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DISCOVERY OF THE WINGED FORM OF *RETICULITERMES miyatakei* MORIMOTO*

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Abstract

The winged form of *Reticulitermes miyatakei* Morimoto is described for the first time. It is separable from that of *R. speratus* Kolbe by coloration.

Reticulitermes miyatakei Morimoto, 1968 was described on the soldier and worker, and its winged form has not been found up to the present. In this paper the winged form of this species is reported and described for the first time. This species is related to *R. speratus* Kolbe, but the winged form of the former is apparently different from the latter in coloration.

Before going further I wish to express my hearty gratitude to Prof. Emeritus Y. Hirashima of Entomological Laboratory, Faculty of Agriculture, Kyushu University, for his kind help in many ways. I am also much indebted to Prof. K. Morimoto of Entomological Laboratory, Faculty of Agriculture, Kyushu University, who read through the manuscript and gave me many valuable suggestions. My cordial thanks are due to Mr. T. Yasunaga of Entomological Laboratory, Faculty of Agriculture, Kyushu University, for his kind advice and encouragement. The specimens used in this paper were collected by Prof. K. Morimoto, to whom I am much indebted.

Reticulitermes **miyatakei** Morimoto

Head: Eyes blackish brown; head brown, whitish yellow anterior'to frons; vertex with a narrow medial epicranial suture ; frons with a pair of pale spots anteriorly ; labrum whitish yellow, widened at the middle, with anterior part slightly brown ; ventral surface whitish yellow ; gena and posterior part of gula brownish. Antennae brown, 17-segmented. Mandibles yellow, with inner edge brown ; right mandible 4-toothed ; apical tooth and 1st marginal tooth pointed ; subsidinary tooth very small ; 2nd marginal tooth large, with long basal edge ; molar plate flat, bearing hairs on basal edge ; left mandible also possessing 4 teeth ; the first three acute, almost equal in size ; 3rd marginal tooth slightly longer than 2nd ; molar plate apparently large, hairless, produced as a pointed process at the middle, with basal edge serrate.

Thorax : Pronotum brown, with a pair of small pale spots and a large pale marking behind the anterior margin, narrower than head, anterior margin much broader than posterior margin, with

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Table 1. Body measurements and indexes of the winged form of *R. miyatakei* in millimeter.

	1 ♀	2 ♀	3 ♀	4 ♂	5 ♂	mean
1. Total body-length with wings.	9.70			9.40	9.10	9.40
2. Body-length without wings.	7.00	6.20	6.00	6.50	6.00	6.34
3. Distance of fontanelle.	0.48	0.50	0.46	0.50	0.48	0.48
4. Length of head to the anterior margin of frons.	0.92	0.92	0.89	0.91	0.89	0.91
5. Maximum width of head without eyes.	0.90	0.89	0.87	0.86	0.87	0.88
6. Length of clypeus.	0.28	0.26	0.28	0.28	0.29	0.28
7. Maximum width of clypeus.	0.46	0.45	0.46	0.44	0.46	0.45
8. Length of labrum.	0.33	0.32	0.33	0.31	0.31	0.32
9. Length of gula.	0.44	0.43	0.43	0.43	0.41	0.43
10. Width of gula.	0.33	0.33	0.33	0.33	0.31	0.33
11. Maximum diameter of compound eye with ocular sclerite.	0.24	0.23	0.24	0.23	0.24	0.24
12. Maximum diameter of compound eye without ocular sclerite.	0.22	0.21	0.21	0.20	0.21	0.21
13. Minimum eye-ocellus distance.	0.037	0.049	0.039	0.039	0.039	0.041
14. Number of antenna1 segments.	17	17	17	17	17	17
15. Maximum width of pronotum.	0.78	0.78	0.73	0.73	0.73	0.75
16. Maximum length of pronotum.	0.49	0.49	0.47	0.49	0.48	0.48
17. Length of protibia.	0.67	0.66	0.67	0.69	0.69	0.68
18. Length of metatibia.	0.96	0.94	0.95	0.98	0.98	0.96
19. Length of fore wing with scale.	8.10			7.85	7.60	7.85
20. Width of fore wing.	1.89		—	1.85	1.78	1.84
21. Head index (4/5)	1.02	1.03	1.02	1.06	1.02	1.03
22. Pronotum index (16/15)	0.63	0.63	0.64	0.67	0.66	0.65
23. Fore wing index (20/19)	0.23			0.24	0.23	0.23
24. Compound-eye sclerite index (12/11)	0.92	0.91	0.88	0.87	0.88	0.89

remarkable median suture, bearing dense hairs. Mesonotum and metanotum brown, with median suture. Pleura and sterna whitish yellow ; epistemum, epimerum and merum pale brown anteriorly. Wings pale brown, with dark veins. Legs entirely yellow ; coxae tinged with brown.

