.

**Re-description.** Size: Total length (without labrum) 7.2 mm-8.2 mm (mean=7.8 mm, n=4). *Head*: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 114, female Fig. 115) barely longer than wide, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly far behind elytral shoulders in males, somewhat shorter in females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. *Thorax*: Pronotum shining greenish black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra*: Shining black, with basal and apical humps, distinctly punctate in front, shallower in the apical third (Fig. 112). Apex with angular lateral corner and tiny sutural tooth, barely straight between. Maculation composed of a long brownish yellow humeral lunule, a brownish yellow basal dot, a small yellow central dot, and a light yellow apex which covers the apical humps (Figs. 113-115). The humeral lunule is connected with the basal dot at the base. *Ventral aspect*: Venter black, ventrites brownish marginally. Legs brownish yellow, metatibiae brownish yellow at base only, remainder and metatarsi light yellow. *Aedeagus*: (Fig. 110) curved, tip elongated and bent, total length 1.5 mm.

**Distribution.** India (West Bengal).
Localities. INDIA, West Bengal, Darjiling, Kurseong, 1400-1500 m, 22.vi.1910 (BMNH), Kurseong, Baow River, 8.-12.v.1987, 1100 m (ZSMC).

16. Therates nepalensis Probst and Wiesner (Fig. 118)


Type depository. Holotype male in NHMW.

Type status. Holotype male! Type labels: “E-NEPAL, Arun Valley, Mure-Num, 2050 - 1600 m, 10. Juni 1992, leg. J. and J. Probst” [printed, with yellow borders]; HOLOTYPUS THERATES nepalensis PROBST and WIESNER” [printed, red, with black borders].

Diagnosis. Distinguished by the combination of yellow labrum and elytra with yellow apex, reaching the apical humps.

Re-description. Size: Total length (without labrum) 7.7 mm-8.2 mm (mean=8.0 mm, n=3). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 123, female Fig. 124) longer than wide, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in the male, somewhat shorter in the female, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining greenish or violet black, with basal and apical humps, distinctly punctate in front, shallow in apical half (Fig. 119). Apex with angular lateral and sutural corner, slightly recurved between. Maculation composed of a long yellow humeral lunule, yellow basal dot, broad yellow central band, and yellow apex which reaches the apical humps (Figs. 120, 121). Ventral aspect: Venter black. Legs yellowish, apical halves of metatibiae and meso- and metafemura darker, tarsomeres somewhat darkened distally. Aedeagus: (Fig. 122) straight with short rounded tip, total length 1.9 mm.

Distribution. Nepal (Kosi), India (Sikkim).


17. Therates gestroi Horn (Fig. 125)

*Therates gestroi* Horn 1900: 196, 197.

Type depository. Holotype female in SDEI.

Type status. Holotype female! Type labels: “MUSEUM PARIS, LAKHON, HARMAND 1878” [printed]; “Holotypus” [printed, red]; “Gestroi mihi” [handwritten, light yellow, with black borders].
Diagnosis. Distinguished by the combination of elytral maculation with slender humeral lunule, extended basal dot, and acutely angled central dot.

Re-description. Size: Total length (without labrum) 5.4 mm-7.2 mm, (mean=6.3, n=8). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 130, female Fig. 131) as wide as long, yellowish, with six apical teeth one lateral tooth. Labial and maxillary palpi yellowish. Antennae lancelolate, extending posteriorly behind elytral shoulders in male, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all other antennal segments dark. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 126). Apex transparent brown, with angular lateral corner and a sutural tooth, slightly recurved between. Maculation composed of a slender yellow humeral lunule, yellow basal dot which is extended to the middle suture, and central dot which is acutely angled outwards toward the front (Figs. 127, 128). Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres darker distally. Aedeagus: (Fig. 129) curved, broadly rounded distally, total length 1.4 mm.

Distribution. Laos (Khammouan), Vietnam (Tuyen Quang).


Remarks. This species was described from a single female specimen with the collection locality of "Indochine Lakhon". Due to the fact that I have been unable to determine the location of "Lakhon", I based this redescription of the female on specimens collected in Laos and Vietnam that most closely fit the holotype. I also include a description of the associated male for this species.

18. Therates dembickyi Sawada and Wiesner (Fig. 132)

Therates dembickyi. Sawada and Wiesner 2006b: 452.

Type depository. Holotype male and paratype female in JWGC.


Diagnosis. Distinguished by the combination of elytra with the combination of horizontal central dot and brownish apex, and males with the antennae reaching posteriorly behind the elytral shoulders.

Re-description. Size: Total length (without labrum) 6.8 mm-7.1 mm (mean=7.0 mm, n=2). Head: Shining greenish black. Mandibles yellowish, brownish distally in female, teeth brownish marginally. Labrum (male Fig. 137, female Fig. 138) as wide as long, yellowish, lateral margins dark brown, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lancelolate, extending posteriorly to elytral shoulders in female, somewhat longer in the male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth,
with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, shallower in apical half (Fig. 133). Apex with angular lateral corner and tiny sutural tooth, somewhat recurved between. Maculation composed of a brownish humeral lunule, brownish yellow basal dot, and yellow horizontal central dot (Figs. 134, 135). Apex is somewhat transparent brownish or yellow behind the apical humps. Ventral aspect: Venter black. Legs yellowish, tibiae and tarsal joints darkened a little at apex. Aedeagus: (Fig. 136) straight, produced into tip distally, total length 1.8 mm.

Distribution. Laos (Khamouan).

Remarks. Sawada and Wiesner (2006b: 452) mentioned dembickyi from Bolikhamxai. In fact these specimens are not conspecific and described as Th. sigridgeissleri herein.

19. Therates kraatzi Horn (Fig. 139)


Type depository. Holotype male in SDEI.

Type status. Holotype male! Type labels: “Penang” [handwritten]; “Holotypus” [printed, red]; “Kraatzi mihi” [handwritten, light yellow, with black borders].

Diagnosis. Distinguished by the combination of elytra with roundish central dot, humeral lunule which is strongly extended onto disk, and the yellow tibiae.

Re-description. Size: Total length (without labrum) 6.7 mm-8.4 mm, (mean=7.6, n=7). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 146, female Fig. 145) as wide as long, yellowish, with six apical teeth one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in male, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments dark. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 140). Apex with angular (in males) or roundish (in females) lateral corner and a sutural tooth, slightly recurved between. Maculation composed of a long yellow humeral lunule which is extended on the disk towards the central dot, yellow basal dot connected with the lunule at base, roundish central dot, and light yellow apex which reaches the apical humps; occasionally shorter in females (Figs. 141-143). Ventral aspect: Venter black. Legs yellowish, hind femora, tibiae and tarsomeres darker distally. Aedeagus: (Fig. 144) curved, with pin shaped and produced tip, total length 1.9 mm.

Distribution. Thailand (Nan, Tak, Nakhon Si Thammarat), Malaysia (Penang).

Localities. THAILAND, Nan, Ban Huay Kon env., 27.v.-10.vi.2002 (OSCC), Tak, Umphang District, Song Bae Stream, Thung Yai Wildlife Sanctuary, 18-27.iv.1988, 300m, evergreen rain forest (BMNH), Nakhon Si Thammarat, Khao ram, Taisui, 21.iii.1922 (SDEI).
20. *Therates similis* Probst and Wiesner (Fig. 147)


Type depository. Holotype male in JWGC, paratype female in NHMW.


Diagnosis. Distinguished by the combination of elytral maculation with extremely laterally located central dot, and yellowish color of the marginal ventrites.

Re-description. Size: Total length (without labrum) 6.5 mm-7.6 mm, (mean = 7.1 mm, n = 2). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 151, female Fig. 152) barely wider than long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorly behind elytral shoulders in female, somewhat longer in the males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish or darker, distal two segments in males flattened. Clypeus glabrous. Frons smooth with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining brownish black, with basal and apical humps, evenly punctate but shallower at the apex (Fig. 148). Apex with angular lateral and sutural corner, slightly recurved between then. Maculation (Fig. 149) composed of a large brownish yellow humeral lunula extending from the marginal to the middle suture, leaving open only a small blackish dot at the lateral margin of the basal humps, connected with a brownish yellow horizontal central dot with back margin slanting, orientated outwards toward the front and a light yellow apex, reaching the apical humps. Ventral aspect: Venter black, ventrites yellowish marginally. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 150) curved, with long bulb distally, total length 1.7 mm.

Distribution. Thailand (Yala).

21. *Therates pearsoni* new species (Fig. 153)

Type depository. Holotype male in NHMB, paratypes in JWCG and NHMB.


Diagnosis. Distinguished by the combination of elytra with broad basal dot and male with two enlarged distal antennomeres.

Etymology. This new species is dedicated to David L. Pearson in deep gratitude for his continuous help.
Description. Size: Total length (without labrum) 8.2 mm-9.2 mm, (mean=8.6 mm, n=6). Head: Shining greenish black. Mandibles yellowish, brownish distally in female, teeth brownish marginally. Labrum (male Fig. 159, female Fig. 160) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorally behind elytral shoulders in female, somewhat longer in the male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, the other antennal segments brownish, distal two segments blackish, enlarged in the males. Clypeus glabrous. Frons smooth, with a transverse furrow and some striae in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in apical half (Fig. 154). Apex with angular lateral and sutural tooth, recurved between, transparent brownish, yellowish towards the apex, suture yellowish. Maculation yellow, composed of a humeral lunule, a basal dot and a central dot, which is acutely angled inwards toward the suture (Figs. 141-143). Ventral aspect: Venter black. Legs brownish, tibiae and tarsal joints darkened slightly at apex. Aedeagus: (Fig. 158) curved, with bent and knobbed tip distally, total length 2.1 mm.

