SHORT STUDIES ON THE HISTERIDAE (COLEOP.)—No. 2

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To a worker on the North American *Histeridae* it is apparent that a great many of the described species are not valid. Although only about 450 species are known in the literature, a very conservative estimate of the number of names to be "sunk" would total at least 75. The writer has long recognized a great many of the proposed names to be synonyms, but the work of making the synonymy known is slow because of the inaccessability (for one reason or another) of type specimens and the difficulty of obtaining the necessary data on this little collected and studied group of beetles. Consequently, all that one can do is to publish notes as the material becomes available for study.

This paper is the result, chiefly, of the study of the *Histeridae* in the collections of the Iowa Insect Survey and of the Blatchley collection. It was originally intended that the latter be examined primarily with the purpose of studying the types. A preliminary survey showed, however, that several published records of Blatchley's were based upon incorrect determinations. Some of the more obvious errors were noted and are here called to the attention of the workers in the field. A more thorough investigation of the material will be made at a later date.

Through the kindness of H. E. Jaques (Iowa Wesleyan College) the author was allowed to study the *Histeridae* in the Iowa Insect Survey reference and survey collections. Acknowledgment is also due Mr. George E. Gould (Purdue University) who made it possible to examine the Blatchley Collection and who extended the writer every possible courtesy.

Saprinus semistriatus (Scriba), 1790, p. 72 (=*S. lecontei* Csy. 1916, p. 262).

With its introduction and spread in the United States, *S. semistriatus* has become a nearly cosmopolitan species, it being found, in addition, in Northern Africa, Europe, Asia, and Mexico (*nitidulus* Fabr. *sic.*, Lewis 1882, p. 222). At hand are a number of examples from Iowa, Illinois, Michigan, and Indiana. The specimens upon which Casey based his description of *lecontei* were from Pennsylvania, Virginia, North Carolina, and Louisiana. There is a single specimen labeled as

lecontei in the Blatchley collection. For the convenience of cataloguers the complete synonymy of *semistriatus* is listed below.

S. semistriatus (Scriba), Journ. f. d. Liebhab. Ent., Frankfort, I, p. 72, 1790.
semipunctatus (Payk.), Fauna Suec., I, p. 45, 1798.
acuminatus (Fabr.), Supplem. Ent. Syst., p. 37, 1798.
nitidulus (Fabr.), Syst. Eleuth., I, p. 85, 1801.
incrassatus (Fald.), in Ménetriés Cat. Rais. Zool. Caucase, p. 170, 1832.
krynickii (Fald.), Bull. Soc. Imp. Nat. Moscou, V, p. 113, 1832.
turcomanicus (Ménétr.), Mem. Ac. Imp. Sci. St. Petersbg., VIII (6), p. 55, 1848.
subattenuatus Motsch., Bull. Soc. Imp. Nat. Moscou, XXII (3), p. 95, 1849.
planiusculus Motsch. *ibidem*, p. 97.
sparsipunctatus Motsch. *ibidem*, p. 97.
uralensis Motsch. *ibidem*, p. 98.
punctostriatus Mars., Ann. Soc. Ent. Fr., II (4), p. 460, pl. 12, fig. 20, 1862.
steppensis Mars. *ibidem*, p. 460.
rugipennis Hockh., Bull. Soc. Imp. Nat. Moscou, XLV, p. 225, 1872.
hockhutki Reitt., Cat. Col. Eur., II, p. 267, 1906.
subnitescens Bickh., Ent. Blätter, V, p. 221, 1909.
lecontei Csy., Mem. Coleop., VII, p. 262, 1916.
pacoviensis Roubal, Acta Soc. Ent. Cech., XXIII, p. 94, 1927.

Saprinus imperfectus LeC.

The specimens labeled as this species in the Blatchley collection, and upon which the record in the *Coleoptera of Indiana* was evidently based, are not *imperfectus* but *S. semistriatus*.

Saprinus assimilis (Payk.), 1811, p. 63 (=*S. simulatus* Blatch., 1910, p. 621).

In an earlier paper (1935) the writer pointed out that specimens of *assimilis* with an uninterrupted pygidial sulcus were females and that those with the interrupted sulcus were males. Since that time several thousand specimens have been carefully checked and a few female specimens with an interrupted sulcus were found. This variation is to be expected. Some specimens were also found in which the sulcus was entirely absent. The type of *simulatus* is such form.

Saprinus conformis LeC., 1845, p. 72 (=*S. oviformis* Blatch., 1910, p. 622).

