

Table 1-1 Distribution of environments under study

	Area G	Area D	Area H	Area K
Tree vegetation			<i>Celtis sinensis</i> <i>Ciinamomum Camphora</i> <i>Ginkgo biloba</i>	<i>Quercus glauca</i> <i>Shiia Sieboldii</i> <i>Ilex integra</i>
Cover degree			ca 40 %	100%
Ground surface vegetation	<i>Imperata cylindrica</i> <i>Carex</i> spp. <i>Cyperus rotundus</i>	<i>Solidago altissima</i> <i>Vicia hirsuta</i> <i>Artemisia vulgaris</i>	<i>Artemisia vulgaris</i> <i>Achyranthes japonica</i> <i>Erigeron annuus</i>	<i>Damnacanthus indicus</i> <i>Trachelosperum asiaticum</i> <i>Pleiolblastus variegatus</i>
Cover degree	ca 50 %	100%	ca 70 %	ca 20 %
Litter layer (cm)	0	0.1 - 1.5	2.0 - 4.0	3.5 - 5.0
A ₀ horizon (cm)	1.7 - 4.2 (av. 3.4)	3.0 -12.3 (av.6.6)	5.0 -40.0 (av.14.0)	5.0 -10.0 (av. 6.0)
Ignition loss weight (%)	4.0 -13.6 (av. 6.1)	3.8 -13.8 (av.7.6)	7.4 - 9.5 (av. 8.5)	10.2-11.0 (av.10.6)
Soil density (g dry wt cm ⁻³)	1.0 - 2.1 (av. 1.5)	0.4 - 1.5 (av.0.9)	0.7 - 0.8 (av. 0.76)	0.6 - 0.7 (av. 0.65)
Soil particle less than 1 mm (%)	42.7 -61.0 (av.50.8)	46.0 -88.0 (av.64.7)	73.12	28.21
pH in H ₂ O	5.56	6.05	6.2	4.7
Primary production (g dry wt m ⁻²)	540. ?	1176.5	1010 ?	844

Table 1-2 Sizes and Number of Quadrats, Period and the Interval of samp

	Size of Quadrats	Number of Quadrats	Period	Interval
Area D	50	12	1971 3 - 1971 7	Month
	50	7	1971 8 - 1971 9	Month
	25	8	1971 10 - 1972 1	Month
	25	25	1972 1 - 1972 3	Half Month
	25	40	1972 6 19	
Area G	50	5	1971 8 - 1971 9	Month
	50	10	1971 10 - 1972 7	Month
	25	7 - 10	1971 8 - 1973 1	Month
Area H (Hakozaki)	50	16	1968 3 - 1968 11	Month
Area K (Kumano)	50	16	1968 3 - 1968 11	Month

Table 1-3 Species composition and maximum biomass of earthworm of earthworm in various vegetation

Area	g fresh wt m ⁻² (g dry wt m ⁻²)				
	Area G	Area D	Area H	Area K	IBP Minamata
Species					
<i>Metaphire schmaridae</i>		6.648 (0.472)	1.877 (0.146)		
<i>Amyntas</i> sp. (H-1)	11.045 (0.760)	122.964 (8.378)	43.945 (2.982)		
<i>Amyntas vittatus</i>	0.679 (0.047)	24.912 (1.694)	29.24 (1.964)		
<i>Amyntas irregularis</i>				10.552 (0.725)	
<i>Metaphire sieboldi</i>					2.312 (0.157)
<i>Metaphire</i> sp. (M-3)					17.122 (1.153)
<i>Amyntas corticus</i>	60.512 (4.246)	34.39 (2.454)		3.762 (0.262)	
<i>Amyntas micronarius</i>			5.111 (0.364)	0.471 (0.054)	2.809 (0.142)
<i>Allolobophora caliginosa</i>	7.298 (0.490)	11.14 (0.785)			
<i>Allolobophora jaoinica</i>			0.182 (0.022)	2.494 (0.189)	
Other fewer species	<i>Amyntas hupeiensis</i> Two unknown Pheretima	<i>Amyntas hupeiensis</i> Two unknown Pheretima	<i>Bimastos parvus</i>	<i>Bimastos parvus</i>	Four unknown Pheretima One unknown Lumbricidae