Distribution. Vietnam (Quang binh).

22. Therates myanmarensis Wiesner (Fig. 161)


Type depository. Holotype male in JWGC, paratypes in JWGC, JMCC, RNFC and ZSMC.

Type status. Holotype male! Type labels: “MYANMAR N (Burma), 50 km E Putao, H-950 m, env. Nan Thi vill., 11.-16. 05. 1998, leg. S. Murzin and V. Siniaev” [printed, with yellow borders]; “Holotype THERATES myanmarensis J. WIESNER [printed, red, with black borders]. Paratypes! Type labels: “MYANMAR N (Burma), 50 km E Putao, H-950m, env. Nan Thi vill., 11-16.05.1998, leg. S. Murzin and V. Siniaev” [printed]; “Paratype THERATES myanmarensis J. Wiesner“ [printed, red]; “MYANMAR N (Burma), 65 km NW Putao,1250 m, Zi Yar Dam vill., 18.-21. 05. 1998, leg. S. Murzin and V. Siniaev” [printed, with yellow borders]; “Paratype THERATES myanmarensis J. WIESNER [printed, red, with black borders].

Diagnosis. Distinguished by combination of elytral maculation with slender central dot, and males with the two distal antennomeres extended.

Re-description. Size: Total length (without labrum) 7.3 mm-8.6 mm (mean=8.0 mm, n=12). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 167, female 168) longer than wide, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorally to elytral shoulders in male, somewhat shorter in female, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish, distal two blackish, extended in males. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 162). Elytral apex with lateral and sutural corner, straight between. Elytral maculation composed of a long brownish yellow humeral lunule, a brownish yellow basal dot of variable extension, and a slender yellow central dot (Figs. 163-165). The yellow coloration of the elytral apex reaches the apical humps. Ventral aspect: Venter black, ventrites brownish, yellowish at
margin. Legs yellowish, hind femora, tibiae and tarsomeres somewhat darker distally. Aedeagus: (Fig. 166) curved, produced into slender tip distally, total length 1.8 mm.

Distribution. Myanmar (Kachin).

23. *Therates confluens* Wiesner (Fig. 169)

*Therates kraatzi confluens* Wiesner 1988: 17, 18, f. 69.

Type depository. Holotype female in SDEI.

Type status. Holotype female! Type labels: “MALAY PENIN., KEDAH PEAK, 3500 ft., 29th March 1928” [printed and handwritten]; “HOLOTYPUS” [printed, red]; “kraatzi confluens Wiesner, det. Wiesner 86” [printed].

Nomenclatural note. *Therates confluens* originally was described as a subspecies of *Th. kraatzi*, but subsequently elevated by Wiesner (1996: 505) to species rank.

Diagnosis. Distinguished by the combination of missing dark wedge shaped recession between humeral lunule and central dot in combination with the black color of the ventrites.

Re-description. Size: Total length (without labrum) 6.8 mm-7.5 mm, (mean=7.1 mm, n=3). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 175, female Fig. 176) as wide as long, yellowish, with six or seven apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extended posteriorly to elytral shoulders in female and somewhat longer in male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish. Clypeus glabrous. Frons smooth with a transverse furrow in the posterior part of the orbital plates, followed by several longitudinal striae. Thorax: Pronotum shining greenish black, as long as wide, slightly more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical third (Fig. 170). Elytral apex with angular lateral corner and sutural tooth, recurved between. Elytral maculations composed of a large brownish yellow humeral lunula, connected to a brownish yellow basal dot, leaving open a blackish dot at the lateral margin of the basal humps, and narrow blackish band at the suture connected with a brownish yellow slanting central dot (Figs. 171-173). The central dot is loosely connected at the middle suture with the light yellow coloration of the apex, which reaches the apical humps. Ventral aspect: Venter black, ventrites generally black, occasionally with small brownish lateral margin. Legs yellowish. Aedeagus: (Fig. 174) curved, with knob shaped tip, total length 1.9 mm.

Distribution. Malaysia (Kedah). Vietnam (Lam Dong).


Remarks. Specimens from Vietnam are tentatively assigned to this species, unless male specimens from Malaysia (Kedah) become available for genitalia study and contradict this interpretation of the species.
24. *Therates pacholatkoi* Sawada and Wiesner (Fig. 177)


**Type depository.** Holotype male and paratypes in JWGC.


**Diagnosis.** Distinguished by the combination of laterally yellowish ventrites, completely brownish or brownish yellow basal humps, and light apical dot, which is not extended forward medially.

**Re-description.** Size: Total length (without labrum) 5.8 mm-7.6 mm (mean=6.7 mm, n=63). Head: Shining greenish black. Mandibles yellowish, brownish distally in female, teeth brownish marginally. Labrum (male Fig. 182, female Fig. 183) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae slender, extending posteriorly behind elytral shoulders in females, somewhat longer in the males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: With basal and apical humps, shining black with brownish areas in variable extension, in the extreme case only the apical humps remain black, distinctly punctate in front, shallower in apical half (Fig. 178). Apex with angular lateral corner and tiny sutural tooth, somewhat recurved between. The yellow elytral markings composed of a small or distinguished basal dot, a long humeral lunule, which extends onto elytral center and there often connected with a slender central dot, which is acutely angled outwards toward the front and a yellow apex of variable extension (Figs. 179, 180). Ventral aspect: Venter black, ventrites brownish marginally. Legs yellowish, tibiae and tarsal joints darkened a little at apex. Aedeagus: (Fig. 181) straight, produced into an angled tip distally, total length 1.6 mm.

**Distribution.** Laos (Phongsali).

**Localities.** LAOS, Phongsaly, Phongsaly env., 28.v.-20.vi.2003, 1500 m (OSCC),

25. *Therates pseudoconfluens* Sawada and Wiesner (Fig. 184)


**Type depository.** Holotype male in JWGC, 1 paratype in JWGC, 1 paratype in ZSMC.

**Type status.** Holotype male! Type labels: “LAOS north, 5-11.v.1997, 20 km NW Louang Namtha, N21°09.2, E101°18.7, alt 900±100 m, E. Jendek and O. Šauša leg.” [printed, white, with yellow borders]; “HOLOTYPUS THERATES pseudoconfluens Sawada and Wiesner” [printed, red]. Paratype female! Type labels: “LAOS north, 13-24.v.1997, 15 km NW Louang Namtha, N21°07.5, E101°21.0, alt 750±100 m, E.

**Diagnosis.** Distinguished by the laterally yellowish ventral laterally yellowish ventrites and yellowish elytral maculation which reaches the middle suture in its extension.

**Re-description.** Size: Total length (without labrum) 6.7 mm-8.3 mm, (mean=7.4 mm, n=10). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (males Figs. 190, 191, female Fig. 192) as wide as long, yellowish, with six apical teeth (one male with seven teeth) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorly reach the basal half of the elytra, slightly shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish or darker. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates, followed by a few longitudinal striae. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctuate in front, shallower in the apical half (Fig. 185). Apex with angular lateral and sutural corner, nearly straight between. Maculation composed of a large yellowish humeral lunule extending from the marginal to the middle suture, leaving open a blackish dot at the lateral margin of the basal humps, completely connected with a yellowish central dot that is angled outwards toward the front and a light yellow apical lunule extending to the apical humps and in some specimens connected with the central dot (Figs. 186-188). Ventral aspect: Venter black, ventrites yellowish laterally. Legs yellowish, tibiae and tarsomeres darkened distally. Aedeagus: (Fig. 189) curved, with pin shaped and angled tip, total length 1.7 mm.

**Distribution.** Laos (Louangnamtha, Phongsaly, Louangphrabang), China (Yunnan).


26. *Therates pseudochenelli pseudochenelli* Probst and Wiesner (Fig. 193)


**Type depository.** Holotype male in JWGC, paratypes in JMCC, JWGC, RNFC and ZSMC.

Diagnosis. Distinguished by the central dot orientated laterally and toward the front.

Re-description. Size: Total length (without labrum) 7.0 mm-8.7 mm, (mean=8.0 mm, n=22). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 199, females Figs. 200, 201) as wide as long, yellowish, with six apical teeth (one female with five, one female with seven teeth) and one lateral tooth. Labial and maxillary palpi yellowish (in one female distal segments of palpi darker). Antennae extending posteriorly behind elytral shoulders in female, somewhat longer in male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish or darker. Clypeus glabrous. Frons smooth with two pits in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate anteriorly, shallower in the apical half (Fig. 194). Apex with angular lateral corner and sutural tooth, slightly recurved between. Maculation composed of a large brownish yellow humeral lunula extending from the lateral margin to the middle suture, leaving open a blackish dot at the lateral margin of the basal humps, connected with a brownish yellow horizontal central dot with back margin that is orientated laterally and angled toward the front, and a light yellow apical lunule, reaching the apical humps (Figs. 195-197). Ventral aspect: Venter black, ventrites yellowish marginally. Legs yellowish, tibiae and tarsomeres in some specimens darkened somewhat distally. Aedeagus: (Fig. 198) curved, broadly rounded distally, total length 1.8 mm.

Distribution. Thailand (Chiang Mai, Mae Hong Son, Nan, Loei, Nakhon Si Thammarat), Malaysia (Pulau Pinang, Perak, Pahang).


