TAXONOMIC REMARKS ON THE INDOMALAYAN MICROTERMES
WASMANN (ISOPTERA : TERMITIDAE : MACROTERMITINAE)

By

O. B. CHHOTANI AND GEETA BOSE

Zoological Survey of India, Calcutta.

ABSTRACT

Position in respect of the type of genus Microtermes and the Indomalayan species of the genus is discussed.

INTRODUCTION

The genus Microtermes (Isoptera : Termitidae : Macrotermitinae) was described by Wasmann (1902) who created it for the smaller forms of the genus Termes s. str. relegated to the section with Termes incertus Hagen for type. He included the species Termes incertus from Africa and "Ostindien", Termes pallidus Haviland from "Ostindien" and his new species Microtermes globicola from Sri Lanka, basing the genus on the characters of imago and soldier and also gave the differentiating characters of the soldiers by which these three species could be separated. We discuss here certain aspects of controversy in literature in respect of oriental Microtermes.

TAXONOMIC REMARKS

Type of Microtermes:

There is some confusion about the type of Microtermes. Chatterjee and Thakur (1964) mentioned M. globicola Wasmann as the type stating that "The generic name Microtermes was first introduced in literature by Wasmann in 1902, who included under it only one species Microtermes globicola from Ceylon, without designating it as generitype. Later workers like Fuller (1922), Sjöstedt (1926), Snyder (1949) and Ahmad (1955) also did not designate any generitype. However by virtue of its being a monotypic species, it is designated as a generitype." This statement is not correct since Wasmann (1902, p. 115) clearly states: "Ich gründe diese Gattung auf einige sehr kleine, der Gattung Termes s. str. nahe stehende Arten, deren Typus Termes incertus Hag. ist." Evidently the original reference of Wasmann, (1902) was not available to Chatterjee and Thakur (1964). Bose (1984) has clarified the position and designated Termes incertus Hagen as the type of the genus.

The Oriental Microtermes:

Microtermes incertus (Hagen) occurs only in Mozambique and South Africa and not in "Ostindien" as mentioned by Wasmann (1902). Snyder (1949) records globicola Wasmann, incertoides Holmgren, insperatus Kemner, jacobsoni Holmgren, macronotus Holmgren, mycophagus (Desneux), obesi Holmgren,
pallidus Haviland, sindensis (Desneux), tenuis Oshima and unicolor Snyder from the Indomalayan region. Later, the species dimorphus Tsai & Chen from southern China and imphalensis Roonwal & Chhotani, pakistanicus Ahmad and umsae Roonwal & Chhotani, from the Indian region, were described, bringing the total to 15 species from the Indomalayan region. The species umsae and pallidus were treated as synonymous with pakistanicus by Krishna (1965). Thus, till the species pakistanicus was transferred to the genus Ancistrotermes by Akhtar and Hussain (1980),

13 species of Microtermes were known to occur from the Indomalayan region. Since the soldier of the species dimorphus, insperatus and jacobsoni have a subsquarish to rounded and sparsely hairy head and strongly incurved mandibles, which are the characters of genus Ancistrotermes, Chhotani (in press) stated that they probably belong to Ancistrotermes, thus keeping the remaining species, of which the soldier has an oval head and weakly incurved mandibles, in the genus Microtermes. The soldier of all the species in the genus Microtermes have an oval and densely hairy head,

Fig. 1. Odontotermes mycophagus (Wasmann). Type Soldier. A, Head in dorsal view; B, Head in side view; C, Postmentum in ventral view.
delicate and weakly curved mandibles and either toothless or faintly toothed left mandible, except in *M. globicola* the soldier of which has a prominent tooth on left mandible, weakly hairy head and stronger mandibles.

**Remarks on Microtermes globicola** Wasmann:

Holmgren (1913) had some doubts about the assignment of *globicola* to *Microtermes* but left the question open till the types of *globicola* could be examined. The present authors have examined the type soldier and are of the view that it belongs to the genus *Odontotermes*.

Bose (1975) described the species *Odontotermes roonwali* from soldier and worker from southern India and Thakur

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Fig. 2. *Odontotermes roonwali* Bose, Paratype Soldier. A, Head and pronotum, in dorsal view; B, Ditto, side view; C, Head, ventral view, showing postmentum (ex. Bose, 1975).
(1981) has treated it as a valid species. On comparison of type soldiers of *roonwali* and *globicola* it is found that they cannot be differentiated from each other, as such *O. roonwali* Bose is treated as a synonym of *O. globicola* (Wasmann). For comparison, the figures and measurements of the type soldier of *globicola* and those given by Bose (1975) for *roonwali* are included here. However, a point which creates some doubts about this assignment is that Wasmann (1902) gave a photograph of the fungus comb of *globicola* which is small and much like that of other *Microtermes*, but we feel that this fungus comb probably did not belong to *globicola*.

Some soldier measurements (in mm) of types of *globicola* and *roonwali* for comparison:

<table>
<thead>
<tr>
<th></th>
<th><em>globicola</em></th>
<th><em>roonwali</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>(ex Bose, 1975)</td>
<td>Holotype</td>
</tr>
<tr>
<td>Length of head to base of mandibles</td>
<td>1.00</td>
<td>0.95</td>
</tr>
<tr>
<td>Max. width of head</td>
<td>0.90</td>
<td>0.89</td>
</tr>
<tr>
<td>Length of mandibles :</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Left</td>
<td>0.65</td>
<td>0.60</td>
</tr>
<tr>
<td>b) Right</td>
<td>0.65</td>
<td>0.60</td>
</tr>
<tr>
<td>Left mandibular tooth from tip</td>
<td>0.14</td>
<td>0.13</td>
</tr>
<tr>
<td>Width of pronotum</td>
<td>0.60</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Chatterjee and Thakur (1964) state that holotype of *globicola* was not selected by the author. But a pin holding a soldier and four workers on card bears a label marked "Type" in the Wasmann Collection at Naturhistorisches Museum, Maastricht (Netherlands). Boven (1969) has also mentioned 'Type soldier, labelled E. Wasmann'. The so-called 'cotypes' examined by Chatterjee and Thakur and which are present in the Forest Research Institute, Dehra Dun, should, therefore, be treated as paratypes.

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References


CHHOTANI AND BOSE; Taxonomic remarks on Microtermes


