



A database for Soil Invertebrate
Biological and Ecological Traits

<https://portail.betsi.cnrs.fr/>

What's new in 2024?

T-Sita on opentheso

=> So easy to insert new traits !!!

New traits

> 15

New data

> 6 700

New taxonomical groups

Dictyoptera, Hemiptera, Opiliones, Pseudoscorpiones, Symphyla, Thysanoptera

Arachnida

4 076 new data
9 new references

24 traits
503 references
5 532 species
62 525 recorded data

Contributors :

Baillo, A., Hedde, M., Nahmani J.



Coleoptera

417 new data
57 new references

44 traits
1 190 references
30 297 species
74 316 recorded data

Contributors :

Brondani, M., Ganault, P., Hedde, M., Nahmani J.

Collembola

Take Home Message



17 traits
52 references
2 279 species
11 507 recorded data

Contributors :

Bonfanti, J., Cortet, J., Joimel, S., Nahmani, J.,
Pernin, C., Salmon, S., Santorufo, L., , Vincent, Q.

Dermaptera

20 new data
1 new reference

20 traits
8 references
121 species
702 recorded data

Contributors :
Hedde, M., Nahmani J.

Gastropoda



14 traits
5 references
67 species
717 recorded data

Contributors :
Hedde, M., Nahmani J.

Hymenoptera - Formicidae

17 new data
1 new reference

15 traits
11 references
914 species
5 087 recorded data



Contributors :

Hedde, M., Nahmani J.

Isopoda

2 041 new data
159 new references



31 traits
187 references
1 335 species
11 123 recorded data

Contributors :
Dubs, F., Hedde, M., Nahmani J.

Myriapoda - Chilopoda

16 new data
1 new reference

22 traits
62 references
616 species
8 134 recorded data



Contributors :
Dubs, F., Hedde, M., Nahmani J.

Myriapoda - Diplopoda

23 new data
1 new reference

32 traits
206 references
1 889 species
16 456 recorded data



Contributors :
Dubs, F., Hedde, M., Nahmani J.

Oligochaeta

Take Home Message



21 traits
14 references
175 species
2749 recorded data

47 new data

Contributors :

Guernion, M., Hedde, M., Nahmani
J., Pey, B. Si-Moussi, S.

Orthoptera

Take Home Message

25 traits
8 references
1 354 species
6 755 recorded data

25 new data
1 new reference

Contributors :

Coq, S., Hedde, M., Nahmani J.



New taxa !



Morphological traits :

		Coleoptera	Aranae	Diplopoda	Collembola	Isopoda	Chilopoda	Orthoptera	Hymenoptera Formicidae	Oligochaeta	Gastropoda	Dermaptera	Hemiptera	Acari	Opiliones	Dictyoptera	Pseudoscorpiones	Other Myriapoda	Other_Insecta (Embiopoda; Thysanoptera)
Morphology																			
Body_dimension	Body_diameter			114 (58)						22 (11)	63 (34)								
	Body_length	2159 (787)	6102 (2817)	910 (340)	3672 (1311)	971 (337)	651 (147)	720 (161)	408 (103)	246 (108)	136 (58)	57 (20)	4 (1)	80 (80)		4 (2)	4 (1)	4 (1)	
	Body_shape				595 (477)	3 (3)													
	Body_width	54 (49)	97 (97)	269 (119)		241 (126)	137 (49)			202 (100)									
	Female_body_diameter			55 (28)															
	Female_body_length	2 (1)	4185 (2353)	329 (145)		157 (104)		342 (102)				2 (1)							
	Female_body_width					61 (39)													
	Male_body_diameter			54 (28)															
	Male_body_length	2 (1)	3600 (2139)	336 (147)		148 (106)		337 (102)				2 (1)							
	Male_body_width			165 (89)		50 (34)													
	Fresh_body_weight	1112 (43)				2(2)				190 (96)									
	Maximum_width_of_the_head	15 (1)																	
	Pronotum_length	112 (16)						358 (144)											
	Maximum_depth_of_the_pronotum	15 (1)																	
	Maximum_width_of_the_pronotum	17 (1)																	
Locomotion	Leg_length			20 (19)		12 (12)	35 (33)												
	Metafemora_maximum_length	178 (58)						247 (145)											
	Metafemora_maximum_width	103 (16)																	
	Metarsi_maximum_length	27 (1)																	
	Metatibia_maximum_length	127 (16)	103 (103)																
	Metatibia_maximum_length																		
	Trochanter_maximum_length	120 (16)																	
	Elytra_length	160 (16)						366 (137)											
	Maximum_width_of_the_elytra	33 (1)																	
	Costal_wing_nervure_length	146 (16)																	
	Radial_wing_nervure_length	133 (16)																	
	Wing_development	895 (337)	5431 (5431)	1888 (1888)	2279 (2279)	1321 (1321)	619 (616)	8 (5)	2 (2)	175 (175)	84 (62)	7 (7)	121 (92)						2 (2)
	Furcula_length				273 (224)														
Nutrition	Gizzard_extension									103 (103)									
	Mandible_height	116 (16)																	
	Mandible_length	93 (16)																	
	Mandible_width	81 (16)																	
	Mouthpart_type	16150 (16150)	10882 (5431)	1860 (1853)		1317 (1316)	713 (616)	167 (84)	166 (83)	180 (175)	1 (1)	121 (120)	1 (1)						2 (2)
	Respiratory_organ_type	147 (147)	174 (58)	1894 (1888)		10 (10)	627 (616)	1338 (1338)	6 (3)	1 (1)	62 (62)	121 (120)							
Protection	Integument	30214 (30214)	5431 (5431)	1888 (1888)	2279 (2279)	1316 (1316)	616 (616)	1352 (1352)	912 (912)	175 (175)		120 (120)		2 (1)					
	Scales				214 (214)														
Sensitivity	Antenna_categorical_length					18 (16)	25 (15)	1 (1)								6 (3)			
	Antenna_length	20 (1)																	
	collembola_maxnumber_visualorgan_class				570 (416)														
	Eye_diameter	16 (1)																	
	Max_number_of_visual_organ			23 (16)		304 (234)	149 (73)												
	Postantennal_organ				58 (55)														
	Trichobotria				6 (6)														