26a. Therates pseudochenelli rufus Probst and Wiesner (Fig. 202)

Therates pseudochenelli rufus Probst and Wiesner 1994b: 95, f. 5, 12.

Type depository. Holotype male in RNFC, one paratype female each in RNFC and JWGC.


Diagnosis. Distinguished from the nominate subspecies by the red brown elytral maculation.
Re-description. Size: Total length (without labrum) 7.5 mm-8.6 mm, (mean=8.1 mm, n=3). Head: Shining greenish black. Mandibles brownish, teeth blackish marginally. Labrum (male Fig. 206, female Fig. 207) as wide as long, yellowish, with six apical teeth (one female with five teeth) and one lateral tooth. Labial and maxillary base brownish, palpi sometimes darker. Antennae extending posteriorly behind elytral shoulders in female, somewhat longer in male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape brownish above, black on underside, all the other antennal segments brownish or darker. Clypeus glabrous. Frons smooth with two occasionally connected pits in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, nearly as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black with violet luster, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 203). Apex with pyriform and sutural tooth, slightly recurved. Maculation composed of a large brownish humeral lunule extending from the marginal nearly to the middle suture, leaving open a blackish dot at the lateral margin of the basal humps, connected with a brownish yellow horizontal central dot with back margin that is orientated laterally toward the front and a light yellow apex, reaching the apical humps (Fig. 204). Ventral aspect: Venter black, ventrites brownish marginally. Legs brownish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 205) curved, broadly rounded distally, total length 1.8 mm.

Distribution. Thailand (Phang Nga, Ranong).

27. Therates safraneki new species (Fig. 208)

Type depository. Holotype male in JWGC, 1 paratype female in JWCG, paratypes in OSCC.


Diagnosis. Distinguished by the laterally yellowish ventral laterally yellowish ventrites and blackish dot at the lateral margin of the basal humps that is connected with the dark color of the middle suture.

Etymology. The new species is dedicated to its discoverer, O. Šafranek.

Description. Size: Total length (without labrum) 7.3 mm-8.2 mm, (mean=8.0 mm, n=7). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 214, female Fig. 215) as wide as long, yellowish, with six apical teeth one lateral tooth. Labial and maxillary base brownish, teeth blackish marginally. Antennae extending posteriorly behind elytral shoulders in females, slightly longer in the males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish or darker. Clypeus glabrous. Frons smooth with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 209). Apex with pyriform lateral corner and a sutural tooth, slightly recurved between. Maculation composed of a yellow brownish humeral lunule extending from the marginal suture, not reaching the middle suture, connected with a yellow brownish basal dot, leaving open a blackish dot at the lateral margin of the basal humps, completely or nearly completely connected with a yellowish central dot which is orientated outwards toward the front and a light yellow apex, reaching the apical humps (Figs. 210-212). Ventral aspect: Venter black, ventrites in
large extension yellowish marginally. Legs yellowish, tibiae and tarsomeres darkened distally. Aedeagus: (Fig. 213) curved, slightly knobbed distally, total length 2.1 mm.

**Distribution.** Laos (Vientiane = Viangchan, Phongsaly).


**Remarks.** The collecting data of the specimen from Phongsaly are somewhat doubtful, due to the unreliability of the collector. The specimen therefore is not included in the type series.

**28. Therates nagaii** Sawada and Wiesner (Fig. 216)


**Type depository.** Holotype male in YYJC, paratypes in JWGC, YYJC and ZSMC.

**Type status.** Paratypes! Type labels: “N Myanmar, Kachin State, S Kumon Range, Zan Phut (Makoutsup Hill), 28.v.2000, 1200 m, Shinji Nagai leg.” [printed, yellow]; PARATYPE Therates nagaii SAWADA and WIESNER, ded. J. Wiesner 2000” [printed, red].

**Diagnosis.** Distinguished by the laterally yellowish ventral yellow venter, short elytral apex, and elytral maculation which does not reach the middle suture.

**Re-description.** Size: Total length (without labrum) 5.8 mm-7.5 mm (mean=6.7 mm, n=13). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 222, female Fig. 223) as long as wide, yellowish, with six to seven apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae slender, extending posteriorly behind elytral shoulders in females, longer in males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth. Thorax: Pronotum shining greenish black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 217). Apex with angular lateral corner and a tiny sutural tooth or corner, straight or somewhat recurved between. Distance between apical hump and lateral tooth short. Maculation comprise of a brownish yellow humeral lunule, brownish yellow basal dot, yellow central dot which is acutely angled outwards toward the front, and large brownish yellow apical dot which includes the distal part of the apical humps (Figs. 218-220). The humeral lunule is sometimes connected with basal and central dots. Ventral aspect: Venter brownish yellow. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 221) curved, with a stout tip distally, total length 1.3 mm.

**Distribution.** Myanmar (Kachin).

**29. Therates schuelei new species** (Fig. 224)

**Type depository.** Holotype male in JWCG, paratypes in JWCG. HSJC and PSGC.

Diagnosis. Distinguished by the combination of laterally darkened labrum, transparent brownish elytral apex, long antennae, and black venter.

Etymology. This new species is dedicated to Peter Schüle for his assistance during these studies.

Description. Size: Total length (without labrum) 6.7 mm-7.6 mm, (mean = 7.2 mm, n = 5). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 229, female Fig. 230) as wide as long, yellowish, lateral margins dark brown, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in female, somewhat longer in the male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in apical half (Fig. 225). Apex with angular lateral and sutural tooth, recurved between, somewhat transparent brownish, suture yellowish. Maculation yellow, composed of a humeral lunule, basal dot, and central dot which is acutely angled outwards toward the front (Figs. 226, 227). Ventral aspect: Venter black. Legs of males yellowish, tibiae and tarsomeres somewhat darkened distally, femora darkened in distal half, legs of females somewhat darker. Aedeagus: (Fig. 228) straight, produced into a tip distally, total length 1.7 mm.


30. Therates rugifer Horn (Fig. 231)

Therates rugifer Horn 1902: 74, 75.

Type depository. Holotype female in SDEI.

Type status. Holotype female! Type labels: “Tonkin, Montes Mauson, April, Mai 2-3000’, H. Fruhstorfer” [printed]; “Holotypus” [printed, red]; “rugifer mihi” [handwritten, light yellow, with black borders]; “Type!, Dr. W. Horn“ [printed, with black borders].

Diagnosis. Distinguished by the combination of short humeral lunule, extreme medial orientation of the central dot, and the male with the two distal antennomeres enlarged.

Re-description. Size: Total length (without labrum) 6.7 mm-8.2 mm, (mean = 7.6 mm, n = 10). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 237, female Fig. 238) barely wider than long, blackish laterally, yellowish in the center, with six apical teeth one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in male, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish, lighter in the males, the two distal segments darker. Two distal segments obviously enlarged in males. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse
short branches. *Elytra*: Shining black, in some specimens transparent brown apically, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 232). Apex with angular lateral corner and sutural tooth, slightly recurved between. Maculation yellow, composed of a short humeral lunule, basal dot, and angular central dot that is acutely angled inwards toward the suture (Figs. 233-235). *Ventral aspect*: Venter black. Metatibiae bicolor, basal third blackish, remainder yellow, tarsi and femora yellow, tarsomeres darker distally. *Aedeagus*: (Fig. 236) cuved, with produced thick tip, total length 1.8 mm.

**Distribution.** Vietnam (Lang Son, Vinh Phuc, Nin Binh).


**Remarks.** As stated by Horn (1927: 245, f. 36), the holotype female is an aberrant specimen with individual deformations of the surface of head, pronotum, and elytra - these anomalous deformations were not considered for the updated description.

31. *Therates phongsalyensis* Sawada and Wiesner (Fig. 239)

*Therates phongsalyensis* Sawada and Wiesner 2004: 262, 263, f. 6 - 10.

**Type depository.** Holotype male and paratype female in JWGC.


**Diagnosis.** Distinguished by the combination of short humeral lunule, absence of an apical dot, and the dark brown lateral margins of the labrum.

**Re-description.** Size: Total length (without labrum) 6.5 mm-7.5 mm (mean=7.0 mm, n=2). *Head*: Shining black. Mandibles yellowish, brownish distally in female, teeth brownish marginally. Labrum (male Fig. 244, female Fig. 245) barely longer than wide, yellowish, lateral margins dark brown, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders in female, somewhat longer in the male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. *Thorax*: Pronotum shining black, as long as wide, barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra*: Shining black, with basal and apical humps, distinctly punctate in front, shallower in apical half (Fig. 240). Apex with rounded lateral corner and tiny sutural tooth, somewhat recurved between. Maculation composed of a yellow humeral dot integrated in a short brownish humeral lunule, and large yellow roundish, somewhat trapezoid central dot (Figs. 241, 242). Apex is somewhat brownish, the lateral margins yellow. *Ventral aspect*: Venter black. Legs as a whole darker in female, lighter in male. Femora brown, darkened at upper margin, tibiae dark brown, front tibiae lighter, tarsomeres brown, darkened distally. *Aedeagus*: (Fig. 243) cuved, with stout tip, total length 1.5 mm.

**Distribution.** Laos (Phongsaly).
32. Therates namthacolus Sawada and Wiesner (Fig. 246)

*Therates namthacolus* Sawada and Wiesner 1999a: 31 - 33, f. 1, 2, 9, 13, 14.  

