

## LEECHES OF SOUTHEASTERN MISSOURI

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The leeches upon which this paper is based were collected from April to November, inclusive, of 1935, and April, May, June and July of 1936, from southeastern Missouri. This area includes the following counties: Perry, Madison, Wayne, Bollinger, Cape Girardeau, Scott, Mississippi, New Madrid, Dunklin, Butler, Stoddard and Pemiscot. The highest altitude, of about 1,500 feet, is in Wayne and Madison Counties. From here to the extreme southeastern part of the state are the lowlands and swampy areas, the altitude being 250 feet or less. On the east is the Mississippi River into which the four rivers and many smaller tributaries empty.

Because of the essential flatness and swampy condition in Scott, Butler, Stoddard, Mississippi, New Madrid, Dunklin and Pemiscot Counties, which constitutes about 60 per cent of the area, this section has been artificially ditched, resulting in numerous streams in addition to the many natural creeks and smaller brooks.

Heretofore, reports on collections of leeches have been limited chiefly to the waters of the northern and northeastern part of the United States, in the Great Lakes Region, and Canada.

The writer identified a total of fifteen species in his collection. This number compares very favorably with the numbers reported in other works and appears to indicate an abundant leech fauna for the section of the state covered in this report.

The leeches were obtained by examining submerged organic debris, the under side of stones, leaves, wood, clam shells, water plants, fish and turtles, and in the mud and ooze on the bottom of the streams and ponds. In one instance, *Haemopsis lateralis* was found a few inches below the soil surface in soil which was sufficiently dry to be plowed. However, the presence of this leech in this habitat is not unusual.

The writer found only one record of leeches reported for Missouri. In "The Leeches of the United States National Museum," Moore (1898) reports two species (one specimen of

each) from the Current River, Shannon County, viz., *Glossiphonia parasitica* and *Dina*, species undetermined.

In the southeastern Missouri region there are four families represented, the Glossiphonidae, Piscicolidae (Ichthyobdellidae\*), Hirudinidae, and Herpobdellidae.

#### LIST OF LEECHES OF SOUTHEASTERN MISSOURI

**Helobdella stagnalis** (Linnaeus, 1758) Blanchard, 1896.

The writer found this species in shallow warm water attached to the underside of stones, sticks and water plants. Found in Perry, Madison, Wayne, Bollinger, Cape Girardeau, New Madrid, Dunklin, Butler and Pemiscot Counties. It is widely distributed in the United States having been reported from Woods Hole, Massachusetts, west to Arizona and from Lake Okechobee in Florida north to southern Canada.

**Helobdella nepheloidea** (Graf, 1899) Moore, 1924.

Taken in Scott and Pemiscot Counties. Not abundant. This species is reported from Wisconsin, Massachusetts, Minnesota, Lake Erie and southern Canada.

**Glossiphonia fusca** Castle, 1900.

In southeastern Missouri this species is found in reasonable abundance. Previously reported from Illinois, Minnesota, Wisconsin, the Great Lakes and southern Canada.

**Glossiphonia complanata** (Linnaeus, 1758) Johnson, 1816.

This species was found, though not common, in nine of the twelve counties. Reported common in the Great Lakes, adjacent states, and Massachusetts.

**Placobdella† montifera** Moore, 1912.

The writer found this species in shallow water in swampy areas in all but two counties. Previously it has been reported from Connecticut, west to Wisconsin, and from southern Canada south to Illinois.

**Placobdella pediculata** Hemingway, 1908.

The writer took this species on drumfish (*Aplodinotus grunniens*) from Whitewater and Apple Creeks in Cape Girardeau County. Not abundant. It has been reported from Minnesota, Wisconsin and Illinois.

**Placobdella parasitica** (Say, 1824) Moore, 1901.

Abundant in all the counties. It has been reported from New York west to Arizona and from Tennessee north to Canada.

**Placobdella rugosa** (Verrill, 1874) Moore, 1901.

This species was found to be common in southeastern Missouri,

\*The family name Ichthyobdellidae in common usage is not available since the name Ichthyobdella for the type genus is regarded as a synonym of Piscicola.

