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STUDIES ON THE GENUS TRYPOXYLON LATREILLE
OF THE ORIENTAL AND AUSTRALIAN REGIONS
(HYMENOPTERA SPHECIDAE)

VIII. SPECIES FROM NEW GUINEA AND
SOUTH PACIFIC ISLANDS

IX. SPECIES FROM AUSTRALIA

By K. TSUNEGI

M I S H I M A

FEBRUARY 28, 1981

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By K. TSUNEKI

(Asahigaoka 4-15, Mishima, Japan 411)

It is a surprising fact that in Australia the members of the present genus are very scarce, being represented by only seven species - papuanum, schmiedeknechti connexum, flavipes, mindanaonis, albitarsatum huonense, bituberculatum and eximium - , most of these species are confined in distribution to the Cape York Peninsula, Queensland. Only one species, schmiedeknechti connexum Turner, is widely spread over the country and apparently flourishing. No endemic species or subspecies present, all being the immigrants from New Guinea. The fact seems to suggest that the origin of the present genus is on the region or regions other than Australia and comparatively later as compared with the related genus Pison which is flourishing all over Australia.

On the other hand, it seems to be an interesting ecological problem why the present curious distribution of the species has occurred and remains stopped at the present status for long time.

For the present study I am much indebted to Dr. Ian Naumann, Division of Entomology, Commonwealth Scientific and Industrial Research Organization of Australia, Canberra (abbreviation CSIRO), Mr. E. Dahms, Queensland Museum, Brisbane (abbr. QM), Dr. I. Galloway, Department of Primary Industries, Entomology Branch (abbr. DPIE), Miss M. Schneider, Department of Entomology, University of Queensland, Brisbane (DEUQ), Dr. T. Houston, The Western Australian Museum, Perth (WAM) and Dr. A. Nebeiss, National Museum of Victoria, Melbourne (NMV) for the loan of the valuable specimens.

Other sources of the material studied are, as in the previous Part of the present paper, British Museum (Natural History), London (BMNH), Bernice P. Bishop Museum, Honolulu (BPBM) and American Entomological Institute, Ann Arbor (AEI).

KEY TO THE SPECIES

- 1 **Frons with shield-shaped enclosure** 2
- **Frons without shield-shaped enclosure** 3
- 2 **Frontal enclosure at above lateral angles somewhat constricted, thence upwards carinae weak and obtuse, 8-12 mm, New Guinea, Bismarck Arch., Solomon Is. and Australia**
 papuanum Tsuneki, 1977
- **Frontal enclosure not constricted at above lateral angles, with carinae complete and acute (upper and lower area of enclosure nearly equal in length, upper area rounded at top, lower area triangularly narrowed below, apex pointed, IODs=5:4, Al3=A9-12), 10-12 mm, New Guinea, Bismarck Arch., Australia**
 schmiedeknechti connexum Turner, 1908
- 3 **Head thick, subquadrate seen in front and from above, G1 elongate clavate, G2 more than twice as long as wide, G1, 2 and 3 each with a fovea at apex, propodeal sternite present (propodeum with lateral carinae, mesoscutum finely and closely punctured, with PIS microstriate, collar thick, trituberculate above, Al, apical margin of clypeus, fore and mid legs at least broadly and G3 and 4 each at base yellow), 7 mm, New Guinea, Australia (Borneo, Philippines, Ceylon and Laos)**
 flavipes Tsuneki, 1979
- **Head transverse in dorsal view, G1 flask-shaped, G2 not so long, G1, 2 and 3 without fovea at apex, propodeal sternite absent (hair on clypeus silvery)** 4
- 4 **Propodeum without lateral carinae (mesoscutum strongly and closely punctured at antero-lateral area, hind tarsus at least partly ferruginous or pale brown, apical margin of clypeus broadly truncate and shortly toothed in middle, gaster medianly red, fore tibia largely and fore tarsus, mid T1-4 ferruginous, area dorsalis with shallow lateral furrows), 14-18 mm, New Guinea, Mysol, Bismarck Arch. and Australia**
 eximium Smith, 1859
- **Propodeum with lateral carinae** 5
- 5 **Frontal elevations on both sides of medial furrow markedly high, roundly raised (gaster from apical swelling to G4 red, often black marked above, fore and mid tibiae broadly, fore and mid tarsi nearly wholly ferruginous yellow, IODs=4:3, apical margin of clypeus round and medianly recurved, recurved area with a minute impression in middle, mesoscutum distinctly, somewhat sparsely punctured, area dorsalis enclosed with shallow groove, posterior inclination of propodeum broadly transversely striate), 11-13 mm, New Guinea, Mysol and Australia**
 bituberculatum Tsuneki, 1977
- **Frontal elevations not particularly high** 6
- 6 **7-8 mm, gaster and legs except spurs completely black (clypeus with a small prominence at apex in middle, mesoscutum microcoriaceous and finely sparsely punctured, IODs=1:1, SAT low, medianly shortly carinate, apical margin triangular and acutely edged, ASR with a minute fovea on posterior wall), Philippines, Borneo, Java, Singapore and Australia**
 mindanaonis Tsuneki, 1977, ♀
- **♀ 15-16, ♂ 12-13 mm, gaster broadly red in middle, all legs broadly pale ferruginous (clypeus rounded out, without medio-apical prominence, mesoscutum without microsculpture, finely, somewhat sparsely punctured, SAT low broad nasiform, long carinated in middle, medio-apical area broadly flatly inclined to IAA, ASR short, without hollow, PAF shallow, up-curved, IODs=10:9 in ♀ and ♂, area dorsalis practically without lateral furrows and not transversely striate, Al3=A8-12), New Guinea, Umboi I. and Australia**
 albitarsatum huonense Tsuneki, 1977

