

## Lithurgopsis, a New Genus of Bees.

By WILLIAM J. FOX.

A recent letter from Mr. T. D. A. Cockerell suggested that *Lithurgus oblongus* Fox, described from Lower California, was possibly not a *Lithurgus*, but a species of *Megachile*. I find on examining the type that, while having a strong superficial resemblance to species of *Lithurgus*, *i.e.*, in the laminate, or projecting face, *oblongus* is really a *Megachile*, the first hind tarsal joint being flattened as in the latter genus and not cylindrical as in *Lithurgus*, and its labial palpi are 4-jointed. As the name *oblonga* is preoccupied in *Megachile* it is necessary to propose a new name for *Megachile* (= *Lithurgus*) *oblonga* Fox, and I herewith suggest the term *longula*.

Historically, the genus *Lithurgus* is not without interest. Latreille, 1825,<sup>1</sup> indicates *Centris cornuta* Fab. (= *Megachile cornuta*) as the type of a genus, to which he gives a French name, *Lithurge*. In the same year Lepeletier de St. Fargeau<sup>2</sup> refers to Latreille's genus *Lithurge* without Latinizing it. Berthold, 1827,<sup>3</sup> edited a German translation of Latreille's *Familles, etc.*, on page 467 of which the Latin term *Lithurgus* is used for the first time. As vernacular names have no standing in nomenclature, obviously the genus should date from the first use of a Latin term of it. Therefore, the name of the "stone-bees" should henceforth stand as *Lithurgus* Berthold, 1827, and not Latreille, to whom the generic term has heretofore been credited.

The references to *Lithurge* Latreille which I have found are in almost every instance either incorrect or incomplete. Boyer de Fonscolombe, 1834,<sup>4</sup> refers to the right work, but curiously enough says "tom. 2, p. 350," there being but one volume, and the term occurring on page 463. Later writers as Lepeletier de Saint Fargeau, F. Smith, and Freise in 1899, refer to

<sup>1</sup> *Familles naturelles du règne animal*, Paris, 1825, p. 463.

<sup>2</sup> *Encyclopedie methodique, Insect.*, X, p. 795, 1825. The title page to this volume is dated 1792, but the work having been issued in parts, page 795 did not appear until 1825.

<sup>3</sup> *Natürliche Familien des Thierreichs mit Anmerkungen und Zusätzen von Dr. Arn. Ad. Berthold*, Weimar, 1827.

<sup>4</sup> *Annales de la Société Entomol. de France*, T., III, 1834.

*Genera Crust. et Insect.*, II, p. 350, 1809. In this work, volume 2 does not at all relate to Hymenoptera and is dated 1807. Dalla Torre, 1896, while giving the proper reference, queries the page, as though the work had not been consulted by him.

Now comes another question of importance. Freise, 1899,<sup>5</sup> says under *Lithurgus*, "An den einfachen Beinen fehlt das Pulvillum," presumably referring to both sexes. Mr. Wm. H. Ashmead writes me that no pulvillus exists in either sex of two genuine species of European *Lithurgus*, although he does not indicate which species; and Mr. T. D. A. Cockerell informs me that he has examined a male specimen of *Lithurgus atratus* from India, and failed to find a pulvillus.

It is well known that two of our species, [*Lithurgus*] *gibbosus* and *apicalis* have in the male a distinct pulvillus; so from the evidence at hand it is clear that these species cannot be included under *Lithurgus* Berth. According to Ashmead's classification of the bees they would not come under the same subfamily as *Lithurgus*, or the two sexes would fall into different subfamilies, which, it seems to me, is evidence of the instability of classificatorial schemes whose main virtue seems to be convenience, or an artificial rather than a natural arrangement.

The new genus may be characterized as follows:

#### LITHURGOPSIS gen. nov. ✓

General appearance of *Lithurgus* and *Megachile*. Maxillary palpi 3-jointed, the joints of almost equal length, the first subtriangular, or in other words, much widened apically. Labial palpi 3-jointed, the first joint broad, about  $\frac{1}{7}$  the length of the the second, which at base is of equal width to the first, but tapers to a slender apex, the terminal joint minute and clavate. In the male sex is a distinct pulvillus, which is absent in the female. Tarsal claws in male cleft; in the female squarely toothed within basally.

Type [*Lithurgus*] *apicalis* Cresson. This is selected as the type because I have dissected the mouth parts, which a limited series of *gibbosus*, the older species, did not permit me to do.

