

Appendix from T. D. Meehan, “Mass and Temperature Dependence of Metabolic Rate in Litter and Soil Invertebrates” (Physiol. Biochem. Zool., vol. 79, no. 5, p. 000)

Table A1
Data used in the analysis

Taxon	<i>N</i>	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
Earthworms:						
<i>Allolobophora caliginosa</i>	50	875	19	1.40	Byzova 1965	
<i>Allolobophora rosea</i>		335	6	.461	Phillipson and Bolton 1976	
<i>A. rosea</i>		335	10	.692	Phillipson and Bolton 1976	
<i>A. rosea</i>		335	15	.879	Phillipson and Bolton 1976	
<i>Dendrobaena octaedra</i>	60	230	19	.847	Byzova 1965	
<i>Eisenia foetida</i>		335	15	.704	Mitchell 1979 ^b	
<i>E. foetida</i>	60	335	19	.631	Byzova 1965	
<i>Eisenia rosea</i>	65	335	19	.629	Byzova 1965	
<i>Eiseniella tetraedra</i>	24	110	19	.312	Byzova 1965	
<i>Glossoscolex paulistus</i>	17	10,200	15	8.65	Abe and Buck 1985	
<i>G. paulistus</i>	26	9,500	20	8.87	Abe and Buck 1985	
<i>G. paulistus</i>	18	10,000	25	10.5	Abe and Buck 1985	
<i>G. paulistus</i>	17	10,400	30	14.3	Abe and Buck 1985	
<i>G. paulistus</i>	16	10,500	35	15.7	Abe and Buck 1985	
<i>Lumbricus castaneus</i>		1,500	11	2.05	Gromadska 1962	
<i>L. castaneus</i>		1,500	14	1.67	Gromadska 1962	
<i>L. castaneus</i>		1,500	17	2.20	Gromadska 1962	
<i>L. castaneus</i>	42	240	19	.697	Byzova 1965	
<i>L. castaneus</i>		1,500	20	1.75	Gromadska 1962	
<i>L. castaneus</i>		1,500	23	2.12	Gromadska 1962	
<i>L. castaneus</i>		1,500	26	2.72	Gromadska 1962	
<i>Lumbricus rubellus</i>	63	745	19	1.47	Byzova 1965	
<i>Lumbricus terrestris</i>		4,300	5	2.44	Fitzpatrick et al. 1987	
<i>L. terrestris</i>		4,300	10	3.28	Fitzpatrick et al. 1987	
<i>L. terrestris</i>		4,300	15	3.77	Fitzpatrick et al. 1987	
<i>L. terrestris</i>	18	2,600	19	3.32	Byzova 1965	
<i>L. terrestris</i>		4,300	20	5.61	Fitzpatrick et al. 1987	
<i>Octolasion lacteum</i>	24	1,075	19	1.52	Byzova 1965	
Isopods:						
<i>Armadillidium nasatum</i>		30.0	20	.0782	Riechle 1968	
<i>Armadillidium vulgare</i>		6.00	5	.00721	Al-Dabbagh 1976	Cited in Al-Dabbagh and Marina 1986
<i>A. vulgare</i>		6.00	10	.0159	Al-Dabbagh 1976	Cited in Al-Dabbagh and Marina 1986
<i>A. vulgare</i>		74.0	10	.125	Edney 1964	Cited in Al-Dabbagh and Marina 1986
<i>A. vulgare</i>		6.00	15	.0233	Al-Dabbagh 1976	Cited in Al-Dabbagh and Marina 1986

