Adult size

Defined as the average length of adults (self reported in the source, mean of a range size, mean of a table or measured by ourselves). In case of strong sex dimorphism and when available, female size was preferred.

Species	Size (cm)		Sources
Abatus_agassizi	2.45		1
Abatus_cordatus	2.77		2
Allolobophora_chlorotica_L1	5.5		3
Allolobophora_chlorotica_L1	5.5		3
Allolobophora_chlorotica_L4	5.5		3
Aporrectodea_icterica	9.5		4
Aptenodytes_patagonicus	90		5
Armadillidium nasatum	1.8		6
Armadillidium_vulgare	1.8		6
Artemia_franciscana	1		7
Artemia_salina	1		7
Artemia_sinica	1		7
Artemia_tibetana	1		7
Bostrycapulus_aculeatus	2.5		8
Caenorhabditis_brenneri	0.15		9
Caenorhabditis_sp.10	0.15		9
Callithrix_jacchus	13.5		10
Camponotus_aethiops	1.4	Measured (queen)	
Camponotus_ligniperdus	1.9	Measured (queen)	
Carcinus_aestuarii	2.79	(1)	11
 Chelonoidis_nigra	110		12
Chlorocebus_aethiops	50		13
Ciona_intestinalis_A	15.5		14
 Ciona_intestinalis_B	15.5		14
Crepidula_fornicata	3.5		14
Crepidula_plana	1		15
Culex_hortensis	0.5	Measured (female)	
 Culex_pipiens	0.5	Measured (female)	
Culex_torrentium	0.5	Measured (female)	
Cystodytes_dellechiajei_blue	0.5	,	16
Cystodytes_dellechiajei_purple	0.5		16
Echinocardium_cordatum_B2	6.5		14
Echinocardium_mediterraneum	4.5		17
Emys_orbicularis	25		18
Eudyptes_filholi	55		19
Eudyptes_moseleyi	55		19
Eulemur_coronatus	34		20
Eulemur_mongoz	35		21
Eunicella_cavolinii	30		22
Eunicella_verrucosa	37.5		14
Galago_senegalensis	13		23
Halictus_scabiosae	1.5	Measured (female)	
Hippocampus_guttulatus	13.3		24

Hippocampus_hippocampus	10		24
Hippocampus_kuda	12		25
Homo_sapiens	163		26
Leptogorgia_sarmentosa	40		27
Lepus_granatensis	45.9		28
Liocarcinus_depurator	5.1		29
Lineus_lacteus	17.5		30
Lineus_longissimus	1000		30,31
Lineus_ruber	5		30,32
Macaca_mulatta	55.5		28
Melitaea_cinxia	3.96		33
Melitaea_didyma	4.4		33
Mellicta_athalia	3.9		33
Mellicta_parthenoides	3.9		33
Messor_barbarus	1.5	Measured (queen)	
Microtus_arvalis	11.1		28
Monodelphis_domestica	12.5		34
Mus_musculus	8		35
Mytilus_californianus	7.5		14
Mytilus_edulis	7.5		14
Mytilus_galloprovincialis	7.5		14
Mytilus_trossulus	7.5		14
Necora_puber	6		36
Nycticebus_coucang	30		28
Ophioderma_longicauda_L1	1.53		37
Ophioderma_longicauda_L3	1.23		37
Ostrea_chilensis	10		38
Ostrea_edulis	10		38
Ostreola_stentina	3.90		39
Pan_troglodytes	79.6		28
Parus_caeruleus	11.5		40
Pectinaria_koreni_nord	2.5		41
Pectinaria_koreni_sud	2.5		41
Pheidole_pallidula	8.0	Measured (queen)	
Physa_acuta	0.85		42
Physa_gyrina	1.55		42
Propithecus_coquereli	46.3		43
Reticulitermes_flavipes	4.75		44
Reticulitermes_grassei	4.75		44
Reticulitermes_lucifugus	4.75		44
Sepia_officinalis	22		45
Thymelicus_lineola	1.3		33
Thymelicus_sylvestris	1.36		33
Trachemys_scripta	20.7		33
Tripylus_abatoides	3.8		46
Tupaia_belangeri	18.5		28
Varecia_variegata_variegata	54.7		28

Body mass

Defined as the mean bodymass of adults (wet weights). When only dry weight were available, dry weight to wet weight conversion factors known for the corresponding taxa were used ⁴⁷.

species	Bodymass (g)	Remarks	Sources
Abatus_agassizi	9.28	Remarks	2
Abatus_cordatus	9.28		2
Allolobophora_chlorotica_L1			48
Allolobophora_chlorotica_L2			48
Allolobophora_chlorotica_L4			48
Aporrectodea_icterica	0.95		49
Aptenodytes_patagonicus	11800		5
Armadillidium_nasatum	0.04		50
Armadillidium_vulgare	0.04		50
Artemia_franciscana	0.004	Estimated (dry to wet weight)	51,47
Artemia_salina	0.004	Estimated (dry to wet weight)	51,47
Artemia_sinica	0.004	Estimated (dry to wet weight)	51,47
Artemia_sinica Artemia_tibetana	0.004	Estimated (dry to wet weight) Estimated (dry to wet weight)	51,47
Bostrycapulus_aculeatus	NA	Estimated (dry to wet weight)	
Caenorhabditis_brenneri	5.12 e-6	Estimated from longth and diameter	9,52
_	5.12 e-6 5.12 e-6	Estimated from length and diameter	9,52
Callithring in achus	255	Estimated from length and diameter	53
Callithrix_jacchus			
Camponotus_aethiops	NA NA		
Camponotus_ligniperdus	NA		11
Carcinus_aestuarii	8.05		12
Chelonoidis_nigra	175000		53
Chlorocebus_aethiops	5620	F ('	54
Ciona_intestinalis_A	29.7	Estimated (for a 150 mm length)	54
Ciona_intestinalis_B	29.7	Estimated (for a 150 mm length)	55
Crepidula_fornicata	2.10		33
Crepidula_plana	NA		56
Culex_hortensis	0.0025		56
Culex_pipiens	0.0025		56
Culex_torrentium	0.0025		
Cystodytes_dellechiajei_blue		Estimated (dry to wet weight)	47,57
Cystodytes_dellechiajei_purp			47.57
e	0.000903	Estimated (dry to wet weight)	47,57
Echinocardium_cordatum_B2			58
Echinocardium_mediterraneu			
m	38		58
Emys_orbicularis	977		59
Eudyptes_filholi	2500		19
Eudyptes_moseleyi	2500		19
Eulemur_coronatus	2500		53
Eulemur_mongoz	2060		53
Eunicella_cavolinii	NA		