RECORDS OF THE SPECIES

1. TRYPOXYLON PAPUANUM TSUNEKI, 1977

Trypoxylon papuanum: Tsuneki, SPJHA, 14: 13, 1981 (New Guinea, Solomon Is.)

Specimens newly examined:

3 ♀, 11° 09' S - 132° 09' E, black Point, Coboury Pen. Northern Territory, 30. I, 2. II. 1977, E. D. Edwards (CSIRO); 2 ♀, same loco., 2. II. 1977, 15-23. II. 1977, T. A. Weir (CSIRO); 1 ♀, Pinnacle Ck., 27 km north of Archer King, Cape York Pen., N. Queensland, 29. VI. 1975, S. R. Monteith (CSIRO); 1 ♀, Telegraph King, Dulhunty River, Cape York Pen., N. Queensland, 2-4. VII. 1975, S. R. Monteith (CSIRO); 3 ♂, Mission Bch. N. Queensland, 4. IV. 1976, I. D. Galloway (DPIE); 1 ♀, Cairns, N. Qld., 20 (? 1920), forest, A. D. Dodd (DPIE).

2. TRYPOXYLON SCHMIEDEKNECHTI CONNEXUM TURNER, 1908

Trypoxylon schmiedeknechti connexum: Tsuneki, SPJHA, 14: 13, 1981 (New Guinea, ref.)

Specimens newly examined:

1 ♀, Fernvale, Qld., Nov. - Dec. --, -- (AEI); 1 ♀, Mt. Walker, Qld., XI-XII., --, -- (AEI); 1 ♀, Brisbane, Qld., XII. 1972, J. Sedlacek (AEI); 1 ♀, Brisbane, Qld. X. 1972, J. Sedlacek (AEI); 1 ♂, same loco, IX-X. 1972, J. Sedlacek (AEI); 1 ♀, Paramatta, New South Wales, 16-21. I. --, -- (AEI).