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>A. vulgare</i>		6.00	20	.0283	Al-Dabbagh 1976	Cited in Al-Dabbagh and Marina 1986
<i>A. vulgare</i>		74.0	20	.207	Edney 1964	Cited in Al-Dabbagh and Marina 1986
<i>A. vulgare</i>		65.5	20	.194	Riechle 1968	
<i>A. vulgare</i>		2.00	20	.0101	Saito 1969	Cited in Al-Dabbagh and Marina 1986
<i>A. vulgare</i>		6.00	25	.0364	Al-Dabbagh 1976	Cited in Al-Dabbagh and Marina 1986
<i>A. vulgare</i>		74.0	30	.351	Edney 1964	Cited in Al-Dabbagh and Marina 1986
<i>Burmoniscus ocellatus</i>	18	7.94	23	.0395	Lam et al. 1991	
<i>Burmoniscus</i> sp.	26	7.94	23	.0386	Lam et al. 1991	
<i>Cylisticus convexus</i>		34.8	20	.144	Riechle 1968	
<i>Oniscus asellus</i>		10.1	16	.0840	Phillipson and Watson 1965	Immature
<i>O. asellus</i>		56.9	16	.206	Phillipson and Watson 1965	Adult male
<i>O. asellus</i>		68.3	16	.338	Phillipson and Watson 1965	Adult female
<i>Orodillo maculatus</i>	27	15.8	23	.0704	Lam et al. 1991	
<i>Philoscia muscorum</i>		20.0	19	.0945	Hassall 1983	
Philosciidae	8	45.8	25	.227	Humphreys and Collis 1990	
<i>Porcellio laevis</i>	38	80.0	5	.113	Lardies et al. 2004	Low elevation
<i>P. laevis</i>	18	70.0	5	.0667	Lardies et al. 2004	High elevation
<i>P. laevis</i>	90	60.0	10	.0941	Edney 1964	Cited in Al-Dabbagh and Marina 1986
<i>P. laevis</i>	34	80.0	12	.208	Lardies et al. 2004	Low elevation
<i>P. laevis</i>	23	70.0	12	.297	Lardies et al. 2004	High elevation
<i>P. laevis</i>	64	60.0	18	.432	Lardies et al. 2004	Low elevation
<i>P. laevis</i>	62	70.0	18	.541	Lardies et al. 2004	High elevation
<i>P. laevis</i>		60.0	20	.177	Edney 1964	Cited in Al-Dabbagh and Marina 1986
<i>P. laevis</i>	98	60.0	25	.917	Lardies et al. 2004	Low elevation
<i>P. laevis</i>	139	70.0	25	1.20	Lardies et al. 2004	High elevation
<i>P. laevis</i>		60.0	30	.290	Edney 1964	Cited in Al-Dabbagh and Marina 1986
<i>Porcellio scaber</i>		2.00	20	.0101	Saito 1969	Cited in Al-Dabbagh and Marina 1986
<i>P. scaber</i>		60.0	20	.136	Wieser 1965	Cited in Al-Dabbagh and Marina 1986
<i>Porcellionides pruinosus</i>	51	15.0	15	.0594	Al-Dabbagh and Marina 1986	
<i>P. pruinosus</i>	49	15.0	20	.0820	Al-Dabbagh and Marina 1986	
<i>P. pruinosus</i>		25.0	20	.157	Cloudsley-Thompson 1969	Cited in Al-Dabbagh and Marina 1986
<i>P. pruinosus</i>		18.4	20	.124	Riechle 1968	
<i>P. pruinosus</i>	30	15.0	25	.0970	Al-Dabbagh and Marina 1986	
<i>P. pruinosus</i>	53	15.0	30	.0984	Al-Dabbagh and Marina 1986	
<i>P. pruinosus</i>		25.0	34	.556	Cloudsley-Thompson 1969	Cited in Al-Dabbagh and Marina 1986
<i>P. pruinosus</i>	53	15.0	35	.186	Al-Dabbagh and Marina 1986	
<i>Spherillo raffaelei</i>	31	10.0	23	.0301	Lam et al. 1991	
<i>Trichoniscus pusillus</i>		1.20	5	.00315	Meyer and Phillipson 1983	Cited in Phillipson 1983
<i>T. pusillus</i>		1.20	10	.00509	Meyer and Phillipson 1983	Cited in Phillipson 1983
<i>T. pusillus</i>		1.20	15	.00776	Meyer and Phillipson 1983	Cited in Phillipson 1983

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
Oribatid mites:						
<i>Achipteria coleoprata</i>	8	.0405	5	.0000941	Luxton 1975	Male and female
<i>A. coleoprata</i>	10	.0405	10	.000126	Luxton 1975	Male and female
<i>A. coleoprata</i>	9	.0405	15	.000363	Luxton 1975	Male and female
<i>A. coleoprata</i>	11	.0405	20	.000494	Luxton 1975	Male and female
<i>Achipteria holomonensis</i>	16	.0100	5	.0000279	Stamou 1986	Immature
<i>A. holomonensis</i>	22	.0100	10	.0000669	Stamou 1986	Immature
<i>A. holomonensis</i>	15	.0100	15	.000122	Stamou 1986	Immature
<i>Achipteria oudemansi</i>	23	.0370	7	.0000261	Stamou et al. 1995	Adult
<i>A. oudemansi</i>	24	.0370	11	.0000277	Stamou et al. 1995	Adult
<i>A. oudemansi</i>	18	.0370	15	.0000527	Stamou et al. 1995	Adult
<i>A. oudemansi</i>	19	.0370	19	.0000875	Stamou et al. 1995	Adult
<i>A. oudemansi</i>	24	.0370	24	.0000889	Stamou et al. 1995	Adult
<i>A. oudemansi</i>	23	.0370	29	.0000917	Stamou et al. 1995	Adult
<i>Adoristes ovatus</i>	5	.0345	5	.0000662	Luxton 1975	Male and female
<i>A. ovatus</i>	8	.0345	10	.000108	Luxton 1975	Male and female
<i>A. ovatus</i>	7	.0345	15	.000197	Luxton 1975	Male and female
<i>A. ovatus</i>	6	.0345	20	.000344	Luxton 1975	Male and female
<i>Belba corynopus</i>	9	.0590	5	.000133	Luxton 1975	Male and female
<i>B. corynopus</i>	9	.0590	10	.000215	Luxton 1975	Male and female
<i>B. corynopus</i>	7	.0590	15	.000329	Luxton 1975	Male and female
<i>B. corynopus</i>	8	.0590	20	.000539	Luxton 1975	Male and female
<i>Carabodes coriaceus</i>	3	.0750	5	.0000429	Berthet 1964	Male and female; cited in Luxton 1975
<i>C. coriaceus</i>	3	.0750	10	.0000926	Berthet 1964	Male and female; cited in Luxton 1975
<i>C. coriaceus</i>	3	.0750	15	.000152	Berthet 1964	Male and female; cited in Luxton 1975
<i>Carabodes marginatus</i>	2	.0426	5	.0000287	Berthet 1964	Male and female; cited in Luxton 1975
<i>C. marginatus</i>	2	.0426	10	.0000387	Berthet 1964	Male and female; cited in Luxton 1975
<i>C. marginatus</i>	2	.0426	15	.0000750	Berthet 1964	Male and female; cited in Luxton 1975
<i>Ceratoppia bipilis</i>	3	.0903	10	.000307	Wood and Lawton 1973	Gravid
<i>C. bipilis</i>	3	.0645	10	.000170	Wood and Lawton 1973	Adult
<i>Ceratozetes gracilis</i>	6	.0240	5	.0000499	Luxton 1975	Male and female
<i>C. gracilis</i>	7	.0240	10	.000118	Luxton 1975	Male and female
<i>C. gracilis</i>	3	.0200	10	.0000970	Wood and Lawton 1973	Adult
<i>C. gracilis</i>	10	.0240	15	.000216	Luxton 1975	Male and female
<i>C. gracilis</i>	7	.0282	15	.000109	Mitchell 1979a	
<i>C. gracilis</i>	10	.0240	20	.000314	Luxton 1975	Male and female
<i>Ceratozetes kananaskis</i>	3	.00810	5	.0000103	Mitchell 1979a	
<i>C. kananaskis</i>	3	.00810	10	.0000184	Mitchell 1979a	
<i>C. kananaskis</i>	10	.00810	15	.0000364	Mitchell 1979a	
<i>C. kananaskis</i>	6	.00810	20	.0000453	Mitchell 1979a	
<i>Chamobates cuspidatus</i>	8	.00650	5	.0000164	Berthet 1964	Male and female; cited in Luxton 1975
<i>C. cuspidatus</i>	9	.00650	10	.0000417	Berthet 1964	Male and female; cited in Luxton 1975
<i>C. cuspidatus</i>	9	.00650	15	.0000939	Berthet 1964	Male and female; cited in Luxton 1975