Eunicella_verrucosa	NA		
Galago_senegalensis	192		53
Halictus_scabiosae	0.093	Estimated (dry to wet weight)	47,60
Hippocampus_guttulatus	4.76	Estimated from size	61
Hippocampus_hippocampus	1.85	Estimated from size	61
Hippocampus_kuda	3.41	Estimated from size	61
Homo_sapiens	62000		53
Leptogorgia_sarmentosa	NA		
Lepus_granatensis	2440		28
Liocarcinus_depurator	NA		
Lineus_lacteus	NA		
Lineus_longissimus	NA		
Lineus_ruber			
Macaca_mulatta	8240		53
Melitaea_cinxia	0.165	Personal communication (I. Hanski)	
Melitaea_didyma	0.165	Personal communication (I. Hanski)	
Mellicta_athalia	0.165	Personal communication (I. Hanski)	
Mellicta_parthenoides	0.165	Personal communication (I. Hanski)	
Messor_barbarus	0.14	Measured (queen)	
Microtus_arvalis	27.5	· ·	53
Monodelphis_domestica	105		53
Mus_musculus	20.5		53
Mytilus_californianus	37.5		62
Mytilus_edulis	37.5		62
Mytilus_galloprovincialis	37.5		62
Mytilus_trossulus	37.5		62
Necora_puber	90		36
Nycticebus_coucang	891		53
Ophioderma_longicauda_L1	2.18		63
Ophioderma_longicauda_L2	1.07		63
Ostrea_chilensis	268	Estimated (size to weight)	64
Ostrea_edulis	268	Estimated (size to weight)	64
Ostreola_stentina	13.1	Estimated (size to weight)	64
Pan_troglodytes	45000		53
Parus_caeruleus	10.3		53
Pectinaria_koreni_nord	0.258		65
Pectinaria_koreni_sud	0.258		65
Pheidole_pallidula	0.03	Estimates from L. niger weight	66
Physa_acuta	0.0095		67
Physa_gyrina	0.0095		67
Propithecus_coquereli	4000		53
Reticulitermes_flavipes	0.0155		68
Reticulitermes_grassei	0.0155		68
Reticulitermes_lucifugus	0.0155		68
Sepia_officinalis	1000	Personal Communication (L. Bonnaud)	
Thymelicus_lineola	NA		
Thymelicus_sylvestris	NA		
Trachemys_scripta	240		53
Tripylus_abatoides	NA		

Longevity

Defined as the maximal recorded longevity in years. Record for close species expected to have highly similar longevity were used for unavailable data.

species	Longevity (years)	Remarks	Sources
Abatus_agassizi	NA		
Abatus_cordatus	NA		60
Allolobophora_chlorotica_L1	1.25		69
Allolobophora_chlorotica_L2	1.25		69
Allolobophora_chlorotica_L4	1.25		69
Aporrectodea_icterica	NA		70
Aptenodytes_patagonicus	41		70
Armadillidium_nasatum	3.42		71
Armadillidium_vulgare	3.42		71
Artemia_franciscana	4		72
Artemia_salina	4	A. franciscana	72
Artemia_sinica	4	A. franciscana	72
Artemia_tibetana	4	A. franciscana	72
Bostrycapulus_aculeatus	NA		
Caenorhabditis_brenneri	0.16	C. elegans	53
Caenorhabditis_sp.10	0.16	C. elegans	53
Callithrix_jacchus	22.8		53
Camponotus_aethiops	26	C. fellah	73
Camponotus_ligniperdus	26	C. fellah	73
Carcinus_aestuarii	7	C. maenas	74
Chelonoidis_nigra	177		53
Chlorocebus_aethiops	30.1		53
Ciona_intestinalis_A	3		14
Ciona_intestinalis_B	3		14
Crepidula_fornicata	10		14
Crepidula_plana	2		15
Culex_hortensis	0.205	C. pipiens	75
Culex_pipiens	0.205		75
Culex_torrentium	0.205	C. pipiens	75
Cystodytes_dellechiajei_blue	NA		
Cystodytes_dellechiajei_purple	NA		
Echinocardium_cordatum_B2	10		36
Echinocardium_mediterraneum	10		36
Emys_orbicularis	120		53
Eudyptes_filholi	29		19
Eudyptes_moseleyi	29		19
Eulemur_coronatus	27		53
Eulemur_mongoz	36.2		53
Eunicella_cavolinii	100		14

Eunicella_verrucosa	100		14
Galago_senegalensis	17.1		76
Halictus_scabiosae	1		77
Hippocampus_guttulatus	7		61
Hippocampus_hippocampus	7	H. guttulatus	61
Hippocampus_kuda	7	H. guttulatus	61
Homo_sapiens	123	_	53
Leptogorgia_sarmentosa	NA		
Lepus_granatensis	18	Lepus timidus	53
Liocarcinus_depurator	4	-	78
Lineus_lacteus	NA		
Lineus_longissimus	NA		
Lineus_ruber	NA		
Macaca_mulatta	40		53
Melitaea_cinxia	1		79
Melitaea_didyma	1		79
Mellicta_athalia	1		79
Mellicta_parthenoides	1		79
Messor_barbarus	20	Pogonomyrmex barbatus	80
Microtus_arvalis	4.8	g ,	53
Monodelphis_domestica	5.1		53
Mus_musculus	4		53
Mytilus_californianus	25		62
Mytilus_edulis	25		62
Mytilus_galloprovincialis	25		62
Mytilus_trossulus	25		62
Necora_puber	10		36
Nycticebus_coucang	25.8		53
Ophioderma_longicauda_L1	NA		
Ophioderma_longicauda_L3	NA		
Ostrea_chilensis	34	O. edulis	81
Ostrea_edulis	34		81
Ostreola_stentina	NA		
Pan_troglodytes	59.4		53
Parus_caeruleus	14.6		53
Pectinaria_koreni_nord	1.42		82
Pectinaria_koreni_sud	1.42		82
Pheidole_pallidula	15	Pogonomyrmex barbatus	80
Physa_acuta	1.5	g ,	83
Physa_gyrina	1.5	P. acuta	83
Propithecus_coquereli	31		53
Reticulitermes_flavipes	30	R. hesperus	80
Reticulitermes_grassei	30	R. hesperus	80
Reticulitermes_lucifugus	30	R. hesperus	80
Sepia_officinalis	2	-	84
Thymelicus_lineola	1		85
Thymelicus_sylvestris	1		85
Trachemys_scripta	41.3		53
Tripylus_abatoides	NA		

Tupaia_belangeri	11.1	53
Varecia_variegata_variegata	37	53

Propagule size

Defined as the size of the juvenile/egg/larva when leaving parents or group of relatives. In case of social insects and birds, parental care is provided to juveniles until they reach adult size (same size than in the Adult size table were reported here). Propagule size of mammals were estimated from the cube of bodymass ratio of juvenile after weaning on bodymass of adult. When there is presence of a protective structure (e.g. cocoon) covering several eggs, the size of the structure was divided by the number of eggs rather than the egg size alone (the protective structure is considered as a parental investment).

species	Propagule Size (cm)	Remarks	Sources
Abatus_agassizi	0.2	A. cordatus	86
Abatus_cordatus	0.2		86
Allolobophora_chlorotica_L1	0.0238		69,87
Allolobophora_chlorotica_L2	0.0238		69,87
Allolobophora_chlorotica_L4	0.0238		69,87
		Estimated from the	
		ratio adult/propagule	
Aporrectodea_icterica	0.0411	size of A. chlorotica	69,87
Aptenodytes_patagonicus	90.0000	As adult size	5
Armadillidium_nasatum	0.1200	A. vulgare	88
Armadillidium_vulgare	0.1200		88
Artemia_franciscana	0.051		89
Artemia_salina	0.051		89
Artemia_sinica	0.051		89
Artemia_tibetana	0.051		89
Bostrycapulus_aculeatus	0.0840		90
Caenorhabditis_brenneri	0.0052		9
Caenorhabditis_sp.10	0.0052	C. brenneri	9
Callithrix_jacchus	9.42		53
Camponotus_aethiops	1.4000	As adult size	
Camponotus_ligniperdus	1.9000	As adult size	
Carcinus_aestuarii	0.136	C. maenas	91
Chelonoidis_nigra	6. 7		92
Chlorocebus_aethiops	28.5		53
Ciona_intestinalis_A	0.0160		14
Ciona_intestinalis_B	0.0160		14
Crepidula_fornicata	0.0182		93
Crepidula_plana	0.0136		93
Culex_hortensis	0.0800		94
Culex_pipiens	0.0800		94
Culex_torrentium	0.0800		94
Cystodytes_dellechiajei_blue	0.1000		16
Cystodytes_dellechiajei_purple			16
Echinocardium_cordatum_B2	0.0075		58
Echinocardium_mediterraneum	0.0075	E. cordatum	58