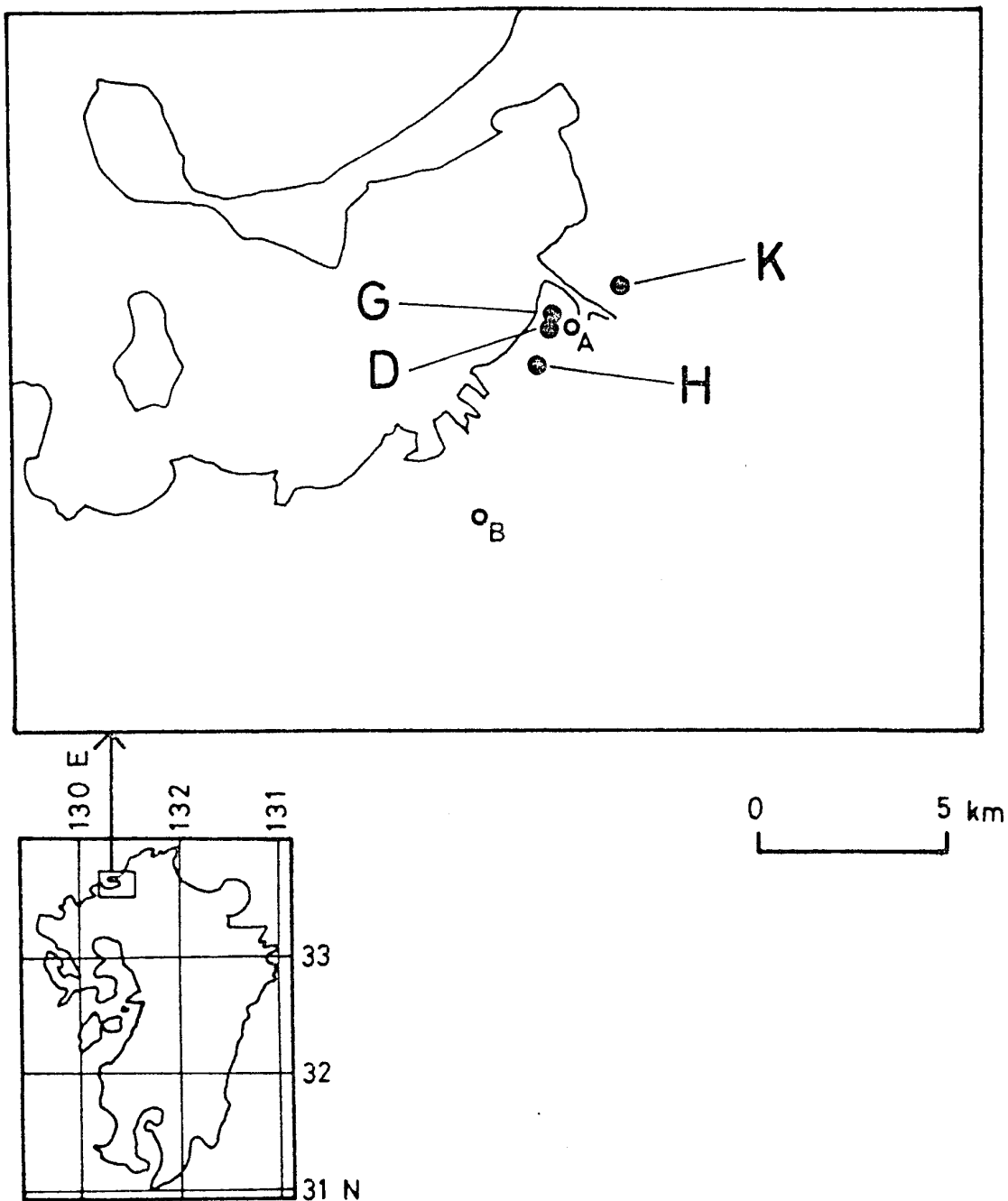


Fig. 1-1. The map showing the sampling areas

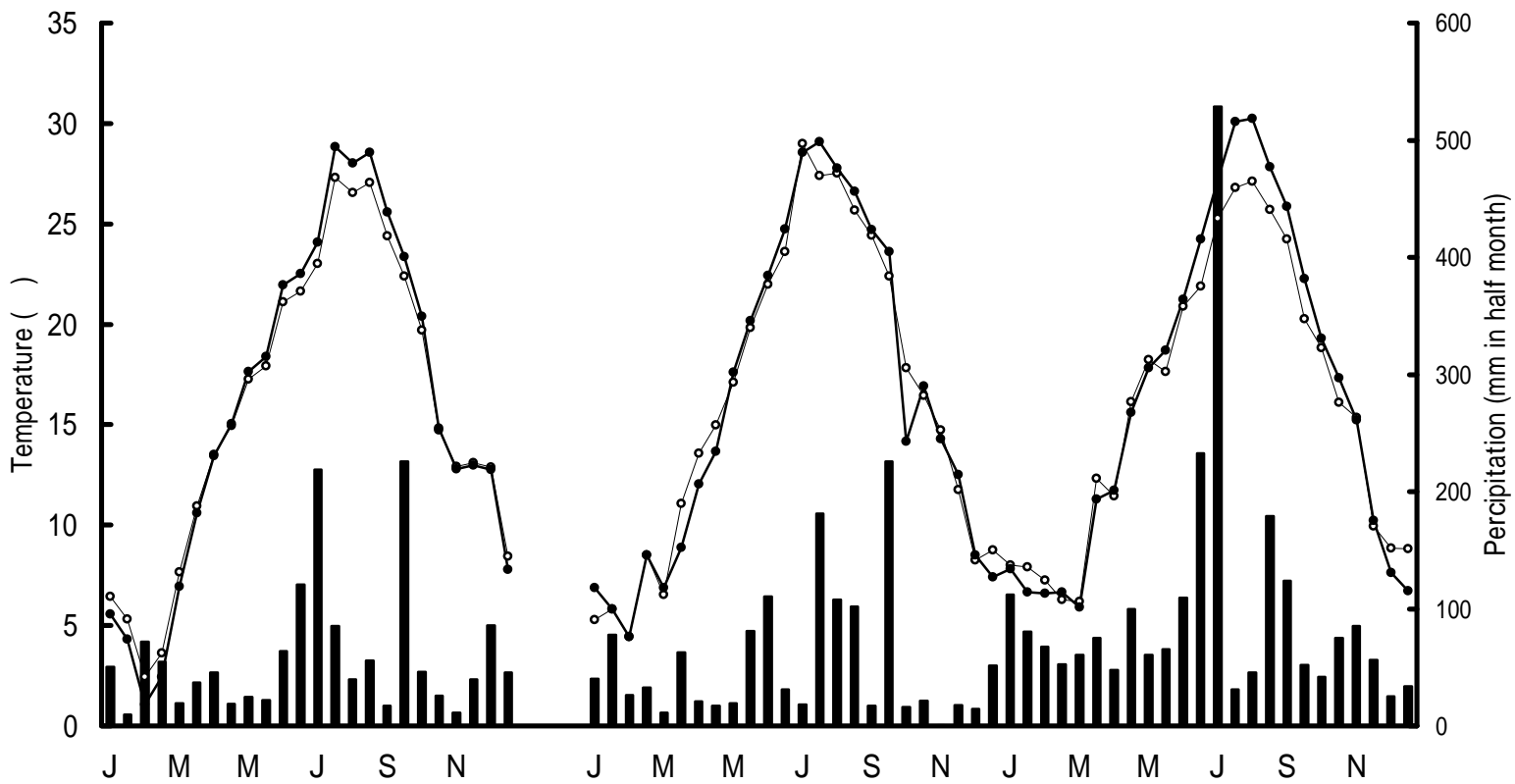


Fig.1-2. Seasonal change of percipitation, and air and

■ Percipitation —○— Temperature —●—

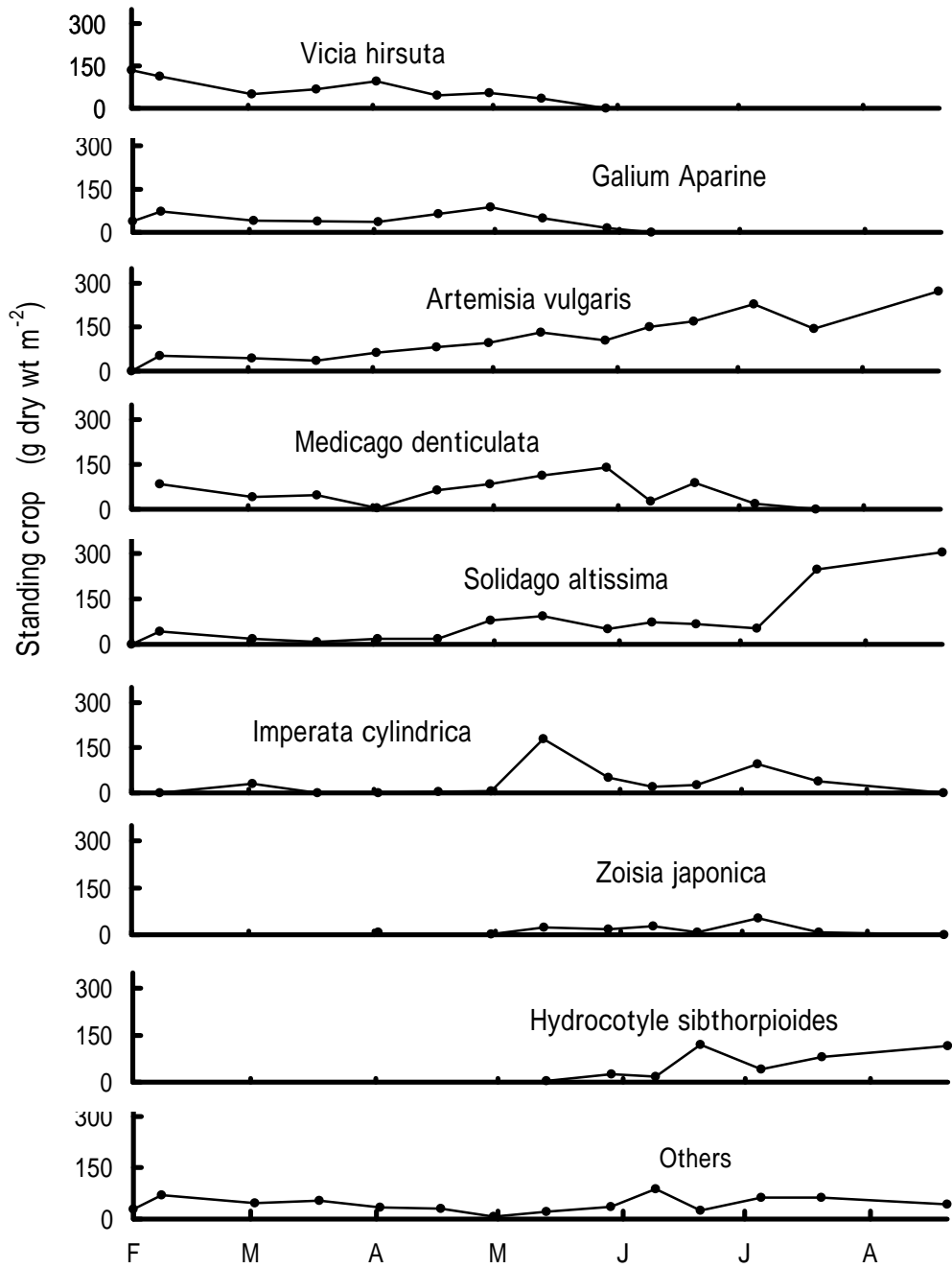


Fig. 1-3. Seasonal change in the standing crop of the above ground vegetation in area D 1972.

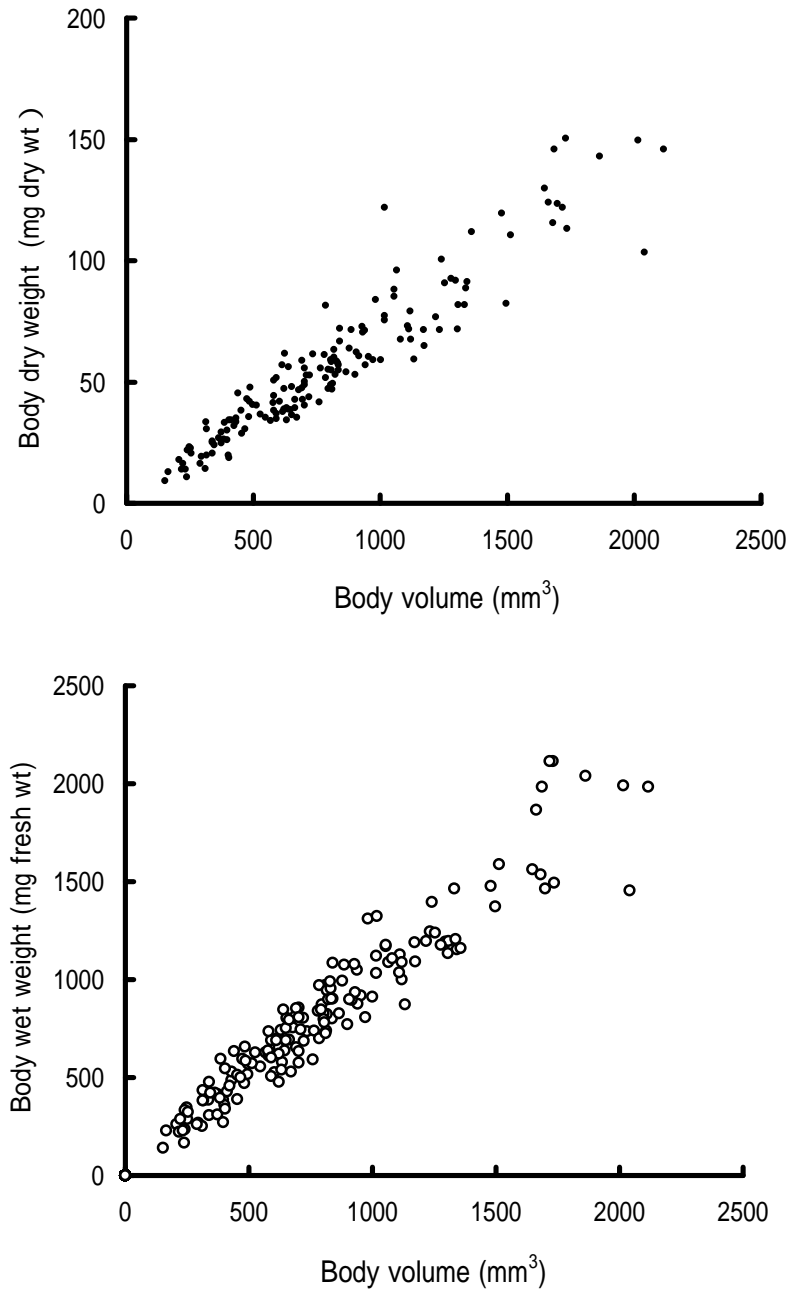


Fig. 1-4. The relation of body wet weight to body volume and the relation of body dry weight to body volume, of *Amynthis* sp. (H-1)