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>Chamobates</i> sp.	10	.00720	10	.0000788	Wood and Lawton 1973	Adult
<i>Damaeus clavipes</i>	11	.133	5	.000225	Luxton 1975	Male and female
<i>D. clavipes</i>	6	.133	10	.000319	Luxton 1975	Male and female
<i>D. clavipes</i>	1	.258	10	.000653	Wood and Lawton 1973	Adult
<i>D. clavipes</i>	6	.133	15	.000477	Luxton 1975	Male and female
<i>D. clavipes</i>	12	.133	20	.000995	Luxton 1975	Male and female
<i>Damaeus onustus</i>	6	.680	10	.000766	Wood and Lawton 1973	Adult
<i>D. onustus</i>	10	.781	10	.000653	Wood and Lawton 1973	Gravid
<i>D. onustus</i>	6	.353	10	.000531	Wood and Lawton 1973	Tritonymph
<i>D. onustus</i>	8	.214	10	.000376	Wood and Lawton 1973	Deutonymph
<i>D. onustus</i>	9	.100	10	.000265	Wood and Lawton 1973	Protonymph
<i>D. onustus</i>	10	.0331	10	.000147	Wood and Lawton 1973	Larvae
<i>D. onustus</i>	6	.625	18	.00106	Zinkler 1966	Male and female
<i>Eupterotegeaus rostratus</i>	4	.0347	15	.000105	Mitchell 1979a	
<i>Euzetes globulus</i>	1	.330	0	.0000826	Berthet 1964	Male and female; cited in Luxton 1975
<i>E. globulus</i>	4	.330	5	.000206	Berthet 1964	Male and female; cited in Luxton 1975
<i>E. globulus</i>	4	.330	10	.000387	Berthet 1964	Male and female; cited in Luxton 1975
<i>E. globulus</i>	9	.348	10	.000919	Wood and Lawton 1973	Adult
<i>E. globulus</i>	7	.330	15	.000754	Berthet 1964	Male and female; cited in Luxton 1975
<i>E. globulus</i>	10	.320	18	.00104	Zinkler 1966	Male and female
<i>E. globulus</i>	4	.330	25	.00209	Berthet 1964	Male and female; cited in Luxton 1975
<i>Galumna</i> sp.	4	.0445	10	.000119	Wood and Lawton 1973	Adult
<i>Hemileius initialis</i>	5	.0210	5	.0000560	Luxton 1975	Male and female
<i>H. initialis</i>	7	.0210	10	.0000988	Luxton 1975	Male and female
<i>H. initialis</i>	9	.0210	15	.000160	Luxton 1975	Male and female
<i>H. initialis</i>	6	.0210	20	.000245	Luxton 1975	Male and female
<i>Hypochthonius rufulus</i>	4	.0221	0	.0000213	Berthet 1964	Male and female; cited in Luxton 1975
<i>H. rufulus</i>	9	.0221	5	.0000346	Berthet 1964	Male and female; cited in Luxton 1975
<i>H. rufulus</i>	9	.0221	10	.0000841	Berthet 1964	Male and female; cited in Luxton 1975
<i>H. rufulus</i>	12	.0221	15	.000156	Berthet 1964	Male and female; cited in Luxton 1975
<i>Liacarus coracinus</i>	2	.0900	5	.000153	Berthet 1964	Male and female; cited in Luxton 1975
<i>L. coracinus</i>	2	.0900	10	.000239	Berthet 1964	Male and female; cited in Luxton 1975
<i>L. coracinus</i>	2	.0900	15	.000568	Berthet 1964	Male and female; cited in Luxton 1975
<i>Liacarus xylariae</i>	8	.113	10	.000263	Wood and Lawton 1973	Adult
<i>L. xylariae</i>	10	.207	10	.000374	Wood and Lawton 1973	Gravid
<i>Metabelba papillipes</i>	8	.0190	10	.0000990	Wood and Lawton 1973	Adult
<i>Nanhermannia elegantula</i>	7	.0181	5	.0000169	Berthet 1964	Male and female; cited in Luxton 1975
<i>N. elegantula</i>	8	.0181	10	.0000428	Berthet 1964	Male and female; cited in Luxton 1975