Emys_orbicularis	2.0000		18
Eudyptes_filholi	55.0000	As adult size	19
Eudyptes_moseleyi	55.0000	As adult size	19
		Estimated from the	
		juvenile size / adult	
		size ratio of Varecia	
Eulemur_coronatus	31.4	variegata	53
		Estimated from the	
		juvenile size / adult	
		size ratio of Varecia	
Eulemur_mongoz	32.3	variegata	53
Eunicella_cavolinii	0.2500		22
Eunicella_verrucosa	0.2500		95
Galago_senegalensis	10.5		53
Halictus_scabiosae	1.5000	As adult size	
Hippocampus_guttulatus	1.2000		61
Hippocampus_hippocampus	1.2000		61
Hippocampus_kuda	0.7000		25
Homo_sapiens	93.4		53
Leptogorgia_sarmentosa	0.0190		27
Lepus_granatensis	31.6		96
Lineus lacteus	0.02		97
_ Lineus_longissimus	0.02		97
Lineus_ruber	0.5		97
Liocarcinus_depurator	0.129		98
Macaca_mulatta	31.1		53
_		Estimated from	
Melitaea_cinxia	0.0556	volume	33
_		Estimated from	
Melitaea_didyma	0.0713	volume	33
= 3		Estimated from	
Mellicta_athalia	0.0644	volume	33
_		Estimated from	
Mellicta_parthenoides	0.0644	volume	33
Messor barbarus	1.5000	As adult size	
Microtus arvalis	7.80		53
Monodelphis_domestica	7.23		53
Mus musculus	6.06		53
Mytilus_californianus	0.0100	M. edulis	99
Mytilus_edulis	0.0100		99
Mytilus_galloprovincialis	0.0100	M. edulis	99
Mytilus_trossulus	0.0100	M. edulis	99
Necora_puber	0.1800	1/1/ Cuair	36
Nycticebus_coucang	25.1		53
Ophioderma_longicauda_L1	0.02		100
Ophioderma_longicauda_L3	0.18		101
Ostrea_chilensis	0.0450		102
Ostrea_edulis	0.0180		103
Ostreola_stentina	0.0140		104
	3.3110		

45.7		53
11.5000	As adult size	
0.0063		65
0.0063		65
0.8000	As adult size	
0.05		105
0.05		105
NA		
4.7500	As adult size	
4.7500	As adult size	
4.7500	As adult size	
2.0000		106
0.0771		33
0.0899		33
3.39		107
0.2000	As Abatus cordatus	
9.7500		53
51.3		53
	11.5000 0.0063 0.0063 0.8000 0.05 0.05 NA 4.7500 4.7500 2.0000 0.0771 0.0899 3.39 0.2000 9.7500	11.5000 As adult size 0.0063 0.0063 0.8000 As adult size 0.05 0.05 NA 4.7500 As adult size 4.7500 As adult size 4.7500 As adult size 2.0000 0.0771 0.0899 3.39 0.2000 As Abatus cordatus 9.7500

Fecundity

Defined as the number of offspring released per day. Most species are annual and lay once in a year, in that case, the number of released eggs is divided by 365. When fecundity is highly dependent of age, maximal observed values were favored. In eusocial insects, only fertile castes were considered as offsprings.

species	Fecundity	Remarks	Sources
Abatus_agassizi	0.299	A. cordatus	86
Abatus_cordatus	0.299		86
Allolobophora_chlorotica_L1	0.74		69
Allolobophora_chlorotica_L2	0.74		69
Allolobophora_chlorotica_L4	0.74		69
Aporrectodea_icterica	2.67		108
Aptenodytes_patagonicus	0.0027		5
Armadillidium_nasatum	0.959	A. vulgare	109,110
Armadillidium_vulgare	0.959	J	109,110
Artemia_franciscana	40.0000		111
Artemia_salina	40.0000		111
Artemia_sinica	40.0000		111
Artemia_tibetana	40.0000		111
Bostrycapulus_aculeatus	NA		
Caenorhabditis_brenneri	77.8	C. elegans	112
Caenorhabditis_sp.10	77.8	C. elegans	112
Callithrix_jacchus	0.0110	<u> </u>	53
J		Pogonomyrmex	
Camponotus_aethiops	0.266	barbatus	113
Camponotus_ligniperdus	0.266	Pogonomyrmex	113

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		barbatus	
Carcinus_aestuarii	348	DaiDatus	11
Chelonoidis_nigra	0.0274		12
Chlorocebus_aethiops	0.0274		53
Ciona_intestinalis_A	1000.0000		54
Ciona_intestinalis_A Ciona_intestinalis_B	1000.0000		54
Crepidula_fornicata	548		114
Crepidula_formcata Crepidula_plana	3.29		15
Culex_hortensis	100.0000		115
Culex_pipiens	100.0000		115
Culex torrentium	100.0000		115
Cystodytes_dellechiajei_blue	NA		
Cystodytes_dellechiajei_purple	NA NA		
Echinocardium_cordatum_B2	2740		14
Echinocardium mediterraneum	2740	E. cordatum	14
Emys_orbicularis	0.0877	L. Cordutum	116
Eudyptes_filholi	0.0055		19
Eudyptes_moseleyi	0.0055		19
Eulemur_coronatus	0.0033		53
Eulemur_mongoz	0.0030		53
Eunicella cavolinii	33.1	E. verrucosa	117
Eunicella_verrucosa	33.1	L. venueosa	117
Galago_senegalensis	0.0082		53
Halictus_scabiosae	NA		
Hippocampus_guttulatus	2.47		118
Hippocampus_hippocampus	2.47	H. guttulatus	118
Hippocampus_kuda	2.47	H. guttulatus	118
Homo_sapiens	0.0016	11. gattalatas	53
Leptogorgia_sarmentosa	NA		
Lepus_granatensis	0.0198		119
Liocarcinus_depurator	630		120
Lineus_longissimus	NA		
Lineus_ruber	NA		
Liocarcinus_depurator	NA		
Macaca mulatta	0.0023		53
Melitaea cinxia	95.2		121
Melitaea_didyma	95.2	M. cinxia	121
Mellicta_athalia	95.2	M. cinxia	121
Mellicta_parthenoides	95.2	M. cinxia	121
<u> </u>		Pogonomyrmex	
Messor_barbarus	0.266	barbatus	113
Microtus_arvalis	0.0768		53
Monodelphis_domestica	0.0986		53
Mus_musculus	0.104		53
Mytilus_californianus	110000	M. edulis	14
Mytilus_edulis	110000		14
Mytilus_galloprovincialis	110000	M. edulis	14
Mytilus_trossulus	110000	M. edulis	14
Necora_puber	1100		36
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Nycticebus_coucang	0.0027		53
Ophioderma_longicauda_L1	1500		122
Ophioderma_longicauda_L3	1048		101
Ostrea_chilensis	416		102
Ostrea_edulis	5480		14
Ostreola_stentina	NA		
Pan_troglodytes	0.0027		53
Parus_caeruleus	0.0247		123
Pectinaria_koreni_nord	1170		124
Pectinaria_koreni_sud	1170		124
Pheidole_pallidula	1.22		125
Physa_acuta	14.2		126
Physa_gyrina	14.2	P. acuta	126
Propithecus_coquereli	0.0027		43
Reticulitermes_flavipes	2.74		127,128
Reticulitermes_grassei	2.74		127,128
Reticulitermes_lucifugus	2.74		127,128
Sepia_officinalis	2.2000		129
Thymelicus_lineola	13.2		85,130
Thymelicus_sylvestris	13.2	T. lineola	85,130
Trachemys_scripta	0.0822		131
Tripylus_abatoides	NA		
Tupaia_belangeri	0.0205		53
Varecia_variegata_variegata	0.0060		53

