
[Read 4th August, 1862.]

This paper contains a complete list of the species belonging to the various genera composing the family Cryptoceridae; reference is made to every work in which figures of the species have appeared. In order to render the list as complete as possible, figures of new species, and also of such as have not been previously published, are now given; the new species are also described. Some of the insects included in the genera Meranoplus, Cataulacus, and also in Echinopla, have been described from unique examples, not in my own collection, and therefore not available for such minute examination as others of which several specimens have been obtained; probably hereafter, when the species occur more plentifully, and more thorough investigations are made, it may then be found necessary to separate some from the genera in which I have placed them. Should any case of this kind occur, I beg those Entomologists, who make such discoveries, to bear in mind, that the circumstance is solely attributable to the fact of their being more fortunate than myself in having at their command more ample materials, which enables them to pursue their investigations further than I could possibly do, possessing only unique specimens, frequently the property of public museums or of private individuals. I feel called upon to make these observations in consequence of some revisions having appeared of certain species of Formicidae, described by myself, by a continental author who has overlooked this circumstance, and whose remarks convey the impression of my having disregarded standard authorities from a love of change, and fallen into error through carelessness of investigation. In 1853 I produced a Monograph of the Cryptoceridae, which was published in the Transactions of this Society; since that time many new species have been discovered, and it has appeared to myself desirable that a new and complete list should be drawn up and published; such a list I have carefully prepared, and I hope it will prove as useful as I have endeavoured to make it.
In my former paper, published in the Transactions of the Society (Vol. II. N. S. pp. 215—228), I included the genus *Echinopla* in the family *Cryptoceridae*; subsequent investigation has proved the necessity of removing it to the family *Formicidae*; I have, however, thought it desirable to give a list of the known species, and figures of some, as none have been previously figured in the Society's Transactions.

**Fam. FORMICIDÆ, Leach.**

**Sub-family CRYPTOCERIDÆ, Smith.**


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**fig. 1 ♀.**

Smith, Trans. Ent. Soc. 2nd Ser. ii. 215, pl. xix. fig. 1 ♀; pl. xxi. fig. 2 ♂.

Hab. Brazil; Cayenne; Panama; Surinam. In Mus. Brit., &c.


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**Æthiops, Smith, Trans. Ent. Soc. 2nd Ser. ii. 216, pl. xx. fig. 9 ♀.**


**Sp. 3. Cryptocerus serraticeps, Smith, Cat. Hym. Ins. Form. p. 188, 3, pl. xi. fig. 7 ♀.**


**Sp. 4. Cryptocerus clupeatus, Fabr. Syst. Piez. 420 ♀.**

Smith, Trans. Ent. Soc. 2nd Ser. ii. 217, pl. xxi. fig. 1 ♀; 2 ♂; 5, 6 ♀.

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(Pl. XII. fig. 3 ♀.)

Hab. Santarem (Brazil); South America. In Mus. Brit., &c.

**Sp. 5. Cryptocerus D'Orbignyanus, Smith, Trans. Ent. Soc. 2nd Ser. ii. 218, pl. xix. fig. 5 ♀.**

Smith, Trans. Ent. Soc. 2nd Ser. ii. 219, pl. xix. fig. 8 ♀.
(Pl. XII. fig. 2 ♂.)

Hab. Columbia; Bolivia; Brazil.

Hab. Columbia; Mexico; Brazil. In Brit. Mus., &c.

(Pl. XII. fig. 1 ♂, major.)
Hab. Tunantins (Brazil). In Brit. Mus., &c.

(Pl. XII. fig. 8 ♀, and Pl. XIII. fig. 6 ♀.)
Hab. Santarem; Para; Rio. In Brit. Mus., &c.

Hab. Para.


Smith, Cat. Hym. Ins. Form. 190, 14, pl. xii. fig. 3 ♀, minor.
(Pl. XII. fig. 6 ♂, major.)
Hab. Villa Nova; Rio Janeiro; Panama. In Mus. Brit., &c.
Smith, Trans. Ent. Soc. 2nd Ser. ii. 220, pl. xx. fig. 8 ♀.

191, pl. xii. fig. 12 ♂.

Hab. Moro-Gueimado (Brazil).

Hab. Cayenne.

132 ♀.
Hab. South America.