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>N. elegantula</i>	7	.0181	15	.0000690	Berthet 1964	Male and female; cited in Luxton 1975
<i>Nothrus palustris</i>	5	.247	10	.000440	Wood and Lawton 1973	Adult
<i>N. palustris</i>	4	.0703	10	.000137	Wood and Lawton 1973	Tritonymph
<i>N. palustris</i>	4	.0375	10	.000121	Wood and Lawton 1973	Deutonymph
<i>N. palustris</i>	2	.0220	10	.0000505	Wood and Lawton 1973	Protonymph
<i>N. palustris</i>	5	.00900	10	.0000505	Wood and Lawton 1973	Larvae
<i>Nothrus silvestris</i>	2	.0472	5	.0000497	Berthet 1964	Male and female; cited in Luxton 1975
<i>N. silvestris</i>	11	.0524	5	.0000621	Webb 1969	Adult male and female
<i>N. silvestris</i>	2	.0472	10	.000106	Berthet 1964	Male and female; cited in Luxton 1975
<i>N. silvestris</i>	8	.0524	10	.000126	Webb 1969	Adult male and female
<i>N. silvestris</i>	11	.0300	10	.0000958	Webb 1969	Tritonymph
<i>N. silvestris</i>	18	.0129	10	.0000444	Webb 1969	Deutonymph
<i>N. silvestris</i>	11	.00680	10	.0000293	Webb 1969	Protonymph
<i>N. silvestris</i>	15	.00350	10	.0000111	Webb 1969	Larvae
<i>N. silvestris</i>	2	.0472	15	.000205	Berthet 1964	Male and female; cited in Luxton 1975
<i>N. silvestris</i>	5	.0524	15	.000146	Webb 1969	Adult male and female
<i>N. silvestris</i>	7	.0524	20	.000264	Webb 1969	Adult male and female
<i>Oppia nova</i>	1	.00170	5	.00000341	Berthet 1964	Male and female; cited in Luxton 1975
<i>O. nova</i>	1	.00170	10	.00000431	Berthet 1964	Male and female; cited in Luxton 1975
<i>O. nova</i>	1	.00170	15	.0000129	Berthet 1964	Male and female; cited in Luxton 1975
<i>Oppia subpectinata</i>	9	.00320	5	.00000790	Berthet 1964	Male and female; cited in Luxton 1975
<i>O. subpectinata</i>	10	.00320	10	.0000144	Berthet 1964	Male and female; cited in Luxton 1975
<i>O. subpectinata</i>	11	.00320	15	.0000291	Berthet 1964	Male and female; cited in Luxton 1975
<i>Oribatella quadricornuta</i>	5	.0240	5	.0000197	Berthet 1964	Male and female; cited in Luxton 1975
<i>O. quadricornuta</i>	7	.0240	10	.0000495	Berthet 1964	Male and female; cited in Luxton 1975
<i>O. quadricornuta</i>	7	.0240	15	.000105	Berthet 1964	Male and female; cited in Luxton 1975
<i>Parachipteria willmanni</i>	9	.0396	5	.0000466	Berthet 1964	Male and female; cited in Luxton 1975
<i>P. willmanni</i>	9	.0396	10	.000120	Berthet 1964	Male and female; cited in Luxton 1975
<i>P. willmanni</i>	5	.0738	10	.000196	Wood and Lawton 1973	Adult
<i>P. willmanni</i>	5	.0926	10	.000226	Wood and Lawton 1973	Gravid
<i>P. willmanni</i>	8	.0266	10	.000129	Wood and Lawton 1973	Tritonymph
<i>P. willmanni</i>	7	.0131	10	.000119	Wood and Lawton 1973	Deutonymph
<i>P. willmanni</i>	6	.0122	10	.0000606	Wood and Lawton 1973	Protonymph
<i>P. willmanni</i>	5	.00610	10	.0000404	Wood and Lawton 1973	Larvae
<i>P. willmanni</i>	11	.0396	15	.000226	Berthet 1964	Male and female; cited in Luxton 1975
<i>Phthiracarus piger</i>	8	.320	18	.000491	Luxton 1975	Male and female
<i>P. piger</i>	8	.350	18	.000537	Zinkler 1966	Male and female