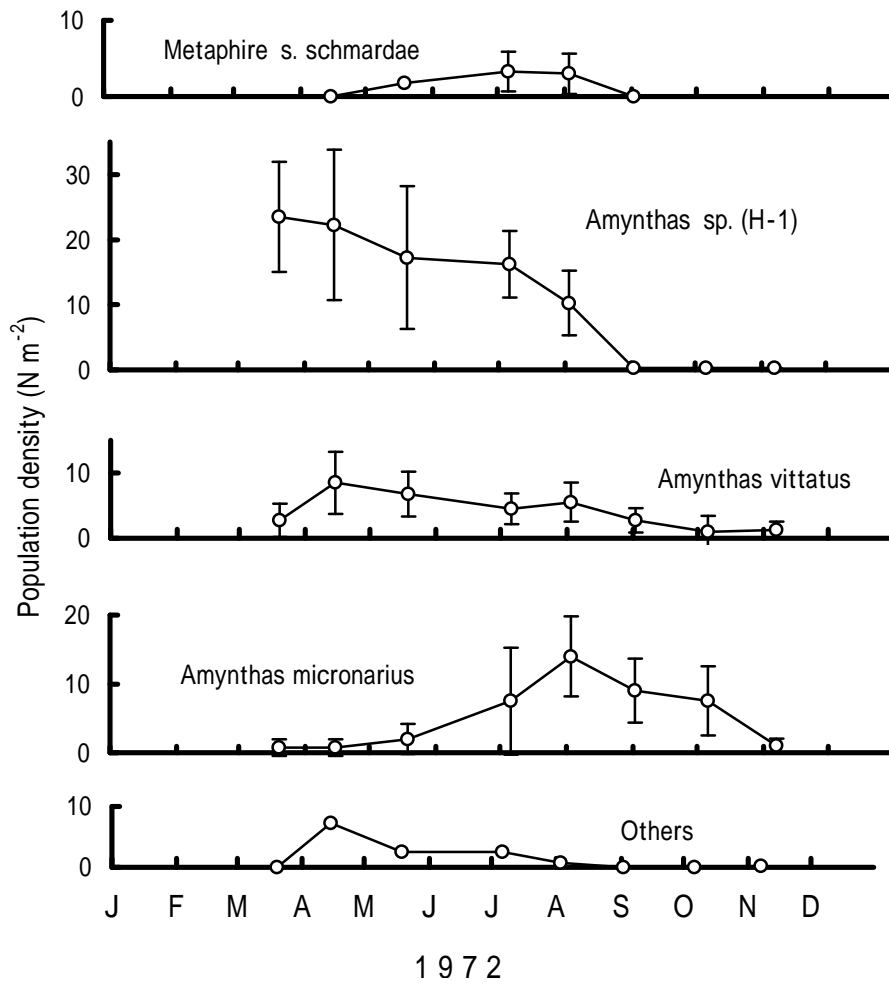


Fig. 1-5 Seasonal change in population density of earthworms in area H. Vertical lines indicate one standard deviation.

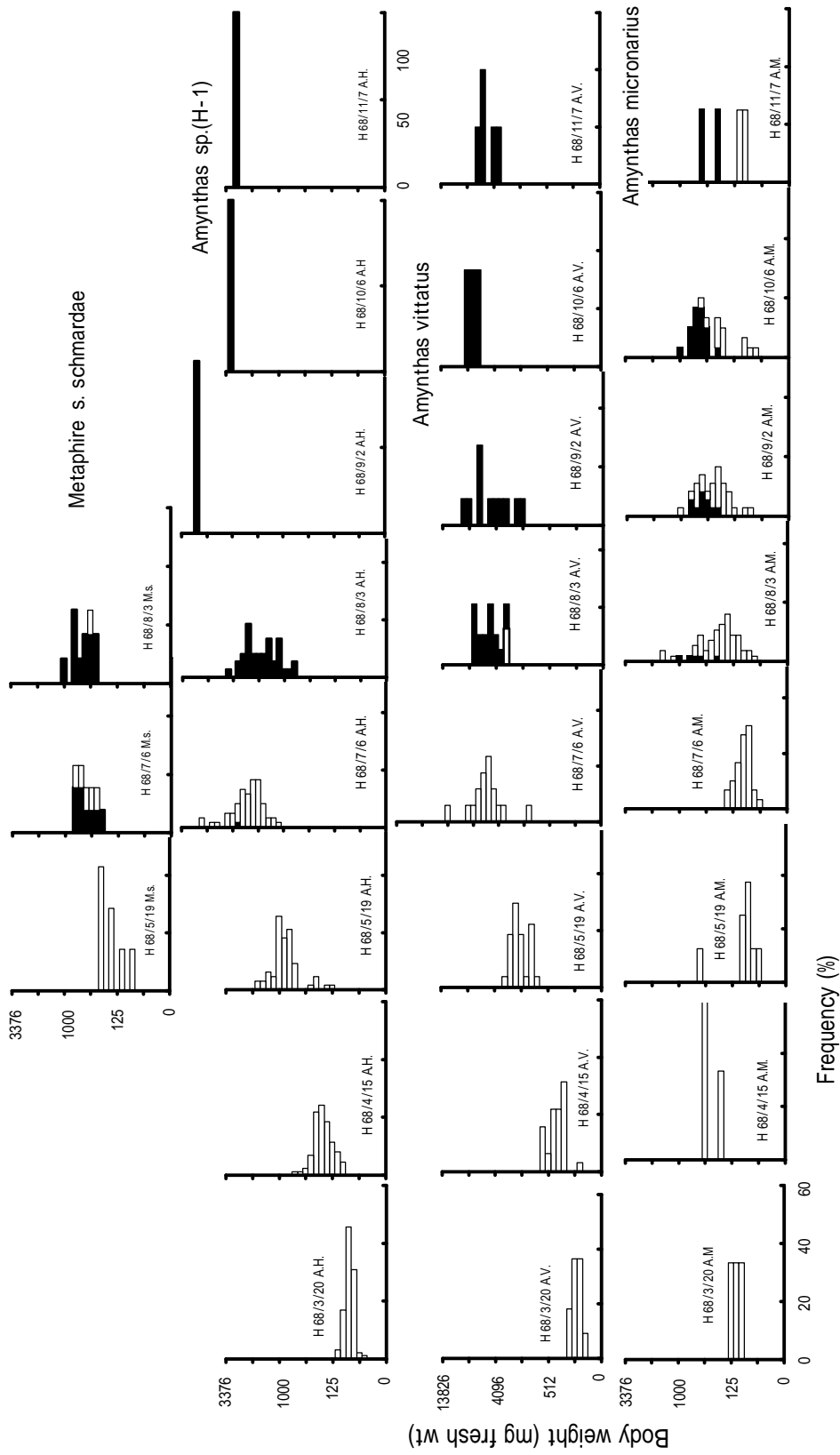


Fig. 1-6. Seasonal change of body weight frequency of earthworms in area H. Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

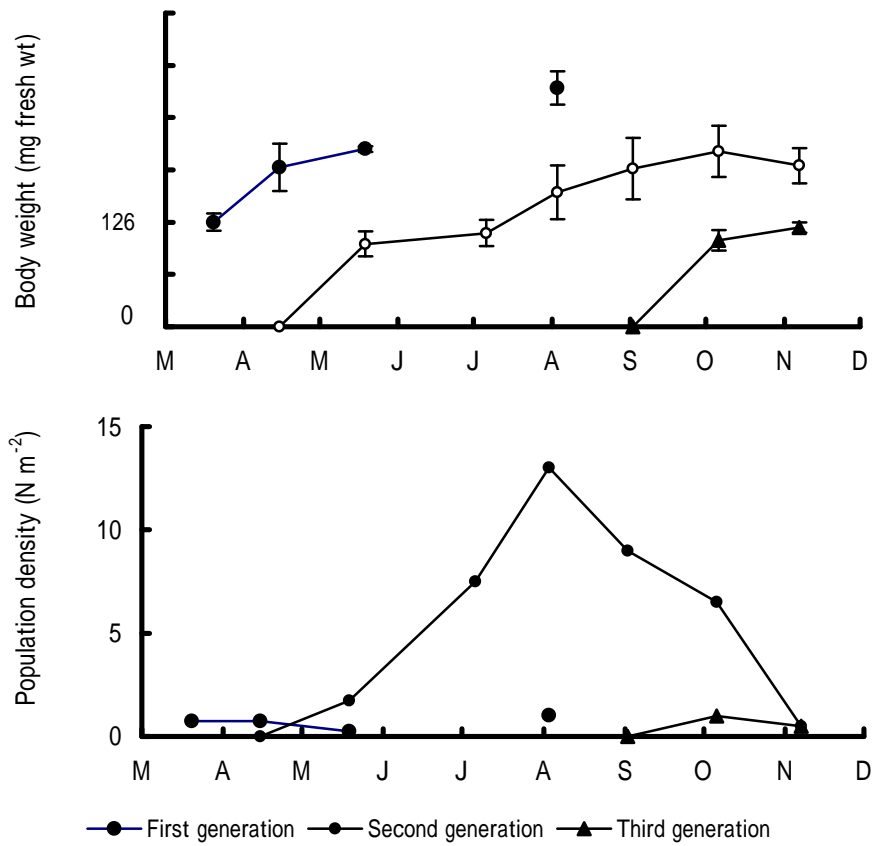


Fig. 1-7. Seasonal change in (a) body weight and (b) density of each generation of *Amyntas micronarius*. Vertical lines in upper figure indicate one standard deviation.