Sp. 20. *Cryptocerus discocephalus*, Smith, Trans. Ent. Soc. 2nd
Ser. ii. 222, pl. xx.
Cat. Hym. Ins. Form.
fig. 2 ♀.
p. 191, pl. xi. fig. 1 ♂ ; 2 ♀ major ; 3 ♀
minor.

p. 17, fig. 12 ♂.
Hab. Brazil.

ii. 222, pl. xix. fig. 3 ♀.


Smith, Trans. Ent. Soc.
2nd Ser. ii. 217, pl. xxi.
fig. 4 ♀.
(Pl. XII. fig. 9 ♀.)


Sp. 27. Cryptocerus unimaculatus, Smith, Trans. Ent. Soc. 2nd Ser. ii. 221, pl. xix. fig. 9♀.

   Hab. St. Domingo.

Sp. 29. Cryptocerus araneolus, Smith, Trans. Ent. Soc. 2nd Ser. ii. 228, pl. xix. fig. 4♀.

   (Pl. XII. fig. 4♂.)

Sp. 31. Cryptocerus laminatus, Smith, Journ. Entom. i. 76, 4,
   pl. iv. fig. 4♀.

Sp. 32. Cryptocerus grandinosus, Smith, Journ. Entom. i. 76, 5,
   pl. iv. fig. 5♀.

Sp. 33. Cryptocerus bimaculatus, Smith, Journ. Entom. i. 77, 6,
   pl. iv. fig. 4♀.

Sp. 34. Cryptocerus cognatus.

C. aterrimus, thorace antice posticque spinoso, elongatus, abdo-
mine flavo-quadrmaculato.

Female.—Length 2½ lines. Head obscurely ferruginous above,
black beneath; the mandibles obscure ferruginous; the antennae
fusco-ferruginous, with the scape and the base and apex of the
flagellum ruso-testaceous; the tips of the femora, tibiae, and
tarsi ferruginous; the abdomen elongate, half the length of the
insect, deeply emarginate at the base, the lateral angles of its base with a large yellow spot, and a large ovate yellow spot on each side towards the apex of the first segment. The wings ample, fusco-hyaline; the nervures testaceous; the stigma brown. The head and thorax rather strongly punctured; the abdomen very delicately shagreened, and with a few fine scattered punctures. The anterior and posterior angles of the thorax with short spines, the anterior pair acute. (Pl. XIII. fig. 4.)

Hab. Ega, on the Amazon. In Coll. Smith.

This species closely resembles the *C. quadrinaculatus*, but it is considerably smaller; on a comparison with examples of that species the following differences present themselves: the head is of a different colour and much more oblong, the sides being much more straight; the thorax is more elongate, and the metathorax has at its base, on each side, a small angular tooth; its thorax and abdomen are sub-opaque, in *C. 4-maculatus* they are shining.

**Genus Meranoplus, Smith.**


Hab. India; Ceylon. In Coll. Smith.

Sp. 3. *Meranoplus cordatus*, Smith, Proc. Linn. Soc. ii. 82, pl. ii. fig. 5 ♂.

Hab. Borneo (Sarawak). In Coll. Saunders.


Cryptoceridae and Echinopla.

Sp. 7. *Meranoplus diffomis*, Smith, Cat. Hym. Ins. Form. p. 195, pl. xii. fig. 8 $\bar{a}$.

Sp. 8. *Meranoplus striatus*, Smith, Journ. Entom. i. 77, 1, pl. iv. fig. i. $\bar{a}$.

Sp. 9. *Meranoplus subpilous*, Smith, Journ. Entom. i. 78, pl. iv. fig. 2 $\bar{a}$.
(Pl. XIII. fig. 7 $\bar{a}$.)

(Pl. XIII. fig. 5 $\bar{a}$.)

Sp. 11. *Meranoplus arpinus*.
*M. capite thoraceque ferrugineis, abdomen nigro; thorace quadrato, angulis singulis spina acuta armatis.*
Worker. Length 1 $\frac{1}{2}$ lines.
The head, antennæ, thorax and legs ferruginous, the tarsi and antennæ palest; the head reticulated; the eyes black and prominent. Thorax short, sub-quadrat; the anterior margin slightly rounded, the lateral angles with a stout bifurcate spine, the posterior tooth much smaller than the anterior one; at each of the posterior angles are two stout, equal, slightly curved spines; the thorax is coarsely punctured above. The nodes of the abdomen coarsely rugose, the anterior node with a short acute spine on each side at its base. Abdomen black, smooth and round, slightly emarginate at the base, moderately convex. (Pl. XII. fig. 7 $\bar{a}$.)