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>Phthiracarus</i> sp.	11	.0581	10	.000113	Wood and Lawton 1973	Adult
<i>Phthiracarus</i> sp.	11	.203	10	.000255	Wood and Lawton 1973	Adult
<i>Pilogalumna allifera</i>	18	.0272	7	.0000178	Stamou et al. 1995	Adults
<i>P. allifera</i>	25	.0272	11	.0000240	Stamou et al. 1995	Adults
<i>P. allifera</i>	20	.0272	15	.0000406	Stamou et al. 1995	Adults
<i>P. allifera</i>	22	.0272	19	.0000701	Stamou et al. 1995	Adults
<i>P. allifera</i>	21	.0272	24	.0000754	Stamou et al. 1995	Adults
<i>P. allifera</i>	23	.0272	29	.0000832	Stamou et al. 1995	Adults
<i>Platynothrhus peltifer</i>	6	.0629	0	.0000212	Berthet 1964	Male and female; cited in Luxton 1975
<i>P. peltifer</i>	10	.0629	5	.0000745	Berthet 1964	Male and female; cited in Luxton 1975
<i>P. peltifer</i>	12	.0629	10	.000130	Berthet 1964	Male and female; cited in Luxton 1975
<i>P. peltifer</i>	20	.0629	15	.000209	Berthet 1964	Male and female; cited in Luxton 1975
<i>P. peltifer</i>	5	.0629	25	.000306	Berthet 1964	Male and female; cited in Luxton 1975
<i>Punctoribates punctum</i>	2	.0100	10	.0000505	Wood and Lawton 1973	Adult
<i>Rhysotritia ardua</i>	3	.0570	5	.0000309	Berthet 1964	Male and female; cited in Luxton 1975
<i>R. ardua</i>	3	.0570	10	.0000783	Berthet 1964	Male and female; cited in Luxton 1975
<i>R. ardua</i>	3	.0570	15	.000147	Berthet 1964	Male and female; cited in Luxton 1975
<i>Scheloribates</i> cf. <i>latipes</i>	20	.0135	7	.0000113	Stamou et al. 1995	Adult
<i>S. cf. latipes</i>	24	.0135	11	.0000277	Stamou et al. 1995	Adult
<i>S. cf. latipes</i>	23	.0135	15	.0000285	Stamou et al. 1995	Adult
<i>S. cf. latipes</i>	28	.0135	19	.0000483	Stamou et al. 1995	Adult
<i>S. cf. latipes</i>	22	.0135	24	.0000507	Stamou et al. 1995	Adult
<i>S. cf. latipes</i>	23	.0135	29	.0000558	Stamou et al. 1995	Adult
<i>Scheloribates</i> sp.	14	.00980	15	.0000511	Mitchell 1979a	
<i>Steganacarus magnus</i>	5	.361	0	.0000809	Berthet 1964	Male and female; cited in Luxton 1975
<i>S. magnus</i>	10	.361	5	.000177	Berthet 1964	Male and female; cited in Luxton 1975
<i>S. magnus</i>	5	.330	5	.000113	Luxton 1975	Male and female
<i>S. magnus</i>	11	.361	10	.000361	Berthet 1964	Male and female; cited in Luxton 1975
<i>S. magnus</i>	10	.330	10	.000393	Luxton 1975	Male and female
<i>S. magnus</i>	9	.592	10	.000436	Wood and Lawton 1973	Gravid
<i>S. magnus</i>	9	.191	10	.000206	Wood and Lawton 1973	Adult
<i>S. magnus</i>	2	.167	10	.000206	Wood and Lawton 1973	Tritonymph
<i>S. magnus</i>	6	.437	11	.000352	Webb 1975	Mature females
<i>S. magnus</i>	19	.361	15	.000601	Berthet 1964	Male and female; cited in Luxton 1975
<i>S. magnus</i>	6	.330	15	.000739	Luxton 1975	Male and female
<i>S. magnus</i>	6	.0160	18	.0000681	Webb 1975	Larvae
<i>S. magnus</i>	10	.0298	18	.000107	Webb 1975	Protonymph
<i>S. magnus</i>	8	.0579	18	.000260	Webb 1975	Deutonymph
<i>S. magnus</i>	12	.254	18	.000335	Webb 1975	Tritonymph
<i>S. magnus</i>	9	.110	18	.000194	Webb 1975	Immature male