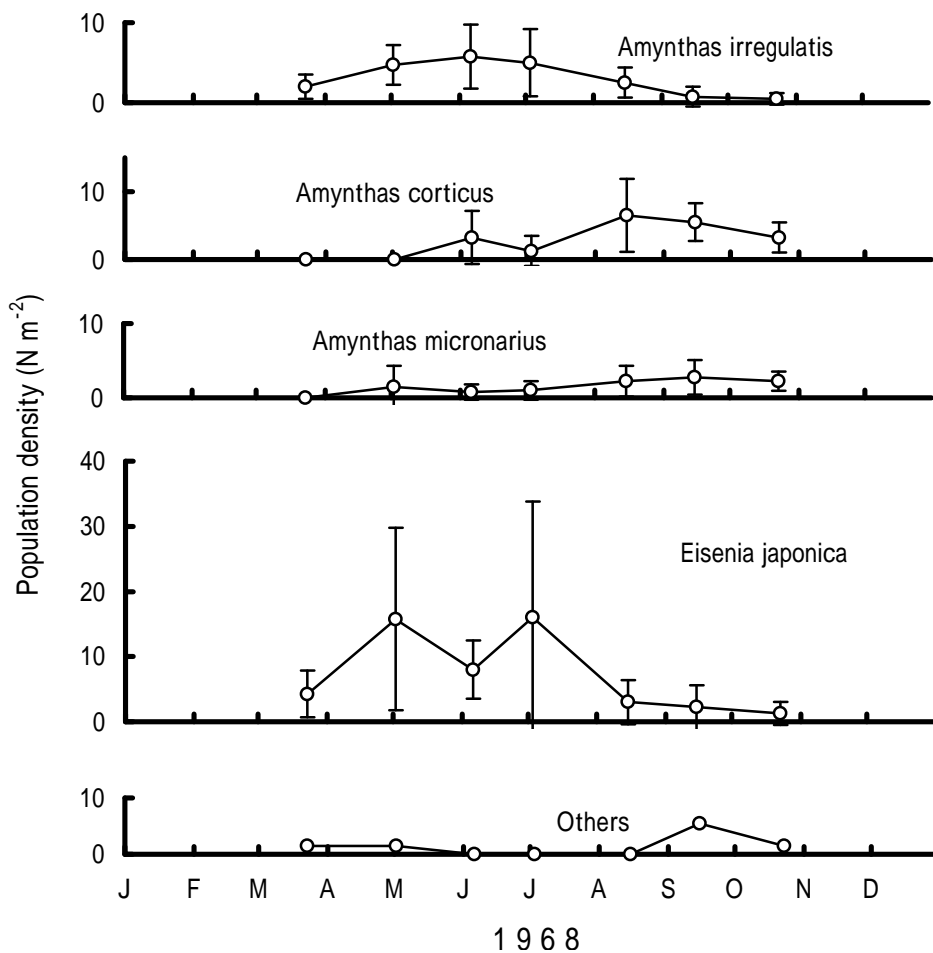


Fig. 1-8. Seasonal change in population density of earthworms in area K. Vertical lines indicate one standard deviation.

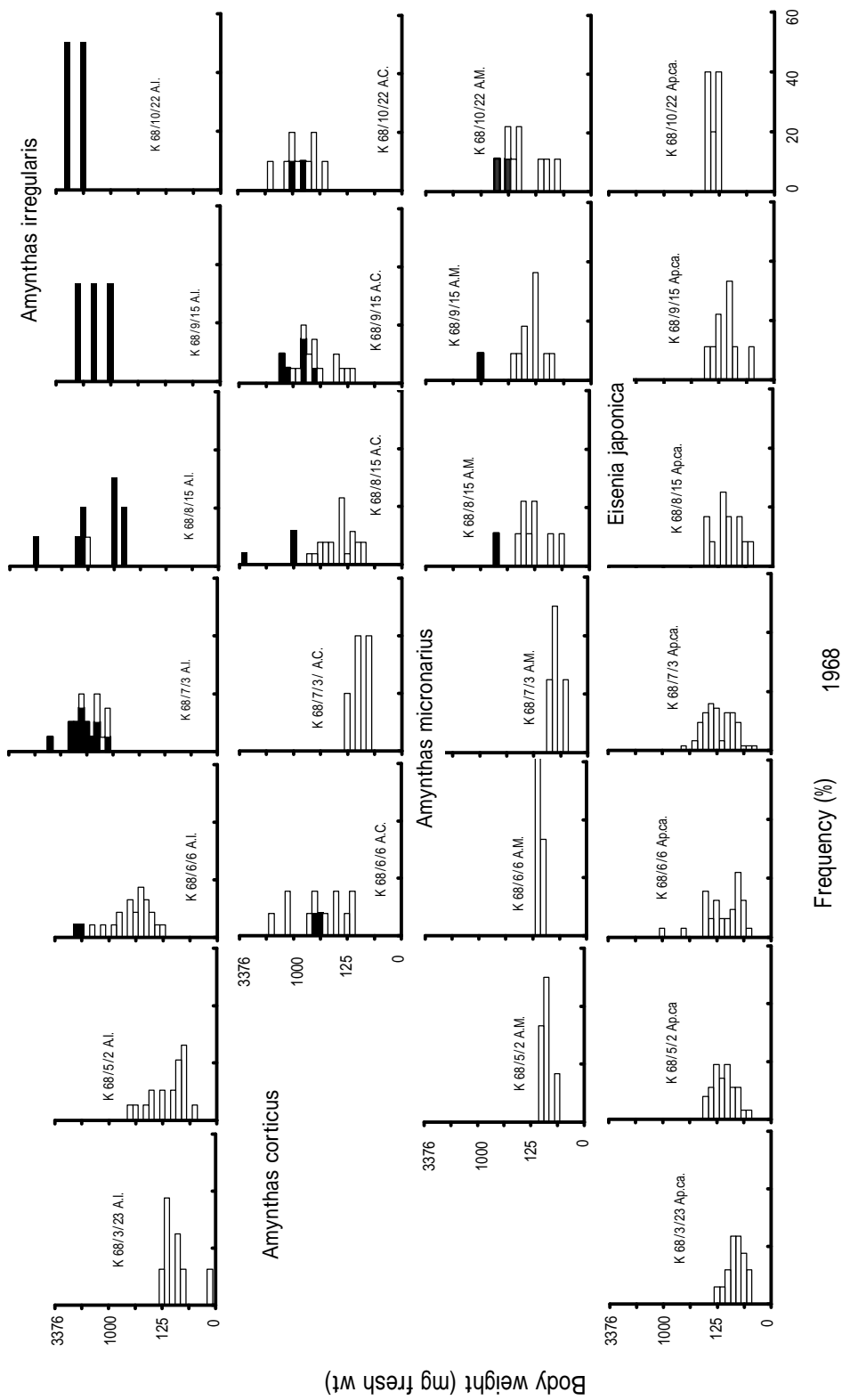


Fig. 1-9. Seasonal change of body weight frequency of earthworms in area K.
 Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