In his key Blatchley separates *oviformis* from allied species on the basis of the sutural stria being interrupted basally and apically on his type; the latter does not, however, fit his description. To be sure, it is not quite as well impressed as usual, but this can hardly be used as a diagnostic character, since it occurs rather frequently in populations of *conformis*. Moreover, the comparison of *oviformis* with *S. wacoensis* is unwarranted. The Indiana specimens labeled *S. conformis* in the Blatchley collection were *S. assimilis*.

Saprinus (Hypocaccus) sphaeroides LeC., 1845, p. 77 (= *S. impunctellus* Csy., 1893, p. 571; *S. lakensis* Blatch., 1910, p. 623; *S. illinoensis* Wolc., 1912, p. 161; *S. eriensis* Hatch, 1929, p. 82; *S. ontarioensis* Hatch, *ibidem*, p. 82; *S. ohioensis* Hatch, *ibidem*, p. 82; *S. michiganensis* Hatch, *ibidem*, p. 83.)

S. sphaeroides is one of the most variable of our *Saprininae*. It ranges (1) in length, from 2–4.5 mm.; (2) in color, from bright aenous to deep bluish-black; (3) in pronotal punctuation, from having a broadly triangular, smooth, discal space to punctate throughout; (4) in elytral punctuation, from absolutely impunctate to punctate in a rather broad apical area, the punctures occasionally entering the intervals between the striae. The spinules of the anterior tibiae also vary greatly, being sometimes almost absent. After examining several thousands of specimens, I am convinced that the forms described as *lakensis*, *impunctellus*, and *illinoensis* are not deserving of even subspecific ranking. At hand are paratypes (Iowa Coll.) of *eriensis* and *ohioensis* and specimens determined by Hatch as his *ontarioensis*. It is difficult to understand why these names were ever proposed. Undoubtedly several other names need yet to be placed as synonyms of *sphaeroides*.

Saprinus (H.) seminitens LeC.

The specimens labeled *seminitens* in the Blatchley collection should be assigned to *S. sphaeroides* LeC.

Hister laevipes Germ.

Of a series of seven specimens labeled as this species in the Blatchley collection, only two were correctly determined (Sarasota, Fla.—I/30 & II/13, 1911). The remainder of the series are *H. abbreviatus* (Royal Palm, Fla.—XII/11 & 17, 1924; IV/3, 1925).

Hister stygicus LeC., 1845, p. 48 (= *H. jaquesi* Hatch, 1929, p. 76).

Two specimens determined by Hatch as his *jaquesi* are in the Iowa Survey Collection. The differences upon which the species was separated from *stygicus* do not exist. Apparently the latter species was before unknown to Hatch.

Hister interruptus Beauv., 1805, p. 180 (= *H. immunis* Er., 1834, p. 143; *H. albertensis* Hatch, 1926, p. 275; *H. carri* Hatch, *ibidem*, p. 276).

The "aberrations" *immunis*, *albertensis*, and *carri* are not, in the writer's opinion, deserving of subspecific ranking. These variants are found wherever one collects a sufficiently large series of specimens. At hand are several extremes in which the fifth stria is complete and arching toward the scutellum but not joining the sutural, which is abbreviated at the basal fifth.

Hister marginicollis LeC.

In a previous paper (1936) the writer questioned Blatchley's Indiana record (1910) of this species because of the descriptive terms he employed, and suggested that he may have had *H. cognatus* LeC. instead. In the Blatchley collection the series labeled *H. marginicollis* contains two examples of *cognatus*. The rest of the specimens are correctly determined. It is very probable that the discrepancy in the

description referred to was due to the fact that Blatchley obviously confused the two species and possibly based his work at least partially, on the mis-identified material.

Hister osculatus Blatch., 1910, p. 607 (= *H. puncticollis* Schffr., 1912, p. 26).

The basal portion of the internal subhumeral stria mentioned by Schaeffer in his description of *puncticollis* is in reality a short external subhumeral which varies in distinctness, being at times entirely absent as in Blatchley's type of *osculatus*. In one example in the series before me, the anterior tibiae are broadly arcuate with only a remote indication of serrulation on the outer edge. In the remaining examples the anterior tibiae are distinctly tridentate. The specimens in the writer's collection were taken in fungus by Dr. C. H. Seevers (Hot Spgs., Ark.—VII/2/35). *H. osculatus* should properly be placed in the Subgenus *Paralister* despite the disposition of its subhumeral striae which recall the condition existing in *H. abbreviatus*.

Hister grandis n. sp.

Form broad, oblong-subparallel, moderately convex; color black, shining. Head nearly one-half as broad as pronotum, distinctly punctulate; frontal striae distinct, rather feebly, inwardly angulate at middle; a fine marginal stria present along posterior margin of head.