Our species of *Lithurgopsis* may be tabulated as follows:

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<sup>5</sup> *Die Bienen Europas, Theil V, p. 6.*

## FEMALES.

Facial prominence entire; pubescence of sixth dorsal abdominal segment black . . . . . **gibbosus.**

Facial prominence not entire, consisting of two widely divergent teeth or prongs.

Pubescence of sixth dorsal segment fulvous brown, varying to purplish black; ventral scopa yellowish . . . . . **apicalis.**

Pubescence of sixth dorsal segment black; ventral scopa whitish . . . . . **echinocacti.**

## MALES.

Face and clypeus closely punctured; sixth abdominal segment with black pubescence (except the apical white margin) . . . . **gibbosus.**

Face and clypeus sparsely punctured; sixth abdominal segment with yellowish white pubescence . . . . . **apicalis.**

From the material at hand I am not able to satisfy myself that the several forms or varieties mentioned are really such or distinct species. A large series from various localities is needed to settle this matter.

1. **Lithurgopsis apicalis** (Cresson).

*Lithurgus apicalis* Cresson, Rep't Expl. and Surveys W. of 100th Merid. (Wheeler), Vol. V, p. 724, 1875. ♀.

*Lithurgus apicalis* Cockerell, Amer. Naturalist, Vol. XXXIV, p. 488, 1900. ♀ ♂.

*Lithurgus gibbosus* Cockerell (non Smith), *ibid*, p. 487, ♀ (♂?).

Colorado; New Mexico; Arizona. The Arizona examples have the pubescence of sixth dorsal segment blackish, but a tendency to blackness is also shown in some Colorado examples.

Mr. Cockerell's *gibbosus* is not the same as Smith's, and is what I consider a form of *apicalis*. This form with dark pubescence on sixth dorsal abdominal segment varies within itself; otherwise I would be inclined to regard it as distinct. Whether the male of this form, called *compressus* Smith, by Cockerell, is really *compressus* or not I cannot say, not having seen specimens.

A series of three males, from Colorado, are more hirsute, the pubescence pertaining more to yellowish than to grayish, as in the typical form, and the fulvous-brown pubescence of sixth segment is replaced by light yellow or grayish yellow.

2. **Lithurgopsis echinocacti** (Cockerell).

*Lithurgus echinocacti* Cockerell, Ann. Mag. Nat. Hist., p. 453, December, 1898, ♀.

New Mexico. Mr. Cockerell has sent me a single specimen of this species. The specimen is slenderer than most *apicalis*, the ventral scopa is white and the wings clear, not margined apically with fuscous, though in other respects approaching the form of *apicalis* with darkly haired sixth segment. Mr. Cockerell describes this pubescence as "purplish-ferruginous," but in the specimen he sends me it is quite black, perhaps somewhat purplish, which may indicate that here also, as in *apicalis*, there may be considerable variation.

3. **Lithurgopsis gibbosus** (Smith).

*Lithurgus gibbosus* Smith, Catal. of Hymen. Insects in British Museum, Part I, p. 147, 1853. ♀.

*Lithurgus compressus* Smith, ibid ♂.

Georgia ; Florida ; Texas. Mr. Cockerell's record of *gibbosus* in New Mexico is erroneous, as I have shown elsewhere.

The author desires to express his thanks to Messrs. Henshaw, Ashmead and Cockerell for favors received in connection with the present paper.

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## Notes on Coleoptera No. 2.

By GEORGE A. EHRMAN, Pittsburg, Pa.

**Cychrus andrewsii** Harr.

Some time ago I captured a large female of this handsome as well as rare species in Brown's woods, which is very peculiar. The striæ of the elytra are replaced by an interrupted, uneven and semi-tuberculate surface, very similar to *Carabus intricatus* of Europe, otherwise it is the same as the regular Pennsylvania form of this species.

**Pterostichus vinctus** Lec.

On Sept. 24th, 1900, I captured a very interesting example of this species at Baldwin Station ; the specimen is a female in the genitalia, but the right tarsal joints are male on the fore foot, while the left fore foot tarsal joints are female in character.

**Platynus extensicollis** Say.

Of this, though not rare, yet a very pretty carabid, I took quite a number in damp localities in dried-up creeks, but by chance I came onto a little sunny embankment, or "wash-out,"



1902. "Lithurgopsis, a new genus of Bees." *Entomological news, and proceedings of the Entomological Section of the Academy of Natural Sciences of Philadelphia* 13, 137–140.

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