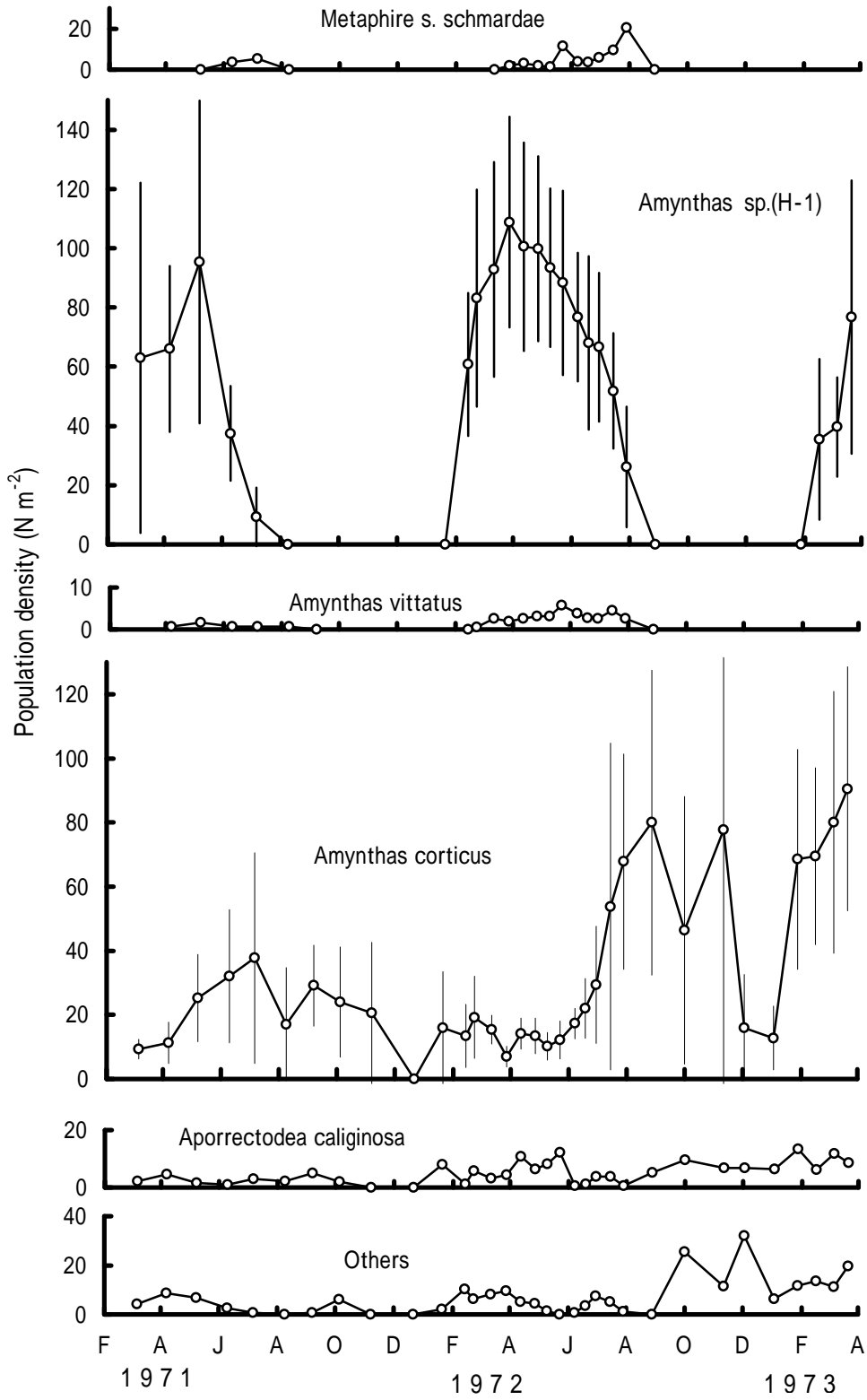


Fig. 1-10. Seasonal change in population density of earthworms in area D. Vertical lines indicate one standard deviation.

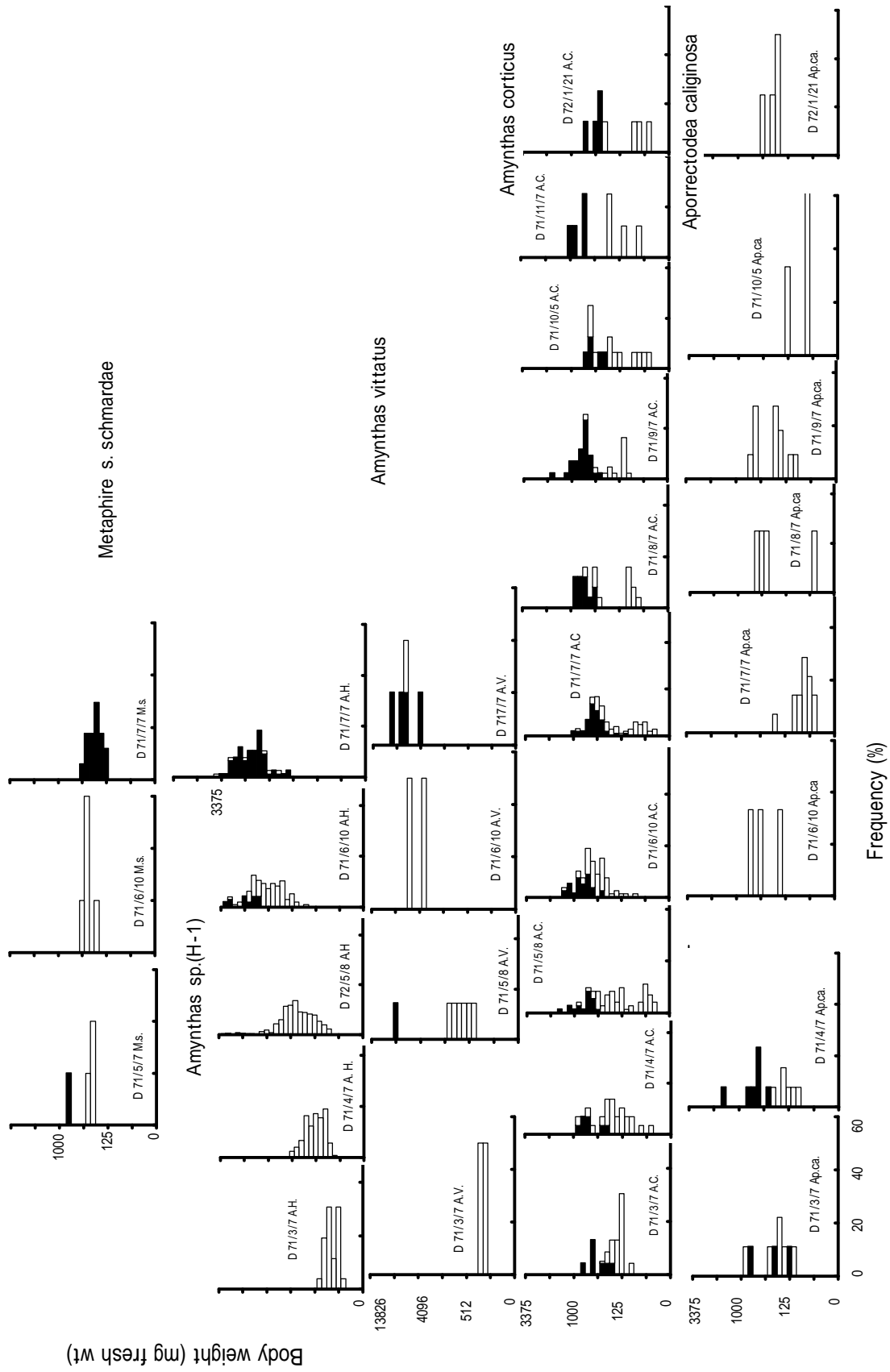


Fig. 1-11a. Seasonal change in body weight frequency of earthworms in area D for the period March 1971 to Jan. 1972. Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

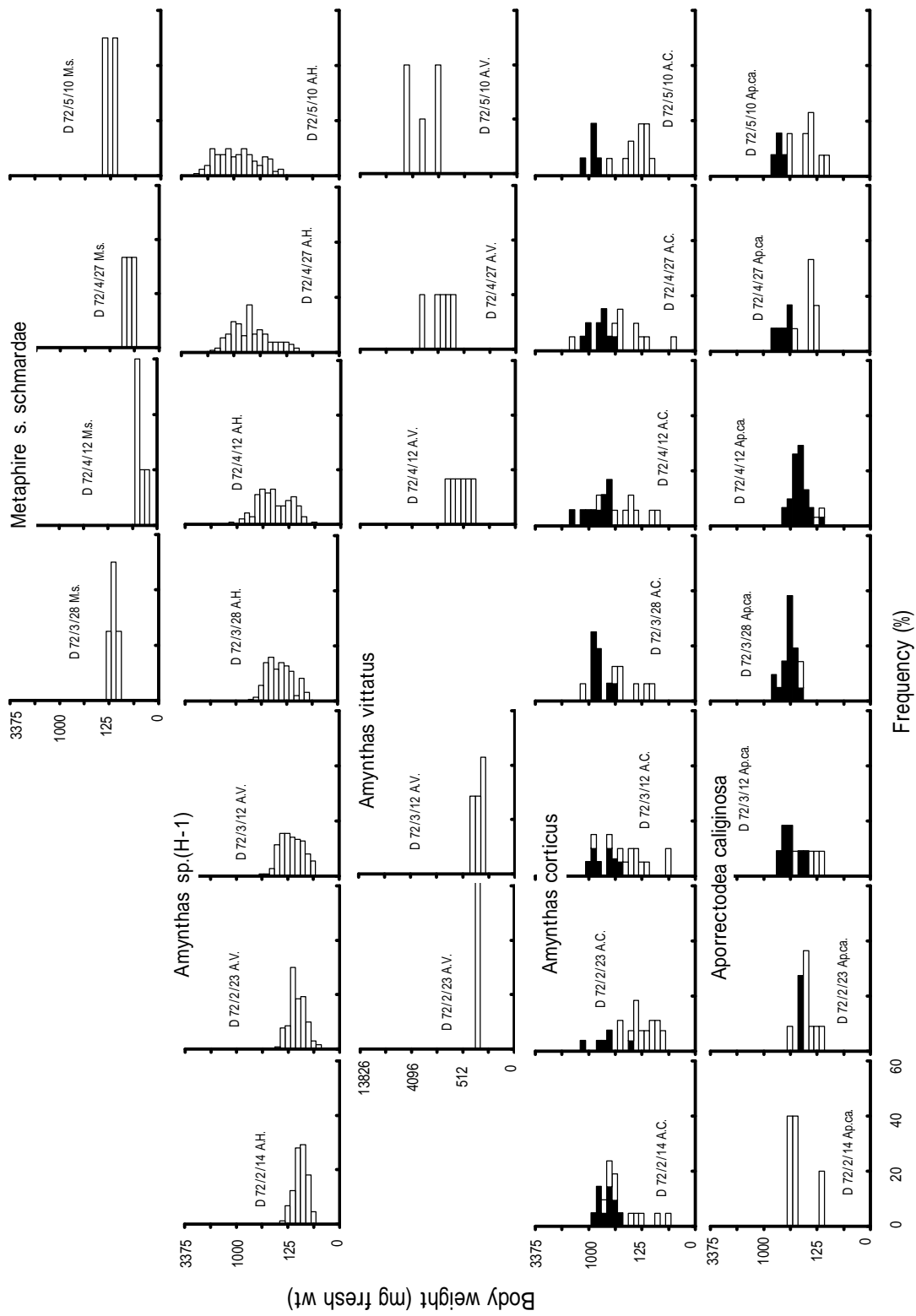


Fig. 1-11b. Seasonal change in body weight frequency of earthworms in area D for the period Feb. 1972 to early May 1972. Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