SpeedDefined as the running/flying/swimming speed of the adult.

species	Speed (kmh)	Remarks	Sources
Abatus_agassizi	2.08 e-5	Strongylocentrotu s franciscanus Strongylocentrotu	132
Abatus_cordatus	2.08 e-5	s franciscanus	132
Allolobophora_chlorotica_L1	0.0144		133
Allolobophora_chlorotica_L2	0.0144		133
Allolobophora_chlorotica_L4	0.0144		133
Aporrectodea_icterica	0.036		133
Aptenodytes_patagonicus	9		134
Armadillidium_nasatum	0.0168		135
Armadillidium_vulgare	0.0168		135
Artemia_franciscana	0.0126		136
Artemia_salina	0.0126		136
Artemia_sinica	0.0126		136
Artemia_tibetana	0.0126		136
Bostrycapulus_aculeatus	0		
Caenorhabditis_brenneri	0.0018	C. elegans	137
Caenorhabditis_sp.10	0.0018	C. elegans	137

Callithrix_jacchus	40	C. pygmaea	138
Camponotus_aethiops	3.6	fire-ants	139
Camponotus_ligniperdus	3.6	fire-ants	139
Carcinus_aestuarii	1.8	0 0	140
 Chelonoidis_nigra	0.3		141
Chlorocebus_aethiops	45		142
Ciona_intestinalis_A	0		
Ciona_intestinalis_B	0		
Crepidula_fornicata	0		
Crepidula_plana	0		
Culex_hortensis	2		141
Culex_pipiens	2		141
Culex_torrentium	2		141
Cystodytes_dellechiajei_blue	0		
Cystodytes_dellechiajei_purpl	-		
e	0		
-	-	Strongylocentrotu	
Echinocardium_cordatum_B2	2.08 e-5	s franciscanus	132
Echinocardium_mediterraneu	2,00 0 0	Strongylocentrotu	
m	2.08 e-5	s franciscanus	132
Emys_orbicularis	0.3	Chelonoidis nigra	141
Eudyptes_filholi	7.4		143
Eudyptes_moseleyi	7.4		143
Eulemur_coronatus	20	Lemur catta	144
Eulemur_mongoz	20	Lemur catta	144
Eunicella_cavolinii	0		
Eunicella_verrucosa	0		
	-	Sciurius	
Galago_senegalensis	20	carolinensis	141
Halictus_scabiosae	24.1		145
Hippocampus_guttulatus	NA		
Hippocampus_hippocampus	NA		
Hippocampus_kuda	NA		
Homo_sapiens	40		
Leptogorgia_sarmentosa	0		
Lepus_granatensis	56		146
Liocarcinus_depurator	1.8		140
Lineus_lacteus	NA		
Lineus_longissimus	NA		
Lineus_ruber	NA		
Macaca_mulatta	40	M. fascicularis	147
Melitaea cinxia	8		148
Melitaea_didyma	8		148
Mellicta_athalia	8		148
Mellicta_parthenoides	8		148
Messor_barbarus	3.6	Fire-ants	139
 Microtus_arvalis	13	Mus musculus	141
Monodelphis_domestica	11.3		149
Mus_musculus	13		141

Mytilus_californianus Mytilus_edulis Mytilus_galloprovincialis Mytilus_trossulus Necora_puber Nycticebus_coucang Ostrea_chilensis Ostrea_edulis Ostreola_stentina	0 0 0 0 1.8 NA 0 0		140
Ophioderma_longicauda_L1	0.36	Observations	
Ophioderma_longicauda_L3	0.36	Observations	
Pan_troglodytes	40		150
Parus_caeruleus	29		151
Pectinaria_koreni_nord	0		
Pectinaria_koreni_sud	0		
Pheidole_pallidula	3.6	fire-ants	139
Physa_acuta	0.00406		152
Physa_gyrina	0.00405		152
Propithecus_coquereli	NA		
Reticulitermes_flavipes	2.49		153
Reticulitermes_grassei	2.49	R. flavipes	153
Reticulitermes_lucifugus	2.49	R. flavipes	153
Sepia_officinalis	2.34		154
Thymelicus_lineola	8		148
Thymelicus_sylvestris	8		148
Trachemys_scripta	0.3	Chelonoidis nigra	141
Tripylus_abatoides	2.08 e-5	Strongylocentrotu s franciscanus Sciurius	132
Tupaia_belangeri	20	carolinensis	141
Varecia_variegata_variegata	20	Lemur catta	144

- 1. Palma, A. T. *et al.* Antarctic shallow subtidal echinoderms: is the ecological success of broadcasters related to ice disturbance? *Polar Biol.* **30,** 343–350 (2006).
- 2. Magniez, P. & Féral, J. P. The effect of somatic and gonadal size on the rate of oxygen consumption in the subantarctic echinoid Abatus cordatus (Echinodermata) from Kerguelen. *Comp. Biochem. Physiol.* **90**, 429–434 (1988).
- 3. The Trustees of the Natural History Museum. *Biology Natural History Museum*. (2010). at http://www.nhm.ac.uk/nature-online/species-of-the-day/common-species/allolobophora-chlorotica/biology/index.html
- 4. Sims, R. W. & Gerard, B. M. Earthworms: Keys and Notes for the Identification and Study of the Species. (Brill Publishing Company, 1985).
- 5. Edwards, K. 'Aptenodytes patagonicus' (On-line), Animal Diversity Web. (2011). at http://animaldiversity.ummz.umich.edu/site/accounts/information/Aptenodytes_patagonicus/