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>S. magnus</i>	9	.291	18	.000409	Webb 1975	Immature male
<i>S. magnus</i>	11	.436	18	.00120	Webb and Elmes 1972	Mature female
<i>S. magnus</i>	9	.291	18	.000406	Webb and Elmes 1972	New female
<i>S. magnus</i>	10	.109	18	.000318	Webb and Elmes 1972	Mature male
<i>S. magnus</i>	9	.109	18	.000212	Webb and Elmes 1972	New male
<i>S. magnus</i>	9	.330	20	.00133	Luxton 1975	Male and female
<i>S. magnus</i>	5	.361	25	.00110	Berthet 1964	Male and female; cited in Luxton 1975
<i>S. magnus</i>	8	.427	25	.000893	Webb 1975	Immature male
<i>Steganacarus spinosus</i>	7	.0195	5	.0000465	Luxton 1975	Male and female
<i>S. spinosus</i>	3	.0195	10	.0000516	Luxton 1975	Male and female
<i>S. spinosus</i>	7	.0195	15	.0000741	Luxton 1975	Male and female
<i>S. spinosus</i>	7	.0195	20	.000111	Luxton 1975	Male and female
<i>Steganacarus striculus</i>	2	.0180	10	.0000626	Wood and Lawton 1973	Adult
<i>Tectocephus velatus</i>	11	.00420	5	.00000462	Berthet 1964	Male and female; cited in Luxton 1975
<i>T. velatus</i>	11	.00420	10	.00000949	Berthet 1964	Male and female; cited in Luxton 1975
<i>T. velatus</i>	11	.00420	15	.0000189	Berthet 1964	Male and female; cited in Luxton 1975
<i>Xenillus tegeocranus</i>	7	.140	5	.000158	Luxton 1975	Male and female
<i>X. tegeocranus</i>	5	.140	10	.000260	Luxton 1975	Male and female
<i>X. tegeocranus</i>	7	.140	15	.000450	Luxton 1975	Male and female
<i>X. tegeocranus</i>	9	.140	20	.000826	Luxton 1975	Male and female
Springtails:						
<i>Allacma fusca</i>		2.90	18	.0288	Zinkler 1966	
<i>A. fusca</i>	8	2.25	18	.0223	Zinkler 1966	
<i>Desoria hiemalis</i>		.215	-2	.000499	Zinkler 1966	
<i>Desoria saltans</i>		.0860	-2	.000193	Zinkler 1966	
<i>Dicyrtomina minuta</i>	15	.239	6	.000937	Petersen 1981	
<i>D. minuta</i>	6	.585	8	.00174	Zinkler 1966	
<i>D. minuta</i>	20	.239	10	.00187	Petersen 1981	
<i>D. minuta</i>	14	.239	15	.00315	Petersen 1981	
<i>Folsomia manolachei</i>	8	.0281	6	.0000882	Petersen 1981	
<i>F. manolachei</i>	8	.0281	10	.000261	Petersen 1981	
<i>F. manolachei</i>	9	.0281	15	.000886	Petersen 1981	
<i>Folsomia quadrioculata</i>	9	.0281	6	.000148	Petersen 1981	
<i>F. quadrioculata</i>	14	.0281	10	.000185	Petersen 1981	
<i>F. quadrioculata</i>	24	.0281	15	.000342	Petersen 1981	
<i>F. quadrioculata</i> s.l.	17	.0281	6	.000125	Petersen 1981	
<i>F. quadrioculata</i> s.l.	22	.0281	10	.000180	Petersen 1981	
<i>F. quadrioculata</i> s.l.	33	.0281	15	.000381	Petersen 1981	
<i>Isotoma viridis</i>	12	.275	8	.000811	Zinkler 1966	
<i>I. viridis</i>		.718	18	.00791	Zinkler 1966	
<i>I. viridis</i>	40	.400	18	.00436	Zettel 1982	
<i>I. viridis</i>	10	.765	18	.00842	Zinkler 1966	
<i>Isotomiella minor</i>	16	.00843	6	.0000447	Petersen 1981	
<i>I. minor</i>	13	.00843	10	.0000534	Petersen 1981	
<i>I. minor</i>	26	.00843	15	.0000922	Petersen 1981	
<i>Lepidocyrtus</i>	26	.0700	6	.000330	Petersen 1981	
<i>Lepidocyrtus</i>	19	.0700	10	.000679	Petersen 1981	

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>Lepidocyrtus</i>	20	.0700	15	.000829	Petersen 1981	
<i>Neanura muscorum</i>	8	.325	18	.00128	Zinkler 1966	
<i>Orchesella cincta</i>		1.00	15	.00636	Testerink 1983	Autumn
<i>O. cincta</i>		1.00	15	.00794	Testerink 1983	Spring
<i>O. cincta</i>		1.34	18	.0112	Zinkler 1966	
<i>O. cincta</i>	13	1.55	18	.0129	Zinkler 1966	
<i>Orchesella flavescens</i>	2	1.48	8	.00426	Zinkler 1966	
<i>Orchesella villosa</i>		2.30	19	.0104	Ruppel 1953	Cited in Zinkler 1966
<i>Parisotoma notabilis</i>	19	.0128	6	.0000987	Petersen 1981	
<i>P. notabilis</i>	27	.0128	10	.000148	Petersen 1981	
<i>P. notabilis</i>	29	.0128	15	.000194	Petersen 1981	
<i>Pogonognathellus flavescens</i>	13	.408	6	.00130	Petersen 1981	
<i>P. flavescens</i>	20	.408	10	.00232	Petersen 1981	
<i>P. flavescens</i>	16	.408	15	.00520	Petersen 1981	
<i>Pogonognathellus longicornis</i>	12	3.25	8	.00597	Zinkler 1966	
<i>P. longicornis</i>	8	3.25	18	.0175	Zinkler 1966	
<i>Protaphorura armata</i>	8	.113	3	.000411	Zinkler 1966	
<i>P. armata</i>	16	.0456	6	.000156	Petersen 1981	
<i>P. armata</i>	13	.113	8	.000548	Zinkler 1966	
<i>P. armata</i>	22	.0456	10	.000256	Petersen 1981	
<i>P. armata</i>	19	.0456	15	.000451	Petersen 1981	
<i>P. armata</i>		.132	18	.00168	Zinkler 1966	
<i>P. armata</i>	13	.113	18	.00143	Zinkler 1966	
<i>Protaphorura meridiata</i>	17	.0100	5	.000141	Argyropoulou and Stamou 1993	
<i>P. meridiata</i>	10	.0100	10	.000146	Argyropoulou and Stamou 1993	
<i>P. meridiata</i>	17	.0100	15	.000156	Argyropoulou and Stamou 1993	
<i>P. meridiata</i>	9	.0100	20	.000213	Argyropoulou and Stamou 1993	
<i>P. meridiata</i>	9	.0100	25	.000250	Argyropoulou and Stamou 1993	
<i>Sminthurinus</i>	10	.0300	6	.000229	Petersen 1981	
<i>Sminthurinus</i>	7	.0300	10	.000266	Petersen 1981	
<i>Sminthurinus</i>	6	.0300	15	.000499	Petersen 1981	
<i>Sminthurus viridis</i>	12	1.90	3	.00668	Zinkler 1966	
<i>S. viridis</i>	11	1.90	8	.0102	Zinkler 1966	
<i>S. viridis</i>	14	1.90	18	.0211	Zinkler 1966	
<i>S. viridis</i>	12	1.90	28	.0417	Zinkler 1966	
<i>Supraphorura furcifera</i>	29	.0312	6	.000168	Petersen 1981	
<i>S. furcifera</i>	28	.0312	10	.000213	Petersen 1981	
<i>S. furcifera</i>	24	.0312	15	.000417	Petersen 1981	
<i>Tetradontophora bielensis</i>	12	4.80	3	.00398	Zinkler 1966	
<i>T. bielensis</i>	12	4.80	8	.00630	Zinkler 1966	
<i>T. bielensis</i>		6.61	18	.0220	Zinkler 1966	
<i>T. bielensis</i>	11	4.80	18	.0160	Zinkler 1966	
<i>Tomocerus vulgaris</i>	10	1.28	8	.00332	Zinkler 1966	