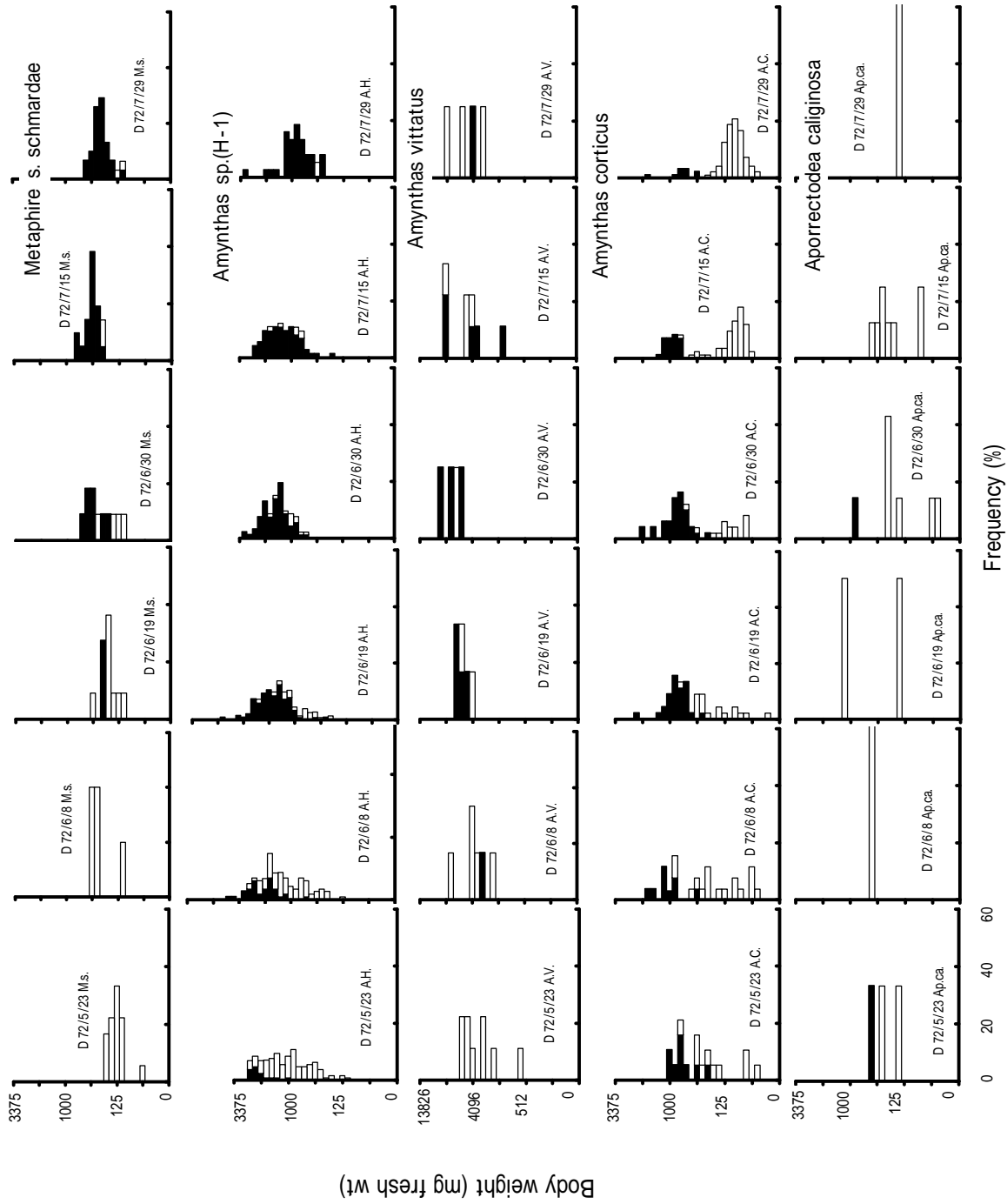


Fig. 1-11c. Seasonal change in body weight frequency of earthworms in area D for the period late May to late July 1972. Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

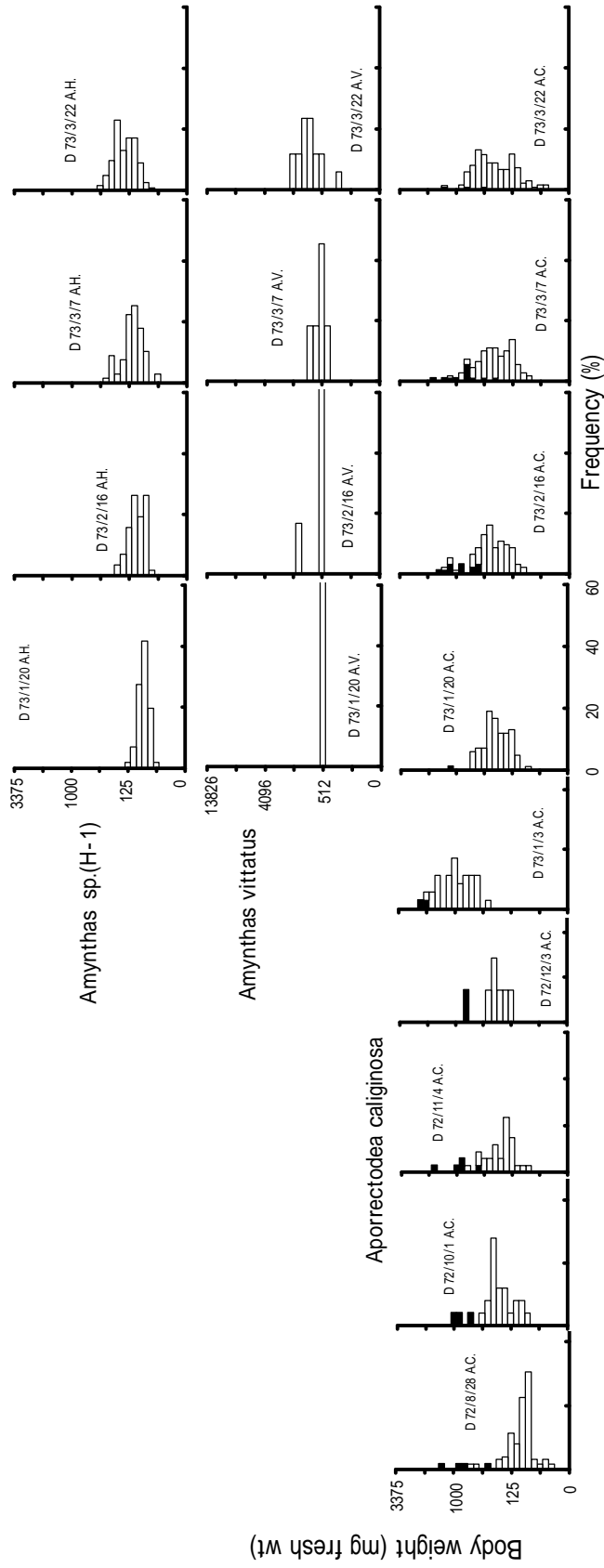


Fig. 1-11d. Seasonal change in body weight frequency of earthworms in area D for the period August 1972 to May 1973. Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