**Type depository.** Holotype male in JWGC, paratype female in ZSMC.

**Type status.** Holotype male! **Type labels:** “LAOS north, 13-24.v.1997, 15 km NW Louang Namtha, N21°07.5, E101°21.0, alt 750±100 m, E. Jendek and O. Šauša leg.” [printed, white, with yellow borders]; “HOLOTYPUS THERATES namthacolus Sawada and Wiesner” [printed, red]: Paratype female! **Type labels:** “LAOS, Louang Namtha pr., 21°09’N 101°19’E, Namtha Muang Sing, 5-31.v.1997, 900-1200m, Vit Kuban leg. [printed]; PARATYPUS THERATES namthacolus Sawada and Wiesner [printed, red].

**Diagnosis.** Distinguished by the combination of lanceolate antennae, short humeral lunule, darkened labrum, and the dark elytral apex.

**Re-description.** Size: Total length (without labrum) 8.0 mm-9.2 mm, (mean=8.6 mm, n=6). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 251, female Fig. 252) as wide as long, dark, yellowish in the center, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in males, somewhat shorter in females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 247), apex sometimes transparent brown. Apex with lateral corner and sutural corner or tooth, slightly recurved between. Maculation composed of a short brownish yellow humeral lunule which does not, or barely, extend onto the disk, long brownish yellow basal dot, and large angular horizontal yellow central dot (Figs. 248, 249). Ventral aspect: Venter black. Legs of males yellowish, hind femora, tibiae and tarsomerces somewhat darker distally. Legs of females brownish dark, only profemora and base of meso- and metafemora lighter. Aedeagus: (Fig. 250) curved, apex produced into angled tip, total length 2.0 mm.

**Distribution.** Laos (Louangnamtha, Houaphan, Xiangkhoang).


33. Therates sigridgeissleri new species (Fig. 253)

**Type depository.** Holotype male and paratype female in JWCG.

**Type status.** Holotype male! **Type labels:** “LAOS-C., Bolikhamsai pr., Nakai Nam Theun Nat. Park, 7.-16.v.2004, 500 ± 100 m, 18°18’N, 105°11’E, E. Jendek, O. Šauša leg.” [printed, yellow]; “HOLOTYPE Therates sigridgeissleri n. sp., ded. J. Wiesner 2013” [printed, red]. Paratype female! **Type labels:** “LAOS-C., Bolikhamsai pr., Nakai Nam Theun Nat. Park, 7.-16.v.2004, 500 ± 100 m, 18°18’N, 105°11’E, E. Jendek, O. Šauša leg.” [printed, yellow]; “PARATYPE Therates sigridgeissleri n. sp., ded. J. Wiesner 2013” [printed, red].

**Diagnosis.** Distinguished by the combination of elytral maculation with short humeral lunule and acutely angled forwards central dot, and the laterally brownish labrum.
**Etymology.** This new species is dedicated to Sigrid Geißler for her help in dire straits.

**Description.** Size: Total length (without labrum) 6.9 mm-7.5 mm, (mean=7.2 mm, n=2). *Head:* Shining greenish black. Mandibles yellowish, brownish distally in female, teeth brownish marginally. Labrum (male Fig. 258, female Fig. 259) as wide as long, yellowish, lateral margins dark brown, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders in female, somewhat longer in the male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. *Thorax:* Pronotum shining greenish black, as long as wide, barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra:* Shining black, with basal and apical humps, distinctly punctate in front, shallower in apical half (Fig. 254). Apex with angular lateral and sutural tooth, recurved between. Maculation yellow, comprised composed of a humeral lunule, basal dot, central dot which is acutely angled outwards toward the front, and small apical dot at the suture (Figs. 255, 256). Ventral aspect: *Venter black.* Legs yellowish, tibiae and tarsal joints darkened slightly at apex. *Aedeagus:* (Fig. 257) straight, distal tip somewhat turned back, total length 1.8 mm.

**Distribution.** Laos (Borikhamsai).

34. *Therates tonkinensis* Horn (Fig. 269)

*Therates tonkinensis* Horn 1902: 73, 74.

**Type depository.** Lectotype female and eight syntypes (four males, four females) in SDEI.

**Type status.** Lectotype female! (here designated) *Type labels:* “Tonkin, Montes Mauson, April, Mai 2-3000’, H. Fruhstorfer” [printed]; "Syntypus“ [printed, red]; “tonkinensis mihi“ [handwritten, light yellow, with black borders]; “Type!, Dr. W. Horn“ [printed, with black borders]; “LECTOTYPE THERATES tonkinensis WHORN, 1902, det J. Wiesner 2013“ [printed, red]. Syntypes! *Type labels:* “Tonkin, Montes Mauson, April, Mai 2-3000’, H. Fruhstorfer” [printed]; "Syntypus“ [printed, red]; “Type!, Dr. W. Horn“ [printed, with black borders].


**Type depository.** Holotype male in JWGC, two paratype males in NHMW.


**Nomenclatural note.** Wiesner (1988) described *Th. kubani* based on six specimens. Subsequently, twenty-two additional specimens have been examined which exhibit highly variable elytral punctuation, as well as variability in the coloration of the labrum; based on this, the subspecies *Th. tonkinensis kubani* is placed into synonymy.
Diagnosis. Distinguished by the combination of short antennae, short humeral lunule, the angular central dot.

Re-description. Size: Total length (without labrum) 8.0 mm-11.2 mm, (mean = 9.9 mm, n = 31). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 278, females Figs. 279, 280) as wide as long, completely yellow or blackish laterally, yellowish in the center, or completely black, with six apical teeth (seven in one female) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders in males, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish or blackish. Distal two elements obviously enlarged in males. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, in some specimens transparent brown apically, with basal and apical humps, distinctly punctate in front, shallower or absent in the apical half (Fig. 270, 271). Apex with angular lateral and sutural corner or lateral and sutural tooth, straight or slightly recurved between. Maculation yellow, composed of a short humeral lunule, basal dot, and angular central dot orientated perpendicular to the suture (Figs. 272-276). Apical margin sometimes yellow. Humeral lunule and basal dot are sometimes connected at the base. Ventral aspect: Venter black. Legs brownish yellow to dark, base of femora lighter. Aedeagus: (Fig. 277) curved, tip produced with a small hook, total length 2.3 mm.


Remarks. Th. tonkinensis is a highly variable species, e.g., color of the labrum varies from completely yellow to completely black, punctuation of elytral apical half varies from distinct to shallow, color of legs varies from yellow to black.

35. Therates jendeki Sawada and Wiesner (Fig. 260)


Type depository. Holotype male in JWCG. Paratypes in JWCG, SDEI and ZSMC.

Type status. Holotype male! Type labels: “NE India, Meghalaya state, West Garo Hills, NOKREK Nat. Park, 9.-17.v.1996 alt. 1100 ± 150m, GPS N25°29.6', E90°19.5' (WGS 84), E. Jendek and O. Šauša leg.” [printed, with yellow borders]; “Therates jendeki nov. spec. Sawada and Wiesner, det. J. Wiesner 96” [printed]; “HOLOTYPUS” [printed, red, with black borders]. Paratypes! Type labels: “NE India, Meghalaya state, West Garo Hills, NOKREK Nat. Park, 9.-17.v.1996 alt. 1100 ± 150m, GPS N25°29.6', E90°19.5' (WGS 84), E. Jendek and O. Šauša leg.” [printed, with yellow borders]; “Therates jendeki nov. spec. Sawada and Wiesner, det. J. Wiesner 96” [printed]; “PARATYPUS” [printed, red, with black borders]; “NE India, Meghalaya state, West Garo Hills, NOKREK Peak, 10.v.1996 alt. 1300 ± 100m, GPS N25°27.6', E90°19.3' (WGS 84), E. Jendek and O. Šauša leg.” [printed, with yellow borders]; “Therates jendeki nov. spec. Sawada and Wiesner, det. J. Wiesner 96” [printed]; “PARATYPUS” [printed, red, with

**Diagnosis.** Distinguished by the combination of blackish outer margin of the labrum, broad humeral lunule, and elytral apex which is transparent dark brown or restricted to a narrow brownish suture.

**Re-description.**

**Size:** Total length (without labrum) 6.7 mm-9.1 mm, (mean=7.6 mm, n=161). **Head:** Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 267, female Fig. 268) as wide as long, yellowish, outer margin of labrum blackish from lateral tooth up to base, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in the males, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. **Thorax:** Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. **Elytra:** Shining black, with basal and apical humps, distinctly punctate in front, shallow to absent in apical half (Fig. 261), elytral apex sometimes transparent brown. Apex with rounded lateral corner and tiny sutural tooth, nearly straight between. Maculation composed of a slender brownish yellow humeral lunule which is somewhat enlarged distally, a short brownish yellow basal dot, and a right angled brownish yellow central dot (Figs. 262-265). Apex has a brownish suture sometimes. **Ventral aspect:** Venter black, ventrites brownish at lateral margin. Legs of males yellowish, tibiae and tarsomeres somewhat darkened distally, femora darkened in distal half. Meso- and metafemora, mesotibia and mesotarsi of females dark brownish, metatibia bicolor, dark at basal third, remainder light yellow, metatarsi light yellow. **Aedeagus:** (Fig. 266) slender and curved, with produced knobbed tip, total length 2.1 mm.