4 ♀, Chumcooli near Wyndham, Western Australia, 16. I. - 12. II. 1931, H. J. Willings (CSIRO); 7 ♀, Sunnybank, Qld., 1. XII. 1951, E. F. Riek (CSIRO); 6 ♀, 6 W Gango, Old., 6. IV. 1957, E. F. Riek (CSIRO); 1 ♀, Sandstone Outcrops, 30 km west of Fairvier, via Laura, N. Qld., 26. VI. 1975, S. R. Monteith (CSIRO); 1 ♀, Rockpool George, Mt. Walsh, N. P. Biggenden, Qld., 27. III. 1980, H. Frauca (CSIRO); 1 ♀, Brock Creek, Burnside, N. Australia, 28. IV. 1929, T. G. Campbell (CSIRO); 1 ♀, 15 km SW of Biggenden, Qld., I. 1974, H. Frauca (CSIRO); 1 ♀, Carnarvon Ra Qld., 30. III. 1957, E. F. Riek (CSIRO); 1 ♀, 6 miles east of Gravesend, New South Wales, 5. XI. 1959, A. L. Dyce (CSIRO); 1 ♀, Mackay, II. 1899, W. W. Frogatt Coll. (CSIRO); 1 ♂, Kerang, Victoria, 2. V. 1948, R. E. Trebilcock (CSIRO); 1 ♂, Brisbane, Qld., 26. I. 1917, H. Hacker (CSIRO); 1 ♀, 11° 01' S - 136° 45' E, Rimbija Is. Wessel Is. Northern Territory, 3-14. II. 1977, T. A. Weir (CSIRO); 3 ♀, 11° 09' S - 132° 09' E, Black point, Coboury Pen., Northern Territory, 24, 24, 31. I. 1977, E. D. Edwards (CSIRO); 2 ♀ 1 ♂, 14° 49' S - 126° 49' E, Carson escarpment, Western Australia, 9-15. VIII. 1975, I. F. B. Common & M. S. Upton (CSIRO); 2 ♀ 1 ♂, 15° 25' S - 126° 55' E, Drysdale River, Western Australia, 3-8. VIII. 1975, I. F. B. Common & M. S. Upton (CSIRO); 1 ♀, same loco, Morgan Fall, W. A., 16-17. VIII. 1975, same collectors (CSIRO); 1 ♂, 15° 58' S - 136° 21' E, 12 km NNE of Borroloola, Northern Territory, 1. XI. 1975, J. C. Cardale (CSIRO); 1 ♀, 16° 05' S - 136° 19' E, McArthur River, 2 km SSE of Borroloola, 20. IV. 1976 (CSIRO); 1 ♀, 16° 09' S - 136° 03' E, Batten Creek, 31 km WSW of Borroloola, 16. IV. 1976, D. H. Colless (CSIRO); 2 ♀, 16° 27' S - 136° 05' E, McArthur River, 48 km SW by S of Borroloola, Northern Territory, 14. IV. 1976, D. H. Colless (CSIRO); 1 ♀, 16° 32' S - 136° 10' E, Cattle Creek, 54 km S by W of Borroloola, N. T., 27. X. 1975, J. C. Cardale (CSIRO); 1 ♀, 16° 16' S - 136° 05' E, Caranbirini waterhole, 33 km SW of Borroloola, N. T., 22. IV. 1976, D. H. Colless (CSIRO); 1 ♂, 16° 34' S - 135° 41' E, 14 km NW of Cape Crawford, N. T., 6. XI. 1975, J. C. Cardale (CSIRO); 1 ♀, 16° 34' S - 135° 41' E, 14 km NW of Cape Crawford, N. T., 6. XI. 1975, J. C. Cardale (CSIRO); 1 ♀, 16° 40' S - 135° 51' E, Bessie Spring, 8 km ESE of Cape Crawford, N. T., 26. X. 1975, J. C. Cardale (CSIRO); 1 ♀, 17° 30' S - 122° 10' E, 8 km S of Cape Bertholet, Western Australia, West Kimberley 22. IV. 1977, D. H. Colless (CSIRO); 1 ♂, 23° 36' S - 133° 35' E, 32 km WNW of Alice Spring S, Northern Territory, 8. X. 1978, J. C. Cardale (CSIRO); 1 ♀, 23° 38' S - 133° 53' E, Todd River, 9 km N by E of Alice Spring, N. T., 5. XI. 1978, J. C. Cardale (CSIRO); 1 ♀, 23° 46' S - 133° 04' E, Ellery Gorge, 85 km W of Alice Springs, N. T., 5. XI. 1979, I. D. Naumann (CSIRO).

6 ♀, Brisbane, Qld., 4. II. 1919, H. Hacker (QM).
1 ♂, Harlin, 25. XII. 1955, A. M. (DPIE); 1 ♀ 1 ♂, Brisbane, Qld., III. 1902,

