

## A CHECK LIST OF TERMITES (INSECTA: ISOPTERA) FROM HARYANA AGRICULTURAL UNIVERSITY CAMPUS, HISAR, HARYANA

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**ABSTRACT** – Fifteen species of termites belonging to the two families Rhinotermitidae and Termitidae and Six genera (*Coptotermes*, *Heterotermes*, *Microcerotermes*, *Odontotermes*, *Microtermes*, and *Trinervitermes*) are reported from Campus of Chaudhary Charan Singh Haryana Agricultural University Hisar, Haryana. Four termite species: *Odontotermes distans* (Holmgren and Holmgren), *O. giriensis* (Roonwal and Chhotani), *O. latiguloides* (Roonwal and Verma) and *O. lokanand* (Chatterjee and Thakur) are reported first time from Haryana.

**Key words** : Termite, Isoptera, Hisar.

### 3. *Microcerotermes beelsoni* Snyder

1933. *Microcerotermes beelsoni* Snyder, *Proc. U. S. nat. Mus.*, 82 (16): 12-14. Imago. *Type-locality*: India: Chakarata range, Haldwani, U. K.

**Material:** One vial with four S. and sev. W. collected near college of Home Science, H.A.U., Campus, Hisar, 10-07-2008, coll. Sachin Kumar, Ex. Roots of Unknown tree species.

**Distribution:** Assam, Delhi, Haryana, Punjab, Madhya Pradesh, Orissa, Uttarakhand and West Bengal. Also known from Bhutan, Bangladesh and Pakistan (Chhotani, 1997).

#### Sub-family (iv) MACROTERMITNAE

### 4. *Odontotermes brunneus* (Hagen)

1858. *Termes brunneus* Hagen, *Linn. Ent.*, London., 12:133. Imago, soldier. *Type-locality*: India: Bengal.

**Material:** Four vials with sev. S and W from, H.A.U., near gate No.1, Ex. Mound (ii) Two vials from Institute of Agriculture Technology Training and Education Institute, H.A.U. Hisar, 10-07-2008, coll. Sachin Kumar, Ex. *Dalbergia sissoo*.

**Distribution:** A very widely distributed species, mostly known from Gujarat, Maharashtra, Orissa and Uttarakhand (Chhotani, 1997).

### 5. *Odontotermes distans* (Holmgren & Holmgren)

1917. *Odontotermes (Odontotermes) distans* Holmgren and Holmgren, *Mem. Dept. Agric. Sc.*, Calcutta, 5 (3): 153. Imago. *Type-locality*: India: Shevarory Hills, Kedar Rocks, Tamil Nadu India.

**Material:** Four vials with S. and W. collected from Institute of Agriculture Technology Training and Education Institute, H.A.U., Hisar, 10-07-2008, coll. Sachin Kumar, Ex. Wooden pole.

**Measurement (of 5 soldiers):** Total body length ca 4.82-4.86; Head-length with mandibles 2.58-2.62; Head-length to lateral base of mandibles 1.66-1.68; Maximum width of head 1.22-1.26; Length of mandibles 0.92-0.94; Distance of tooth from the tip of mandible 0.33-0.36; Mandible tooth-index 0.34-0.36; Length of Pronotum 0.50-0.52; Maximum width of Pronotum 0.82-0.84.

**Distribution:** *Previous Records:* This species is widely distributed throughout India up to an elevation of about 2100 m. in the Himalayas (Thakur, 1981). Also known from Bhutan (Roonwal & Chottani, 1977) and Pakistan (Ahmad, 1955). *Present Record:* Hisar, it is new record from Haryana.

### 6. *Odontotermes giriensis* (Roonwal and

### Chhotani)

1964. *Odontotermes giriensis* Roonwal and Chhotani, *Proc. Nat. Inst. Sci. India (B)* 28 (4): 341-345. Soldier and worker. *Type-locality*: India: Meghalaya: Rangrengiri, Garo Hills.

**Material:** Two vials with S. and W. collected from (i) Faculty house H.A.U., Campus, Hisar, Ex. Mound, (ii) I.A.T.T.E.I., H.A.U., Hisar, 11-07-2008, coll. Sachin Kumar, Ex. *Dalbergia sissoo*.

