

Dataset S3. Standard and routine respiration rates in aquatic invertebrates

Standard metabolic rates of insect species are presented. For details of data assembling procedure see Chown, S. L. et al. (2007) Scaling of insect metabolic rate is inconsistent with the nutrient supply network model. *Funct Ecol* 21: 282–290.

Notations:

M is body mass in mg, Q is whole-body standard metabolic rate in μW at 25 °C.

Analyses presented in Table 1 and Figs. 1-3 in the paper are based on mass-specific standard metabolic rate $q = (Q / M)$, dimension W kg^{-1} .

Species	Family	Order	M (mg)	Q (μW)
Unknown species *	Meinertellidae	Archaeognatha	12.75	38.3
Species 1 (Sutherland)*	Lepismatidae	Thysanura	23.04	36.9
Species 2 (Stellenbosch)*	Lepismatidae	Thysanura	26.64	23.0
Species 3 (Cederberg)*	Lepismatidae	Thysanura	17.80	42.3
<i>Anax junius</i> ¹	Aeschnidae	Odonata	1019.00	4148.4
<i>Brachymesia gravida</i> ¹	Libellulidae	Odonata	344.00	1555.6
<i>Erythemis simplicicollis</i> ¹	Libellulidae	Odonata	263.00	877.5
<i>Erythrodiplax berenice</i> ¹	Libellulidae	Odonata	125.00	438.8
<i>Erythrodiplax connata</i> ¹	Libellulidae	Odonata	52.00	191.5

<i>Libellula auripennis</i> ¹	Libellulidae	Odonata	464.00	1396.1
<i>Libellula needhami</i> ¹	Libellulidae	Odonata	518.00	1675.3
<i>Miathyria marcella</i> ¹	Libellulidae	Odonata	17.10	765.9
<i>Pachydiplax longipennis</i> ¹	Libellulidae	Odonata	200.00	1765.2
<i>Pantala flavescens</i> ¹	Libellulidae	Odonata	339.00	1675.3
<i>Perithemis tenera</i> ¹	Libellulidae	Odonata	61.00	331.1
<i>Tramea carolina</i> ¹	Libellulidae	Odonata	383.00	1795.0
<i>Coptotermes formosanus</i> ²	Rhinotermitidae	Isoptera	2.95	8.1
<i>Heterotermes tenuior</i> ³	Rhinotermitidae	Isoptera	1.40	1.9
<i>Reticulitermes flavipes</i> ²	Rhinotermitidae	Isoptera	2.97	12.0
<i>Schedorhinotermes javanicus</i> ³	Rhinotermitidae	Isoptera	2.70	2.9
<i>Schedorhinotermes sarawakensis</i> ³	Rhinotermitidae	Isoptera	8.30	17.9
<i>Labritermes kistneri</i> ³	Termitidae	Isoptera	0.70	2.0
<i>Dicuspiditermes nemorosus</i> ³	Termitidae	Isoptera	3.50	1.7
<i>Dicuspiditermes santschii</i> ³	Termitidae	Isoptera	2.60	0.6
<i>Homalotermes eleanorae</i> ³	Termitidae	Isoptera	2.20	1.5

<i>Pericapritermes nitobei</i> ³	Termitidae	Isoptera	1.20	1.2
<i>Pericapritermes semarangi</i> ³	Termitidae	Isoptera	1.30	0.8
<i>Procapritermes nr. sandakanensis</i> ³	Termitidae	Isoptera	5.90	2.4
<i>Syncapritermes</i> sp. A ³	Termitidae	Isoptera	6.70	3.1
<i>Termes borneensis</i> ³	Termitidae	Isoptera	3.00	2.1
<i>Globitermes globosus</i> ³	Termitidae	Isoptera	1.90	1.4
<i>Prohamitermes mirabilis</i> ³	Termitidae	Isoptera	3.50	1.9
<i>Aciculioiditermes</i> sp. A ³	Termitidae	Isoptera	1.80	1.8
<i>Bulbitermes</i> sp. C ³	Termitidae	Isoptera	2.80	2.3
<i>Havilanditermes atripennis</i> ³	Termitidae	Isoptera	8.00	8.0
<i>Hospitalitermes hospitalis</i> ³	Termitidae	Isoptera	7.70	5.6
<i>Nasutitermes longinasus</i> ³	Termitidae	Isoptera	2.60	1.5
<i>Proaciculitermes</i> sp. A ³	Termitidae	Isoptera	1.10	0.8
<i>Proaciculitermes</i> sp. E ³	Termitidae	Isoptera	2.70	1.4
<i>Hypotermes xenotermes</i> ³	Termitidae	Isoptera	2.60	2.9
<i>Macrotermes carbonarius</i> ⁴	Termitidae	Isoptera	11.93	51.8

<i>Macrotermes gilvus</i> ³	Termitidae	Isoptera	7.00	5.5
<i>Macrotermes malaccensis</i> ³	Termitidae	Isoptera	11.60	14.1
<i>Microcerotermes dubius</i> ³	Termitidae	Isoptera	2.20	2.9
<i>Microcerotermes serrula</i> ³	Termitidae	Isoptera	1.90	2.2
<i>Blatta orientalis</i> ⁵	Blattidae	Blattodea	325.00	555.9
<i>Eublaberus posticus</i> ⁶	Blattidae	Blattodea	2200.00	4219.5
<i>Periplaneta americana</i> ⁷	Blattidae	Blattodea	900.00	979.4
<i>Periplaneta orientalis</i> ⁸	Blattidae	Blattodea	165.00	307.9
<i>Blatella germanica</i> ⁹	Blattellidae	Blattodea	54.76	203.3
<i>Byrsotria fumagata</i> ⁶	Blattellidae	Blattodea	4950.00	5584.6
<i>Gromphadorhina chopardi</i> ⁶	Blattellidae	Blattodea	3400.00	2685.1
<i>Gromphadorihna portentosa</i> ¹⁰	Blattellidae	Blattodea	4950.00	4747.0
<i>Parcoblatta</i> sp. ¹¹	Blattellidae	Blattodea	73.00	92.0
<i>Blaberus discoidalis</i> ⁶	Blaberidae	Blattodea	4080.00	3912.6
<i>Blaberus giganteus</i> ¹²	Blaberidae	Blattodea	4330.00	3646.4
<i>Leucophaea maderae</i> ¹³	Blaberidae	Blattodea	2800.00	2903.9