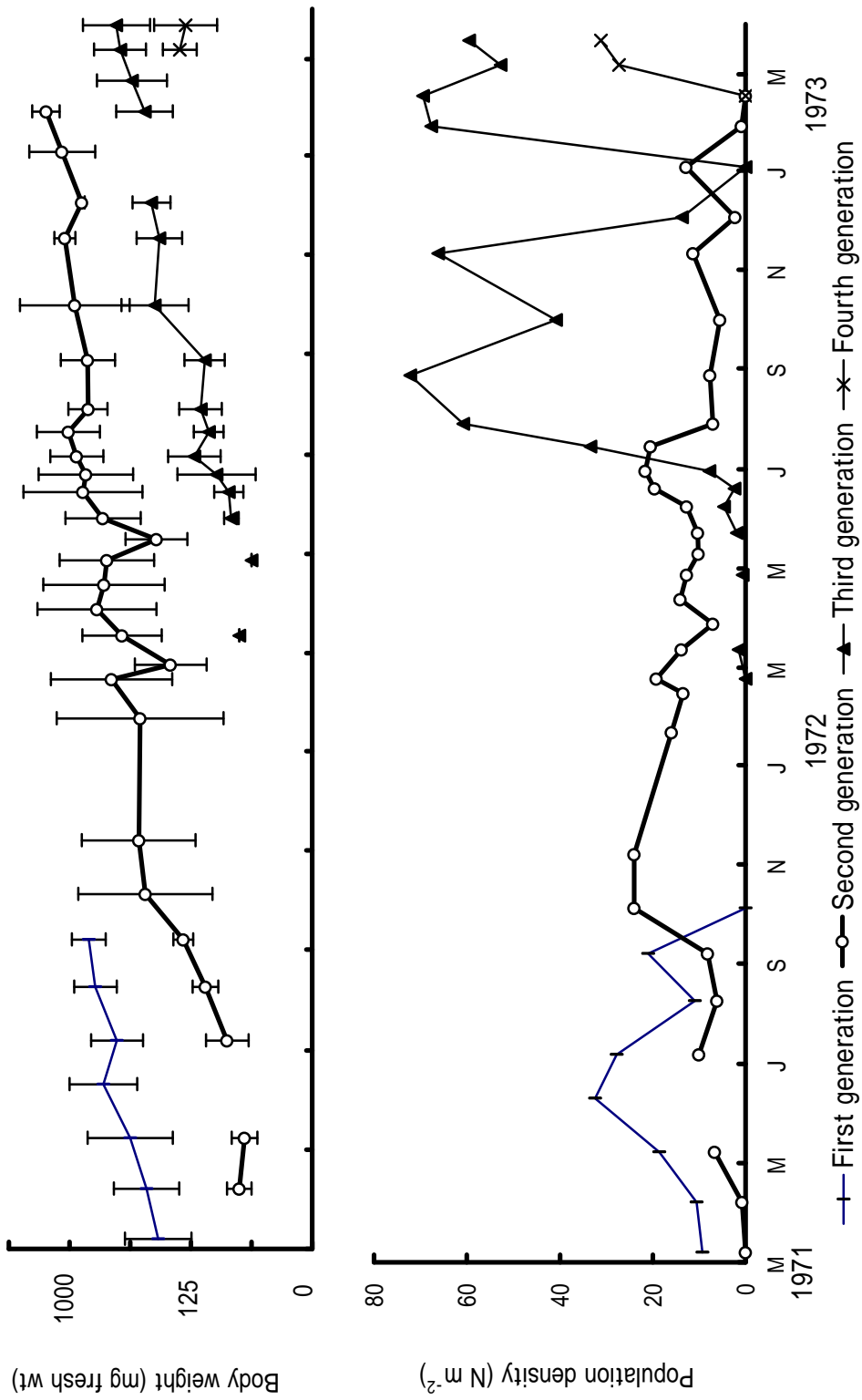


Fig. 1-12. Seasonal change in (a) body weight and (b) density of each generation of *Amynthas corticus* in area D. Vertical lines in upper figure indicate one standard deviation.

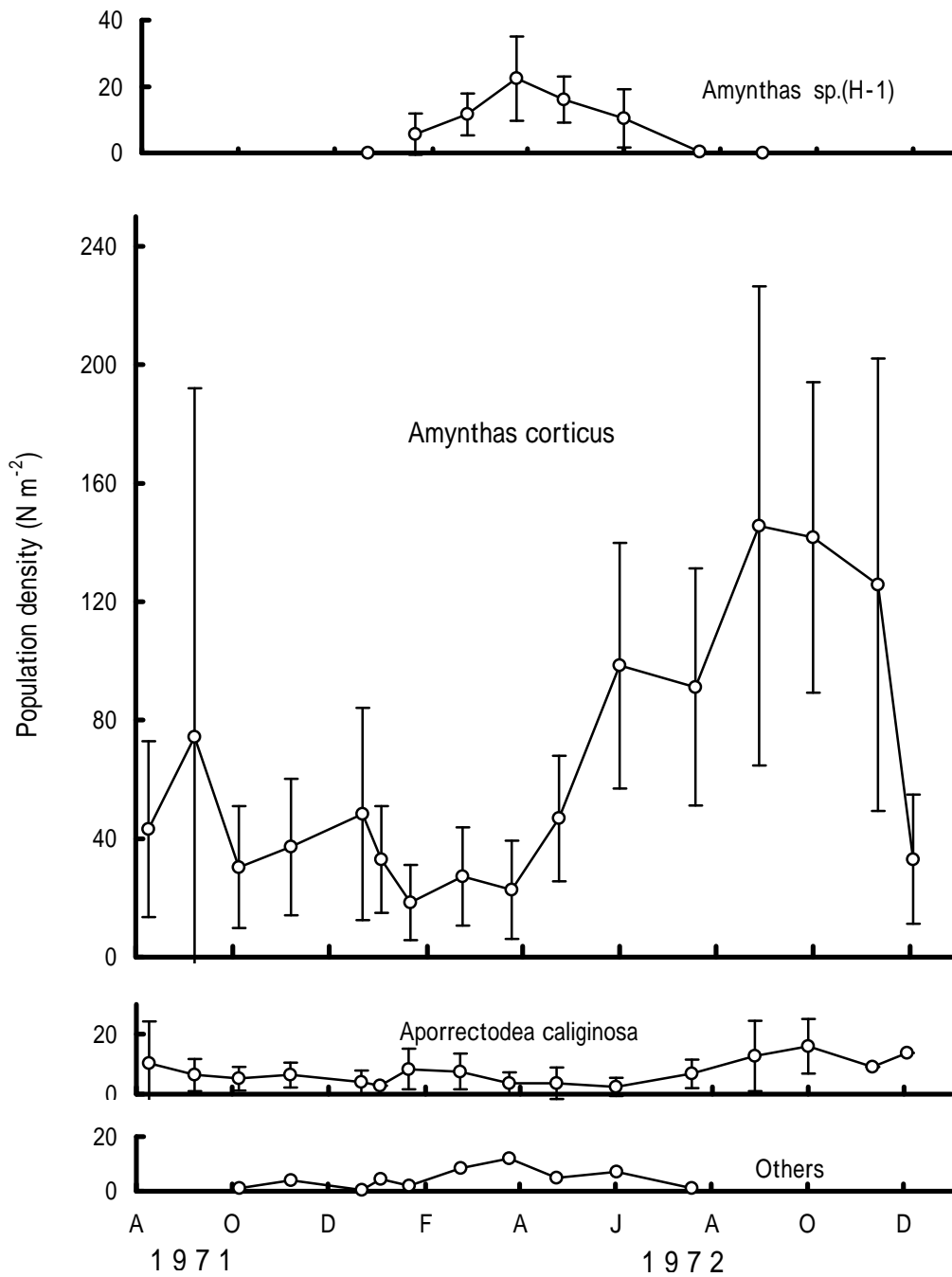


Fig. 1-13. Seasonal change in population density of earthworms in area G. Vertical lines indicate one standard deviation.

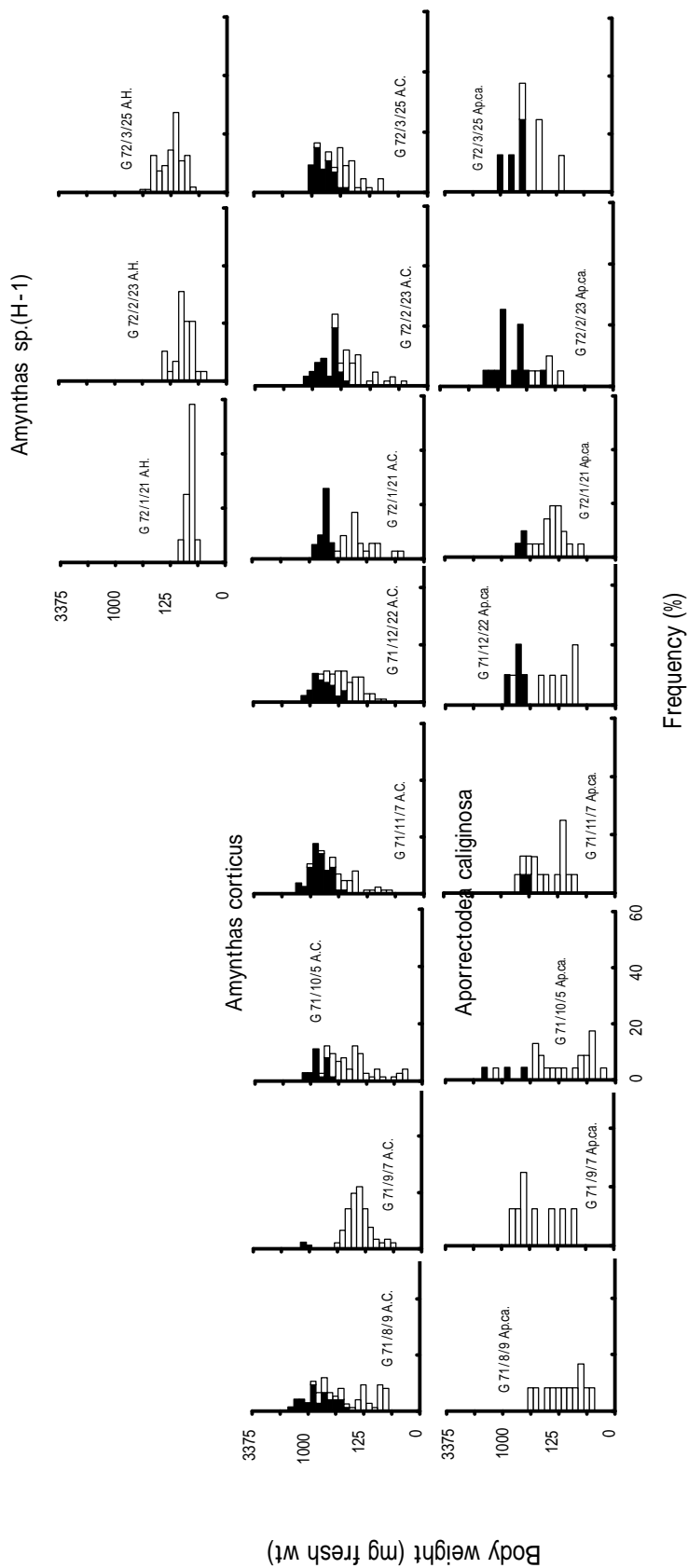


Fig. 1-14a. Seasonal change in body weight frequency of earthworms in area G for the period August 1971 to March 1972. Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