- 6. Sutton, S. L. *Invertebrate Types: Woodlice*. (Ginn & Company Limited, 1972).
- 7. Hickman, C. P. Biology of the invertebrates. (C.V. Mosby, 1967).
- 8. Zenetos, A., Gofas, S., Russo, G. & Templado, J. *CIESM atlas of exotic species in the Mediterranean:* 3. *Molluscs.* (CIESM Publishers, 2003).
- 9. Sudhaus, W. & Kiontke, K. Comparison of the cryptic nematode species Caenorhabditis brenneri sp. n. and C. remanei (Nematoda: Rhabditidae) with the stem species pattern of the Caenorhabditis Elegans group. *Zootaxa* **1456**, 45–62 (2007).
- 10. Grzimek, B. *Grzimek's encyclopedia of mammals*. (McGraw-Hill, 1990).
- 11. Özbek, M., Ko\ccak, C. & Acarlı, D. Reproductive biology of the mediterranean green crab Carcinus aestuarii Nardo, 1847 (Crustacea, Brachyura, Portunidae) in Homa Lagoon, Aegean Sea, Turkey. *Oceanol. Hydrobiol. Stud.* **41,** 77–80 (2012).
- 12. Fernando, C. '*Chelonoidis nigra*' (*On-line*) *Animal Diversity Web*. (2000). at http://animaldiversity.ummz.umich.edu/accounts/Chelonoidis_nigra/>
- 13. Rochester, M. 'Chlorocebus aethiops' (On-line), Animal Diversity Web. (1999). at http://animaldiversity.ummz.umich.edu/accounts/Chlorocebus_aethiops/
- 14. MArine Life Information Network. *MarLIN BIOTIC (Biological Traits Information Catalogue)*. (2006). at <www.marlin.ac.uk/biotic/>
- 15. Griffin, T. *Smithsonian Marine Station at Fort Pierce : Crepidula cf. plana*. (2001). at http://www.sms.si.edu/irlspec/Crepid_cfplan.htm
- 16. López-Legentil, S. & Turon, X. How do morphotypes and chemotypes relate to genotypes? The colonial ascidian Cystodytes (Polycitoridae). *Zool. Scr.* **34,** 3–14 (2005).
- 17. André, F. & Péan, M. *DORIS* : *Echinocardium mediterraneum (Forbes, 1844)*. (2013). at http://doris.ffessm.fr/fiche2.asp?fiche_numero=969>
- 18. Bereznay, A. '*Emys orbicularis*' (*On-line*), *Animal Diversity Web*. (2002). at http://animaldiversity.ummz.umich.edu/accounts/Emys_orbicularis/
- 19. Phelan, D. *'Eudyptes chrysocome' (On-line), Animal Diversity Web.* (1999). at http://animaldiversity.ummz.umich.edu/accounts/Eudyptes_chrysocome/
- 20. Suter, M. 'Eulemur coronatus' (On-line), Animal Diversity Web. (2000). at http://animaldiversity.ummz.umich.edu/accounts/Eulemur_coronatus/
- 21. Roycewicz, J. '*Eulemur mongoz*' (*On-line*), *Animal Diversity Web*. (2001). at http://animaldiversity.ummz.umich.edu/accounts/Eulemur_mongoz/
- 22. Dumas, J., Maran, V., Ader, D. & Sittler, A.-P. *DORIS* : *Eunicella cavolini (Koch 1887)*. (2014). at http://doris.ffessm.fr/fiche2.asp?fiche_numero=247
- 23. Ballenger, L. '*Galago senegalensis*' (*On-line*), *Animal Diversity Web*. (2001). at http://animaldiversity.ummz.umich.edu/site/accounts/information/Galago_senegalensis.html
- 24. Lourie, S. A., Vincent, A. C. J. & Hall, H. J. Seahorses: an identification guide to the world's species and their conservation. (Project Seahorse, 1999).
- 25. Hashikawa, M. *'Hippocampus kuda' (On-line), Animal Diversity Web.* (2004). at http://animaldiversity.ummz.umich.edu/site/accounts/information/Hippocampus_kuda.html
- 26. Ogden, C. L., Fryar, C. D., Carroll, M. D. & Flegal, K. M. Mean body weight, height, and body mass index, United States 1960-2002. *Adv. Data Vital Health Stat.* 1–17 (2004). doi:10.1073/pnas.0436428100
- 27. Dumas, J., Ader, D., Maran, V. & Huet, S. *Leptogorgia sarmentosa (Esper, 1789)*. (2013). at http://doris.ffessm.fr/fiche2.asp?fiche_numero=253
- 28. Jones, K. E. *et al.* PanTHERIA: a species-level database of life history, ecology, and geography of extant and recently extinct mammals. *Ecology* **90**, 2648 (2009).
- 29. Hill, J. Liocarcinus depurator. Harbour crab. Marine Life Information Network: Biology and Sensitivity Key Information Sub-programme [on-line]. Plymouth: Marine Biological Association of the United Kingdom. at http://www.marlin.ac.uk/speciesinformation.php?speciesID=3697

- 30. Gontcharov, M. Biologie de la régénération et de la reproduction chez quelques Lineidae de France. (1951).
- 31. Oakley, J. Lineus longissimus. Bootlace worm. Marine Life Information Network: Biology and Sensitivity Key Information Sub-programme [on-line]. *Plymouth Mar. Biol. Assoc. U. K.* at http://www.marlin.ac.uk/speciesinformation.php?speciesID=3693
- 32. Bierne, J. Recherches sur la différenciation sexuelle au cours de l'ontogenèse et de la régénération chez le némertien Lineus ruber (Müller). *Ann. Sci. Nat. Zool.* **12,** 181–288
- 33. García-Barros, E. Egg size in butterflies (Lepidoptera: Papilionoidea and Hesperiidae): a summary of data. *J. Res. Lepidoptera* **35**, 90–136 (1999).
- 34. Moore, D. '*Monodelphis domestica*' (*On-line*), *Animal Diversity Web*. (2006). at http://animaldiversity.ummz.umich.edu/site/accounts/information/Monodelphis_domestica.html
- 35. Ballenger, L. '*Mus musculus*' (*On-line*), *Animal Diversity Web*. (1999). at http://animaldiversity.ummz.umich.edu/accounts/Mus_musculus/
- 36. Marine Ecological Surveys Limited. *Marine Macrofauna Genus Trait Handbook*. (Marine Ecological Surveys Limited, 2008).
- 37. Weber, A., Stöhr, S., Mérigot, B. & Chenuil, A. Influence of the larval phase on connectivity: differences in the genetic structure of brooders and broadcasters in the Ophioderma longicauda species complex. *Prep*
- 38. Lapègue, S., Beaumont, A., Boudry, P. & Goulletquer, P. in *GENINPACT-Eval. Genet. Impact Aquac. Act. Native Popul.* (García-Vázquez, E. & Verspoor, E.) 70–75 (A European network, WP1 workshop Genetics of domestication, breeding and enhancement of performance of fish and shellfish.). at http://archimer.ifremer.fr/doc/2006/acte-3321.pdf>
- 39. Salah, I. B., Bouain, A. & Neifar, L. Gonadal cycle of the dwarf oyster Ostreola stentina from the south of the Gulf of Hammamet on the eastern coast of Tunisia. *Afr. J. Mar. Sci.* **34,** 537–545 (2012).
- 40. Del Hoyo, J., Elliott, A. & Christie, D. *Handbook of the Birds of the World (Book 12)*. (Lynx Edicions, 2007).
- 41. Mayhew, E. & Bilewitch, J. *Lagis koreni*. *A bristleworm. Marine Life Information Network: Biology and Sensitivity Key Information Sub-programme [on-line]*. (2009). at http://www.marlin.ac.uk/speciesinformation.php?speciesID=3610
- 42. Buckle, P. *Identifying British freshwater snails: Family: Physidae. The Conchological Society of Great Britain and Ireland.* (2012). at http://www.conchsoc.org/aids_to_id/Physidae.php
- 43. Oldenkamp, R. '*Propithecus coquereli*' (*On-line*), *Animal Diversity Web*. (2011). at http://animaldiversity.ummz.umich.edu/accounts/Propithecus_coquereli/>
- 44. Pence, S. '*Reticulitermes flavipes*' (On-line), Animal Diversity Web. (1999). at http://animaldiversity.ummz.umich.edu/accounts/Reticulitermes_flavipes/
- 45. Goff, R. L. & Daguzan, J. Growth and Life Cycles of the Cuttlefish Sepia Officinalis L. (Mollusca: Cephalopoda) in South Brittany (France). *Bull. Mar. Sci.* **49**, 341–348 (1991).
- 46. Madon-Senez, C. *Tripylus abatoides*. (2006). at http://www.marinespecies.org/photogallery.php?album=694&pic=1686
- 47. Ricciardi, a & Bourget, E. Weight-to-weight conversion factors for marine benthic macroinvertebrates. *Mar. Ecol. Prog. Ser.* **163**, 245–251 (1998).
- 48. Butt, K. R. Reproduction and growth of the earthworm Allolobophora chlorotica in controlled environments. *Pedobiologia* **41,** 369–374 (1997).
- 49. Bouché, M. *Lombriciens de France : écologie et systématique*. (INRA Publ. Ann. Zool. Ecol. Anim., 1972).
- 50. Refinetti, R. *Circadian rythm laboratory: Animal species used in the laboratory.* (2005). at http://www.circadian.org/animal.html>
- 51. Abreu-Grobois, F. A., Briseno-Duenas, R., Herrera, M. A. & Malagon, M. L. A model for

