

**A new species of *Microsphecodes*  
from St. Kitts (West Indies)**  
(Hymenoptera: Halictidae)

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**Abstract:** A new species of the bee genus *Microsphecodes* is described and figured from St. Kitts (St. Christopher) in the West Indies. *Microsphecodes kittensis* **n. sp.** is distinguished from other West Indian species of the genus, particularly *M. dominicanus* (Stage).

**Keywords:** Hymenoptera, Anthophila, Apoidea, Halictinae, Halictini, West Indies, St. Kitts, St. Christopher, new species, *Microsphecodes*, taxonomy

### **Introduction**

The bee genus *Microsphecodes* is a little understood group of parasitic bees, victimizing species of *Lasioglossum* (*Dialictus*) and *Habralictus* as social parasites (EICKWORT & EICKWORT 1972; MICHENER et al., 1979). The genus is widely distributed in the neotropical region, with species recorded from as far South as southern Brazil and northerly ranging into the West Indies and Costa Rica on the mainland (Table). EICKWORT & STAGE (1972) report an undescribed species from Guatemala but give no further information on the species.

Herein I provide the description of a new species from St. Kitts (St. Christopher) in the West Indies. The new species is described herein as the most northerly record of the genus in the West Indian fauna. Morphological terminology for the description follows that of ENGEL (2001).

## Taxonomy

### *Microsphecodes kittensis* n. sp.

(Table VIII: Figs. 1–4)

Type material: Holotype ♀ labeled “St. Christopher [St. Kitts]: Philips Leve, 430 m, 1–30-IX-1985 [1–30 September 1985], L. D. Cook, mal. t. [malaise trap], rainforest”. The type is in the Canadian National Collection, Ottawa, Canada.

Diagnosis: The new species can be most readily differentiated from other West Indian *Microsphecodes* by its coloration: in *M. solitarius* (Ashmead) the entire mesosoma is black except the pronotum and mesosternum are testaceous; in *M. dominicanus* (Stage) the entire mesosomal dorsum is black, the pleura are fuscous, and the venter testaceous; and in *M. thoracicus* (Ashmead) the mesoscutum and pleura are testaceous while the mesoscutellum, metanotum, and propodeum are darkly infusate (in the new species the entire mesosoma is yellow with the mesoscutellum and metanotum black: Figs. 1, 3). The new species can be further distinguished from *M. dominicanus* by the apically infusate wings (hyaline in *M. kittensis* n. sp.: Fig. 3) and the entire posterior surface of the propodeum with extensive strong rugae (such rugae weak and more confined in *M. kittensis* n. sp., *vide* Description) in the latter species. From mainland species of the genus, the new species differs by the rugoso-striate basal area of the propodeum, typical of West Indian *Microsphecodes* (the basal area of the propodeum is striate-foveolate in mainland species).

Description: ♀. Total body length 5.0 mm; forewing length 3.7 mm. Head broader than long (width 1.3 mm, length 1.0 mm as measured from clypeal apex to vertex in frontal aspect) (Fig. 2). Frontal line carinate just between antennal toruli to point above upper tangent of toruli equivalent to slightly less than torulus diameter, becoming an impressed line from that point onward. Mandibular base meeting lower border of compound eye. Inner margin of compound eye slightly concave in upper half of face. Gena narrower than compound eye in profile (Fig. 1). Scape length 0.4 mm; first flagellomere about as long as second flagellomere. Intertegular distance 0.85 mm. Basal vein distad cu-a by 2.5 times vein width; 1rs-m distad 1m-cu by five times vein width; 2rs-m distad 2m-cu by ten times vein width; first submarginal cell longer than combined lengths of second and third submarginal cells; second submarginal cell narrowed anteriorly, length of anterior border about three-quarters length of posterior border;

anterior border of third submarginal cell nearly one-half length of posterior border and equal to length of anterior border of second submarginal cell; hind wing with five distal hamuli arranged in a single series. Pygidial plate narrow, broadly rounded at apex.

Integument generally shining. Clypeus weakly imbricate with sparse, weak punctures; remainder of head distinctly punctate (Fig. 2), punctures separated by a puncture width or less, integument between punctures smooth and shining, punctures weaker on vertex; postgena faintly imbricate and impunctate. Pronotum with sparsely-scattered, minute punctures, integument between punctures imbricate. Mesoscutum with punctures separated by 1–2 times a puncture width on borders, those of central disc exceptionally sparse, integument between punctures faintly imbricate; tegula impunctate and exceedingly faintly imbricate (imbrication really only evident along borders and under diffuse light, otherwise appearing smooth); mesoscutellum sculptured as on mesoscutum. Metanotum strongly imbricate. Pleura strongly imbricate with faint, coarse punctures separated by less than a puncture width except hypoepimeral area smooth and impunctate. Basal area of propodeum with strong, rugulose striae radiating from basal margin, integument between striae smooth; lateral and posterior surfaces of propodeum strongly imbricate with scattered, faint, coarse punctures and weak rugae ventrally. Metasomal terga and sterna faintly imbricate except first metasomal tergum smooth.

Mandible yellow except apex reddish brown; clypeus, labrum, labiomaxillary complex, and scape yellow; pedicel and flagellum brown; remainder of head coal-black (Figs. 1–3) except spot between antennal toruli testaceous. Mesosoma yellow except mesoscutellum and metanotum coal black (Fig. 3) and outer surfaces of meso- and metatibia brown. Wing veins black; wing membrane somewhat fuscous on anterior half of marginal cell, otherwise hyaline. Metasomal sterna yellow; terga mostly yellow with patterning of brown patches as depicted in figure 4.

Pubescence relatively sparse, white except slightly fuscous on mesoscutellum and metanotum and brown on fifth and sixth metasomal terga and outer surfaces of meso- and metatibia. Setae generally simple and erect, some with minute branches; face with moderately-dense, appressed, short, plumose setae on lower face bordering clypeus to level slightly above antennal toruli (Fig. 2).

♂. Unknown.

Etymology: The specific epithet is based on the name of the island from which the species originates, St. Kitts.

Table: Described species of *Microsphecodes* their distribution and documented hosts.

| <u><i>Microsphecodes</i> species</u>         | <u>Distribution</u>               | <u>Host</u>                    |
|--|-----------------------------------|--------------------------------|
| <i>M. dominicanus</i> (Stage)                | Dominica                          | unknown                        |
| <i>M. kathleenae</i> (Eickwort)              | Costa Rica, Colombia              |                                |
|  | <i>L. (D.) umbripenne</i> (Ellis) |                                |
| <i>M. kittensis</i> n. sp.                   | St. Kitts                         | unknown                        |
| <i>M. russeiclypeatus</i> (Sakagami & Moure) | Brazil                            | <i>L. (D.) seabrai</i> (Moure) |
| <i>M. solitarius</i> (Ashmead)               | St. Vincent                       | unknown                        |
| <i>M. thoracicus</i> (Ashmead)               | St. Vincent                       | unknown                        |
| <i>M. trichommus</i> Michener                | Colombia                          | <i>H. bimaculatus</i> Michener |
| <i>M. truncaticaudus</i> Michener            | Colombia                          | <i>L. (D.) breedi</i> Michener |

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