

Table 2-1 body length, body width and body weight of representative Pheretima

Species	n	Body length (mm)	body width (mm)	Body weight (mg dry wt)	length/width ratio
<i>Metaphire schmardae</i>	89	63.2 ± 10.2	3.0 ± 0.4	473.5 ± 168.7	21.1
<i>Amyntas</i> sp. (H-1)	542	93.8 ± 16.8	4.9 ± 0.7	1922.0 ± 800.3	19.1
<i>Amyntas vittatus</i>	65	125.7 ± 22.4	7.5 ± 1.0	6006.1 ± 2227.9	16.8
<i>Amyntas irregularis</i>	30	104.1 ± 20.4	5.0 ± 0.7	2205.9 ± 1008.3	20.8
<i>Metaphire</i> sp. (M-3)	29	109.4 ± 15.4	4.0 ± 0.4	1433.5 ± 394.3	27.4
<i>Amyntas corticus</i>	755	101.9 ± 27.1	2.9 ± 0.7	799.3 ± 333.9	35.1
<i>Amyntas micronarius</i>	53	72.3 ± 14.5	3.1 ± 0.5	563.8 ± 195.5	23.3

Table 2-2 Composition of gut content of representative Pheretima

Species	A	Dates	n	Large humus				Small humus				Amorphous humus				Mineral soil				
				+++	++	+	-	+++	++	+	-	+++	++	+	-	+++	++	+	-	
<i>Metaphire schmardae</i>	H	1968/7/6	6	0	0	0	6	0	0	5	1	6	0	0	0	0	0	0	5	1
<i>Amyntas</i> sp. (H-1)	H	1968/7/6	21	0	4	11	6	19	2	0	0	2	9	9	1	0	1	12	7	
	D	1971/7/7	29	3	3	15	8	21	5	3	0	4	9	16	0	1	5	20	3	
	D	1972/5/23	28	0	0	9	19	26	1	1	0	4	10	14	0	0	0	26	2	
	D	1972/7/15	26	0	1	13	12	16	7	3	0	11	11	4	0	1	0	24	1	
	Total		104	3	8	48	45	82	15	7	0	21	39	43	1	2	6	82	13	
<i>Amyntas vittatus</i>	H	1968/7/6	10	5	1	3	1	2	5	3	0	3	2	4	1	0	0	7	3	
	H	1971/6 -1971/7	9	2	5	1	1	7	2	0	0	0	5	4	0	0	0	8	1	
	Total		19	7	6	4	2	9	7	3	0	3	7	8	1	0	0	15	4	
<i>Amyntas irregularis</i>	K	1968/7/16	25	0	1	6	18	9	13	13	0	16	9	0	0	0	0	0	25	
	K	1969/7/18	10	0	0	1	9	1	2	7	0	9	1	0	0	0	1	7	2	
	Total		35	0	1	7	27	10	15	20	0	25	0	0	0	0	1	7	27	
<i>Metaphire</i> sp. (M-3)	I	1971/6 -1971/7	20	0	0	0	20	1	0	5	14	19	1	0	0	0	1	0	19	
<i>Amyntas corticus</i>	D	1971/7/3	25	1	2	0	22	2	5	16	2	3	2	19	1	20	2	3	0	
	D	1972/7/15	20	0	0	1	19	4	0	14	2	6	10	4	0	10	4	6	0	
	D	1972/7/19	21	0	0	1	20	0	3	15	3	4	2	14	1	17	3	1	0	
	Total		66	1	2	2	61	6	8	45	7	13	14	37	2	47	9	10	0	
<i>Amyntas micronarius</i>	H	1968/7/6	12	0	0	0	12	0	0	3	9	5	0	7	0	7	4	1	0	

Table 2-3 Eco-morphological feature of representative Pheretima

Species	<i>Metaphire schmardae</i>	<i>Amyntas</i> sp. (H-1)	<i>Amyntas vittatus</i>	<i>Amyntas irregularis</i>	<i>Metaphire sieboldi</i>	<i>Metaphire</i> sp. (M-3)	<i>Amyntas corticus</i>	<i>Amyntas micronarius</i>
Life history	Newly born hatch out in spring, mature in summer and disappear till August		Newly born hatch out in spring, mature in June and some remained till November.		Newly born hatch out in summer, mature till next summer, and disappear till August.		Many younger appear in summer, mature till next summer, and some remain till winter.	
Life time	6 months		8 months		12 months		over 12 months	
age composition	One generation				Two or three generation			
Main habitat	Compost	Old grass field	Old grass edge of	Edge of forest	Ever green forest in mountain site		Younger vegetation	Older vegetation
Inhabit layer	Litter				Litter - A -Soil			
Hibernate site					Dry dingle	Deeper soil layer		
Body pigmentation	yellow green	dark reddish brown	dark brown with yellow band	dark reddish brown	deep black purple		light grey brown	light purplish brown
Number of pair of spermathecae	two				three	two	four	
Activity	Active				sluggish			
Body form	Plumply				slenderly			
Body size	474	1922	6006	2206	30500	1434	799	564
Intestinal coeca	5	6-7	8	6	Most complex	Simple showing a conical form		
Composition of gut content	Organic rich matter	Small raw humus	Large raw humus	Organic rich matter with small raw humus	Litter from tree leaves	Organic rich matter	Organic rich soil and mineral soil	