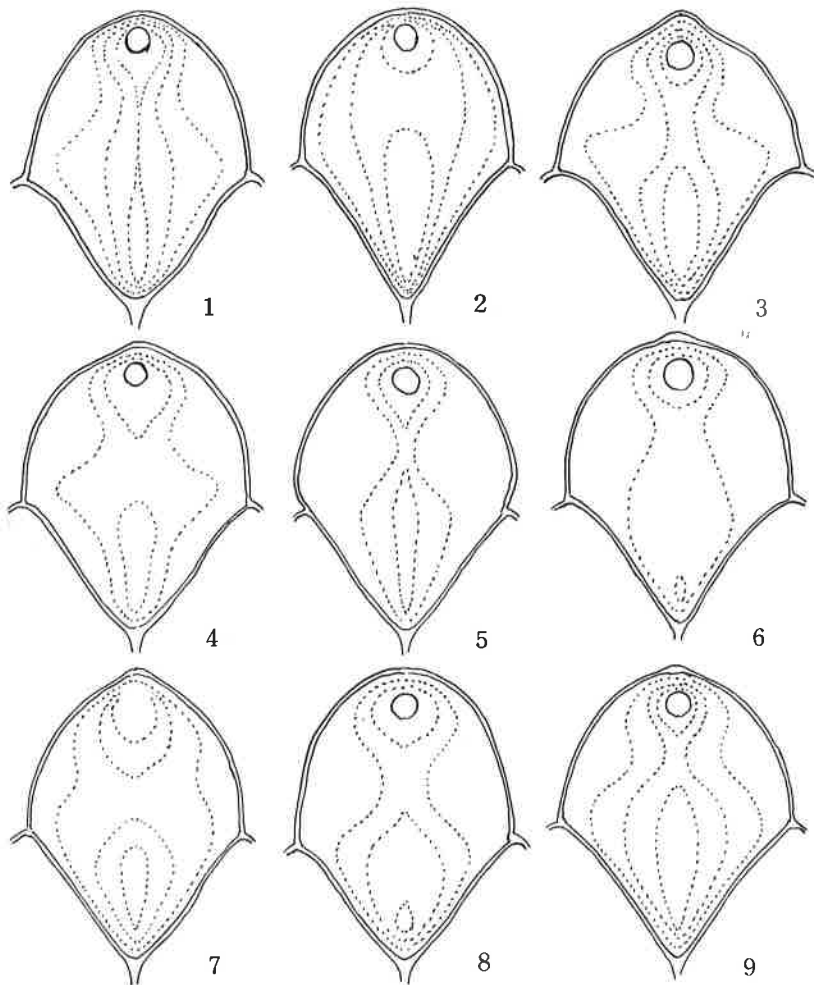
T. Bachelor (DPIE); 1 ♀, Beside Brisbane River (Tennyson), III. 1977, Malaise trap, I. D. Galloway (DPIE).

1 ♀, Ethel Creek, 300 m, N of Meekathanra, Western Australis, 28. XI. 1971, N. S. E. (WAM).

1 ♀, Gotton, Qld., 12. II. 1932, -- (DEUQ); 1 ♂, Brisbane, Qld., 1. II. 1960, K. Korboot (DEUQ); 1 ♀, Brisbane, Qld., 13. XII. 1964, E. B. Tay (DEUQ); 1 ♀ 1 ♂, Brisbane, 9. X. 1979; 3. XII. 1979, H. E. & M. A. Evans and H. Hook (DEUQ); 1 ♂, Brisbane, 29. IX. 1979, H. E. & M. A. Evans (DEUQ); 2 ♀ 1 ♂, Brisbane, Blunder Creek XI. 1979; 5-9. XII. 1979, H. E. Evans & A. Hook (DEUQ); 1 ♀, Cape Pallarenda, Qld., 11. VIII. 1966, J. C. Cardale (DEUQ); 1 ♀, Dalby, 30. X. 1979, H. E. & M. A. Evans and A. Hook (DEUQ); 50 km N of Moroo, New South Wales, 29. XI. 1976, -- (DEUQ); 1 ♂, 5 km S of Gympie, 11. X. 1979, H. E. & M. A. Evans and A. Hook (DEUQ).

1 ♀, Noosa Hdscl., 29. IX. 1956, R J. (VMV); 2 ♀, Murray River, 50 miles west of Wentworth, New South Wales, 22. XI. 1967, A. Neboiss (NMV); 1 ♀, Prince of Wales Is., Torres Strait, 20-30. V. 1969, A. Neboiss (NMV).

Remarks. As already mentioned in Part I of the present paper the frontal enclosure of the present subspecies is considerably variable in the form and in the depth and relief of the surface excavation. It is especially marked in the male, appearing



Figs. 1-9. *Trypoxylon schmiedeknechti connexum* Turner, ♂.