<i>Nauphoeta cinerea</i> ¹³	Blaberidae	Blattodea	510.00	732.2
<i>Perisphaeria</i> sp. ¹⁴	Blaberidae	Blattodea	324.10	196.8
<i>Sphodromantis gastrica</i> *	Mantidae	Mantodea	335.70	611.6
<i>Karoophasma biedouwensis</i> *	Austrophasmatidae	Mantophasmatodea	103.95	317.9
<i>Oecanthus quadripunctatus</i> ¹⁵	Gryllidae	Orthoptera	50.00	134.3
<i>Enyaliopsis petersi</i> ¹⁶	Gryllidae	Orthoptera	750.00	1525.7
<i>Eugaster loricatus</i> ¹⁶	Gryllidae	Orthoptera	1580.00	1762.1
<i>Hophlosphyrum griseus</i> ¹⁷	Gryllidae	Orthoptera	36.20	79.9
<i>Pteronemobius fasciatus</i> ¹⁸	Gryllidae	Orthoptera	26.17	469.5
<i>Acheta domesticus</i> ¹⁹	Gryllidae	Orthoptera	369.00	1138.6
<i>Teleogryllus commodus</i> ⁷	Gryllidae	Orthoptera	950.00	5686.9
<i>Anurogryllis arboreus</i> ¹⁵	Gryllidae	Orthoptera	310.00	550.9
<i>Ceuthophilis fossor</i> ²⁰	Gryllacrididae	Orthoptera	70.15	817.6
<i>Ceuthophilis gracilipes</i> ¹¹	Gryllacrididae	Orthoptera	259.10	543.6
<i>Gryllotalpa australis</i> ²¹	Gryllotalpidae	Orthoptera	874.00	2235.6
<i>Conocephalus fasciatus</i> ¹⁸	Tettigoniidae	Orthoptera	51.37	717.1

<i>Euconocephalus nasutus</i> ²²	Tettigoniidae	Orthoptera	650.00	1026.7
<i>Insara covilleae</i> ²⁰	Tettigoniidae	Orthoptera	92.60	1633.1
<i>Neoconocephalus robustus</i> ²²	Tettigoniidae	Orthoptera	870.00	3729.9
<i>Requena verticalis</i> ¹⁵	Tettigoniidae	Orthoptera	370.00	683.0
<i>Anconia integra</i> ²⁰	Acrididae	Orthoptera	816.70	2644.1
<i>Boottettix punctatus</i> ²⁰	Acrididae	Orthoptera	47.01	364.7
<i>Encoptolophus s. costalis</i> ²³	Acrididae	Orthoptera	174.60	462.6
<i>Locusta migratoria migratorioides</i> ²⁴	Acrididae	Orthoptera	1500.00	4934.0
<i>Melanoplus bivittatus</i> ²⁵	Acrididae	Orthoptera	1650.00	5057.0
<i>Melanoplus complanipes</i> ²⁰	Acrididae	Orthoptera	141.55	624.3
<i>Oedalis instillatus</i> ¹⁶	Acrididae	Orthoptera	627.00	966.4
<i>Romalea guttata</i> ²⁶	Acrididae	Orthoptera	2874.00	2696.1
<i>Taeniopoda eques</i> ²⁶	Acrididae	Orthoptera	2043.00	2462.0
<i>Trimerotropis pallidipennis</i> ²⁷	Acrididae	Orthoptera	221.35	743.3
<i>Trimerotropis saxatilis</i> ²⁸	Acrididae	Orthoptera	155.00	321.8
<i>Trimerotropis</i> sp. ²⁰	Acrididae	Orthoptera	145.90	1007.5

<i>Trimerotropis suffusa</i> ²⁷	Acrididae	Orthoptera	297.50	906.2
<i>Xanthippus corallipes</i> ²⁹	Acrididae	Orthoptera	2302.20	7508.5
Unknown genus ¹⁶	Acrididae	Orthoptera	2948.0	1354.6
<i>Tanaocerus koebeli</i> ²⁰	Tanaoceridae	Orthoptera	102.50	625.9
<i>Xiphoceriana</i> sp. ¹⁶	Acridiidae	Orthoptera	1568.00	743.0
<i>Euborellia annulipes</i> *	Carcinophoridae	Dermaptera	31.76	82.9
Unknown genus ²⁰	Psyllidae	Hemiptera	0.16	5.6
<i>Pseudococcus citri</i> ³⁰	Pseudococcidae	Hemiptera	1.30	11.3
<i>Neophilaenus lineatus</i> ³¹	Cercopidae	Hemiptera	1.91	30.6
<i>Philaenus spumarius</i> ³²	Cercopidae	Hemiptera	3.93	59.5
<i>Cystosoma saundersii</i> ³³	Cicadidae	Hemiptera	1158.00	2345.1
<i>Diceroprocta apache</i> ³⁴	Cicadidae	Hemiptera	622.00	1605.2
<i>Fidicina mannifera</i> ³⁵	Cicadidae	Hemiptera	2840.00	9689.906
<i>Multareoides bifurcatus</i> ²⁰	Membracidae	Hemiptera	1.34	15.2
<i>Hysteropterum</i> sp. ²⁰	Issidae	Hemiptera	1.71	40.3
<i>Phytocoris nigripubescens</i> ²⁰	Miridae	Hemiptera	1.27	30.8