**Distribution.** India (Meghalaya, Assam, Arunachal Pradesh).


36. **Therates csorbai** Wiesner (Fig. 281)

**Therates csorbai** Wiesner 1999b: 322d, f. 2, 3.


**Type depository.** Holotype male in HNHM, paratype female in JWGC.

**Type status.** Holotype male! **Type labels:** “LAOS, Champassak Prov., Dong Hua Xao NBCA, 2 km S of Ban Nong Luang, bank of Touay-Guai stream” [printed, white]; “15°4’N, 106°13’E, 800 m, swept, no. 23, 1-5. IV. 1998, leg. O.Merkl and G.Csorba” [printed, white]; “Holotype Therates csorbai J. Wiesner” [printed, red]. Paratype female! **Type labels:** “LAOS, Champassak Prov., Dong Hua Xao NBCA, 2 km S of Ban Nong Luang, bank of Touay-Guai stream,” [printed]; “15°4’N, 106°13’E, 800 m, swept, No. 23, 1-5.iv.1998, leg. O. Merkl and G. Csorba” [printed]; “Paratype Therates csorbai J. Wiesner” [printed, red].
**Diagnosis.** Distinguished by the combination of yellowish margin of the ventral ventrites, brownish margin of the labrum, and elytral maculation with long basal dot.

**Re-description.** *Size:* Total length (without labrum) 6.5 mm-7.5 mm (mean=7.2 mm, n=3). *Head:* Shining greenish black. Mandibles yellowish, brownish distally in female, teeth brownish marginally. Labrum (male Fig. 286, female Fig. 287) wider as long in male, as wide as long in female, margin brownish at base, remainder yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in female, somewhat longer in male, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth with a transverse furrow in the posterior part of the orbital plates. *Thorax:* Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra:* Shining brownish black, sutural area near humeral lunule and central dot brownish, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 282). Apex with lateral and sutural corner, recurved between. Maculation composed of a long brownish yellow humeral lunule, long brownish yellow basal dot, and a yellow central dot which is acutely angled outwards toward the front (Figs. 283, 284). Apex is yellow with this coloration reaching the apical humps. *Ventral aspect:* Venter black, ventrites brownish, yellowish at margin. Legs of male yellowish, hind femora, tibiae and tarsomeres somewhat darker distally. Legs of female brownish dark, only profemora and base of meso- and metafemora lighter. *Aedeagus:* (Fig. 285) curved, curved, apex produced into angled tip, total length 1.7 mm.

**Distribution.** Laos (Champasak, Attapu).

**Localities.** LAOS, Attapu, Bolaven Plateau, 15 km SE of Ban Houaykong, Non Lom (lake) env., 18.-30.iv.1999, 800 m (JWCG).

37. *Therates apicenigrus* Sawada and Wiesner (Fig. 288)


**Type depository.** Holotype male in JWGC.

**Type status.** Holotype male! *Type labels:* “LAOS c, Bolikhamsai prov., BAN NOK env., alt. 220 m, Route No. 8, 9.-14. 5. 1998, N 18°08.7’ E104°28.1’ GPS, E. Jendek, O. Šauša leg.” [printed, white, with yellow borders]; “HOLOTYPUS THERATES apicenigrus Sawada and Wiesner” [printed, red].

**Diagnosis.** Distinguished by the combination of long antennae, elytral apex with no maculae, and absence of a basal dot.

**Re-description.** *Size:* Total length (without labrum) 7.0 to 7.4 mm (mean=7.2 mm, n=2). Female unknown. *Head:* Shining greenish black. Mandibles yellowish, teeth brownish marginally. Labrum (Fig. 292) as weide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorally behind elytral shoulders, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. *Thorax:* Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra:* Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in the apical third (Fig. 289). Apex with rounded lateral corner and sutural tooth, recurved between. Maculation composed
of a slender brownish yellow humeral lunule and small yellow central dot which is acutely angled outwards toward the front (Fig. 290). Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 291) straight, with a knobbed tip and a tiny hook, total length 1.7 mm.

**Distribution.** Laos (Borikhamxai, Khammouan).

**Localities.** LAOS, Khammouan, Ban Khoun Ngeun, 17.v.-6.vi.2007, 300 m (JWCG).

### 38. Therates rihai Moravec and Wiesner

*Therates rihai* Moravec and Wiesner (Fig. 293)

**Type depository.** Holotype male in JWGC, paratype female in JWGC, paratype female in JMCC, paratype female in ZSMC.


**Diagnosis.** Distinguished by the combination of yellowish color of the lateral abdomen and flattened distal two antennomeres of male.

**Re-description.** Size: Total length (without labrum) 6.8 mm-8.2 mm, (mean= 7.7 mm, n=13). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 297, female Fig. 298) as wide as long, yellowish, with six apical teeth one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorly behind elytral shoulders in females, slightly longer in the males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish or darker, two distal segments in males flattened. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates, followed by a few longitudinal striae. Thorax: Pronotum shining greenish black, slightly longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining brownish black, with basal and apical humps, distinctly punctuated in front, shallower in the apical third (Fig. 294). Apex with roundish lateral corner and a sutural tooth, slightly recurved between. Maculation composed of a large yellowish humeral lunule extending from the marginal to the middle suture leaving open a blackish dot at the lateral margin of the basal humps, completely connected with a yellowish central dot that is angled outwards toward the front, and a light yellow apex which reaches the apical humps (Fig. 295). Ventral aspect: Venter black, ventrites in large extension yellowish marginally. Legs yellowish, tibiae and tarsomeres darkened distally apex. Aedeagus: (Fig. 296) curved, produced into angled tip distally, total length 2.0 mm.

**Distribution.** Thailand (Nan, Loei).

39. *Therates chennelli* Bates (Fig. 299)


**Type depository.** Unknown, see under “Remarks”.

**Nomenclatural note.** The alternative spelling of the species name using one *n* is incorrect. The proper spelling is with two *n*’s as originally used by Bates in 1878: 335.

**Diagnosis.** Distinguished by the broad extension of the elytral maculation into a right angle incorporating the central dots of the posterior margin.

**Re-description.** *Size:* Total length (without labrum) 7.5 mm-8.5 mm, (mean = 8.0 mm, n=13). *Head:* Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 304, female Fig. 305) barely wider than long or as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorly behind elytral shoulders in female, somewhat longer in the males, distal two segments in males flattened, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish, black on underside, all the other antennal segments brownish, distal four to six segments somewhat darker. Clypeus glabrous. Frons smooth. *Thorax:* Pronotum shining greenish black, barely longer than wide, slightly more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete. *Elytra:* Shining brownish black, with basal and apical humps, distinctly punctate behind basal humps, shallower in the reminder (Fig. 300). Elytral apex with roundish lateral corner and sutural tooth, recurved between. Maculation composed of a large brownish yellow humeral lunula extending from the marginal to the middle suture, leaving open only a small blackish dot at the lateral margin of the basal humps, connected with a yellow horizontal central dot with nearly right angled back margin, and a light yellow apex which reaches the apical humps (Figs. 301, 302). *Ventral aspect:* Venter black, ventrites yellowish marginally. Legs yellowish. *Aedeagus:* (Fig. 303) curved, with pin shaped and produced tip, total length 1.8 mm.

**Distribution.** Myanmar (Mandalay, Kayin, Tanintharyi).

**Localities.** MYANMAR, Karen Mts. (JWCG), Karen Hills, Upper Burma, 4000 ft. (MNHN), Kayin, Karen Mts. (BMNH, SDEI), Tanintharyi (Tenasserim), Taungya, iv.1898 (BMNH), Mandalay, Ruby Mines, 1904, 1600-2300 m (BMNH), Mandalay, Ruby Mines (SDEI).

**Remarks.** *Therates chennelli* was described by Bates in 1878 based on probably one male from Naga Hills. Fleutiaux (1892: 134) noticed this species from the same place. The locality Karen Hills was added by Fowler (1912:297). While searching for the type material of *Th. chennelli* I was unable to find any specimens from Naga Hills in either the British Museum of Natural History (Bates collection) or Muséum National d’Histoire Naturelle (Oberthur collection) collections. Only specimens from Karen Hills were found in these collections as was the case of the Senckenberg Deutsches Entomologisches Institut (Horn collection). Because these two localities are separated by more than one thousand kilometers, and the possibility of significant taxonomic differences between beetles from such widely separated localities is great, I cannot designate a neotype unless specimens from the Naga Hills become available for study. I thus follow herein the species description based on those beetles from Karen Hills. Records of this species from localities outside Myanmar (Thailand, Malaysia, Singapore - several authors) do not fit with this description, and place them in the species *Th. rogeri* or *Th. pseudochenelli*. 
40. *Therates pseudoprobsti* Probst and Wiesner (Fig. 306)

*Therates pseudoprobsti* Probst and Wiesner 1994b: 95 - 99, f. 6, 14 - 16.

**Type depository.** Holotype male in JWGC, paratypes in JWGC, RNFC and ZSMC.


**Diagnosis.** Distinguished by the combination of elongated basal dot and elytral apex which is transparent brown or has a narrow brownish suture.

**Re-description.** Size: Total length (without labrum) 7.2 mm-8.7 mm, (mean=7.8 mm, n=13). **Head:** Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 312, female Fig. 313) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in the males, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, antennomeres 2 to 5 brownish, blackish distally, the other antennal segments blackish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. **Thorax:** Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. **Elytra:** Shining black, with basal and apical humps, distinctly punctate in front, shallower in apical half (Fig. 307), elytral apex transparent brown, suture yellow in variable extension. Apex with rounded lateral corner and tiny sutural tooth, nearly straight between. Maculation composed of a slender brownish yellow humeral lunule, which is somewhat enlarged distally, long brownish yellow basal dot, and large roundish brownish yellow central dot (Figs. 308-310). **Ventral aspect:** Venter black. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. **Aedeagus:** (Fig. 311) stout and straight, with broad knobbed tip, total length 1.9 mm.