Abdomen : Brown, wholly covered with hairs.

Measurements : See Table 1.

Specimens examined : Mt. Yuwandake, Uken-son, Amami-Oshima Is., 12. X. 1988, K. Morimoto leg. (Twenty-six exs., 14♀♀12♂♂ swarmed on 20. IV. 1989.)

DISTRIBUTION. Japan (Amami-Oshima Is., Tokunoshima Is.)

REMARKS. The winged form of this species is separable from that of *R. speratus* Kolbe by the pronotum brown and the femora yellow, in addition to being significantly paler in coloration. The winged forms used in this paper swarmed in April, 1989 from a colony which had been reared under artificial condition.

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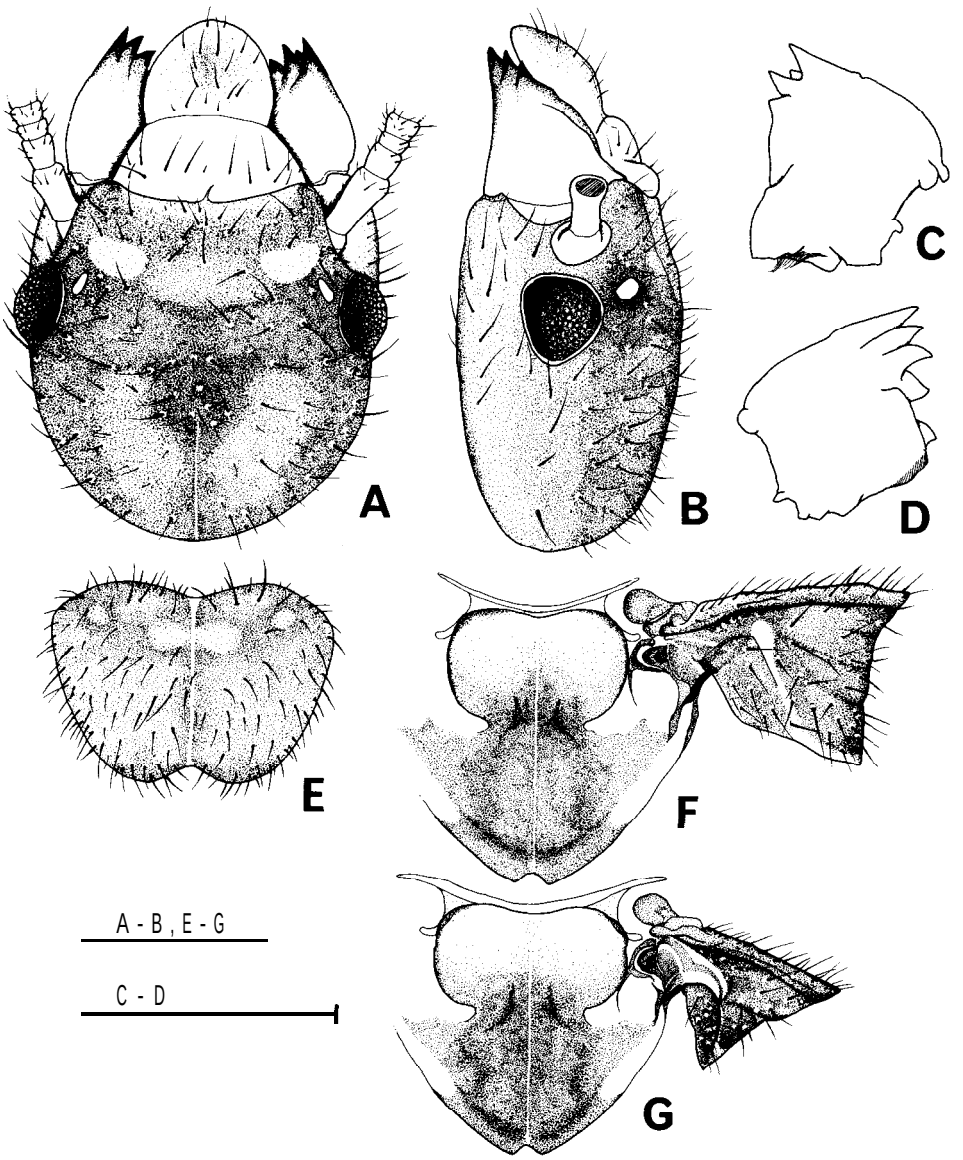

Fig. 1. Head and thorax of *R. miyatakei.*—A, Head in dorsal view ; B, ditto in left lateral view ; C, right mandible ; D, left mandible ; E, pronotum ; F, mesonotum ; G, metanotum. Scales : 0.5 mm.

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