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## A Preliminary List of the Hydrophilidae Known to Occur in Iowa

By S. S. STATLER and H. E. JAQUES

The Hydrophilidae, or water scavenger beetles, received their name from the genus Hydrophilus, a word of Greek origin meaning, "a lover of water." They are usually found in ponds and streams. Several genera are, however, terrestrial in habit, living in moist earth and in the dung of cattle and horses, where they are said to feed upon the larvae of dipterous insects. The family consists of some 1,700 species, mostly tropical, but well represented in the temperate regions. About 190 species are known from the United States.

Some of the important characteristics of the family are as follows: eyes large; mentum large and quadrate; antennae with from six to nine segments, the outer ones forming a distinct club; scutellum always present; metasternum large, frequently carinate and produced into a long spine behind; abdomen with five visible segments; tarsi five jointed, the first joint often very small, the middle and hind tarsi sometimes compressed for swimming; maxillary palpi often longer than the antennae and sometimes mistaken for the antennae; the size varies from approximately 1.5-50 mm.

The water scavenger beetles are largely vegetable scavengers, but a few species are known to be predacious on water snails and probably on other aquatic animals. Some of the land forms are thought to be predacious on other insects. The adults are frequently taken at lights and found stranded on the city streets in the early morning. Many species aestivate and hibernate under stones and debris in the bottom of ponds and streams that dry up during certain seasons.

Air is carried in air channels between the elytra and the abdomen, and also on the under surface of the body. The eggs of the larger species are encased by the female in a waterproof receptacle. These egg cases, which sometimes contain a hundred or more eggs, are either fastened on the underside of leaves of water plants or are allowed to float free. In some instances the cases are carried about on the underside of the female's body until they hatch. Frequently some of the young larvae devour their companions; in this way the size of the family is reduced before it escapes from the egg case.

Forty-six species of hydrophilids are known to occur in Iowa. Of these forty-six species, thirty-four are represented in the Iowa

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Insect Survey and the others have been reported by reliable authorities. Many more species should be found in Iowa. The stars before the numbers indicate those species reported by Dr. H. F. Wickam and are not represented in the Iowa Insect Survey Collection.

The Leng catalog numbers preceding the names are those used in the Iowa Insect Survey Collection and records.

*2718 Ochthebius tuberculatus Lec.	2837
2743 Helophorus lacustris Lec.	2841
*2744 Helophorus lecontei Knisch	2842
2750 Helophorus lineatus Say	2850
*2754 Hydrochus scabratus Muls.	2853
*2759 Hydrochus excavatus Lec.	2854
*2763 Hydrochus variolatus Lec.	*2860
*2764 Hydrochus squamifer Lec.	2867
2775 Berosus aculeatus subsignatus	
Lec.	*2873
2776 Berosus pantherinus Lec.	2874
2777 Berosus peregrinus (Hbst.)	*2875
2784 Berosus striatus (Say)	2876
2789 Hydrophilus triangularis	2878
(Say)	2883
2792 Dibolocelus ovatus G. & H.	
2795 Hydrophilus obtusatus Say	2884
2805 Tropisternus glaber (Hbst.)	2885
2807 Tropisternus lateralis (Fabr.)	2886
*2807a Tropisternus lateralis dor-	*2888
salis Brulle	*2892
2808 Hydrobius fuscipes L.	2893
2819 Paracymus subcupreus (Say)	2899
2828 Helochares maculicollis Muls.	
2834 Enochrus pygmaeus Fabr.	2900
2835 Enochrus ochraceus (Melsh.)	
2836 Enochrus perplexus (Lec.)	
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7 Enochrus cinctus (Say) 1 Enochrus hamiltoni (Horn) 2 Enochrus diffusus (Lec.) 0 Cymbiodyta fimbriata (Melsh.) 3 Helocombus bifidus (Lec.) 4 Laccobius agilus Rand. 0 Chaetarthria pallida (Lec.) 7 Sphaeridium scarabaeoides (L.) 3 Cercyon unipunctatus (L.) 4 Cercyon quisquilius L. 5 Cercyon ocellatus (Say) 6 Cercyon praetextatus (Say) 8 Cercyon fulvipennis Mann. 3 Cercyon haemorrhoidalis (Fabr.) 4 Cercyon melanocephalus (L.) 5 Cercyon pygmaeus (Illig.) 6 Cercyon nigriceps (Marsh.) 8 Cercvon tristis (Illig.) 2 Cercyon navicularis Zimm. 3 Cercyon analis Payk. 9 Cryptopleurum minutem (Fabr.) 0 Cryptopleurum americanum Horn