Variation in form and depth of frontal shield.

without noticeable connection with the locality and in the extreme case it can hardly be separated from that of the typical race (cf. Figs. 1 and 3). Representative instances in the male observed are again given in Figs. 1-9. Notice the variation in the relative length to width, in the curvature of the enclosing carinae and in the contour (dotted) line! In the figures the length is given as constant. Fig. 1 is very similar to the case in T. melanurum Cameron and Fig. 3 is close to schmiedeknechti s. str. in the curvature of the lower carinae.

According to the measurements by keeping the width at lateral angles as 10 the relative length in middle varies as follows (all the male specimens and the corresponding numbers of the female specimens):

♂:	7.0	7.3	7.3	7.5	7.5	7.5	7.5	7.8	8.0	8.0	8.3	8.3	8.3
	8.3												
♀:	6.5	6.5	7.0	7.0	7.0	7.0	7.3	7.3	7.5	7.5	7.5	7.5	7.8
	7.8												

The members of the present genus occurring in Australia are apparently scarce in individual numbers as well as species numbers, and mostly confined in distribution to Cape York Peninsula, while the present species alone is common and wide spread. Why this is accomplished is a very interesting problem to study. Its adaptation to environment and its nesting biology in connection with the adaptation are worthy of particular investigation. Especially the nesting habits of this species may have a key to solve the problem, since the biology of the members of the scutatum-group, to which the present species belongs, has not ever been investigated.

A suggestion: Trypoxylon schmiedeknechti Kohl appears to utilize the abandoned mud nests of other species of solitary wasps instead of lenting the natural tubes in most other species.

3. TRYPOXYLON FLAVIPES TSUNEKI, 1979

Trypoxylon flavipes: Tsuneki, SPJHA, 14: 13, 1981 (New Guinea, list of ref.).
(As to other references see p. 13 of the present paper.)

Specimens observed: 1 ♀, Mt. Tamborine, Qld., --. X. --, -- (AEI).

Remarks. From the specimen the gaster completely, right fore and right mid legs from fumer apically and T5 of left mid and right hind legs and from tibia apically of of left hind leg are lost.

In the specimen, as compared with the holotype female from Laos, the punctures on mesoscutum are slightly sparser, with PIS more weakly microcoriaceous and the surface appears much smoother and somewhat more shining and the dusky part of mid tarsus is more strongly blackish. In the New Guinean specimens of flavipes two styles of mesoscutal punctation are present and the present specimen belongs to one of them.

Measurements:

HW,HL,IODv,A3,P=100,66,31,20,--. IODs=10:2.5. OOD?Od,POD=1,5,4. A3=AW 2.5. A3, 4,5=10,9,8.

4. TRYPOXYLON ALBITARSATUM HUONENSE TSUNEKI, 1977

Trypoxylon albitarsatum huonense: Tsuneki, SPJHA, 14: 46, 1981 (the present paper), p. 46 (New Guinea).

Specimens examined:

1 ♀, North Queensland, --, --, R. C. L. Perkins Coll. (EMNH); 1 ♀, North Qld., Cairns, 20 (? 1920) J. F. Illingworth, coll. ex window (gaster lacking) (BPEM); 1 ♀, Nerada near Innisfail, Qld., 18. III. 1958, T. G. Camogwell (CSIRO); 1 ♀, Cairns, N. Qld., 8. I. 1950, G. B. (CSIRO); 1 ♂, North Qld., Kuranda, 200 m, 13. III. 1956, J. L. Gressitt (BPEM).

Remarks. Both the male and the female specimens examined show the distinct plumbeous shine on the thorax and sometimes also on the propodeum. In the male A13 is slightly shorter than in the usual New Guinean specimens, as long as 4 preceding segments united and, therefore, belong to the aberratio of this subspecies.

5. TRYPOXYLON MINDANAONIS TSUNEKI, 1976

Trypoxylon mindanaonis: Tsuneki, SPJHA, 14: 21, 1981 (present paper, p. 21).

Specimens examined:

1 ♀, Brisbane, Qld., 12. II. 1963, T. Brooks (BPBM); 1 ♀, Brisbane, Indooroopilly, Qld., XII. 1976, Boucek (BPBM); 1 ♀, Brisbane, Qld., IX-XI. --, -- (AEI).

Remarks. The Australian specimens belong to the typical race, bearing the comparatively longer antennal joints and completely black gaster.

6. TRYPOXYLON BITUBERCULATUM TSUNEKI, 1977

Trypoxylon bituberculatum: Tsuneki, SPJHA, 14: 23, 1981 (present paper, p. 23).