†In view of the fact that authorities on leeches are divided as to the status of the generic name *Placobdella* R. Blanchard 1893, the present writer has continued to use this currently accepted name without any commitment as to the possible validity of the generic name *Haementeria* de Filippi 1849.

attached to rocks, wood and turtles. Reported from Connecticut west to Colorado, and from Canada south to Illinois.

**Placobdella picta** (Verrill, 1872) Moore, 1906.

The writer has found this species well distributed in southeastern Missouri, though not abundant. Reported from Georgian Bay, Lake Erie, northeastern Wisconsin and Connecticut.

**Piscicola punctata** (Verrill, 1871) Moore, 1912.

Taken from the common carp (*Cyprinus carpio*) and the buffalo fish (*Megastomatobus cyprinella*), to which they were attached, from the Mississippi River at Commerce, Scott County. In the literature, this species, generally known as the fish leech, has been reported taken from the following fish: Log perch (*Percina caprodes*), perch (*Perca flavescens*), wall-eyed pike (*Stizostedion vitreum*), small-mouthed black bass (*Micropterus dolomieu*), rock bass (*Ambloplites rupestris*), common carp (*Cyprinus carpio*), buffalo fish (*Megastomatobus cyprinella*), from Ohio, Lake Erie, Lake Superior, Minnesota, Nova Scotia, Wisconsin, Georgian Bay, Lake Nipigon and Illinois.

**Haemopsis marmoratis** (Say, 1824) Moore, 1901.

The writer found this species in a semi-aquatic environment in Scott, Dunklin, Pemiscot, Butler, Mississippi and New Madrid Counties. Reported from New Jersey west to Kansas, and north to southern Canada.

**Haemopsis lateralis** (Say, 1824) Moore, 1901.

Six specimens were collected in Caney Basin northwest of Oran, Scott County, in soil dry enough to be plowed. Earlier reports list this species from Maine west to Colorado and from Tennessee to Lake Superior.

**Herpobdella punctata** (Leidy, 1870) Moore, 1901.

In southeastern Missouri this species was found in great abundance, in shallow water concealed under stones, leaves, and submerged logs. Previously reported from New York, Wisconsin, Minnesota, the Great Lakes Region and southern Canada.

**Dina microstoma** Moore, 1901.

This species was found in Madison, Cape Girardeau, Scott, Mississippi, New Madrid, Dunklin, Butler and Pemiscot Counties, in the ooze on submerged logs and sticks. Not common. Reported from Pennsylvania, Ohio and Illinois.

**Dina fervida** (Verrill, 1871) Moore, 1901.

The writer found this species in great abundance in southeastern Missouri, on submerged stones and wood in shallow water. Previously reported from Ohio, Illinois, Minnesota, southern Canada, Lake Erie and Lake Superior.

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## REFERENCES

- Castle, W. E.** Some North American Fresh-Water *Rhynchobdellidae* and their Parasites. Bull. Mus. of Comp. Zool. Harvard, Vol. XXXVI, pp. 17-61, 1900-1901.
- Miller, John A.** The Leeches of Ohio. Contr. No. 2, Franz Theodore Stone Lab., Ohio State Univ., pp. 1-38, 1929.
- Moore, J. Percy.** The Leeches of the Nat. Museum. Proc. U. S. Nat. Mus., Vol. XXI, pp. 543-563, 1898.
- Nachtrieb, Henry F., Hemingway, Ernest E., and Moore, J. Percy.** The Leeches of Minnesota. Geol. & Nat. Hist. Surv. of Minn., Series No. V, pp. 1-150, 1912.
- Scriban, J. A., and Autrum, H.** Hirudinea-Egel; in Kukenthal-Krumbachs Handbuch Der Zool., pp. 119-352, 1928-34.
- Verrill, A. E.** Synopsis of the North American Fresh-water Leeches. Rep. U. S. Comm. of Fish & Fisheries for 1872-1873, Pt. II, pp. 666-689, 1874.
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