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>T. vulgaris</i>		1.62	18	.0119	Zinkler 1966	
<i>T. vulgaris</i>	8	1.28	18	.00940	Zinkler 1966	
Spiders:						
<i>Agelenopsis aperta</i>	3	556	22	2.47	Greenstone and Bennett 1980	Female
<i>Alopecosa kochi</i>		100	20	.343	Hagstrum 1970	Cited in Humphreys 1977
<i>A. kochi</i>		100	30	.727	Hagstrum 1970	Cited in Humphreys 1977
<i>Frontinella communis</i>	3	5.67	22	.0774	Greenstone and Bennett 1980	Female
<i>Geolycosa domifex</i>		400	15	.278	McQueen 1980	Immature
<i>G. domifex</i>		400	18	.636	McQueen 1980	Immature
<i>G. domifex</i>		400	22	.916	McQueen 1980	Immature
<i>Hentzia palmarum</i>	36	23.5	20	.104	Anderson 1996	Mass is midpoint from table 1
<i>Hogna carolinensis</i>		1000	40	4.65	Moeur and Eriksen 1972	Cited in Humphreys 1977
<i>Hogna lenta</i>	14	970	10	.549	Anderson 1970	Adult female
<i>H. lenta</i>	50	970	20	1.96	Anderson 1970	Adult female
<i>H. lenta</i>	15	498	20	1.07	Anderson and Prestwich 1982	Adult female and all immatures; mass is midpoint from table 2
<i>H. lenta</i>	31	970	30	3.90	Anderson 1970	Adult female
<i>Hygrolycosa rubrofasciata</i>	7	19.9	25	.159	Kotiaho 1998	Female; converted from CO ₂
<i>H. rubrofasciata</i>	30	21.2	25	.115	Kotiaho 1998	Male; converted from CO ₂
<i>H. rubrofasciata</i>	30	18.6	25	.291	Kotiaho et al. 1998	Males; mass from text; converted from CO ₂
<i>Lycosa godeffroyi</i>	48	200	4	.149	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>L. godeffroyi</i>	67	200	10	.236	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>L. godeffroyi</i>	28	200	20	1.02	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>L. godeffroyi</i>	57	200	20	.567	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>L. godeffroyi</i>	13	200	30	1.28	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>L. godeffroyi</i>	61	200	30	.870	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>L. godeffroyi</i>	14	200	35	.606	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>L. godeffroyi</i>	25	200	40	1.33	Humphreys 1977	Male and female; mass is midpoint from fig. 1
<i>Lycosa</i> sp.	4	123	19	.432	Hadley et al. 1981	Adult female
<i>Lycosa</i> sp.		200	20	1.01	Scholander et al. 1953	Cited in Humphreys 1977
Lycosidae	7	226	15	.683	Moulder and Riechle 1972	
Lycosidae	3	198	20	1.04	Moulder and Riechle 1972	
Lycosidae	5	231	25	1.43	Moulder and Riechle 1972	
<i>Marpissa bina</i>	3	168	20	.525	Anderson 1996	
<i>Marpissa muscosa</i>	20	39.1	20	.110	Schmitz 2004	Female; converted from CO ₂