Pronotum nearly one-half as long as broad, sides nearly parallel on basal half, anteriorly strongly arcuate and convergent. Marginal striae fine, broadly interrupted behind the head; the single lateral pronotal stria deeply impressed laterally and extending nearly to the base of the pronotum, the stria continuing around the anterior angles and complete, though finely impressed, behind the head. Disc of pronotum sparsely, indistinctly punctulate; within the lateral pronotal stria there is on each side a rather broad area of sparse, coarse punctures.

Marginal elytral stria absent. Epipleural fossa with two indistinct, nearly confluent striae. External subhumeral stria represented by a short arc on the humeri; internal subhumeral represented by a few poorly impressed, somewhat disconnected punctures on apical half. Dorsal striae one to four complete, well impressed, crenately punctate, though not strongly so; fifth dorsal and sutural extending from middle to apex, the sutural broken up into coarse punctures at the apex.

Propygidium sparsely, moderately coarsely punctate (punctures separated for the most part by one to three times their diameters), the punctures along the base coarser; very fine, sparse punctures intermingled throughout. Pygidium similarly, but a little more finely punctate, the punctures becoming minute and very sparse at apex.

Prosternum sparsely punctulate; prosternal lobe truncate at apex, sparsely punctulate medially, more coarsely so laterally; apical margin of lobe without a stria, sides strongly margined.

Meso- and metasterna sparsely, minutely punctate. Mesosternum distinctly emarginate along anterior edge, its marginal stria well impressed, not continuous with the marginal metasternal stria which extends medially for a short distance along the meso-metasternal suture.

Anterior tibiae with three distinct teeth and evidence of a fourth;

anterior tooth feebly bifid. Outer margins of the middle and posterior tibiae biseriately spinulose.

Length (from anterior angles of pron. to apex of pygidium): 7.15 mm. Width (at humeri): 4.96 mm.

Type: a unique male, collected by C. Horn, Henry County, Iowa, March 24, 1936. The type, at present in the Iowa Survey Collection, is to be deposited in the United States National Museum.

This new species resembles *osculatus* in the punctation of the pronotum but may be readily distinguished from it by the following differences:

H. osculatus	*H. grandis*
1. Form broadly oval.	1. Form broadly oblong-subparallel.
2. Marginal pronotal stria complete behind the head and well impressed.	2. Marginal pronotal stria broadly interrupted behind the head.
3. Lateral pronotal stria abbreviated near the anterior angles.	3. Lateral pronotal stria continuous around the anterior angles and complete behind the head.
4. Marginal elytral stria present and well impressed.	4. Marginal elytral stria absent.
5. Marginal stria of head absent.	5. Marginal stria of head present along posterior margin.

LITERATURE CITED

Beauvois, Palisot de. 1805. Insectes recueillis en Afrique et en Amérique. Paris, 1–276.

Blatchley, Willis S. 1910. An illustrated descriptive catalogue of the Coleoptera or beetles known to occur in Indiana. Bull. Ind. Dept. Geol. & Nat. Res., I.

Casey, Thomas L. 1893. Coleopterological Notices. Ann. N. Y. Acad. Sci., VII: 281–606.

1916. Some random studies among the Clavicornia. Mem. Col., VII: 35–292.

Erichson, Wilhelm. 1834. Uebersicht der Histeroides der Sammlung. Klug's Jahrbücher der Insektenkunde: 83–205.

Hatch, Melville. 1926. New and noteworthy Histeridae from Alberta. Canad. Ent., LVIII: 272–276.

1929. Studies on the Histeridae. Canad. Ent., LXI: 76–84.

LeConte, John E. 1845. Monograph N. Am. Histeroides. Bost. Journ. N. H., V: 32–86.

Lewis, George. 1888. Histeridae. Biol. Centrali-Amer. Insecta, II. Pt. 1: 182–244.

Paykull, Gust. von. 1811. Monographia Histeroidum. Upsala.

Say, Thomas. 1825. Descriptions of new species of *Hister* and *Hololepta* inhabiting the United States. Journ. Ac. N. S. Phila., V: 32–47.

Schaeffer, Charles. 1912. Three new species of *Hister*. Bull. Brook. Ent. Soc., VIII: 26–27.

Scriba, Ludwig. 1790. Verzeichniss der Insekten in der Darmstädter Gegend. Journ. f. d. Liebhaber der Entomologie, I: 40–73, 151–192, 275–296.

Wenzel, Rupert. L. 1935. Notes on the sexual characters of *Saprinus* with the description of a new species. Canad. Ent., LXVII: 189–190.

1936. Short Studies in the Histeridae—No. 1. Canad. Ent., LXVIII: 266–272.

Wolcott, A. B. 1912. Two new species of Coleoptera from Illinois. Canad. Ent., XLIV: 161–163.