**Distribution.** Thailand (Chiang Mai, Tak, Loei).


41. *Therates arunachalcolus* Sawada and Wiesner (Fig. 314)


**Type depository.** Holotype male in JWCG.
**Type status.** Holotype male! *Type labels:* “NE INDIA, W Arunachal, 8 km S Jamiri, Sessa vic., 27°07’-09’N, 92°34’E, 350 ± 50 m, 26. 5.-4. 6. 2005, L. Dembicky and P. Pacholátko” [printed, yellow]; “HOLO-TYPE Therates arunachalcolus SAWADA and WIESNER, ded. J. Wiesner, 2005” [printed, red].

**Diagnosis.** Distinguished by the combination of darkened margin of the labrum and sigmoid shaped central band.

**Re-description.** *Size:* Total length (without labrum) 7.8 mm (n=1). Female unknown. *Head:* Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 318) longer than wide, yellowish, darkened at laterally at base, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and even pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. *Thorax:* Pronotum shining greenish black, longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. *Elytra:* Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 315). Apex rounded with a little sutural tooth. Maculation composed of a long yellow humeral lunule, yellow basal dot, broad sigmoid-shaped yellow central band, and yellow apex which reaches the apical humps (Fig. 316). *Ventral aspect:* Venter black, ventrites brownish marginally. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. *Aedeagus:* (Fig. 317) curved, tip elongated and bent, total length 2.1 mm.

**Distribution.** India (Arunachal Pradesh).

42. **Therates ingridae** Sawada and Wiesner (Fig 319)

*Therates ingridae* Sawada and Wiesner 2006a: 130, 131, f. 3, 12 - 17.

**Type depository.** Holotype male in JWCG, paratypes in JWCG.

**Type status.** Holotype male! *Type labels:* “NE INDIA, Meghalaya, SW of Cherrapunjee, 25° 13’-14’N, 91°40’E, 29. 4.-22. 5. 2005, 500-950 m, L. Dembicky and P. Pacholátko” [printed, yellow]; “HOLO-TYPE Therates ingridae SAWADA and WIESNER, det. J. Wiesner 2005” [printed, red]. Paratypes! *Type labels:* “NE INDIA, Meghalaya, SW of Cherrapunjee, 25° 13’-14’N, 91°40’E, 29. 4.-22. 5. 2005, 500-950 m, L. Dembicky and P Pacholátko” [printed, yellow]; “PARATYPE Therates ingridae SAWADA and WIESNER, det. J. Wiesner 2005” [printed, red].

**Diagnosis.** Distinguished by combination of laterally darkened labrum, transparent brownish elytral apex, long antennae, and ventrites which are brownish marginally.

**Re-description.** *Size:* Total length (without labrum) 4.8 mm-6.7 mm (mean =6.0 mm, n=14). *Head:* Shining black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 325, female Fig. 326) as long as wide, yellowish, darkened at lateral base, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in females, somewhat longer in males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black, segments two to four darkened distally. Clypeus glabrous. Frons smooth. *Thorax:* Pronotum shining black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with some transverse short branches. *Elytra:* Shining black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 320). Apex somewhat transparent brownish, rounded, with a tiny sutural tooth. Maculation yellow, composed of humeral lunule of different shape...
• INSECTA MUNDI 0315, September 2013  WIESNER

(sometimes complete and long, sometimes shorter and small, sometimes interrupted into two parts), smaller or larger basal dot, and a central dot acutely angled outwards toward the front (Figs. 321-323). 

Ventral aspect: Venter black, ventrites brownish marginally. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 324) curved, produced into a stout tip distally, total length 1.3 mm.

Distribution. India (Meghalaya).

43. Therates nigromarginalis Probst and Wiesner (Fig. 327)


Type depository. Holotype female in JWGC.

Type status. Holotype female! Type labels: “NE THAILAND, 1991, Ban Si Lang, 18. 5., Mae Hong Son, Leg. S. Bily” [printed, with yellow borders]; “THERATES, nigromarginalis, PROBST and WIESNER, det. J. Wiesner, 1994”; “HOLOTYPUS” [printed, red, with black borders].

Diagnosis. Distinguished by the combination of dark outer margin of the labrum and connected elytral maculations.

Description. Size: Total length (without labrum) 6.0 mm-7.0 mm, (mean=6.7 mm, n=6). Head: Shining greenish black apical part of frons behind clypeus with a reddish dot in some specimens. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 333, female Fig. 334) as wide as long, dark brown, central part yellowish, with six apical teeth one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in male, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments dark. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, in some specimens lighter at the apex, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 328). Apex with roundish lateral corner and area between sutural teeth nearly parallel. Maculation composed of a yellow humeral lunule, yellow basal dot, and slender yellow fascia-like central dot (Figs. 329-331). The markings are usually connected and continuous, the color is brownish in those areas. Ventral aspect: Venter black. Legs yellowish, hind femora, tibiae and tarsomeres darker distally. Aedeagus: (Fig. 332) curved, rounded distally, total length 1.4 mm.

Distribution. Myanmar (Karen), Thailand (Mae Hong Son).

Locality. MYANMAR, Carin Chebà, 900-1100 m, xii.1888 (MSNG); THAILAND, Mae Hong Son, 20 km of Pai (JWCG), Mae Hong Son, Ban Huai Po, 30.iv.-4.v.1991, 1600-2000 m (NHMW, ZSMC), Mae Hong Son, Ban Si Lang, 23.-31.v.1991, 1200 m (ZSMC).

Remarks. A male from Myanmar, preserved in MSNG, bears the label “Therates concinnus Gestro, 1888, teste R. Gestro, 1893” and was used by Wiesner (1988:15, f. 61, 297, 394) erroneously as the concept of Therates concinnus. This specimen is placed herein into the series of Th. nigromarginalis.
44. *Therates murzini* Wiesner (Fig. 335)


**Type depository.** Holotype male in JWGC, 1 paratype female in JWGC, 2 paratype females in RNFC.

**Type status.** Holotype male! *Type labels*: “MYANMAR N (Burma), 50 km E Putao, H-950m, env. Nan Thi vill., 11-16.05.1998, leg. S. Murzin and V. Siniaev” [printed, white with yellow borders]; “Holotype, THERATES murzini J. Wiesner” [printed, red]. Paratypes! *Type labels*: “MYANMAR N (Burma), 50 km E Putao, H-950m, env. Nan Thi vill., 11-16.05.1998, leg. S. Murzin and V. Siniaev” [printed, white with yellow borders]; “Paratype THERATES murzini, J. Wiesner” [printed, red].

**Diagnosis.** Distinguished by the combination of yellow venter, elongated elytral apex, and elytral maculation pattern that includes only a portion of the middle suture.

**Re-description.** *Size*: Total length (without labrum) 6.5 mm-7.4 mm (mean=6.9 mm, n=5).  
*Head*: Shining black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 341, female Fig. 342) as long as wide, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae slender, extending posteriorly behind elytral shoulders in females, longer in males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth.  
*Thorax*: Pronotum shining black, barely longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete.  
*Elytra*: Shining black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 336). Apex rounded, with a tiny sutural tooth. Distance between apical hump and lateral tooth long. Maculation highly variable and composed of the following: brownish yellow or yellow humeral lunule of variable length; yellow central dot of variable size, occasionally connected with the humeral lunule; brownish yellow basal dot absent, or if present then variable in length, occasionally connected with the humeral lunule (Figs. 337-339). Apex transparent brownish in specimen with reduced maculation and has a large brownish yellow dot, which included the distal part of the apical humps, in the other specimens.  
*Ventral aspect*: Venter brownish yellow. Legs yellowish, tibiae and tarsomeres somewhat darkened distally.  
*Aedeagus*: (Fig. 340) curved, with a stout tip distally, total length 2.0 mm.

**Distribution.** Myanmar (Kachin).


45. *Therates haucki* Moravec and Wiesner (Fig. 343)


**Type depository.** Holotype female in JWGC, paratype female in JMCC.


*Therates belokobylskiyi* Matalin and Wiesner 2006: 37, 38, f. 1, 3, 6, 8, new synonymy. 
Type depository. Holotype male in ZIN, paratype male in MPU.


Nomenclatural note. Description of Th. haucki was based on two females from Nan (Thailand). These specimens are consistent with females from Houaphan (Laos), a site from which males of this species were also collected. I therefore included the Houaphan specimens within the concept of Th. haucki. In addition, the males from Houaphan were consistent with the species Th. belokobylyski, which was described on the basis of two males from Hao Binh (Vietnam), thus Th. belokobylyski is considered a synonym of Th. haucki.

Diagnosis. Distinguished by the combination of laterally brownish ventral segments and elytra with completely brownish or brownish yellow basal humps and light apical dot that extends forward medially.