- growth of Artemia franciscana cultures based on food ration-dependent gross growth efficiencies. *Hydrobiologia* **212**, 27–37 (1991).
- 52. Andrássy, I. Die rauminhalst and gewichtsbestimmung der fadenwurmer (Nematoden). *Acta Zool. Acad. Sci.* **2,** 1–15 (1956).
- 53. De Magalhaes, J. & Costa, J. A database of vertebrate longevity records and their relation to other life-history traits. *J. Evol. Biol.* **22,** 1770–1774 (2009).
- 54. Carver, C. E., Mallet, A. L. & Vercaemer, B. *Biological synopsis of the solitary tunicate Ciona intestinalis*. 55 (Canadian Manuscript Report of Fisheries and Aquatic Sciences No. 2746, 2006).
- 55. Le Cam, S. & Viard, F. Infestation of the invasive mollusc Crepidula fornicata by the native shell borer Cliona celata: a case of high parasite load without detrimental effects. *Biol. Invasions* **13**, 1087–1098 (2011).
- 56. Conlon, J. M. *American Mosquito Control Association FAQ*. (2004). at http://www.mosquito.org/faq
- 57. Tarjuelo, I. & Turon, X. Resource allocation in ascidians: reproductive investment vs. other life-history traits. *Invertebr. Biol.* **123,** 168–180 (2005).
- 58. Schipper, C. a., Dubbeldam, M., Feist, S. W., Rietjens, I. M. C. M. & Murk, a. T. Cultivation of the heart urchin Echinocardium cordatum and validation of its use in marine toxicity testing for environmental risk assessment. *J. Exp. Mar. Biol. Ecol.* **364**, 11–18 (2008).
- 59. Mitrus, S. & Zemanek, M. Distribution and biology of Emys orbicularis (L.) in Poland. *Eur. Sumpfschildkrötel Stapfia* **69,** 107–118 (2000).
- 60. Richards, M. H. & Packer, L. Trophic aspects of caste determination in Halictus ligatus, a primitively eusocial sweat bee. *Behav. Ecol. Sociobiol.* **34,** 385–391 (1994).
- 61. Curtis, J. M. R. & Vincent, A. C. J. Life history of an unusual marine fish: survival, growth and movement patterns of Hippocampus guttulatus Cuvier 1829. *J. Fish Biol.* **68,** 707–733 (2006).
- 62. Bayne, B. L. *Marine Mussels, Their Ecology and Physiology*. (Cambridge University Press, 1976).
- 63. Keledjian, A. The Abundance, Habitat Selection, and Feeding Behavior of the Brittle Star, Ophioderma brevispinum, in Eelgrass-vs. Algae-Dominated Habitats in a Nutrient Enriched Estuary. at http://dryas.mbl.edu/SES/2006%20projects/keledjian.pdf
- 64. Tully, O. & Clarke, S. *The Status and Management of Oyster (Ostrea edulis) in Ireland.* 23 (Irish Fisheries Investigations. The Marine Institute, Fisheries Ecosystems Advisory Services, 2012).
- 65. Nicolaidou, A. Life history and productivity of Pectinaria koreni Malmgren (Polychaeta). *Estuar. Costal Shelf Sci.* **17,** 31–43 (1983).
- 66. Keller, L. & Passera, L. Fecundity of ant queens in relation to their age and the mode of colony founding. *Insectes Sociaux* **37**, 116–130 (1990).
- 67. Paradise, T. The sublethal salinity tolerance of selected freshwater macroinvertebrate species. (2009).
- 68. Long, C. E. Reticulitermes flavipes (isoptera: rhinotermitidae) colonies: reproductive lifespans, caste ratios, nesting and foraging dynamics, and genetic architecture. (2005).
- 69. Edwards, C. A. & Bohlen, P. J. *Biology and Ecology of Earthworms*. **64,** (Chapman & Hall, 1996).
- 70. Punt, S. King Penguin. Penguin Sentinels (University of Washington). at http://penguinstudies.org/biology-and-ecology/king-penguin/
- 71. Sutton, S. L. & Holdich, D. M. in *Biol. Terr. Isopods Proc. Symp. Held Zool. Soc. Lond. 7th 8th July 1983* (Clarendon Press, 1984).
- 72. Clegg, J. Embryos of Artemia franciscana survive four years of continuous anoxia: the case for complete metabolic rate depression. *J. Exp. Biol.* **200**, 467–475 (1997).
- 73. Vonshak, M. & Shlagman, A. A Camponotus fellah queen sets a record for Israeli ant longevity. *Isr. J. Entomol.* **39,** 165–168 (2009).

