

SCIENTIFIC NOTE

The Hydrophilinae of Delaware (Coleoptera: Hydrophilidae)

Little is known of the aquatic Hydrophilinae (Coleoptera: Hydrophilidae) of Delaware. Only four species in three genera were recorded from the state prior to 2003: *Enochrus fimbriatus* (Melsheimer) (= *Enochrus perplexus* (LeConte)) and *E. reflexipennis* (Zimmermann) (Gundersen 1978), *Chaetarthria atra* (LeConte) (Downie and Arnett 1996), and *Hydrochara occulta* (d’Orchymont) (Smetana 1980). Fairchild *et al.* (2003) recorded 15 additional species while examining the community structure of temporary and permanent ponds in Blackbird State Forest. Still, the Hydrophilinae of Delaware remained less than half-known.

Delaware’s variety of aquatic habitats including cedar swamps, coastal marshes, Delmarva bays, canals, and major rivers provide for a diverse aquatic beetle community. Here, 52 species representing 14 genera are reported from Delaware; 33 are recorded from the state for the first time. Specimens were examined from the University of Delaware Reference Collection (UDCC) and supplemented by a statewide collecting effort of the author in 1999. All specimens are deposited in the UDCC. Records of Delaware Hydrophilinae are shown in Table 1.

Chaetarthria atra (LeConte) is recorded as occurring in Delaware by Downie and Arnett (1996), but no specimens were seen or newly collected from the state. *Cymbiodyta semistriata* (Zimmermann), *Laccobius nevadensis magnus* (Cheary) and *L. agilis* (Randall) were not encountered in Delaware but have been collected in nearby Maryland or southeastern Pennsylvania. The mostly southeastern species *Derallus altus* (LeConte) has been collected as far north as the coast of New Jersey, but has not yet been collected in Delaware. Frenchtown Woods Natural Area in New Castle County had the highest species diversity with 29 species recorded.

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Table 1. Species of Hydrophilinae occurring in Delaware. The number of localities each species has been collected is listed by county; N: New Castle, K: Kent, S: Sussex. New state records are marked with an asterisk.

Species	N	K	S
<i>Anacaena limbata</i> (F.)*	5	—	—
<i>A. suturalis</i> (LeConte)*	5	1	2
<i>Berosus aculeatus</i> LeConte*	6	—	1
<i>B. exiguus</i> (Say)*	1	—	1
<i>B. fraternus</i> LeConte*	1	—	—
<i>B. infuscatus</i> LeConte*	—	1	1
<i>B. ordinatus</i> LeConte*	2	—	—
<i>B. pantherinus</i> LeConte*	1	1	—
<i>B. peregrinus</i> (Herbst)*	3	—	—
<i>B. sayi</i> Hansen*	3	—	—
<i>Chaetarthria atra</i> (LeConte)	?	?	?
<i>Cymbiodyta blanchardi</i> Horn*	5	1	—
<i>C. chamberlaini</i> Smetana*	5	1	—
<i>C. minima</i> Notman	1	1	—
<i>C. rotunda</i> (Say)*	2	—	—
<i>C. vindicata</i> Fall	9	1	1
<i>Enochrus cinctus</i> (Say)	12	1	6

Table 1. Continued.

Species	N	K	S
<i>E. conjunctus</i> Fall*	1	—	—
<i>E. consors</i> (LeConte)	—	—	1
<i>E. consortus</i> Green	6	3	4
<i>E. fimbriatus</i> (Melsheimer)	5	—	5
<i>E. hamiltoni</i> (Horn)*	1	1	—
<i>E. interruptus</i> Gundersen	2	1	—
<i>E. ochraceus</i> (Melsheimer)	13	2	11
<i>E. pygmaeus nebulosus</i> (Say)*	5	—	1
<i>E. reflexipennis</i> (Zimmermann)	2	1	4
<i>E. sayi</i> Gundersen*	4	1	1
<i>Helochares maculicollis</i> Mulsant	7	1	1
<i>Helocombus bifidus</i> (LeConte)	6	3	3
<i>Hydrobius fuscipes</i> (L.)	2	—	—
<i>H. melaenus</i> (Germar)	7	—	—
<i>H. tumidus</i> (LeConte)	3	—	4
<i>Hydrochara brevipalpis</i> Smetana*	2	1	—
<i>H. obtusata</i> (Say)*	5	3	—
<i>H. occulta</i> (d'Orchymont)	—	—	2
<i>H. soror</i> Smetana	4	3	1
<i>Hydrophilus triangularis</i> Say*	3	2	1
<i>H. ovatus</i> Gemminger & Harold*	3	2	2
<i>Laccobius minutoides</i> d'Orchymont*	3	—	—
<i>L. reflexipennis</i> Cheary*	3	—	—
<i>L. spangleri</i> Cheary*	1	—	—
<i>Paracymus confluens</i> Wooldridge*	5	—	1
<i>P. confusus</i> Wooldridge*	3	—	—
<i>P. subcupreus</i> (Say)*	6	—	—
<i>Sperchopsis tessellata</i> (Ziegler)*	8	2	3
<i>Tropisternus blatchleyi</i> d'Orchymont*	—	—	2
<i>T. glaber</i> (Herbst)*	—	1	1
<i>T. collaris striolatus</i> (LeConte)	5	1	5
<i>T. mixtus</i> LeConte*	1	1	—
<i>T. lateralis nimbatu</i> s (Say)	15	5	14
<i>T. natator</i> d'Orchymont*	6	—	—
<i>T. quadristriatus</i> (Horn)*	—	2	—

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