<i>Slaterocoris</i> sp. ²⁰	Miridae	Hemiptera	0.86	17.2
Unknown genus ²⁰	Miridae	Hemiptera	0.51	12.0
Unknown genus ²⁰	Miridae	Hemiptera	3.56	72.9
Unknown genus ²⁰	Miridae	Hemiptera	3.85	35.0
<i>Rhodnius prolixus</i> ³⁶	Reduviidae	Hemiptera	66.75	92.7
Unknown genus ²⁰	Nabidae	Hemiptera	1.89	25.9
<i>Dendrocoris contaminatus</i> ²⁰	Pentatomidae	Hemiptera	11.00	26.2
Unknown genus ²⁰	Coreidae	Hemiptera	66.70	410.5
<i>Lygus kalmii</i> ²⁰	Lygaeidae	Hemiptera	10.17	146.3
Unknown genus ²⁰	Neididae	Hemiptera	0.95	28.1
<i>Corydalid cornutus</i> ³⁷	Corydalidae	Megaloptera	326.00	4724.5
<i>Saprinus</i> sp. ²⁰	Histeridae	Coleoptera	8.21	65.4
<i>Sphaeridium lunatum</i> ³⁸	Hydrophilidae	Coleoptera	34.00	175.5
Species 3 ³⁹	Staphilinidae	Coleoptera	0.089	0.34
Species 2 ³⁹	Carabidae	Coleoptera	0.89	1.34
<i>Reichebnachia</i> sp. ³⁹	Pselaphidae	Coleoptera	0.077	0.82

<i>Popilius disjunctus</i> ¹¹	Passalidae	Coleoptera	1630.50	1611.6
<i>Popilius</i> sp. ⁴⁰	Passalidae	Coleoptera	563.00	799.4
<i>Omorgus radula</i> ⁴¹	Trogidae	Coleoptera	207.00	114.1
<i>Geotrupes</i> sp. ³⁹	Geotrupiidae	Coleoptera	160.30	679.8
<i>Geotrupes spiniger</i> ³⁸	Geotrupidae	Coleoptera	825.00	4946.1
<i>Aphodius contaminatus</i> ³⁸	Aphodiidae	Coleoptera	14.00	103.7
<i>Aphodius fossor</i> ⁴²	Aphodiidae	Coleoptera	121.30	268.8
<i>Aphodius rufipes</i> ³⁸	Aphodiidae	Coleoptera	84.00	382.9
<i>Aphodius distinctus</i> ⁴³	Scarabaeidae	Coleoptera	7.80	104.9
<i>Aphodius fimetarius</i> ⁴³	Scarabaeidae	Coleoptera	30.90	187.3
<i>Aphodius prodromus</i> ⁴³	Scarabaeidae	Coleoptera	13.80	167.0
<i>Aphodius rufus</i> ⁴³	Scarabaeidae	Coleoptera	209.00	170.4
<i>Anomala</i> sp. ⁴⁰	Scarabaeidae	Coleoptera	100.00	137.0
<i>Pelidnota</i> sp. ⁴⁰	Scarabaeidae	Coleoptera	1091.50	1511.5
<i>Coeloesis biloba</i> ⁴⁰	Scarabaeidae	Coleoptera	3735.00	3724.2
<i>Strategus aloeus</i> ⁴⁰	Scarabaeidae	Coleoptera	5050.00	5149.6

<i>Cyclocephala</i> sp. ⁴⁰	Scarabaeidae	Coleoptera	246.00	592.5
<i>Dyscinetus</i> sp. ⁴⁰	Scarabaeidae	Coleoptera	390.00	469.6
<i>Phileurus</i> sp. ⁴⁰	Scarabaeidae	Coleoptera	3501.00	1562.6
<i>Sisiphys fasciculatus</i> ⁴⁴	Scarabaeidae	Coleoptera	136.00	375.1
<i>Anachalcos convexus</i> ⁴⁴	Scarabaeidae	Coleoptera	1421.00	1539.8
<i>Circellium bacchus</i> ⁴⁴	Scarabaeidae	Coleoptera	7285.00	4017.3
<i>Pachylomerus femoralis</i> ⁴⁵	Scarabaeidae	Coleoptera	4915.00	4282.2
<i>Scarabaeus flavicornis</i> ⁴⁴	Scarabaeidae	Coleoptera	322.00	483.7
<i>Scarabaeus galenus</i> ⁴⁶	Scarabaeidae	Coleoptera	1681.00	881.7
<i>Scarabaeus westwoodi</i> ⁴⁷	Scarabaeidae	Coleoptera	1780.00	1324.7
<i>Scarabaeus rusticus</i> ⁴⁷	Scarabaeidae	Coleoptera	1070.00	696.2
<i>Scarabaeus gariepinus</i> ⁴⁷	Scarabaeidae	Coleoptera	1140.00	288.0
<i>Scarabaeus striatum</i> ⁴⁷	Scarabaeidae	Coleoptera	790.00	282.6
<i>Scarabaeus hippocrates</i> ⁴⁷	Scarabaeidae	Coleoptera	2010.00	622.1
<i>Pleocoma australis</i> ⁴⁸	Scarabaeidae	Coleoptera	940.00	3238.8
<i>Leucocelis elegans</i> ¹⁶	Scarabaeidae	Coleoptera	80.00	337.0