**Measurement (of 5 soldiers):** Total body-length with mandibles 4.24-4.30; Head-length with mandibles 1.92-1.94; Head-length to lateral base of mandibles 1.26-1.28; Max. width of head 1.10-1.12; Length of mandibles 0.68-0.70; Distance of tooth from the tip of the left mandible 0.18-0.22; Mandible-tooth index 0.24-0.28; Length of pronotum 0.58-0.62; Max. Width of pronotum 0.74-0.86.

**Distribution:** *Previous Records:* Arunachal Pradesh, Assam, Gujarat, Manipur, Meghalaya, Orissa, Tripura and Uttarakhand (Thakur, 1981). Also known from Bangladesh (Chhotani, 1997). *Present Record:* Hisar, it is a new record from Haryana.

### 7. *Odontotermes gurdaspurensis* (Holmgren and Holmgren)

1917. *Odontotermes obesus f. gurdaspurensis* Holmgren and Holmgren, *Mem. Dept. Agric. (Ent.)*, 5 (3): 149-150. Imago, soldier and worker. *Type-locality*: India: Punjab: Gurdaspur.

**Material:** Two vials with sev. S. and W. collected from Institute of Agriculture Technology Training and Education Institute, H.A.U. Hisar, 11-07-2008, coll. Sachin Kumar, Ex. *Eucalyptus* sp.

**Distribution:** Widely distributed in India (Jammu and Kashmir, Punjab, Himachal Pradesh, Haryana, Maharashtra, Madhya Pradesh, Rajasthan, Uttarakhand and West Bengal) and Pakistan (Chhotani, 1997).

### 8. *Odontotermes indicus* Thakur

1981. *Odontotermes indicus* Thakur, *Indian For. Rec.*, 14 (2): 70-75. Imago, soldier and worker. *Type-locality*: India: Bombay.

**Material:** Two vials with sev. S. and W collected from Institute of Agriculture Technology Training and Education Institute, H.A.U. Hisar, 11-07-2008, coll. Sachin Kumar, Ex. Termite galleries.

**Distribution:** A very widely distributed species, found throughout India except the Eastern Zone (Thakur, 1981, 1989).

### 9. *Odontotermes latiguloides* (Roonwal and

**Verma)**

1973. *Odontotermes latiguloides* Roonwal and Verma, *J. Indian Acad. Wood. Sci.*, 4 (2) : 81-91. S. and W. *Type-locality*: Rajasthan: Mandalgarh (Bhilwara district).

**Material:** Two vials S. and W. from, Institute of Agriculture Technology Training and Education Institute, H.A.U., Hisar, 11-07-2008, coll. Sachin Kumar, Ex. Wooden boxes. **Measurements (5 soldiers):** Total body length ca 4.44-4.46; Head-length with mandibles 2.00-2.04; Head-length to lateral base of mandibles 1.10-1.12; Maximum width of head 1.00-1.04; Length of mandibles 0.84-0.86; Distance of tooth from the tip of mandible 0.26-0.28; Mandible tooth-index 0.20-0.22; Length of Pronotum 0.52-0.54; Maximum width of Pronotum 0.78-0.82.

**Distribution:** *Previous Records:* Gujarat and Rajasthan (Chhotani, 1997). *Present Record:* Hisar, it is new record from Haryana.

**10. *Odontotermes lokanandi* Chatterjee and Thakur**

1967. *Odontotermes lokanandi* Chatterjee and Thakur, *Indian For. Rec.*, 11 (1): 38-41. Soldier and worker. *Type-locality*: India: Jammu and Kashmir; Residence plot area No. 6, near River Tawi, Jammu.

**Material:** One vial with S. and W. collected from, H.A.U., Campus, Hisar, 10-07-2008, coll. Sachin Kumar, Ex. Soil.

**Measurements (3 soldiers):** Total body length ca. 3.92-4.00; Head-length with mandibles 1.62-1.66; Head-length to lateral base of mandibles 1.10-1.14; Maximum width of head 1.00-1.04; Length of mandibles 0.55-0.68; Distance of tooth from the tip of mandible 0.16-0.18; Mandible tooth-index 0.28-0.30; Length of Pronotum 0.45-0.55; Maximum width of Pronotum 0.70-0.90.

**Distribution:** *Previous Records:* Gujarat, Himachal Pradesh, Jammu & Kashmir and Uttarakhand. Also known from Pakistan (Choudhary *et al.*, 1972) and Bangladesh (Akhtar, 1977). *Present Record:* Hisar, It is first time reported from Haryana.

