

FLORA AND FAUNA

2015 Vol. 21 No. 1 PP 37-40

ISSN 0971 - 6920

ON A NEW SPECIES OF THE GENUS *OECOPHYLLA*⁴ (HYMENOPTERA: FORMICIDAE)

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Received : 27.1.15; **Accepted** : 24.3.15

ABSTRACT

Ants are destructive insects of agriculture, horticulture and forest crop plants and also act as biocontrol agents against agricultural pests. Therefore, a new species *Oecophylla kolhapurensis* sp. nov. has been described for the first time. According to the key this species runs close to *Oecophylla smaragdina* by having following characters,

1. Colour pattern
2. Size
3. Clypeus strongly convex

However, it differs from the above species by having following characters-

1. Eyes more large
2. Body proportion length and width
3. Legs shorter (Longer in *O. smaragdina*)
4. Flagellar formula : 1L/W=2.1, 3L/W=2.1, 4L/W=2.4, A=2.2

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KEY WORDS : Biocontrol agent, Description, *Oecophylla kolhapurensis* sp. n.

Introduction

The genus *Oecophylla* was erected by Smith⁴ (1861) and placed under the tribe Oecophyllini of subfamily Formicinae. *Oecophylla* is a small genus, with only two species described around the world. *Oecophylla longinoda* Lat. found in sub-Sahara Africa and *Oecophylla smaragdina* Fab. found in Southeast Asia and Australia (Bolton³, 2003) including southern India. A new species *Oecophylla kolhapurensis* is described for the first time from India.

Materials and Methods

Ant samples were collected from Kolhapur from agricultural, horticultural and forest crops. The ants were collected by using forceps/ camel hair brush. The specimens were examined using compound microscope and identified¹⁻³

The terminology adopted is the same as reported¹.

HL – Head length: length of the head from the posterior margin of the head to the anterior extremity of the clypeus.

ACKNOWLEDGEMENTS: Authors are thankful to Shivaji University, Kolhapur for providing facilities.

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HW – Head width: maximum width of head.

EL – Eye length: length of compound eye measured in same view as HL.

SL – Scape length: length of the first antennal segment.

PTL – Petiolar length: length of the petiole, measured in dorsal view.

CI – Cephalic index. $HW/HL \times 100$

SI – Scape index. $SL/HW \times 100$

Results and Discussion

Oecophylla kolhapurensis sp.nov.

Worker (Figs. 1-5) – Head 2 mm long, 1 mm broad; thorax 3 mm long; hind leg 12.9 mm long; abdomen 4 mm long, 2.5 mm broad.

Head (Fig.3) –

2 mm long, 1 mm broad, longer than broad, yellowish red in colour, cephalic index 50; mandibles 0.5 mm long and triangular; eyes 1.2 mm long, black in colour, less than one half of side of back of head.

Antenna (Fig.4) –

3.3 mm long, yellowish red; 12 segmented including scape, scape 1.4 mm long, 0.2 mm broad, yellowish red; scape index 140; pedicel 0.7 mm long, 0.2 mm broad; flagellum 1.2 mm long, 10 segmented, yellowish red in colour.

Flagellar formula –

1 L/W = 2.1, 3 L/W = 2.1, 4 L/W = 2.4, A = 2.2.

Thorax –

3 mm long, yellowish red, pro-meta and mesonotal sutures distinct, metapleural gland absent.

Wings – Absent.

Fore leg –

9.3 mm long, yellowish red; coxa 1.0 mm long, yellowish red; trochanter 0.2 mm long, yellowish red, short; femur 0.8 mm long, yellowish red; tibia 3.9 mm long, yellowish red, tibial spur short; tarsus 2.0 mm long, yellowish red; pre-tarsus 1.4 mm long (4-segmented), yellowish red in colour.

Mid leg –

10.2 mm long, yellowish red; coxa 1.1 mm long, yellowish red; trochanter 0.2 mm long, yellowish red, short; femur 1.0 mm long, yellowish

red; tibia 4.1 mm long, yellowish red; tarsus 2.1 mm long, yellowish red; pre-tarsus 1.7 mm long (4-segmented), yellowish red in colour

Hind leg (Fig.5) -

12.9 mm long, yellowish red; coxa 2.0 mm long, yellowish red; trochanter 0.2 mm long, yellowish red, short; femur 1.4 mm long, yellowish red; tibia 4.8 mm long, yellowish red, tibial spur short; tarsus 2.5 mm long, yellowish red; pre-tarsus 2 mm long (4-segmented), yellowish red in colour.

Abdomen-

4 mm long, 2.5 mm broad, yellowish red, 6 segmented, oval; the petiole 1.0 mm long, reduced to an elongate low node, yellowish red in colour.

Acidopore – Present.

Colour –

Yellowish red- Head, thorax, abdomen.

Pale Yellowish red- Antenna, legs

Black- Eyes.

Host plant – *Tectona grandis* L.

Holotype – Worker, India, Maharashtra, Kolhapur. Coll. Kurane, S.H. 13-XI-2014, head, antenna, legs and abdomen mounted on the card sheet.

Paratype – 7 workers, Coll. Kurane, S.H. Mar. 2012 to Nov. 2014

Distributional record – 2 workers Kolhapur, 04-IV-2012; 3 Kagal, 17-VI-2013; 2 Panhala, 19-XI-2014.

Remarks

According to the key this species runs close to *O. smaragdina* by having following characters¹,

1. Colour pattern
2. Size
3. Clypeus strongly convex

However, it differs from above species by following characters,

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