Re-description. Size: Total length (without labrum) 6.3 mm-8.0 mm (mean=7.2 mm, n=15). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 349, female Fig. 350) as long as wide, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae slender, extending posteriorly behind elytral shoulders in females, longer in males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical third (Fig. 344). Apex with rounded lateral corner and sutural corner, straight between. Maculation composed of a brownish yellow humeral lunule connected with a transverse central dot, brownish yellow basal dot, light yellow apical dot which extends forward medially; the remainder of the basal hump being darker brown, as are the elytra as a whole at the sutural margin (Figs. 345-347). Ventral aspect: Venter black, ventrites brownish marginally. Legs yellowish, tibiae and tarsomeres somewhat darkened distally. Aedeagus: (Fig. 348) curved, produced into a thin tip distally, total length 1.5 mm.

Distribution. Thailand (Nan), Laos (Houaphan), Vietnam (Hoa Binh).


46. Therates sausai Sawada and Wiesner (Fig. 351)

Therates sausai Sawada and Wiesner 1997: 80, 81, f. 5, 6, 8.

Type depository. Holotype male and 4 paratypes in JWGC.

Type status. Holotype male! Type labels: “NE India, Meghalaya state, West Garo Hills, NOKREK Nat. Park, 9.-17.v.1996 alt. 1100±150 m, GPS N25°29.6’, E90°19.5’ (WGS 84), E. Jendek and O. Šauša leg.” [printed, with yellow borders]; “Therates sausai nov. spec. Sawada and Wiesner, det. J. Wiesner 96” [printed]; “HOLOTYPUS” [printed, red, with black borders]; paratypes! Type labels: “NE India, Meghalaya state, West Garo Hills, NOKREK Nat. Park, 9.-17.v.1996 alt. 1100±150 m, GPS N25°29.6’,
Diagnosis. Distinguished by the combination of slender transverse central dot, short apical dot, and black venter.

Re-description. Size: Total length (without labrum) 5.8 mm-7.3 mm (mean = 6.6 mm, n=20). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 364, female Fig. 365) as wide as long, with six apical teeth (five in one
male) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders in females, somewhat longer in the males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments blackish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, nearly absent in apical half (Fig. 360). Apex with rounded lateral corner and tiny sutural tooth, straight between. Maculation composed of a long brownish yellow humeral lunule, long brownish yellow basal dot, slender horizontal yellow central dot, and a short light yellow apical dot (Figs. 361, 362). Ventral aspect: Venter black. Legs of males yellowish, tibiae and tarsomeres somewhat darkened distally, legs of females somewhat darker. Aedeagus: (Fig. 363) straight, with knobbed tip, total length 1.6 mm.

Distribution. Myanmar (Kachin).

48. Therates dohertyi Horn (Fig. 366)

Therates dohertyi Horn 1905: 277, 278.

Type depository. Holotype female in SDEI.

Type status. Holotype female! Type labels: “Assam, Patkai Mts.” [printed]; “Doherty“ [printed]; “Holotypus” [printed, red]; “Dohertyi mihi” [handwritten, light yellow, with black borders].

Diagnosis. Distinguished by the combination of brownish venter and fascia shaped central dot.

Re-description. Size: Total length (without labrum) 6.3 mm-7.6 mm (mean=6.8 mm, n=7). Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 372, female Fig. 373) barely longer than wide, yellowish, with six apical teeth (five teeth in one male) and one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in males, slightly shorter in females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, barely longer than wide, barely more constricted in front than at back in males, evenly constricted in females, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower towards apex (Fig. 367). Apex rounded with a little sutural tooth. Maculation composed of a brownish yellow humeral lunule, brownish yellow basal dot, short yellow central band, and light yellow apex which reaches the apical humps (Figs. 368-370). The humeral lunule is connected with the basal dot at the base. Ventral aspect: Venter brownish. Legs brownish yellow, meso- and metafemora somewhat darker in the apical half. Aedeagus: (Fig. 371) curved, tip elongated and bent, total length 1.6 mm.

Distribution. India (?West Bengal, Assam, Arunachal Pradesh).

Localities. INDIA, Assam, Patkai Mts. (BMNH, JWCG, SDEI), Arunachal Pr., Roing vicinity, 23.-28.v.2007, 500 m (NHMB).
Remarks. Specimens from West Bengal were unavailable for study and therefore included in the distribution list with a question mark. This occurrence (as noted by Horn, Heynes-Wood & Dover and Wiesner) needs to be confirmed.

49. Therates ottomerkli Wiesner (Fig. 374)


Type depository. Holotype female in HMHN, paratype female in JWGC.


Diagnosis. Distinguished by the combination of brownish pronotum and venter, and central dot acutely angled laterally toward the front.

Re-description. Size: Total length (without labrum) 6.4 mm-6.6 mm, (mean=6.5 mm, n=2). Male unknown. Head: Shining black. Mandibles yellowish, teeth brownish marginally. Labrum (female Fig. 377) as wide as long, yellowish, with six apical teeth one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly behind elytral shoulders in females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish black. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum brownish, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 375). Apex transparent brown with angular lateral corner and sutural tooth, slightly recurved between. Maculation yellow, composed of a slender humeral lunule, basal dot, and central dot which is acutely angled outwards toward the front (Fig. 376). The area between humeral lunule central dot is brownish. Ventral aspect: Venter brownish. Legs yellowish, tarsomeres darker distally.

Distribution. Laos (Champasak).

50. Therates clavicornis Horn (Fig. 378)

Therates clavicornis Horn 1902: 73.

Type depository. Lectotype male and four syntypes (two males, two females) in SDEI.

Diagnosis. Distinguished by the combination of brownish pronotum and venter, and distal two antennomeres in the males.

Re-description. Size: Total length (without labrum) 6.2 mm-7.4 mm, (mean=6.6 mm, n=5). Head: Black, frons between orbital plates brownish in some specimens. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 383, female Fig. 384) as wide as long, yellowish, with six apical teeth one lateral tooth. Labial and maxillary palpi yellowish. Antennae lanceolate, extending posteriorly to elytral shoulders in male, somewhat shorter in the females, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish, the distal two darker. Distal two elements enlarged in males. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates. Thorax: Pronotum brownish, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in front, shallower in the apical half (Fig. 379). Apex transparent brown, with angular lateral and sutural corner, nearly straight between. Maculation composed of a slender yellow humeral lunule, yellow basal dot, and yellow central dot which is right angled to sutural margin (Figs. 380, 381). The area between the three markings and the suture is brownish. Ventral aspect: Venter brownish. Legs yellowish, tibiae and tarsomeres darker distally. Aedeagus: (Fig. 382) straight, knobbed distally, total length 1.6 mm.

Distribution. Vietnam (Lang Son).

51. Therates rogeri Probst and Wiesner (Fig. 385)

Therates rogeri Probst and Wiesner 1994b: 92, 93, f. 2, 7.
Therates rogeri Naviaux and Pinratana 2004: 64, T. 17, f. 7, 8, T. 41, f. 6.

Type depository. Holotype male in BMNH.


Diagnosis. Distinguished from all other congeners in this group that have enlarged elytral maculation by the combination of pale ventrites and five apical teeth on labrum.

Re-description. Size: Total length (without labrum) 6.0 mm-6.7 mm, (mean=6.4 mm, n=2). Female unknown. Head: Shining greenish black. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 389) barely wider than long, yellowish, with five apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extended posteriorly reach the basal half of the elytra, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish, distal two segments flattened. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates, followed by a few longitudinal striae. Thorax: Pronotum shining greenish black, longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. Elytra: Shining brownish black, with basal and apical humps, evenly punctate but somewhat shallower at the shoulders.
and at the apex (Fig. 386). Apex with roundish lateral corner and sutural tooth, slightly recurved between them. Maculation composed of large brownish yellow humeral lunule which is connected to a brownish yellow basal dot, leaving a small blackish dot at the lateral margin of the basal humps, connected with a brownish yellow slanting central dot (Fig. 387). The central dot is connected at the middle suture with the brownish yellow coloration of the apex, which reaches the apical humps. **Ventral aspect:** Venter yellowish, somewhat darker at the middle of the distal segments. Legs yellowish. **Aedeagus:** (Fig. 388) straight, broadly rounded distally, total length 1.6 mm.

**Distribution.** Thailand (Tak).

**Localities.** THAILAND, Tak, Umphang District, Song Bae Stream, Thung Yai Wildlife Sanctuary, 18-27.iv.1988, 300m, evergreen rain forest (BMNH).

52. **Therates khaoyaii** new species (Fig. 390)


**Type depository.** Holotype male in JWCG, paratypes in JWCG and RNFC.

**Type status.** Holotype male! **Type labels:** “THAILAND, Nakhon Ratchasima Prov., Khao Yai N.P., 700-800 m, leg. E. Fuller, trail in forest, 22.iv.1990” [printed, yellow]; “HOLOTYPE THERATES khaoyaii n. sp., ded. J. Wiesner 2013” [printed, red]. Paratypes! **Type labels:** “THAILAND, Nakhon Ratchasima Prov., Khao Yai N.P., 700-800 m, leg. E. Fuller, trail in forest, 22.iv.1990” [printed, yellow]; “PARATYPE THERATES khaoyaii n. sp., ded. J. Wiesner 2013” [printed, red]; “THAILAND 19/92, Nakhon Ratchasima, Khao Yai N.P.” [printed, white, with yellow borders]; “14’20’ N / 101’30’ E, 26.03.1992, 1200 m, leg. E. Hüttinger” [printed]; “PARATYPE THERATES khaoyaii n. sp., ded. J. Wiesner 2013” [printed, red]; “THAILANDE, Khao Yai N. P, Nakhon Ratchasima, 7.V.86, RN” [handwritten]; “PARATYPE THERATES khaoyaii n. sp., ded. J. Wiesner 2013” [printed, red]; “THAILANDE, Khao Yai N. P, Nakhon Ratchasima, 20.V.87, RN” [handwritten]; “PARATYPE THERATES khaoyaii n. sp., ded. J. Wiesner 2013” [printed, red].