This insect, which is somewhat mutilated, was given to me along with other species of ants, by a friend who took a few insects at Celebes and also at Sumatra; all the ants he believed were from the latter locality.

Sp. 12. *Meranoplus pubescens*, (Cryptocerus pubescens,) Smith, Trans. Ent. Soc. 2nd Ser. ii. 223, pl. xx. fig. 4 $\bar{a}$.

It will be found on reference to my Monograph, page 214, that
Mr. F. Smith’s *Lists of Species of*

I included this insect in the genus *Cryptocerus*, with some hesitation; on a more careful examination, and also an examination of another species from Australia, I have satisfied myself that it belongs to the genus *Meranoplus*.


*M. castaneo-rufus*; capite thoraceque longitudinaliter striatis; thorace subquadrato, angulis anticis subspinosis; metathorace quadrirspinoso; abdomine cordato.

Worker. Length 2 lines. Chestnut-red; the eyes black and prominent; the head narrowed anteriorly and slightly emarginate, rounded posteriorly; covered with a longitudinal raised striaition, the interstices very delicately shagreened. Thorax sub-quadrate, with an irregular longitudinal raised striaition, the interstices shagreened; the anterior margin rounded, the angles acute; the lateral margins slightly raised, with a tooth a little beyond the middle; the posterior angles produced into acute spines, and the posterior margin has also two short teeth or spines in the middle. The abdomen heart-shaped, the nodes rugose, the first with a spine on each side, on the thorax, at its insertion; the head, thorax and abdomen with scattered erect hairs. (Pl. XII, fig. 5 $\xi$.)


**Genus Cataulacus, Smith.**


Sp. 2. *Cataulacus Guineensis*, Smith, Trans. Ent. Soc. 2nd Ser. ii. 225, pl. xx. fig. 5 $\zeta$.

Hab. Tropical Western Africa. In Coll. Westw.


Hab. India.
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  fig. 3 ♀.

Sp. 6. Cataulacus reticulatus, Smith, Proc. Linn. Soc. ii. 81,
  pl. ii. fig. 8 ♀.

  fig. 4 ♀.

  fig. 7 ♀.
  Hab. Bachian; Mysol; Waigiu. In Coll. Saunders.

  (Pl. XIII. fig. 2 ♀.)

Genus Ceratobasis, Smith.

Sp. 1. Ceratobasis singularis, Smith, Journ. Entom. i. 78,
  pl. iv. figs. 12, 13 ♀.
  195, pl. xiii. figs. 6—10 ♀.

Family FORMICIDÆ, Leach.

Genus Echinopla, Smith.

In the Journal of Proceedings of the Linnæan Society, in 1857,
I first characterized the genus Echinopla: at that time it appeared
to me to possess many characters in common with some of the ants
comprising the family Cryptoceridae, particularly that of the first
abdominal segment concealing all the following segments. Having
had opportunities of carefully examining a number of specimens of
the seven species now known, I have satisfied myself that the true
situation of the genus Echinopla is near to, perhaps following, the
genus Polyrhachis in the Formicidae. I have thought it desirable to
publish a list of all the species at present known to me, and also to
give figures of each, in order to facilitate their identification.
Some of the species are described from unique examples in the
Saundersian Collection; hereafter, when numerous examples may
List of Species of Echinopla.

be obtained, and an opportunity offers further facilities for anatomical investigation, it may be found desirable to separate some of the species, and to form sub-genera for their reception.

Genus Echinopla, Smith.

(Pl. XIII. fig. 9 ¥.)

(Pl. XIII. fig. 3 ¥.)

(Pl. XIII. fig. 8 ¥.)
Hab. Malacca; Celebes; Ceram. In Mus. Brit., &c.

Sp. 4. Echinopla praeexta, Smith, Proc. Linn. Soc. v. 113, pl. i. fig. 5 ¥.
(Pl. XIII. fig. 1 ¥.)


(Pl. XIII. fig. 10 ¥.)