- 74. Klassen, G. & Locke, A. *A Biological Synopsis of the European Green Crab*, *Carcinus maenas*. 20 (Canadian Manuscript Report of Fisheries and Aquatic Sciences No. 2818, 2007).
- 75. Briegel, H. & Kaiser, C. Life-span of Mosquitoes (Culicidae, Diptera) under Laboratory Conditions. *Gerontologia* **19,** 240–249 (1973).
- 76. Jackiewicz, M. Blotniarky Europy (Gostropoda: Pulmonata: Lymnaeidae). (2000).
- 77. Brand, N. & Chapuisat, M. Born to be bee, fed to be worker? The caste system of a primitively eusocial insect. *Front. Zool.* **9,** 35 (2012).
- 78. Rufino, M. M., Abello, P., Yule, A. B. & Torres, P. Geographic, bathymetric and inter-annual variability in the distribution of Liocarcinus depurator (Brachyura: Portunidae) along the Mediterranean coast of the Iberian peninsula. *Sci. Mar.* **69**, 503–518 (2005).
- 79. Eeles, P. *UK Butterflies*, *Glanville Fritillary*, *Melitaea cinxia*. (2005). at http://www.ukbutterflies.co.uk/species.php?species=cinxia
- 80. Keller, L. Queen lifespan and colony characteristics in ants and termites. *Insectes Sociaux* **45**, 235–246 (1998).
- 81. Saurel, C. & Richardson, C. *Age and growth analysis of native oyster beds (Ostrea edulis) in Wales*. 30 (School of Ocean Sciences, University of Wales, 2003).
- 82. Elkaim, B. & Irlinger, P. Contribution à l'étude de la dynamique des populations de Pectinaria koreni Malmgren (Polychète) en Baie de Seine Orientale. *J Exp Mar Biol Ecol* **107,** 171–197 (1987).
- 83. Li, X.-Y., Dong, X.-Y., Bai, X., Liu, L. & Wang, J.-J. The embryonic and postembryonic developmental toxicity of imidazolium-based ionic liquids on Physa acuta. *Environ. Toxicol.* (2012). doi:10.1002/tox.21797
- 84. Wilson, E. Sepia officinalis. Common cuttlefish. Marine Life Information Network: Biology and Sensitivity Key Information Sub-programme [on-line]. Plymouth: Marine Biological Association of the United Kingdom. (1999). at http://www.marlin.ac.uk/species/Sepiaofficinalis.htm
- 85. Thomas, J. Butterflies of Britain and Ireland. (British Wildlife Publishing, 2010).
- 86. Gil, D. G., Zaixso, H. E. & Tolosano, J. A. Brooding of the sub-Antarctic heart urchin, Abatus cavernosus (Spatangoida: Schizasteridae), in southern Patagonia. *Mar. Biol.* **156,** 1647–1657 (2009).
- 87. Eijsackers, H. Earthworms as colonizers of natural and cultivated soil environments. *Appl. Soil Ecol.* **50,** 1–13 (2011).
- 88. Helden, A. J. & Hassall, M. Phenotypic plasticity in growth and development rates of Armadillidium vulgare (Isopoda: Oniscidea). *Isreal J. Zool.* **44,** 379–394 (1998).
- 89. Abatzopoulos, T., Karamanlidis, G., Léger, P. & Sorgeloos, P. Further characterization of two Artemia population from Northern Greece: biometry, hatching characteristics, caloric content and fatty acid profiles. *Hydrobiologia* **179**, 211–222 (1989).
- 90. Collin, R. Development, phylogeny, and taxonomy of Bostrycapulus (Caenogastropoda: Calyptraeidae), an ancient cryptic radiation. *Zool. J. Linn. Soc.* **144,** 75–101 (2005).
- 91. Williams, B. G. Laboratory rearing of the larval stages of Carcinus maenas (L.) [Crustacea: Decapoda]. *J. Nat. Hist.* **2,** 121–126 (1968).
- 92. Zoo, S. D. *Galapagos tortoise*. *San Diego Zoo Animals*. (2013). at http://animals.sandiegozoo.org/animals/galapagos-tortoise
- 93. Conklin, E. G. The embryology of Crepidula, a contribution to the cell lineage and early development of some marine gastropods. *J. Morphol.* **13,** 1–226 (1897).
- 94. Clements, A. N. *The Biology of Mosquitoes: Development, nutrition, and reproduction.* (Chapman & Hall, 1992).
- 95. Dumas, J., Ader, D., Maran, V. & Sittler, A.-P. *DORIS : Eunicella verrucosa (Koch 1887)*. (2014). at http://doris.ffessm.fr/fiche_imprime.asp?fiche_numero=247>
- 96. Alves, P. C. Personal communication. (2013).
- 97. J. Bierne. in *Reprod. Biol. Invertebr. 1 Oogenesis Oviposition Oosorption* 146–167 (John Wiley & Sons Ltd, 1983).

- 98. Villanueva, R. Decapod crab zoeae as food for rearing cephalopod paralarvae. *Aquaculture* **128**, 143–152 (1994).
- 99. Bayne, B. L., Salkeld, P. N. & Worrall, C. M. Reproductive effort and value in different populations of the marine mussel, Mytilus edulis L. *Oecologia* **59**, 18–26 (1983).
- 100. Fenaux, L. Evolution saisonnière des gonades chez l'Ophiure Ophioderma longicauda (RETZIUS), Ophiuroidea. *Int. Rev. Gesamten Hydrobiol. Hydrogr.* **57**, 257–262 (1972).
- 101. Stöhr, S., Boissin, E. & Chenuil, A. Potential cryptic speciation in Mediterranean populations of Ophioderma (Echinodermata: Ophiuroidea). *Zootaxa* **2071,** 1–20 (2009).
- 102. Chaparro, O. R., Thompson, R. J. & Emerson, C. J. The Velar Ciliature in the Brooded Larva of the Chilean Oyster Ostrea chilensis (Philippi, 1845). *Biol. Bull.* **197**, 104 (1999).
- 103. Uyan, O. & Aral, O. A Study on the Possibilities of Obtaining Larva From Native Flat Oysters (Ostrea edulis L.) Living in the Black Sea and Larval Metamorphosis Stage. *Turk. J. Zool.* **24,** 343–350 (2000).
- 104. Pascual, E. Estudio de las conchas larvarias de Ostrea stentina, Payr. y Ostrea edulis L. *Investig. Pesq.* **36,** 297–310 (1972).
- 105. Awdziejczyk, L. & Jaeckle, W. Maternal investment in Physa acuta. in *John Wesley Powell Stud. Res. Conf.* (2012). at http://digitalcommons.iwu.edu/cgi/viewcontent.cgi? article=2847&context=jwprc>
- 106. Jones, N. J. E., Ridgway, I. D. & Richardson, C. A. Transport of cuttlefish, Sepia officinalis, eggs under dry and damp conditions. *Journal Molluscan Stud.* 1–3 (2009).
- 107. Dundee, H. A. & Rossman, D. A. *The Amphibians and Reptiles of Louisiana*. (Louisiana State University Press, 1989).
- 108. Booth, L. H., Heppelthwaite, V. J. & O'Halloran, K. Growth, development and fecundity of the earthworm Aporrectodea caliginosa after exposure to two organophosphates. *N. Z. Plant Prot.* **53**, 221–225 (2000).
- 109. Brown, C. *'Armadillidium vulgare' (On-line), Animal Diversity Web.* (1999). at http://animaldiversity.ummz.umich.edu/accounts/Armadillidium_vulgare/
- 110. Paris, O. H. & Pitelka, F. A. Population characteristics of the terrestrial isopod Armadillidium vulgare in California grassland. *Ecology* **43,** 229–248 (1962).
- 111. Vos, J. & de la Rosa, N. L. *Manual on Artemia production in salt ponds in the Philippines*. (FAO/UNDP-BFAR Project manual, 1980).
- 112. Kimble, J. & Ward, S. in *Nematode Caenorhabditis Elegans* (Wood, W. B.) 191–213 (Cold Spring Harbor Laboratory Press, 1988).
- 113. Davidson, D. W. Sexual Selection in Harvester Ants (Hynenoptera: Formicidae: Pogonomyrmex). *Behav. Ecol. Sociobiol.* **10,** 245–250 (1982).
- 114. Minchin, D. *Delivering Alien Invasive Species Inventories for Europe: Crepidula fornicata factsheet.* (2008). at http://www.europe-aliens.org/pdf/Crepidula_fornicata.pdf
- 115. Floore, T. *American Mosquito Control Association: Biology*. (2002). at http://www.mosquito.org/biology>
- 116. Novotny, M., Danko, S. & Havas, P. Activity cycle and reproductive characteristics of the European pond turtle (Emys orbicularis) in the Tajba National Nature Reserve, Slovakia. *Biol. Bratisl.* **14,** 113–121 (2004).
- 117. Munro, L. *Determining the reproductive cycle of Eunicella verrucosa*. 16 (Reef Research ETR 12, 2004). at http://www.marine-bio-images.com/RR_Eunicella_PDFS/Report_RR12Jul2004reproductive cycle pdf.pdf
- 118. Curtis, J. M. R. Validation of a method for estimating realized annual fecundity in a multiple spawner, the long-snouted seahorse (Hippocampus guttulatus), using underwater visual census. *Fish. Bull.* **105**, 327–336 (2007).
- 119. Smith, A. T. & Johnston, C. H. Lepus granatensis. IUCN Red List of Threatened Species