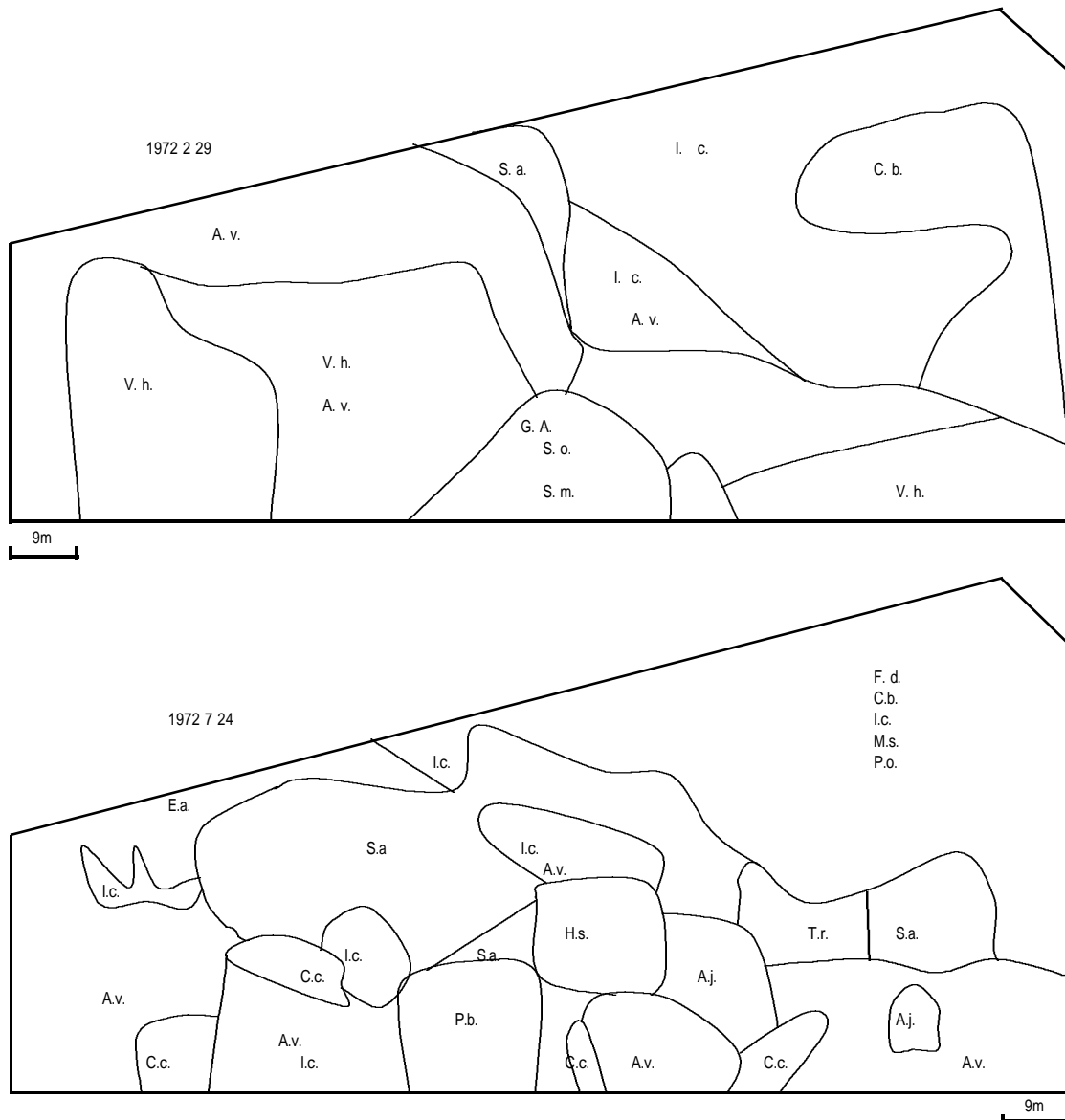


Fig. 2-1. The vegetation maps of the experimental field.