<i>Simplocaria metallica</i> ⁴⁹	Byrrhidae	Coleoptera	2.85	0.5
<i>Agrypnus bocandei</i> ¹⁶	Elateridae	Coleoptera	166.20	71.6
<i>Rhizopertha dominica</i> ⁵⁰	Bostrichidae	Coleoptera	1.40	14.8
<i>Melyrid</i> sp. ²⁰	Melyridae	Coleoptera	1.16	20.9
<i>Hippodamia convergens</i> ⁵¹	Coccinellidae	Coleoptera	17.00	193.2
<i>Hydromedion sparsutum</i> ⁵²	Perimylopidae	Coleoptera	23.50	83.5
<i>Perimylops antarcticus</i> ⁵²	Perimylopidae	Coleoptera	14.50	48.6
<i>Adesmia baccata</i> ⁵³	Tenebrionidae	Coleoptera	407.00	179.2
<i>Anepsius brunneus</i> ²⁰	Tenebrionidae	Coleoptera	6.15	24.8
<i>Centrioptera muricata</i> ²⁰	Tenebrionidae	Coleoptera	132.60	468.6
<i>Erodium nanus</i> ⁵⁴	Tenebrionidae	Coleoptera	21.90	101.3
<i>Euschides luctata</i> ²⁰	Tenebrionidae	Coleoptera	83.80	464.8
<i>Peristepus</i> sp. ⁵³	Tenebrionidae	Coleoptera	55.00	54.5
<i>Phrynocolus auriculatus</i> ⁵³	Tenebrionidae	Coleoptera	193.00	169.1
<i>Phrynocolus petrosus</i> ⁵³	Tenebrionidae	Coleoptera	1109.00	355.7
<i>Phrynocolus</i> sp. ⁵³	Tenebrionidae	Coleoptera	204.00	191.4

<i>Physosterna cribripes</i> ⁵⁵	Tenebrionidae	Coleoptera	1226.00	2443.7
<i>Physadesmia globosa</i> ⁵⁶	Tenebrionidae	Coleoptera	516.00	599.6
<i>Sphaeriontis dilatata</i> ²⁰	Tenebrionidae	Coleoptera	46.00	150.7
<i>Blaps gigas</i> ⁵⁴	Tenebrionidae	Coleoptera	1776.00	4508.3
<i>Nyctobates procerus</i> ⁴⁰	Tenebrionidae	Coleoptera	2198.00	1753.3
<i>Pterohelaeus</i> sp. ⁵⁷	Tenebrionidae	Coleoptera	245.00	481.6
<i>Tenebrio molitor</i> ³⁰	Tenebrionidae	Coleoptera	100.00	372.2
<i>Zophobas</i> sp. ⁴⁰	Tenebrionidae	Coleoptera	535.00	1269.6
<i>Tribolium castaneum</i> *	Tenebrionidae	Coleoptera	2.40	13.0
<i>Tribolium confusum</i> ⁵⁸	Tenebrionidae	Coleoptera	2.01	16.3
<i>Trogloclerus costatus</i> ²⁰	Tenebrionidae	Coleoptera	29.87	93.1
<i>Vieta bulbifera</i> ⁵³	Tenebrionidae	Coleoptera	479.00	538.8
<i>Vieta muscosa</i> ⁵³	Tenebrionidae	Coleoptera	140.00	135.4
<i>Cryptoglossa verrucosa</i> ⁵⁹	Tenebrionidae	Coleoptera	700.00	418.8
<i>Edrotes ventricosus</i> ²⁰	Tenebrionidae	Coleoptera	24.35	91.9
<i>Pimelia cenchronota</i> ⁵³	Tenebrionidae	Coleoptera	1474.00	620.9

<i>Pimelia grandis</i> ⁶⁰	Tenebrionidae	Coleoptera	2098.00	3734.1
<i>Pimelia obsoleta</i> ⁵⁴	Tenebrionidae	Coleoptera	861.00	3011.3
<i>Rhytinota praelonga</i> ⁵³	Tenebrionidae	Coleoptera	105.00	100.0
<i>Triorophus laevis</i> ²⁰	Tenebrionidae	Coleoptera	8.46	107.7
<i>Helius waiti</i> ⁵⁷	Tenebrionidae	Coleoptera	672.00	1675.1
<i>Cardiosis fairmarei</i> ⁵⁶	Tenebrionidae	Coleoptera	32.00	29.6
<i>Zophosis orbicularis</i> ⁵⁶	Tenebrionidae	Coleoptera	103.00	121.4
<i>Psammodes striatus</i> ⁵⁶	Tenebrionidae	Coleoptera	3010.00	4271.5
<i>Epiphysa arenicola</i> ⁵⁶	Tenebrionidae	Coleoptera	1237.00	469.4
<i>Onymacris plana</i> ⁵⁶	Tenebrionidae	Coleoptera	767.00	925.9
<i>Onymacris laeviceps</i> ⁵⁶	Tenebrionidae	Coleoptera	525.00	427.9
<i>Onymacris rugatipennis rugatipennis</i> ⁵⁶	Tenebrionidae	Coleoptera	496.00	446.2
<i>Onymacris rugatipennis albotesselata</i> ⁵⁶	Tenebrionidae	Coleoptera	573.00	578.91
<i>Onymacris unguicularis</i> ⁶¹	Tenebrionidae	Coleoptera	737.00	176.0
<i>Stenocara gracilipes</i> ⁵⁶	Tenebrionidae	Coleoptera	268.00	476.3
<i>Eusattus dubius</i> ²⁰	Tenebrionidae	Coleoptera	27.22	282.6