The table shows the number of values per trait and per taxonomic group, with the number of taxa in brackets.



Behavioural, Physiological, Phenological traits and Ecological preferences

	Coleoptera	Aranae	Diplopoda	Collembola	Isopoda	Chilopoda	Orthoptera	Hymenoptera Formicidae	Oligochaeta	Gastropoda	Dermaptera	Hemiptera	Acari	Opiliones	Dictyoptera	Pseudoscorpiones	Other Myriapoda	Other_Insecta (Embioptera; Thysanoptera)	
Behaviour																			
Protection	Antipredator_behaviour		1 (1)		65 (54)		1 (1)												
	Overwintering_life_cycle_stadium	145 (90)	3 (2)	3 (2)			8 (5)												
	Ecomorphosis			34 (27)															
Nutrition	Diet	3009 (537)	5529 (5431)	195 (155)		1078 (1054)	1326 (616)	215 (107)	344 (87)	15 (4)	33 (18)	66 (15)	180 (133)	107 (60)	16 (7)	6 (3)	4 (1)	4 (1)	13 (9)
	Foraging	20 (18)	1351 (787)				4 (2)					2 (1)							
	Motion_strategies	16792 (16792)	1248 (530)	2032 (1888)		1318 (1276)	834 (616)	444 (165)	1828 (912)	175 (175)	61 (61)	33 (13)	4 (1)	8 (2)	2 (1)		4 (1)		
Reproduction	Mating_strategy						63 (37)												
	Parental_care	4 (3)	88 (53)	1 (1)			1 (1)					28 (13)	4 (1)			2 (1)			
Physiology																			
Reproduction	Reproduction_type	94 (85)	59 (58)	51 (19)	143 (88)	10 (6)	41 (19)	28 (26)	1 (1)			6 (6)	1 (1)	45 (45)					
	Clutch_size	46 (15)	2 (1)	7 (4)		124 (36)		22 (13)				33 (17)	25 (13)	4 (1)		4 (1)			
Activity	Circadian_activity_rhythm	277 (107)	291 (258)	11 (6)	3 (2)	33 (17)	54 (54)	132 (69)		21 (10)	4 (2)	8 (7)		2 (1)	4 (1)			1 (1)	
Phenology																			
	Breeding	73 (40)																	
Ecological preferences																			
Altitude	Altitudinal_distribution	77 (60)	1039 (772)	630 (276)	274 (46)	182 (91)	457 (96)	49 (27)	164 (50)	122 (68)	47 (31)	10 (5)							
	Altitudinal_zone_preference	155 (91)	46 (36)	190 (134)		95 (53)	87 (39)	48 (30)	114 (45)		17 (14)	5 (4)							
Habitat	Habitat	680 (305)	9872 (951)	1938 (512)	608 (176)	1190 (341)	1213 (128)	259 (98)	413 (89)	453 (88)	70 (34)	27 (13)	1 (1)	2 (1)	8 (4)	4 (2)			
	Microhabitat	372 (170)	4710 (940)	883 (342)	441 (156)	710 (201)	382 (71)	106 (51)	585 (104)	6 (1)	58 (29)	60 (17)	109 (93)	4 (1)	66 (16)	2 (1)	6 (1)	6 (1)	
Soil properties	Calcareous_preferences	12 (12)	213 (213)	160 (74)		60 (36)	22 (10)		32 (9)					2 (1)					
	Soil_ph_distribution	2 (1)								208 (113)									
	soil_ph_range			96 (16)		9 (4)													
	Soil_texture	65 (50)	599 (279)	94 (47)		71 (40)	30 (15)	17 (7)	56 (20)	26 (9)		2 (1)							
	Carbon									126 (68)									
	Carbonates									2 (1)									
	Cn_ratio									194 (105)									
	Nitrogen									125 (68)									
	Humus_form			17 (11)		12 (6)													
	Humidity_preference	246 (192)	1470 (474)	184 (88)	58 (49)	234 (123)	111 (33)	127 (63)	56 (19)	3 (3)	31 (26)	4 (3)		2 (1)	4 (2)			2 (1)	
Total Nb of Value	200946	74316	62525	16456	11507	11123	8134	6755	5087	2749	717	702	437	244	106	28	22	21	17



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