- version 2013.2. (2008). at http://www.iucnredlist.org
- 120. Abello, P. Reproduction and moulting in Liocarcinus depurator (Linnaeus, 1758) (Brachyura: Portunidae) in the northwestern Mediterranean Sea. *Sci. Mar.* **53**, 127–134 (1989).
- 121. Saastamoinen, M. Life-history, genotypic, and environmental correlates of clutch size in the Glanville fritillary butterfly. *Ecol. Entomol.* **32**, 235–242 (2007).
- 122. Fenaux, L. Le developpement larvaire chez Ophioderma longicauda (Retzius). *Cah. Biol. Mar.* **10,**
- 123. Robinson, R. A. *BirdFacts: profiles of birds occurring in Britain & Ireland (BTO Research Report 407).* (2005). at http://www.bto.org/about-birds/birdfacts>
- 124. Jolly, M. T. *et al.* Does the genetic structure of Pectinaria koreni (Polychaeta: Pectinariidae) conform to a source—sink metapopulation model at the scale of the Baie de Seine? *Helgolan Mar. Res.* **56**, 238–246 (2003).
- 125. Keller, L. & Passera, L. Fecundity of ant queens in relation to their age and the mode of colony founding. *Insectes Sociaux* **37,** 116–130 (1990).
- 126. Wethington, A. R. & Dillon, R. T. Reproductive Development in the Hermaphroditic Freshwater Snail Physa Monitored with Complementing Albino Lines. *Proc. R. Soc. B Biol. Sci.* **252,** 109–114 (1993).
- 127. Rizen, A. & Sinclair, A. *Eastern subterranean termites Fact Sheet*. (2009). at http://pestcontrol.basf.us/reference/fact-sheets/eastern-subterranean-termite.pdf>
- 128. Tonini, F., Hochmair, H. H., Scheffrahn, R. H. & Deangelis, D. L. Simulating the spread of an invasive termite in an urban environment using a stochastic individual-based model. *Environ*. *Entomol.* **42**, 412–23 (2013).
- 129. Richard, A. Contribution à l'étude expérimentale de la croissance et de la maturation sexuelle de Sepia officinalis (Mollusque : Cephalopoda). (1971).
- 130. Pivnick, K. A. & McNeil, J. N. Puddling in butterflies: sodium affects reproductive success in Thymelicus lineola*. *Physiol. Entomol.* **12**, 461–472 (1987).
- 131. Tucker, J. K. Clutch frequency in the red-eared slider (Trachemys scripta elegans). *J. Herpetol.* **35,** 664–668 (2001).
- 132. Mattison, J. E., Trent, J. D., Shanks, A. L., Akin, T. B. & Pearse, J. S. Movement and Feeding Activity of Red Sea-Urchins Strongylocentrotus-Franciscanus Adjacent to a Kelp Forest. *Mar. Biol. Berl.* **39**, 25–30 (1977).
- 133. Quillin, K. Kinematic scaling of locomotion by hydrostatic animals: ontogeny of peristaltic crawling by the earthworm lumbricus terrestris. *J. Exp. Biol.* **202,** 661–674 (1999).
- 134. Kooyman, G. L. *et al.* Heart rates and swim speeds of emperor penguins diving under sea ice. *J. Exp. Biol.* **165,** 161–180 (1992).
- 135. Warburg, M. R. Behavioral Adaptations of Terrestrial Isopods. *Am. Zool.* **8,** 545–559 (1968).
- 136. Larsen, P., Madsen, C. & Riisg\aa rd, H. Effect of temperature and viscosity on swimming velocity of the copepod Acartia tonsa, brine shrimp Artemia salina and rotifer Brachionus plicatilis. *Aquat. Biol.* **4**, 47–54 (2008).
- 137. Faumont, S. et al. An Image-Free Opto-Mechanical System for Creating Virtual Environments and Imaging Neuronal Activity in Freely Moving Caenorhabditis elegans. **6**, (2011).
- 138. Bond, M. Pygmy marmoset. (2012). at http://a-z-animals.com/animals/pygmy-marmoset/
- 139. Vogt, J., Appel, A. & M, S. W. Flight energetics and dispersal capability of the fire ant, Solenopsis invicta Buren. *J. Insect Physiol.* **46**, 697–707 (2000).
- 140. Hardy, K. M., Lema, S. C. & Kinsey, S. T. The metabolic demands of swimming behavior influence the evolution of skeletal muscle fiber design in the brachyuran crab family Portunidae. *Mar. Biol.* **157**, 221–236 (2010).
- 141. The American Museum of Natural History & Doherty, J. G. *Natural History magazine*, *March 1974*. (The Wildlife Conservation society, 1974).

- 142. Bond, M. Vervet monkey. (2011). at http://a-z-animals.com/animals/vervet-monkey/
- 143. Cherel, Y., Tremblay, Y., Guinard, E. & Georges, J. Diving behaviour of female northern rockhopper penguins, Eudyptes chrysocome moseleyi, during the brooding period at Amsterdam Island (Southern Indian Ocean). *Mar. Biol.* **134**, 375–385 (1999).
- 144. Bond, M. Lemur. (2010). at http://a-z-animals.com/animals/lemur/
- 145. Graham, J. M. The hive and the honey bee. (Dadant & Sons, 1992).
- 146. McKay, G. & McGhee, K. *National Geographic Encyclopedia of Animals*. (National Geographic Books, 2006).
- 147. Bond, M. Crab-eating macaque. (2010). at http://a-z-animals.com/animals/crab-eating-macaque/
- 148. Davies, H. & Butler, C. A. *Do Butterflies Bite? Fascinating answers to questions about butterflies and moths.* (Rutgers University Press, 2008).
- 149. Hygnstrom, S. E., Timm, R. M. & Larson, G. E. *Prevention and Control of Wildlife Damage*. (University of Nebraska-Lincoln, 1994).
- 150. Bond, M. Chimpanzee. (2012). at http://a-z-animals.com/animals/chimpanzee/
- 151. Gains, D. British garden birds: flight. *Br. Gard. Birds* (2010). at http://www.garden-birds.co.uk/information/flight.htm
- 152. Kwong, K. L., Chan, R. K. Y. & Qiu, J. W. The potential of the invasive snail Pomacea canaliculata as a predator of various life-stages of five species of freshwater snails. *Malacologia* **51**, 343–356 (2009).
- 153. Shelton, T. G., Hu, X. P., Appel, A. G. & Wagner, T. L. Flight Speed of Tethered Reticulitermes flavipes (Kollar) (Isoptera: Rhinotermitidae) Alates. *J. Insect Behav.* **19,** 115–128 (2006).
- 154. Bloor, I. S. M. *et al.* Movements and behaviour of European common cuttlefish Sepia officinalis in English Channel inshore waters: First results from acoustic telemetry. *J. Exp. Mar. Biol. Ecol.* **448,** 19–27 (2013).