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A Preliminary List of the Gyrinidae (Coleoptera) Known to Occur in Iowa

By J. C. SCHAFFNER AND D. D. MILLSAUGH

The Gyrinids are the most easily-recognized family of the order Coleoptera inhabiting water. The brilliant steel-blue or black whirligig beetles are often seen gyrating in groups on the surface of the quiet water of ponds and streams. They are such agile swimmers that it is difficult to capture them without a net. When captured, the beetle secretes a milky fluid with a disagreeable odor although in some species the odor suggests ripe apples. The food consists of other small insects that fall into the water.

The members of this family are readily distinguished from similar families by having the eyes completely divided by the sides of the head giving the appearance of two pairs of eyes, the top pair for looking up into the air and the bottom pair for looking down into the water. These beetles are oval or elliptical in shape and are usually somewhat flattened. The short thick antennae are located behind the mandibles. The third segment is enlarged, so as to form an ear-like appendage, the other segments forming a spindle shaped mass. The front legs are very long and rather slender whereas the middle and hind legs are short, broad, and very much flattened which enables them to skate on the surface of the water.

The Gyrinids deposit their small, cylindrical eggs in parallel rows upon the stems and leaves of aquatic plants. The larvae are long, narrow, and much flattened. A pair of tracheal gills are attached to each of the abdominal segments. These gills give the larvae the appearance of small centipedes. They are chiefly carnivorous. When the larvae become full grown they leave the water and spin a gray, paper-like cocoon on some nearby object where they undergo the pupal stage.

Over forty species are known to occur in North America, representing three genera. Two of these genera are known to occur in Iowa and are represented by fourteen species.

The list of Iowa species which follows includes both those represented in the Iowa Insect Survey collection at Iowa Wesleyan College and in the records of Dr. H. F. Wickham. The determinations have been, for the most part, made or checked by specialists. The Leng catalog number precedes the scientific name in each instance.

- 2674 *Dineutus discolor* Aube
- 2680 *Dineutus americanus* Say
- 2684 *Gyrinus minutus* Fab.
- 2685 *Gyrinus confinis* Lec.
- 2689 *Gyrinus dichrous* Lec.
- 2691 *Gyrinus ventralis* Kby.
- 2692 *Gyrinus aquiris* Lec.
- 2695 *Gyrinus maculiventris* Lec.
- 2696 *Gyrinus affinis* Aube
- 2699 *Gyrinus pernitidus* Lec.
- 2700 *Gyrinus analis* Say
- 2707 *Gyrinus borealis* Aube
- 2707a *Gyrinus lugens* Lec.
- 2709 *Gyrinus parvus* Say

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