

TWO NEW SPECIES OF EARTHWORMS FOR OHIO.

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The author in 1928 listed twenty-two species of earthworms for the State of Ohio. The present paper includes additions to the list previously recorded.

Diplocardia verrucosa Ude, 1895.

This species was first described from specimens collected at Omaha, Nebraska. Frank Smith (1915) states that they are abundant in the soil of bottom-land forests of Illinois and Kaskaskia Rivers.

Length, 7-15 cm. Number of somites, 100-125. Color of anterior dorsal surface pale flesh. Setae widely separated. Clitellum saddle-shaped, situated on somites 13-18, inclusive. Prostate pores on 19, 21. Spermiducal pores in somites 20 and the spermathecal pores in somites 8 and 9. Sperm sacs in 9 and 12.

Only one specimen was collected by the author along the shore of Lake St. Marys in September, 1932.

Helodrilus octaedrus Savigny, 1826.

Known from various parts of Europe, Northern Asia, Iceland and Greenland. In North America it has been reported from Newfoundland and Mexico. Smith (1928) states that this species has been collected from Colorado and Illinois.

Length, 2.5-4 cm. Number of somites, 80-95. Color brownish-violet. Prostomium, epilobic. Clitellum on 28, 29-33. First dorsal pore on 4-5. The spermiducal pores on 15, between b and c. Oviducal pores on 9-10-11-12, in the setae line d. Septal sperm sacs in 9, 11 and 12. Spermathecae usually in 9, 10 and 11. Septal intervals aa, ab, bc, cd, approximately equal; dd somewhat greater than either.

In June, 1929, two specimens were collected near Akron, Ohio. They were found along the bank of the old canal.

BIBLIOGRAPHY.

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- Smith, Frank. 1915. Two New Varieties of Earthworms with a Key to Described Species in Illinois. Bull. of Illinois State Laboratory of Natural History, Vol. X, Article VIII.
1928. An Account of Changes in the Earthworm Fauna of Illinois. Illinois Division of Natural History and Survey, Vol. XVII, Article X.

KEY TO THE EARTHWORMS OF OHIO.

Clitellum	Tubercula pubertatis	Prostate pores	Spermiducal pores	Spermathecal pores	Sperm sacs	Setae	No. of Somites	Length cm.	Color (antero-dorsal)	Name
13-18 sad.		18, 20	19	7/8, 8/9	9, 12	Wide	135-160	20-27	Brown	<i>Diplocardia riparia</i>
13-18 sad.		18, 20	19	6/7, 7/8, 8/9	9, 12	Wide	125-160	18-30	Pale	<i>Diplocardia communis</i>
13-18 cing.		18, 20	19	6/7, 7/8, 8/9	9, 12	Wide	90-120	4-12	Pale	<i>Diplocardia singularis</i>
13-18 sad.		19, 21	20	8, 9	9, 12	Wide	100-125	7-15	Pale	<i>Diplocardia verrucosa</i>
15-25		23, 26	19	6/7, 7/8, 8/9	11, 12	Close	165-225	15-20	Pink with blue iridescence	<i>Sparganophilus eiseni</i>
22, 23-26, 27	23-25, 26		13	9/10, 10/11 dorsal	9, 12	Close	80-100	4-6	Brown	<i>Helodrilus tetraedrus</i> f. <i>typica</i>
22, 23-27	23-25, 26		15	9/10, 10/11 dorsal	9-12	Close	80-100	4-6	Brown	<i>H. tetraedrus</i> f. <i>hercynius</i>
22-29	27, 28		15	None	11, 12	Close	40-60	2-5	Reddish-brown	<i>H. tumidus</i>
22-29 or 1/3 30	None		15	None	11, 12	Close	100-110	4-7	Brown-red	<i>H. gieseleri</i> var. <i>hempeli</i>
24-30	25, 26-29, 30 (indefinite)		15	None	11, 12	Close	90-100	3-4	Brown-red	<i>H. parvus</i>
24, 25-31, 32	24, 25-30 (indefinite)		15	None	11, 12	Close	70-100	2-6	Reddish-brown	<i>H. beddardi</i>
23, 24-33	None		15	None	11, 12	Close	100-130	7-10	Rose-red	<i>H. longicinctus</i>
24, 25, 26-31, 32 or 33	29, 30-31		15	9/10, 10/11	9-12	Close	130-150	4-8	Pale-red	<i>H. roseus</i>
24, 25 or 26-32	28-30, 31		15	9/10, 10/11	9-12	Close	75-125	5-15	Brown and buff (bands)	<i>H. foetidus</i>
25, 26-31, 32	28-30		15	9/10, 10/11	9, 11, 12	Wide	80-125	5-8	Red	<i>H. subrubicundus</i>
26-31	29, 30 (indistinct)		15	None	11, 12	Wide	90-110	4-8	Red	<i>H. tenuis</i>
27-34, 35	31, 33		15	9/10, 10/11	9-12	Close	100-250	5-20	Rose-red	<i>H. caliginosus</i> f. <i>typica</i>
27-34, 35	31-33		15	9/10, 10/11	9-12	Close	100-250	5-20	Rose-red	<i>H. f. trapezoides</i>
27-37	None		15	None	11, 12	Close	110-140	10-12	Chestnut-brown (purplish)	<i>H. zeteki</i>
28, 29-33	31-33		15	9/10-11/12d	9, 11, 12	Sep.	80-95	2.5-4	Brownish-violet	<i>H. octaedrus</i>
27-32	28-31		15	9/10, 10/11	9, 11, 12	Close	90-145	7-13	Reddish-brown (violet)	<i>Lumbricus rubellus</i>
29-37	31, 33, 35		15	9/9, 10/11	9-12	Close	80-125	5-7	Greenish	<i>H. chloroticus</i>
30-35	31-34		15	9/10, 10/11	9-12	Wide	100-170	5-16	Pale-pink	<i>Octolasion lacteum</i>
31, 32-37	33-36		15	9/10, 10/11	9, 11, 12	Close	125-175	15-25	Brown-violet	<i>Lumbricus terrestris</i>