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|----------------------------------|----------------------------|
| A.j. : Achyranthes japonica | A.v. : Artemisia vulgaris |
| C.b. : Cyperus brevifolius | C.c. : Comelia communis |
| F.d. : Fimbristylis dichotoma | G.A. : Galium Aparine |
| H.s. :Hydrocotyle sibthorpioides | I.c. : Imperata cylindrica |
| M.d : Medicago denticulata | M.s. : Miscanthus sinensis |
| P.B. : Polygonum Blumei | P.o. : Paspalum orbiculare |
| S.a.: Solidago altissima | S.m. : Stellaria media |
| S.o. :Sonchus oleaceus | T.r. : Tradescant reflexa |
| V.h. : Vicia hirsuta | E.a. : Arigeron annuus |

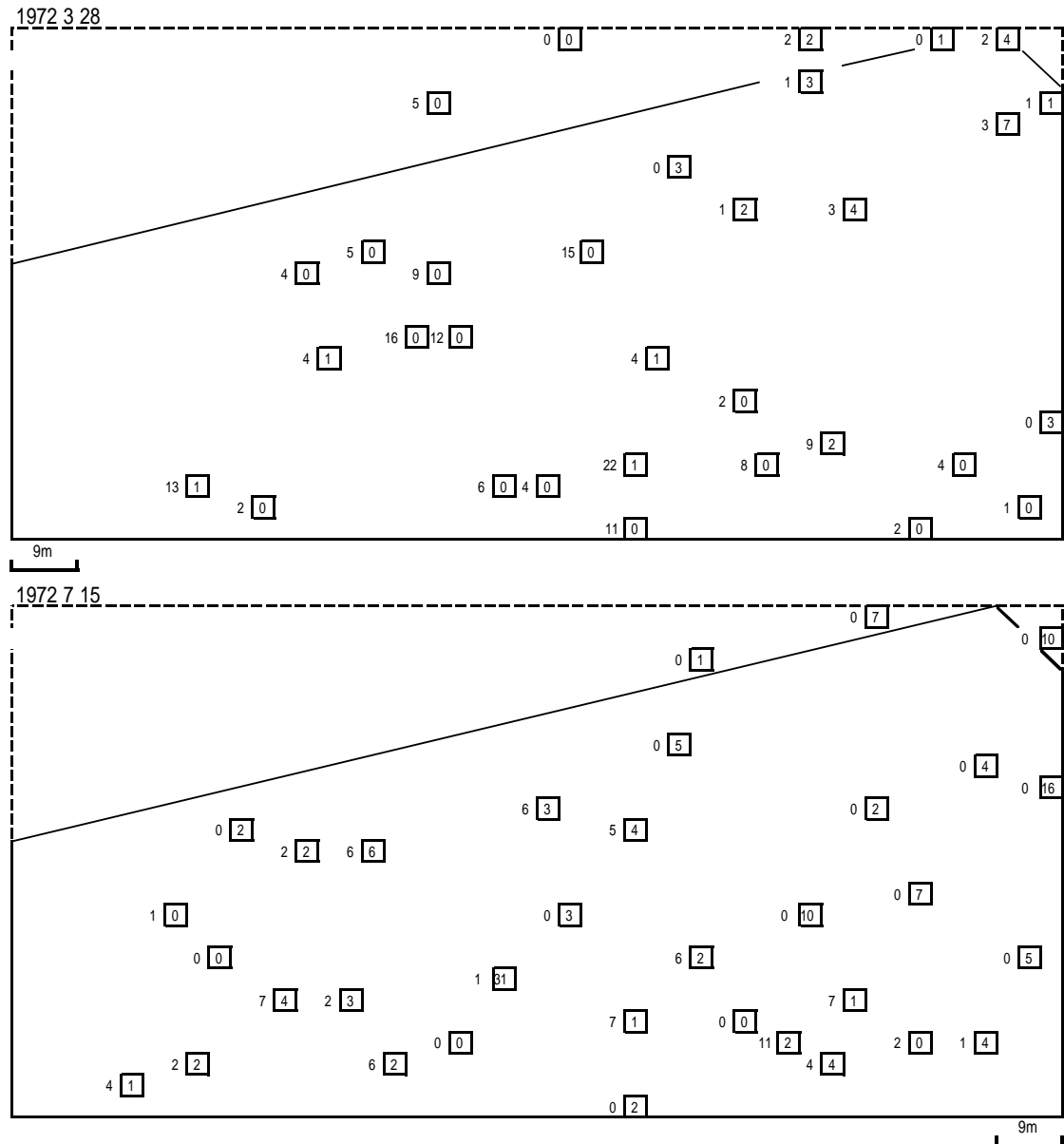


Fig. 2-3a. Distribution maps of earthworm in the experimental field.

Black letter indicate the density of *Amyntas* sp. (H-1) and Black letter in rectangular indicate the density of *Amyntas corticus*. (N × 16 m²)