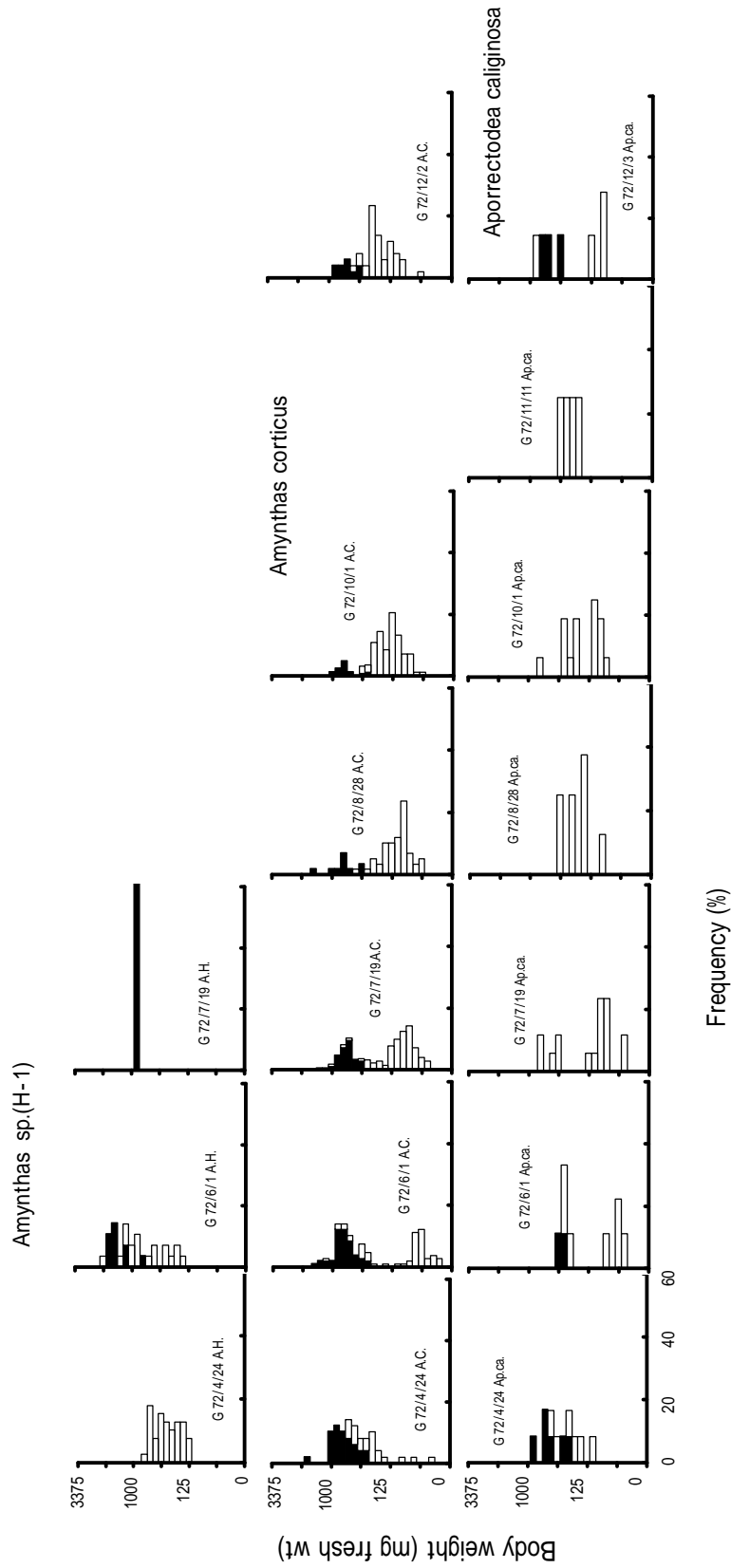


Fig. 1-14b. Seasonal change in body weight frequency of earthworms in area G for the period April 1972 to December 1972. Open bars indicate the frequency of immature and black bars indicate the frequency of mature.

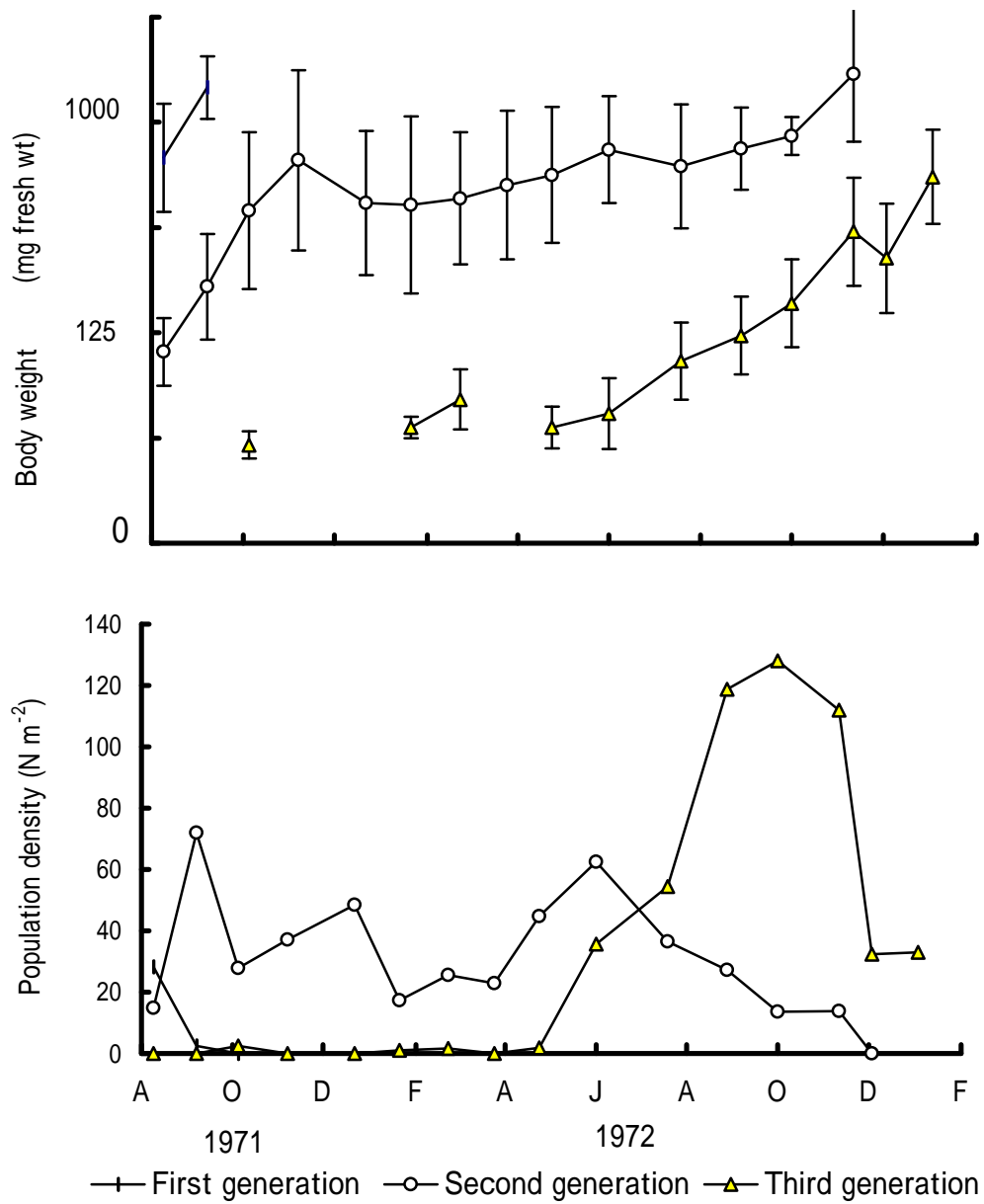


Fig. 1-15. Seasonal change in (a) body weight and (b) density of each generation of *Amynthus corticus* in area G. Vertical lines in upper figure indicate one standard deviation.