Specimens examined:

9 ♀, 142 82 E - 11 45 S, Gunshot Creek, Cape York Pen., North Queensland, 12-14. VII. 1975, S. R. Monteith (CSIRO); 3 ♀, Wenrock River at Moreton, Cape York Pen., N. Qld., 30. VI. 1975, S. R. Monteith (CSIRO); 2 ♀, Kuranda Q, 1.5 miles SE of Kuranda, Qld., 16-17. V. 1980, J. C. Cardale (CSIRO); 2 ♀, Pinnacle Creek, 27 km north of Ancher Xing, Cape York Pen., North Queensland, 29. VI. 1975, S. R. Monteith (CSIRO); 1 ♀, Lockerbie Area, Cape York Pen., N. Qld., 13-27. III. 1973, S. R. Monteith (CSIRO); 1 ♀, Meringa, N. Qld., 22. VIII. 1925, A. N. Burns (CSIRO); 3 ♀, Kuranda, 1100 ft., 9, 14, 14. VII. 1913, R. E. Turner (BMNH); 2 ♀, Cairns (Kur - 4 - 02), R. E. Turner (BMNH).

Remarks. Measurements of representative specimens are in Table 1.

Table 1. Measurements on Australian T. bituberculatum Tsuneki, ♀.

Loco	IODv	A3(L/W)	P	IODs	IODc	ODOdPD	A4	A5	Ma	Mi	2(Ma)	CV1	T:C	Ang.
Gunshot Ck.	24	22(3.8)	150	7.5	8.2	2 8 5	6.5	6.0	19	7	35(22)	7.4	2:1	120
"	25	22(3.7)	158	7.7	8.5	1 6 5	6.5	6.0	18	6	36(19)	6.2	9:5	120
"	24	22(3.7)	158	7.5	8.2	1 6 4	6.5	6.0	19	6	35(22)	6.5	9:5	120
"	24	24(4.0)	152	7.5	7.5	1 7 5	7.0	6.5	21	7	36(22)	5.6	8:5	120
Kuranda	24	23(3.7)	158	7.5	7.8	1 4 4	6.5	6.0	18	6	32(19)	6.4	9:5	120
"	24	22(4.0)	154	7.5	8.2	1 5 4	7.0	6.5	20	7	32(22)	6.0	9:5	120
"	24	23(4.0)	154	8.0	8.3	1 7 4	7.0	6.5	19	7	34(22)	6.8	2:1	120
"	24	22(4.0)	154	7.5	8.2	1 5 4	7.0	6.5	18	7	34(20)	6.2	9:5	120
"	24	22(3.7)	154	7.5	8.2	1 5 4	7.0	6.5	21	7	32(22)	5.6	8:5	120
Wenrock Ck.	24	22(3.9)	160	7.6	8.2	2 6 6	7.0	6.5	18	6	30(18)	6.4	9:5	120
"	24	22(3.9)	160	7.6	8.2	1 5 4	7.0	6.5	18	6	30(20)	7.4	11:5	120
"	26	22(4.0)	140	7.0	8.3	1 4 3	7.0	6.5	19	7	36(21)	4.4	6:5	115
Meringa	24	23(4.0)	152	7.5	7.8	2 6 5	6.5	6.0	20	7	32(24)	6.3	9:5	115
Pinnacle	24	22(3.7)	150	7.5	8.2	1 5 4	7.0	6.5	18	7	34(18)	5.3	8:5	120
Lockerbie	24	22(3.8)	146	8.0	8.7	1 8 5	7.0	6.5	21	7	34(21)	5.7	9:5	120
Cairns	24	---(---)	150	7.5	---	1 6 4	---	---	20	7	32(23)	5.2	7:5	120
"	24	22(4.0)	152	7.5	8.2	2 6 5	6.5	6.0	20	7	32(22)	7.3	2:1	120

Remarks. IODv, A3, P ... when HW is 100. IODs ... IODc when IODv is 10. IODc ... when A3 is 10. ODOdPD ... OOD,Od,POD. A4 and A5 ... when A3 is 10. Ma, Mi, 2(Ma) ... when P is 100. CV1 ... CV1/CV2. T:C ... TCV:CV2. Ang. ... Angle.

The Australian specimens of this species are generally more broadly red marked on median part of the gaster (from apical area of G1 to nearly the end of G4) and only G4 is black maculated posteriorly above. According to Table 1 IODv is relatively slightly smaller on the average and A3 is also somewhat shorter than in the NewGuinean representatives.