**Nomenclatural note.** Wiesner’s (1988) species concept of *waagenorum* Horn included one specimen from Khao yai National Park, Thailand. Subsequently, it has been determined that this specimen does not represent *waagenorum*, and instead, along with six additional specimens is described as a separate species.

**Diagnosis.** Distinguished by the combination of reddish frons and elytral punctation pattern, several of which are connected in short rows, especially behind the basal humps and near the middle suture.

**Etymology.** Named after Khao yai, the type locality of this species.

**Description.** **Size:** Total length (without labrum) 6.6 mm-8.0 mm, (mean=7.1 mm, n=7). **Head:** Shining greenish black, frons reddish. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 396, female Fig. 397) as wide as long, yellowish, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorly behind elytral shoulders in female, somewhat longer in the males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. **Thorax:** Pronotum shining greenish black, as long as wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete, middle line with several transverse short branches. **Elytra:** Shining brownish black, with basal and apical humps, distinctly punctuate in front, shallower in the apical third (Fig. 391). Several of the punc-
tures are connected in short rows, especially behind the basal humps and near the middle suture. Apex with roundish lateral corner and a sutural tooth, slightly recurved between. Maculation composed of a brownish yellow humeral lunule, brownish yellow basal dot and, yellow horizontal central dot which is acutely orientated outwards toward the front and a light yellow apex, reaching the apical humps (Figs. 392-394). The humeral lunule is connected with basal and central dot to a variable degree, the central dot is connected to the light yellow apical lunule at middle suture. Ventral aspect: Venter black, ventrites with small brownish lateral margin. Legs yellowish, hind femora, tibiae and tarsomeres somewhat darker distally. Aedeagus: (Fig. 395) slightly curved, rounded distally, total length 1.7 mm.

**Distribution.** Thailand (Nakhon Ratchasima).

### 53. *Therates waagenorum* Horn (Fig. 398)


**Type depository.** Lectotype female and three syntypes (two males, one female) in SDEI.

**Type status.** Lectotype female! (here designated) Type labels: “von Waagen, Darjeeling” [handwritten]; “Waagenorum mihi” [handwritten, light yellow, with black borders]; “Type!, Dr. W. Horn“ [printed, with black borders]; "Syntypus“ [printed, red]; “LECTOTYPE THERATES waagenorum WHORN, 1900, ded J. Wiesner 2013“ [printed, red]. Syntypes! Type labels: “Darjeeling” [handwritten]; “coll. Waagen“ [handwritten]; "Syntypus“ [printed, red].

**Nomenclatural note.** Horn (1910: 194) described *waagenorum* based on a female specimen. It is here designated as Lectotype.

**Diagnosis.** Distinguished by the combination of reddish frons of the head and isolated punctures of the elytra.

**Re-description.** Size: Total length (without labrum) 5.7 mm-6.2 mm, (mean=5.9 mm, n=4). Head: Shining greenish black, frons reddish as a whole or partly in front and in the middle. Mandibles yellowish, brownish distally in females, teeth brownish marginally. Labrum (male Fig. 403, female Fig. 404) as wide as long, yellowish, brownish laterally in one specimen, with six apical teeth and one lateral tooth. Labial and maxillary palpi yellowish. Antennae extending posteriorly to the elytral shoulders in females, slightly longer in the males, scape with a single apical bristle, antennomeres 2 to 5 glabrous, the antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside, all the other antennal segments brownish. Clypeus glabrous. Frons smooth with two shallow bumps in the posterior part of the orbital plates. Thorax: Pronotum shining greenish black, slightly longer than wide, constricted in front and at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra: Shining brownish black, with basal and apical humps, distinctly punctate in frons, shallower in the apical third (Fig. 399). Apex with roundish lateral corner and a sutural tooth, slightly recurved between. Maculation (Figs. 400, 401) composed of a brownish yellow humeral lunule, brownish yellow basal dot, yellow horizontal central dot which is acutely angled outwards toward the front, and light yellow apex which extends forward to the apical humps. The humeral lunule is connected to the basal and central dots in variable extension. Ventral aspect: Venter black. Legs yellowish, tibiae and tarsomeres somewhat darker distally. Aedeagus: (Fig. 402) slightly curved, broadly rounded distally, total length 1.4 mm.

**Distribution.** India (West Bengal).
Remarks. The species concept of Wiesner (1988:15) included one specimen from Khao yai Nat. Park; this specimen is now described as separate species, *Th. kaoyaii*.

Acknowledgments

The author is indebted to many friends and colleagues as there are Martin Baehr (München), Michael Balke (München), Lutz Behne (Müncheberg), Michel Brancucci (Basel), Thierry Deuve (Paris), Beulah Garner (London), Michael Geiser (London), François Génier (Ottawa), Boris Kataev (St. Petersburg), Andrey Matalin (Moscow), Otto Merkl (Budapest), Jiri Moravec (Berna u Brna), Roger Navaux (Domérat), Roberto Poggi (Genova), Ondrej Safranek (Jiretin pod Jedlovou), Hirofumi Sawada (Aomori), Wolfgang Schawaller (Stuttgart), Harald Schillhammer (Vienna), Azadeh Taghavian (Paris), and Maria Tavano (Genova). David L. Pearson (Tempe, AZ) and Mike Kippenhan (McMinnville, OR) proof read the English text. Peter Schüle (Herrenberg) provided the excellent pictures and drawings.

Literature Cited


Chennelli group of Therates


Received May 31, 2013; Accepted August 4, 2013.
Figure 1. Therates spec., left = ventral view, right = dorsal view: (1) mandible, (2) labrum, (3) clypeus, (4) eye, (5) orbital plate, (6) pronotum, (7) lateral line, (8) middle line, (9) scutellum, (10) basal hump, (11) apical hump, (12) apical dot, (13) central dot, (14) humeral lunule, (15) basal dot, (16) transverse furrows, (17) antenna, (18) frons, (19) maxillary palpus, (20) labial palpus, (21) mesoepisternum, (22) epipleurum, (23) ventrites. Scale = 1 mm.
Figure 2. Characteristics (1 to 14) used for evaluating homogenities (1 to 53) and the resultant data matrix.

<table>
<thead>
<tr>
<th>Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Labrum: yellow = 0, dark at margin = 1, dark = 0</td>
</tr>
<tr>
<td>2 = auburn: with 6 apical teeth = 0, with 5 apical teeth = 1</td>
</tr>
<tr>
<td>3 = Antennae: short = 0, medium = 1, long = 2</td>
</tr>
<tr>
<td>4 = Antennae: slender = 0, lanceolate = 1, elongated distally = 2</td>
</tr>
<tr>
<td>5 = Head: black = 0, red = 1</td>
</tr>
<tr>
<td>6 = Pronotum: black = 0, red = 1</td>
</tr>
<tr>
<td>7 = Abdomen: brownish = 0, brownish marginal = 1, black = 2</td>
</tr>
<tr>
<td>8 = Metallicae of male: yellow = 0, black = 1, bicolored = 2</td>
</tr>
<tr>
<td>9 = Metallicae of female: yellow = 0, black = 1, bicolored = 2</td>
</tr>
<tr>
<td>10 = Elytral apex punctate: as at base = 0, shallow = 1, 2 = absent</td>
</tr>
<tr>
<td>11 = Elytral apex: sutural tooth = 0, lateral and sutural corniculum = 1, lateral and sutural tooth = 2</td>
</tr>
<tr>
<td>12 = Humeral lunule: confluent = 0, large = 1, short = 2, tiny = 3</td>
</tr>
<tr>
<td>13 = Basal dot: connected = 0, long = 1, short = 2, absent = 3</td>
</tr>
<tr>
<td>14 = Central dot: connected = 0, fascia-like = 1, roundish = 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTU's</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>13</td>
</tr>
<tr>
<td>14</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>16</td>
</tr>
<tr>
<td>17</td>
</tr>
<tr>
<td>18</td>
</tr>
<tr>
<td>19</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>24</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>26</td>
</tr>
<tr>
<td>27</td>
</tr>
<tr>
<td>28</td>
</tr>
<tr>
<td>29</td>
</tr>
<tr>
<td>30</td>
</tr>
<tr>
<td>31</td>
</tr>
<tr>
<td>32</td>
</tr>
<tr>
<td>33</td>
</tr>
<tr>
<td>34</td>
</tr>
<tr>
<td>35</td>
</tr>
<tr>
<td>36</td>
</tr>
<tr>
<td>37</td>
</tr>
<tr>
<td>38</td>
</tr>
<tr>
<td>39</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>41</td>
</tr>
<tr>
<td>42</td>
</tr>
<tr>
<td>43</td>
</tr>
<tr>
<td>44</td>
</tr>
<tr>
<td>45</td>
</tr>
<tr>
<td>46</td>
</tr>
<tr>
<td>47</td>
</tr>
<tr>
<td>48</td>
</tr>
<tr>
<td>49</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>51</td>
</tr>
<tr>
<td>52</td>
</tr>
<tr>
<td>53</td>
</tr>
</tbody>
</table>

---

Estimated, due to lack of individuals of needed sex
Figures 3. Provisional arrangement of species of the chennelli group following the results of cladistic analysis.