<i>Eleodes armata</i> ⁵⁹	Tenebrionidae	Coleoptera	917.00	823.6
<i>Eleodes grandicollis</i> ²⁰	Tenebrionidae	Coleoptera	521.93	2537.0
<i>Eleodes</i> sp. ²⁰	Tenebrionidae	Coleoptera	88.85	356.2
<i>Eleodes tenebrosa</i> ²⁰	Tenebrionidae	Coleoptera	51.53	247.4
<i>Meloid</i> sp. ²⁰	Meloidae	Coleoptera	17.34	406.7
<i>Acanthoderes circumflexa</i> ⁴⁰	Cerambycidae	Coleoptera	139.00	241.8
<i>Acrocinus longimanus</i> ⁴⁰	Cerambycidae	Coleoptera	5383.00	16565.8
<i>Dryoctenes scrupulosa</i> ⁴⁰	Cerambycidae	Coleoptera	1823.00	2825.3
<i>Oncideres putator</i> ⁴⁰	Cerambycidae	Coleoptera	681.00	1095.9
<i>Taeinotes scalaris</i> ⁴⁰	Cerambycidae	Coleoptera	397.00	952.3
<i>Acanthophorus confinis</i> ¹⁶	Cerambycidae	Coleoptera	3490.00	6180.9
<i>Macrodontia dejeani</i> ⁴⁰	Cerambycidae	Coleoptera	4860.00	7799.2
<i>Stenodontes molaria</i> ⁴⁰	Cerambycidae	Coleoptera	2944.00	6393.9
<i>Stenodontes</i> sp. ⁴⁰	Cerambycidae	Coleoptera	1043.00	2040.6
<i>Trachysomus peregrinus</i> ⁴⁰	Cerambycidae	Coleoptera	547.00	603.8
<i>Brasilanus batus</i> ⁴⁰	Cerambycidae	Coleoptera	1965.00	6232.9

<i>Eburia</i> sp. ⁴⁰	Cerambycidae	Coleoptera	582.00	1493.2
<i>Nyssicus setosus</i> ⁴⁰	Cerambycidae	Coleoptera	996.00	715.5
<i>Phorocantha recurva</i> ⁶²	Cerambycidae	Coleoptera	260.00	800.2
<i>Phorocantha semipunctata</i> ⁶²	Cerambycidae	Coleoptera	300.00	701.7
<i>Xenambyx laticauda</i> ⁴⁰	Cerambycidae	Coleoptera	1217.00	1571.9
<i>Diplocapsis</i> sp. ²⁰	Chrysomelidae	Coleoptera	5.34	89.1
<i>Griburius</i> sp. 1 ²⁰	Chrysomelidae	Coleoptera	3.31	60.1
<i>Griburius</i> sp. 2 ²⁰	Chrysomelidae	Coleoptera	9.42	43.7
<i>Leptinotarsa decemlineata</i> ⁶³	Chrysomelidae	Coleoptera	150.00	693.9
<i>Monoxia</i> sp. ²⁰	Chrysomelidae	Coleoptera	4.63	79.2
<i>Smicronyx imbricata</i> ²⁰	Curculionidae	Coleoptera	0.32	3.6
<i>Ectemnorhinus marioni</i> ⁶⁴	Curculionidae	Coleoptera	9.60	27.3
<i>Ectemnorhinus similis</i> ⁶⁴	Curculionidae	Coleoptera	13.40	32.5
<i>Ips acuminatus</i> ⁶⁵	Scolytidae	Coleoptera	2.84	36.3
<i>Calandra oryzae</i> ⁵⁰	Curculionidae	Coleoptera	1.70	17.7
<i>Sitophilus granarius</i> ⁶⁶	Curculionidae	Coleoptera	3.68	139.6

<i>Microcerus</i> sp. ¹⁶	Curculionidae	Coleoptera	132.00	189.6
<i>Ophryastes varius</i> ²⁰	Curculionidae	Coleoptera	27.26	119.3
<i>Miloderes</i> sp. ²⁰	Curculionidae	Coleoptera	3.40	65.7
<i>Hylobius abietis</i> ⁶⁷	Curculionidae	Coleoptera	183.00	418.1
<i>Hipporhinus tenuespinosus</i> ¹⁶	Curculionidae	Coleoptera	1080.00	548.0
<i>Eucyllus vagans</i> ²⁰	Curculionidae	Coleoptera	7.43	31.8
<i>Eucyllus unicolor</i> ²⁰	Curculionidae	Coleoptera	2.59	13.2
<i>Bothrometopus randi</i> ⁶⁴	Curculionidae	Coleoptera	24.60	51.1
<i>Bothrometopus parvulus</i> ⁶⁴	Curculionidae	Coleoptera	3.60	19.4
<i>Bothrometopus elongatus</i> ⁶⁴	Curculionidae	Coleoptera	1.70	15.2
<i>Palirhoeus eatoni</i> ⁶⁸	Curculionidae	Coleoptera	6.70	24.3
<i>Lixus bisulcatus</i> ¹⁶	Curculionidae	Coleoptera	405.00	1357.0
<i>Rhynchaenus flagellum</i> ⁴⁹	Curculionidae	Coleoptera	0.51	0.2
<i>Rhytonomus isobellina</i> ⁵⁴	Curculionidae	Coleoptera	8.10	93.7
<i>Hypera postica</i> ⁶⁹	Curculionidae	Coleoptera	5.80	159.5
<i>Canonopsis sericeus</i> ⁶⁴	Curculionidae	Coleoptera	58.90	175.1