This species is closely related to Trypoxylon placidum Smith, but is different in that the gastral petiole is not wholly ferruginous red.

7. TRYPOXYLON EXIMIUM SMITH, 1859

Trypoxylon eximium Smith, J. Proc. Linn. Soc. London, 3 (11-12): 161, 1859 (♀, Aru and Key Is.)

Trypoxylon eximium: Tsuneki, SPJHA, 14: 67, 1981 (present paper)(with ref.).

Specimens examined:

1 ♀, Gordonvale, W. C. Dorner, N. Qld., 18. II. 1923 (H - 126) (QM); 1 ♀, Gordonvale, W. C. Dorner, N. Qld., 17. II. 1923, — (CSIRO); 1 ♀, Little Morgrave, N. Qld., 12. III. 1950, A 3 (CSIRO); 1 ♀, 1.5 km SE of Kuranda, Qld., 16-17. V. 1980, I. D. Naumann & J. G. Cardale (CSIRO); 1 ♀, McIvor River Xing, 40 km N of Cooktown, N. Qld., 15-18. VII. 1976, G. S. & S. R. Monteith (CSIRO); 1 ♀ 1 ♂, Peach Creek Crossing, 25 km NNE of Coen, N. Qld., 4-5. VII. 1976, G. B. & S. R. Monteith (CSIRO).

Remarks. The Australian specimens belong to the typical form and in colouration rather similar to the Papuan specimens (ref. p. 68).

I N D E X

<u>albitarsatum</u> Tsuneki	45	<u>nitidum</u> Smith	11
<u>albitarsatum huonense</u> Tsuneki .	46, 103	<u>nitidum mooreaense</u> ssp. nov.	11
<u>albitarsatum muluanum</u> ssp. nov. ..	49	<u>novaguineae</u> sp. nov.	80
<u>angoramum</u> sp. nov.	27	<u>olthofi</u> sp. nov.	38
<u>baiyerum</u> ssp. nov.	79	<u>oriomonis</u> sp. nov.	43
<u>bibou</u> sp. nov.	64	<u>owrichardi</u> sp. nov.	19
<u>biroi</u> Tsuneki (ssp.)	26	<u>papuanum</u> Tsuneki	13, 101
<u>bismarckianum</u> Tsuneki	81	<u>petiolatum</u> Smith	75
<u>bituberculatum</u> Tsuneki	23, 104	<u>pinguiceps</u> sp. nov.	14
<u>bituberculatum biroi</u> Tsuneki ..	26	<u>placidum</u> Smith	21
<u>bituberculatum mysolense</u> Tsuneki .	97	<u>popondettae</u> sp. nov.	30
<u>chichidzimaense</u> Tsuneki	52	<u>popondettae woodlarkense</u> ssp. nov.	33
<u>chimbus</u> sp. nov.	39	<u>sacinasium</u> sp. nov.	61
<u>choiseulense</u> sp. nov.	20	<u>schmiedeknechti</u> Kohl	13, 101
<u>connexum</u> Turner	13, 101	<u>schmiedeknechti connexum</u> Turner	13, 101
<u>crassipes</u> sp. nov.	54	<u>sedlaceki</u> sp. nov.	51
<u>eburneipes</u> Tsuneki	49	<u>solomonense</u> sp. nov.	83
<u>errans</u> Saussure	45	<u>straatmani</u> sp. nov.	17
<u>eximium</u> Smith	67, 105	<u>tengu</u> sp. nov.	42
<u>eximium gracillimum</u> Smith	70	<u>townesi</u> sp. nov.	72
<u>flavipes</u> Tsuneki	13, 103	<u>Trypargilum</u> Richards	11
<u>gadalense</u> sp. nov.	95	<u>umboiense</u> ssp. nov.	41
<u>gracillimum</u> Smith (ssp.)	70	<u>warisum</u> sp. nov.	33
<u>hollandiae</u> sp. nov.	36	<u>wauense</u> sp. nov.	61
<u>huonense</u> Tsuneki (ssp.)	46, 103	<u>woodlarkense</u> sp. nov.	33
<u>kaitum</u> sp. nov.	40		
<u>kaitum umboiense</u> ssp. nov.	41		
<u>kalilioum</u> sp. nov.	90		
<u>karimui</u> sp. nov.	15		
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