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>M. muscosa</i>	20	27.5	20	.0792	Schmitz 2004	Male; converted from CO ₂
<i>Menemerus bivittatus</i>	1	27.9	22	.204	Greenstone and Bennett 1980	Female
<i>Misumenoides formosipes</i>	42	82.5	20	.275	Anderson 1996	Mass is midpoint from table 1
<i>M. formosipes</i>	1	48.7	22	.347	Greenstone and Bennett 1980	Female
<i>Misumenops celer</i>	63	40.0	20	.144	Anderson 1996	Mass is midpoint from table 1
<i>Misumenops</i> sp.	4	34.1	22	.118	Greenstone and Bennett 1980	Female
<i>Nephila clavipes</i>	19	848	20	3.03	Anderson and Prestwich 1982	Adult female and all immatures; mass and O ₂ estimated from fig. 1
<i>Neriere litigiosa</i>	133	19.0	25	.0936	DeCarvalho et al. 2004	Adult male; mass and CO ₂ estimated from fig. 1
<i>Pardosa amentata</i>		55.0	3	.0246	Ford 1977b	Adult
<i>P. amentata</i>		55.0	4	.0367	Ford 1977b	Adult
<i>P. amentata</i>		55.0	5	.0476	Ford 1977b	Adult
<i>P. amentata</i>		55.0	7	.0491	Ford 1977b	Adult
<i>P. amentata</i>		55.0	9	.0801	Ford 1977b	Adult
<i>P. amentata</i>		55.0	10	.0852	Ford 1977b	Adult
<i>P. amentata</i>		55.0	10	.0926	Ford 1977b	Adult
<i>P. amentata</i>		55.0	13	.117	Ford 1977b	Adult
<i>P. amentata</i>		55.0	14	.134	Ford 1977b	Adult
<i>P. amentata</i>		55.0	15	.140	Ford 1977b	Adult
<i>Pardos astrigera</i>		60.0	20	.223	Miyashita 1969	Cited in Humphreys 1977
<i>P. astrigera</i>	12	52.7	25	.482	Tanaka et al. 1985	Female
<i>P. astrigera</i>	10	43.7	25	.388	Tanaka et al. 1985	Male
<i>P. astrigera</i>	11	52.5	25	.455	Tanaka et al. 1985	Female
<i>P. astrigera</i>	10	39.8	25	.266	Tanaka et al. 1985	Male
<i>P. astrigera</i>		60.0	30	.542	Miyashita 1969	Cited in Humphreys 1977
<i>Pardosa laura</i>		30.0	25	.450	Nakamura 1972	Cited in Humphreys 1977
<i>Pardosa lugubris</i>	24	22.4	20	.0788	Schmitz 2004	Female; converted from CO ₂
<i>P. lugubris</i>	25	21.7	20	.0729	Schmitz 2004	Male; converted from CO ₂
<i>Pardosa pseudoannulata</i>		100	29	.625	Ito 1964	Cited in Humphreys 1977
<i>Pardosa pullata</i>		16.2	20	.144	Myrcha and Stejgwill-Laudanska 1973	Cited in Humphreys 1977
<i>P. pullata</i>		9.00	20	.0309	Myrcha and Stejgwill-Laudanska 1973	Cited in Humphreys 1977
<i>Pelegrina galathea</i>	24	8.30	20	.0352	Anderson 1996	Mass is midpoint from table 1
<i>Phiddipus johnsoni</i>	1	173	22	.463	Greenstone and Bennett 1980	Female
<i>Phidippus audax</i>	41	171	20	.650	Anderson 1996	Mass is midpoint from table 1
<i>Phidippus clarus</i>	7	260	20	.929	Anderson 1996	
<i>Phidippus otiosus</i>	13	337	20	.970	Anderson 1970	Adult female

Table A1 (Continued)

Taxon	N	Live Mass (mg)	Temperature (°C)	Metabolic Rate (J h ⁻¹)	Reference	Notes ^a
<i>Phidippus pulcherrimus</i>	131	104	20	.356	Anderson 1996	Mass is midpoint from table 1
<i>Phidippus regius</i>	14	568	10	.493	Anderson 1970	Adult female
<i>P. regius</i>	42	568	20	1.01	Anderson 1970	Adult female
<i>P. regius</i>	28	568	30	2.72	Anderson 1970	Adult female
<i>Pirata latitans</i>		9.00	20	.0822	Myrcha and Stejgwill-Laudanska 1973	Cited in Humphreys 1977
<i>P. latitans</i>		9.00	20	.0943	Myrcha and Stejgwill-Laudanska 1973	Cited in Humphreys 1977
<i>Rabidosa rabida</i>	10	286	15	1.04	Van Hook 1971	Adult
<i>R. rabida</i>	8	204	20	.991	Van Hook 1971	Adult
<i>R. rabida</i>	9	207	25	1.56	Van Hook 1971	Adult
<i>Salticus scenicus</i>	24	4.34	20	.0259	Schmitz and Perry 2001	Female
<i>S. scenicus</i>	29	4.49	20	.0877	Schmitz and Perry 2001	Female
<i>Sarinda hentzi</i>	2	4.60	20	.0404	Anderson 1996	
<i>Sassacus vitis</i>	1	5.70	22	.0525	Greenstone and Bennett 1980	Female
<i>Schizocosa mccooki</i>	1	512	22	1.71	Greenstone and Bennett 1980	Female
<i>Schizocosa</i> sp.	3	23.4	20	.119	Riechle 1968	
<i>Sosippus janus</i>		360	25	.815	Prestwich 1977	
<i>Tenuiphantes zimmermanni</i>		4.00	3	.00798	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	3	.00775	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	4	.00854	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	5	.00991	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	7	.0110	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	9	.0131	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	10	.0139	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	10	.0162	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	13	.0183	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	14	.0191	Ford 1977a	Adult
<i>T. zimmermanni</i>		4.00	15	.0199	Ford 1977a	Adult
<i>Thiodina sylvana</i>	15	67.0	20	.278	Anderson 1996	Mass is midpoint from table 1
<i>Trochosa ruricola</i>		121	20	.663	Myrcha and Stejgwill-Laudanska 1973	Cited in Humphreys 1977
<i>T. ruricola</i>		101	20	.366	Myrcha and Stejgwill-Laudanska 1973	Cited in Humphreys 1977
<i>Urozelotes rusticus</i>	1	52.5	22	.127	Greenstone and Bennett 1980	Female
<i>Xysticus funestus</i>	61	29.9	20	.117	Anderson 1996	Mass is midpoint from table 1
<i>Zygoballus rufipes</i>	2	3.00	20	.0121	Anderson 1996	

^a References to tables and figures are to those in the corresponding "Reference" entry.

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