Unknown genus ²⁰	Curculionidae	Coleoptera	0.3	1.63
Unknown genus 1 ¹⁶	Curculionidae	Coleoptera	193	120.1
Unknown genus 3 ¹⁶	Curculionidae	Coleoptera	10.5	7.0
<i>Cerotalis</i> sp. ⁵⁷	Carabidae	Coleoptera	562.00	474.6
<i>Chilanthia cavernosa</i> ⁵³	Carabidae	Coleoptera	1026.00	1571.5
<i>Thermophilum babaulti</i> ⁵³	Carabidae	Coleoptera	1295.00	3223.9
<i>Thermophilum hexastictum</i> ⁵³	Carabidae	Coleoptera	2025.00	2423.2
<i>Triaenogeius scupturatus</i> ⁵³	Carabidae	Coleoptera	170.00	341.8
<i>Anthia fabricii</i> ⁷⁰	Carabidae	Coleoptera	2250.00	1875.1
<i>Cypholoba bihamata</i> ⁵³	Carabidae	Coleoptera	245.00	961.6
<i>Cypholoba chanleri</i> ⁵³	Carabidae	Coleoptera	326.00	780.2
<i>Cypholoba</i> sp. ⁵³	Carabidae	Coleoptera	192.00	937.4
<i>Cypholoba tenuicollis</i> ⁵³	Carabidae	Coleoptera	59.00	245.7
<i>Cypholoba tetrastigma</i> ⁵³	Carabidae	Coleoptera	132.00	802.4
<i>Cypholoba trilunata</i> ⁵³	Carabidae	Coleoptera	213.00	530.2
<i>Amara quenseli</i> ⁴⁹	Carabidae	Coleoptera	15.00	1.4

<i>Evarthrus sodalis</i> ¹¹	Carabidae	Coleoptera	164.10	186.7
<i>Carinum</i> sp. ⁵⁷	Carabidae	Coleoptera	4240.00	2428.9
<i>Crepidogaster bioculata</i> ⁵³	Carabidae	Coleoptera	171.00	286.5
<i>Sphaeroderus stenostomus</i> ¹¹	Carabidae	Coleoptera	169.60	262.1
<i>Calosoma affine</i> ⁷	Carabidae	Coleoptera	620.00	787.2
<i>Calosoma</i> sp. ²⁰	Carabidae	Coleoptera	151.23	838.6
<i>Campalita chlorostictum</i> ⁵³	Carabidae	Coleoptera	521.00	798.0
Unknown genus ¹⁶	Carabidae	Coleoptera	79.0	533.2
<i>Cicindela longilabris</i> ⁷¹	Cicindelidae	Coleoptera	124.30	269.6
<i>Cicindela repanda</i> ⁷²	Cicindelidae	Coleoptera	63.40	145.5
<i>Paractora dreuxi</i> ⁷³	Helcomyzidae	Diptera	19.17	243.9
<i>Paractora trichosterna</i> ⁷³	Helcomyzidae	Diptera	13.26	261.3
<i>Antrops truncipennis</i> ⁷³	Sphaeroceridae	Diptera	2.21	51.6
<i>Drosophila americana</i> ⁷⁴	Drosophilidae	Diptera	1.10	15.3
<i>Drosophila melanogaster</i> ⁷⁵	Drosophilidae	Diptera	0.95	32.0
<i>Drosophila mimica</i> ⁷⁵	Drosophilidae	Diptera	2.44	49.5

<i>Drosophila nikananu</i> ⁷⁵	Drosophilidae	Diptera	0.49	19.4
<i>Drosophila repleta</i> ⁷⁶	Drosophilidae	Diptera	3.43	32.3
<i>Drosophila virilis</i> ⁷⁵	Drosophilidae	Diptera	1.67	45.7
<i>Glossina morsitans</i> ⁷⁷	Glossinidae	Diptera	22.34	123.5
<i>Glossina pallidipes</i> ⁷⁸	Glossinidae	Diptera	38.45	374.3
<i>Musca autumnalis</i> ⁷⁹	Muscidae	Diptera	22.00	360.8
<i>Musca domestica</i> ⁸⁰	Muscidae	Diptera	18.00	587.6
<i>Phormia regina</i> ⁸¹	Calliphoridae	Diptera	50.00	541.5
<i>Protophormia terraenovae</i> ⁸²	Calliphoridae	Diptera	25.00	225.2
<i>Pilica formidolosa</i> ⁸³	Asilidae	Diptera	200.00	789.8
<i>Promachus</i> sp. 2 ⁸³	Asilidae	Diptera	180.00	1447.4
<i>Tabanus affinis</i> ⁸⁴	Tabanidae	Diptera	161.70	114.5
<i>Pantophthalmus tabaninus</i> ⁸⁵	Pantophthalmidae	Diptera	1746.00	3036.9
<i>Simulium venustum</i> ⁸⁴	Simuliidae	Diptera	2.53	86.0
<i>Chironomus riparius</i> ⁸⁶	Chironomidae	Diptera	1.00	16.1
<i>Aedes campestris</i> ⁸⁴	Culicidae	Diptera	6.72	295.0