**Remarks:** Chhotani (1977) treated *O. lokanandi* as a junior synonym of *O. guptai* Roonwal & Bose whereas Thakur (1981) relegated *O. guptai* as a synonym of *O. bellahunisensis* Holmgren and Holmgren. Thakur (1989) studied the series of all the three species and found that they are all different species - *O. lokanandi* belongs to latigula-group whereas *O. bellahunisensis* belongs to obesus-group. Thakur (1981) have been followed there in keeping the separate identity of *O. lokanandi*.

**11. *Odontotermes obesus* (Rambur)**

1842. *Termes obesus* Rambur, *Hist. nat. Insecta Neuroptera*, Paris: 304. *Imago*. *Type-locality*: India: Bombay.

**Material:** Five vials with sev. S. and W. collected from (i) H.A.U. campus Hisar, Ex. Termite mound. (ii) Near gate No. 1, H.A.U., Campus Hisar, 09-07-2008, coll. Sachin Kumar, Ex. *Eucalyptus* sp.

**Distribution:** This is the most widely distributed and common mound building termite species, occurring all over India, Bangladesh, Myanmar and Pakistan (Chhotani, 1997).

**12. *Odontotermes redemanni* (Wasmann)**

1893. *Termes redemanni* Wasmann, *Wein. Ent. Zeitg.*, 12 (7): 239. Winged queen, soldier and worker. *Type-locality*: Sri Lanka: Colombo.

**Material:** One vial with sev. S. and W. collected from near gate No.1, H.A.U., Campus, Hisar, 09-07-2008, coll. Sachin Kumar, Ex. *Eucalyptus* sp.

**Distribution:** A widely distributed termite species in Sri Lanka. In India, it has been reported from Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and West Bengal (Chhotani, 1997).

**13. *Microtermes mycophagus* (Desneux)**

1905. *Termes mycophagus* Desneux, *Ann. Soc. Ent. Belg.*, 49 (12): 348-352, *Imago*, Soldier and Worker. *Type locality*: Pakistan: Karanchi (Sind).

**Material:** Three vials with sev. S. and W. collected from: (i) Staff canteen near College of Agriculture Science, Hisar, 09-07-2008, coll. Sachin Kumar, Ex. Inside lying wood. (ii) Near college of Home Science, H.A.U. Campus, Hisar, 09-07-2008, coll. Sachin Kumar, Ex. Inside lying wood.

**Distribution:** Very widely distributed species, occurring in whole of India (Delhi, Haryana, Rajasthan and Punjab) and Pakistan (Chhotani, 1997).

**14. *Microtermes obesi* Holmgren**

1911. *Microtermes obesi* Holmgren, *J. Bombay nat. Hist. Soc.*, 21 (1): 787-788, *Imago*. *Type locality*: INDIA: Maharashtra, Khandala (near Bombay).

**Material:** Three vials with sev. S. and W. from (i) H.A.U. Campus Hisar, 09-07-2008, coll. Sachin Kumar, Ex. Inside lying branches of *Dalbergia sissoo*. (ii) Agriculture farm of H.A.U., Hisar, 10-07-2008, coll. Sachin Kumar, Ex. Inside lying log of *Eucalyptus* sp.

**Distribution:** It is one of the most common and widely distributed species of genus *Microtermes* and has

been recorded from all over India, Pakistan, Bangladesh and Sri Lanka. Also reported from Bhutan, Myanmar, Thailand, Kampuchea and Vietnam (Chhotani, 1997).

#### Subfamily (iv) TRINERVITERMITINAE

##### 15. *Trinervitermes biformis* (Wasmann)

1902 *Eutermes biformis* Wasmann, *Zool. Jb. Syst.*, 17 (1): 133-135. Imago, Soldier and worker. Type locality: Sri Lanka: Bandarawella and India: Khandala, Bombay.

**Material:** One vial with sev. S. and W. from Institute of Agriculture Technology Training and Education Institute, H.A.U., Hisar, 11-07-2008, coll. Sachin Kumar, Ex. Inside heap of grass.

**Distribution:** Widely distributed in India, Pakistan and Sri Lanka. From India, it is reported from Andhra Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Gujarat, Rajasthan, Tamil Nadu and West Bengal (Chhotani, 1997).

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