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## The Terrestrial Isopods of Iowa

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## THE TERRESTRIAL ISOPODS OF IOWA

MAYNE LONGNECKER

A careful study of Miss Harriet Richardson's Monograph on the Isopods of North America (Bulletin 54, United States National Museum) shows only eleven species of what are commonly called sowbugs and pillbugs that might reasonably be expected to live in this region, judging from the latitude and climate in which they have previously been found.

These eleven species are included in two families and in seven genera. They are as follows: Family Oniscidae; *Oniscus asellus* Linnaeus, *Philoscia vittata* Say, *Cylisticus convexus* (De Geer), *Porcellio laevis* Latreille, *P. rathkei* Brandt, *P. spinicornis* Say, *P. scaber* Latreille, *Metoponorthus pruinosus* (Brandt), *Actoniscus ellipticus* Harger. Family Armadillididae; *Armadillidium vulgare* (Latreille), *A. quadrifrons* Stoller.

Of these eleven species the writer has found and identified the following six: *Cylisticus convexus* (De Geer), *Porcellio rathkei* Brandt, *P. scaber* Latreille, *Metoponorthus pruinosus* (Brandt), *Armadillidium vulgare* (Latreille), *A. quadrifrons* Stoller. These identifications have been verified by Mr. Clarence R. Shoemaker, Assistant Curator of Marine Invertebrates at the United States National Museum. The writer has been unable to find a record of the occurrence of three of the other five species west of the state of New York.

Specimens of *Cylisticus convexus* have been found in and about Mt. Pleasant, Albia, Fayette, Mt. Vernon, Grinnell, Knoxville and Spirit Lake. This species seems to require a little more moisture than some of the others and is fairly abundant, but seems to be of little or no economic importance. The writer has an unusual specimen, found at Spirit Lake, possessing abnormally long and outwardly curved uropods. This is, without a doubt, quite an extreme variant.

Two species of the genus *Porcellio* have been found. They are *P. rathkei* and *P. scaber*. As might be expected they are very much alike, and both occur abundantly. They can generally be found under bricks, boards and stones where there is some moisture but very little light, and where decaying vegetable matter

supplies plenty of food. *Porcellio scaber* is also found in greenhouses the year around, but not in such numbers as to constitute a nuisance.

*Porcellio scaber* has been found in the following towns or localities in Iowa: Mt. Pleasant, Albia, Fayette, Mt. Vernon, Knoxville, Grinnell and Spirit Lake. *Porcellio rathkei* has been found in or about Mt. Pleasant, Albia, Fayette, Knoxville, West Branch, Mt. Vernon, Grinnell, Waterville, and Spirit Lake. It seems likely from this that both are common throughout the state.

*Metoponorthus pruinosus* (Brandt) is a fairly common species. It is of a moldy blue-gray color, and can be readily identified in this region, as it is the only species found thus far in which the abdomen is abruptly narrower than the thorax. It usually runs rapidly for cover when disturbed. It lives under much the same conditions as *Porcellio scaber*, and is of little economic importance. It has been found to occur in Mt. Pleasant, Albia, Grinnell, West Branch and Floris. The writer has found several specimens possessing bright orange colored uropods, but whether such a variation is of any importance is not known. It seems that little is known about the color variation of isopods in general.

The family Armadillididae is represented by two species, *Armadillidium vulgare* and *A. quadrifrons*. The former is a common greenhouse pest, feeding eagerly upon young vegetables and certain of the flowering plants. When disturbed it rolls quickly into a ball, and it so resembles the surrounding particles of earth in color that it is quite difficult to distinguish between them. Local florists have controlled this pest by poisoning, commonly by placing a mixture of Paris green with either brown sugar or corn meal about the edges of the boxes. The isopods eat this readily, and it is usually some weeks before they again increase in numbers sufficiently to do much harm.

The second species of this family, *Armadillidium quadrifrons*, seems to be uncommon in this region. The writer has found no record of its occurrence west of Schenectady, New York, but has a single specimen, which was found at a Mt. Pleasant greenhouse. It had doubtless been shipped in with a consignment of plants.

For rapid classification of the species discussed above I have arranged the following non-technical key, most of which can be readily used without the aid of a microscope:

#### Key to Families

- a. Uropods projecting beyond the terminal segment of the abdomen ----- *Oniscidae*

- a.' Uropods not projecting beyond the terminal segment of the abdomen ----- *Armadillididae*

Key to Genera and Species

Oniscidae

- a. Body capable of being rolled into a ball -----  
----- *Cylisticus convexus*
- a.' Body not capable of being rolled into a ball -----
- b. Abdomen abruptly narrower than thorax -----  
----- *Metoponorthus pruinosus.*
- b.' Abdomen not abruptly narrower than thorax -----  
----- *Porcellio.*

Porcellio

- a. Median lobe of head less produced than lateral ones. All three with rounded extremities ----- *Porcellio rathkei.*
- a.' Median lobe of head triangular with apex obtuse -----  
----- *Porcellio scaber*

Armadillididae

- a. Outer branch of uropoda flattened ----- *Armadillidium*

Armadillidium

- a. Head with small median V-shaped notch -----  
----- *Armadillidium quadrifrons*
- a.' Head without small V-shaped notch -----  
----- *Armadillidium vulgare*

BIOLOGY DEPARTMENT

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