<i>Culex tarsalis</i> ⁸⁷	Culicidae	Diptera	2.23	23.6
<i>Xenopsilla ramesis</i> ⁸⁸	Pulicidae	Siphonaptera	0.16	0.6
<i>Vanessa io</i> ³⁰	Nymphalidae	Lepidoptera	230.00	922.2
<i>Thais cassandra</i> ³⁰	Papilionidae	Lepidoptera	130.00	3488.4
<i>Apetaloides firmiana</i> ⁸⁹	Notodontidae	Lepidoptera	169.00	828.3
<i>Hapigia simplex</i> ⁸⁹	Notodontidae	Lepidoptera	478.00	1584.0
<i>Lirimiris</i> sp. ⁸⁹	Notodontidae	Lepidoptera	564.00	1765.4
<i>Mamestra configurata</i> ⁹⁰	Noctuidae	Lepidoptera	139.05	465.3
<i>Bombyx mori</i> ³⁰	Bombicidae	Lepidoptera	490.00	3492.6
<i>Deilephila elpenor</i> ³⁰	Sphingidae	Lepidoptera	600.00	893.2
<i>Deilephila euphorbiae</i> ³⁰	Sphingidae	Lepidoptera	700.00	2347.9
<i>Xylophanes chiron</i> ⁸⁹	Sphingidae	Lepidoptera	708.00	1348.2
<i>Xylophanes libya</i> ⁸⁹	Sphingidae	Lepidoptera	559.00	2551.4
<i>Xylophanes pluto</i> ⁸⁹	Sphingidae	Lepidoptera	829.00	2258.2
<i>Enyo ocypete</i> ⁸⁹	Sphingidae	Lepidoptera	453.33	1148.7
<i>Erinnyis ello</i> ⁸⁹	Sphingidae	Lepidoptera	1210.00	4135.4

<i>Erinnyis oenotrus</i> ⁸⁹	Sphingidae	Lepidoptera	964.00	3615.5
<i>Madoryx oecus</i> ⁸⁹	Sphingidae	Lepidoptera	1699.00	5368.8
<i>Oryba achemenides</i> ⁸⁹	Sphingidae	Lepidoptera	2808.50	6058.0
<i>Pachygonia drucei</i> ⁸⁹	Sphingidae	Lepidoptera	702.00	1481.3
<i>Pachylia ficus</i> ⁸⁹	Sphingidae	Lepidoptera	3225.00	5114.9
<i>Perigonia lusca</i> ⁸⁹	Sphingidae	Lepidoptera	558.33	2265.2
<i>Metopsilus porcellus</i> ³⁰	Sphingidae	Lepidoptera	285.00	1361.8
<i>Mimas tiliae</i> ³⁰	Sphingidae	Lepidoptera	320.00	1666.8
<i>Protambulyx strigilis</i> ⁸⁹	Sphingidae	Lepidoptera	1095.33	2251.1
<i>Manduca corallina</i> ⁸⁹	Sphingidae	Lepidoptera	1618.25	3239.1
<i>Manduca lefeburei</i> ⁸⁹	Sphingidae	Lepidoptera	571.00	925.0
<i>Manduca rustica</i> ⁸⁹	Sphingidae	Lepidoptera	2810.00	6704.9
<i>Sphinx ligustri</i> ³⁰	Sphingidae	Lepidoptera	1400.00	7513.4
<i>Adeloneivaia boisduvalii</i> ⁸⁹	Saturniidae	Lepidoptera	1034.00	1795.6
<i>Adeloneivaia subungulata</i> ⁸⁹	Saturniidae	Lepidoptera	487.00	1850.1
<i>Eacles imperialis</i> ⁸⁹	Saturniidae	Lepidoptera	1105.00	3282.9

<i>Sphingicampa quadrilineata</i> ⁸⁹	Saturniidae	Lepidoptera	818.00	2134.2
<i>Syssphinx molina</i> ⁸⁹	Saturniidae	Lepidoptera	1757.00	4431.7
<i>Antheraea pernyi</i> ³⁰	Saturniidae	Lepidoptera	1210.00	6134.5
<i>Automerina auletes</i> ⁸⁹	Saturniidae	Lepidoptera	720.00	1813.8
<i>Automeris fieldi</i> ⁸⁹	Saturniidae	Lepidoptera	394.00	1088.3
<i>Automeris hamata</i> ⁸⁹	Saturniidae	Lepidoptera	564.00	1995.2
<i>Automeris jacunda</i> ⁸⁹	Saturniidae	Lepidoptera	653.25	1549.3
<i>Automeris zugana</i> ⁸⁹	Saturniidae	Lepidoptera	539.75	1103.4
<i>Dirphea agis</i> ⁸⁹	Saturniidae	Lepidoptera	197.00	483.7
<i>Hylesia praeda</i> ⁸⁹	Saturniidae	Lepidoptera	146.00	816.2
<i>Hylesia</i> sp. ⁸⁹	Saturniidae	Lepidoptera	239.14	682.3
<i>Hyperchirica nausica</i> ⁸⁹	Saturniidae	Lepidoptera	199.50	786.0
<i>Artace</i> sp. ⁸⁹	Lasiocampidae	Lepidoptera	132.00	332.5
<i>Euglyphis</i> sp. ⁸⁹	Lasiocampidae	Lepidoptera	87.00	411.1
<i>Odonestis pruni</i> ³⁰	Lasiocampidae	Lepidoptera	250.00	1130.0
<i>Galleria mellonella</i> ⁹¹	Pyralidae	Lepidoptera	53.60	635.0

<i>Ostrinia nubilalis</i> ⁹²	Pyrilidae	Lepidoptera	48.40	484.2
<i>Neocossus</i> sp. ⁸⁹	Cossidae	Lepidoptera	1771.63	4008.5
<i>Megalpyge</i> sp. ⁸⁹	Megalpygidae	Lepidoptera	627.00	1559.9
<i>Apis mellifera ligustica</i> ⁹³	Apidae	Hymenoptera	94.40	606.9
<i>Bombus terrestris</i> ⁹⁴	Apidae	Hymenoptera	740.00	821.8
<i>Xylocopa capitata</i> ⁹⁵	Xylocopidae	Hymenoptera	1300.00	6835.4
<i>Dasylabris</i> sp. ¹⁶	Mutillidae	Hymenoptera	86.50	37.3
<i>Dasymutilla gloriosa</i> ⁹⁶	Mutillidae	Hymenoptera	76.45	1869.5
Unknown genus ²⁰	Pompilidae	Hymenoptera	14.14	202.0
<i>Leptothorax acerovororum</i> ⁹⁷	Formicidae	Hymenoptera	0.37	5.1
<i>Leptothorax unifasciatus</i> ⁹⁸	Formicidae	Hymenoptera	0.49	2.4
<i>Atta laevigata</i> ⁹⁹	Formicidae	Hymenoptera	15.00	35.2
<i>Atta sexdens</i> ¹⁰⁰	Formicidae	Hymenoptera	15.00	43.1
<i>Myrmica alaskensis</i> ⁹⁷	Formicidae	Hymenoptera	0.91	10.7
<i>Myrmica rubra</i> ¹⁰¹	Formicidae	Hymenoptera	2.76	6.8
<i>Pogonomyrmex californicus</i> ¹⁰²	Formicidae	Hymenoptera	5.92	9.3

<i>Pogonomyrmex maricopa</i> ¹⁰³	Formicidae	Hymenoptera	11.07	40.6
<i>Pogonomyrmex occidentalis</i> ¹⁰²	Formicidae	Hymenoptera	7.96	12.8
<i>Pogonomyrmex rugosus</i> ¹⁰²	Formicidae	Hymenoptera	14.30	27.6
<i>Pogonomyrmex</i> sp. ²⁰	Formicidae	Hymenoptera	3.74	12.6
<i>Aphaenogaster cockerelli</i> ⁹⁷	Formicidae	Hymenoptera	4.72	82.5
<i>Messor capensis</i> *	Formicidae	Hymenoptera	13.70	38.3
<i>Messor capitatus</i> ¹⁰⁴	Formicidae	Hymenoptera	3.14	16.2
<i>Messor julianus</i> ¹⁰⁵	Formicidae	Hymenoptera	5.09	7.1
<i>Messor pergandei</i> ¹⁰⁵	Formicidae	Hymenoptera	7.19	14.0
<i>Chelaner rothsteini</i> ¹⁰⁶	Formicidae	Hymenoptera	0.25	1.1
<i>Solenopsis invicta</i> ¹⁰⁷	Formicidae	Hymenoptera	2.96	5.6
<i>Tetramorium caespitum</i> ¹⁰¹	Formicidae	Hymenoptera	0.69	2.4
<i>Camponotus detritus</i> ¹⁰⁸	Formicidae	Hymenoptera	42.90	78.0
<i>Camponotus fulvopilosus</i> ¹⁰⁹	Formicidae	Hymenoptera	43.00	63.4
<i>Camponotus laevigatus</i> ⁹⁷	Formicidae	Hymenoptera	19.15	117.8
<i>Camponotus maculatus</i> *	Formicidae	Hymenoptera	42.49	51.1

<i>Camponotus sericeiventris</i> ¹¹⁰	Formicidae	Hymenoptera	40.20	73.2
<i>Camponotus</i> sp. ⁹⁷	Formicidae	Hymenoptera	15.41	78.2
<i>Camponotus vafer</i> ⁹⁷	Formicidae	Hymenoptera	4.51	58.8
<i>Camponotus vicinus</i> ¹¹¹	Formicidae	Hymenoptera	107.00	143.5
<i>Cataglyphis bicolor</i> ¹¹²	Formicidae	Hymenoptera	34.00	37.8
<i>Formica exsecta</i> ¹⁰¹	Formicidae	Hymenoptera	4.05	21.9
<i>Formica fusca</i> var. <i>subaenescens</i> ⁹⁷	Formicidae	Hymenoptera	1.35	31.3
<i>Formica fusca</i> ¹⁰¹	Formicidae	Hymenoptera	4.41	9.65
<i>Formica occulta</i> ⁹⁷	Formicidae	Hymenoptera	1.30	19.5
<i>Formica pratensis</i> ¹⁰¹	Formicidae	Hymenoptera	7.17	31.4
<i>Lasius alienus</i> ¹⁰¹	Formicidae	Hymenoptera	1.38	6.0
<i>Lasius flavus</i> ¹⁰¹	Formicidae	Hymenoptera	2.58	11.5
<i>Lasius niger</i> ¹⁰¹	Formicidae	Hymenoptera	1.74	6.1
<i>Lasius sitiens</i> ⁹⁷	Formicidae	Hymenoptera	0.29	3.2
<i>Forelius foetidus</i> ⁹⁷	Formicidae	Hymenoptera	0.10	1.3
<i>Anoplolepis steinergroeveri</i> *	Formicidae	Hymenoptera	4.94	14.1

<i>Leptogenys attenuata</i> ¹¹³	Formicidae	Hymenoptera	4.00	12.3
<i>Leptogenys nitida</i> ¹¹³	Formicidae	Hymenoptera	1.72	5.2
<i>Leptogenys schwabi</i> ¹¹³	Formicidae	Hymenoptera	8.96	21.0
<i>Paraponera clavata</i> ¹¹⁴	Formicidae	Hymenoptera	190.00	430.8
<i>Eciton hamatum</i> ¹¹⁵	Formicidae	Hymenoptera	6.00	25.3
<i>Ponaria sp.</i> ³⁹	Formicidae	Hymenoptera	0.19	1.35
Unknown genus ²⁰	Braconidae	Hymenoptera	1.70	27.8
Unknown genus ²⁰	Chaclidoidea	Hymenoptera	0.16	3.5
Unknown genus ¹⁶	Formicidae	Hymenoptera	46.4	120.2

* Chown lab, unpublished data.

‡ Wing status: 1 = winged; 0 = no wings

Ten data points added to the data set of Chown et al. (2007) are shown in green color.

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