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Long-Term Trends in Ecological Systems: A Basis for Understanding Responses to Global Change



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Appendix 21. Average (standard error) animal abundance for sites with data

(Multiple stations are given if possible. Sites are grouped by ecosystem type. See Appendix 28 for length of record for each station.)

Site code	Taxon	Station	Abundance	Unit
Aridlands				
JRN	Leporidae	Rabbit survey route in creosote vegetation zone	6	(1.1)* #/10 km road
		Rabbit survey route in grassland vegetation zone	43	(5.6)* #/10 km road
	Rodentia	Rodent trapping web in creosote vegetation zone	41	(4.7) #/3.14 ha trapping web
		Rodent trapping web in grassland vegetation zone	43	(6.6) #/3.14 ha trapping web
SEV	Rodentia	Five-Points Grass Study Site	26	(3.3) #/trapping web
		Five-Points <i>Larrea</i> Study Site	47	(6.2) #/trapping web
Coastal				
GCE	Orthoptera	Study Site 1, Eulonia, GA	2	(0.5) #/20 m ²
		Study Site 3, North Sapelo, Sapelo Island, GA	1	(0.2) #/20 m ²
		Study Site 6, Dean Creek, Sapelo Island, GA	4	(1.3) #/20 m ²
MCR	Fish	MRB Lagoon research site	71	(17.1)* #/m ³ coral
PAL	<i>Pygoscelis adeliae</i>	Palmer Station	8936	(780.4) # breeding pairs
	<i>P. antarcticus</i>	Palmer Station	202	(16.3)* # breeding pairs
	<i>P. papua</i>	Palmer Station	491	(125.5) # breeding pairs
VCR	Muridae	Hog Island Rodent Trapping Transect 1	6	(0.7) #/trapping transect
		Hog Island Rodent Trapping Transect 4	3	(0.2) #/trapping transect
		Hog Island Rodent Trapping Transect 5	3	(0.3)* #/trapping transect
Eastern forests				
HBR	Aves	10-hectare bird count plot	123	(7.2)* #/10 ha
	Lepidoptera	on <i>Acer saccharum</i>	18	(2.2) #/4000 leaves
		on <i>Fagus grandifolia</i>	12	(2.0) #/4000 leaves
LUQ	Aves	El Verde	3	(0.2) # counted outside a 25 m -radius circle
			4	(0.1)* # counted inside a 25 m -radius circle
	Caridea	El Verde Study Area, Pool 0, Quebrada Prieta	56	(3.5)* #/pool
		Pool 15 in Quebrada Prieta (upstream pool)	70	(7.5)* #/pool
		Pool 8 in Quebrada Prieta	46	(6.9) #/pool

Appendix 21. Average (standard error) animal abundance for sites with data—Continued

Site code	Taxon	Station	Abundance	Unit
	<i>Eleutherodactylus coqui</i>	El Verde New Plot	19 (3.3)	#/400 m ²
		El Verde Old Plot	22 (3.1)	#/400 m ²
	Gastropoda	Luquillo Forest Dynamics Plot at El Verde	993 (173.0)	#/1130 m ²
NTL	Orconectes	Big Muskellunge Lake	21 (5.6)	# caught/unit effort
		Lake Mendota	0.003 (0.002)	# caught/unit effort
		Sparkling Lake	7 (0.9)	# caught/unit effort
		Trout Lake	59 (13.9)	# caught/unit effort
	Fish	Crystal Lake	510 (73.9)*	# caught/unit effort
		Sparkling Lake	265 (26.4)*	# caught/unit effort
		Trout Lake	646 (61.4)*	# caught/unit effort
Temperate grasslands and savannas				
CDR	Orthoptera	Cedar Creek	149 (23.3)	#/200 sweeps of an insect net
KBS	Neoptera	Treatment 1, standard levels of chemical inputs, conventional chisel plowed tillage	77 (12.2)	# adults/yellow sticky trap
		Treatment 2, standard levels of chemical inputs, no tillage	73 (11.8)	# adults/yellow sticky trap
		Treatment 3, organic-based low chemical input (banded herbicide, starter N), winter leguminous crop, annual tillage and post-planting cultivation	62 (10.4)	# adults/yellow sticky trap
		Treatment 4, certified organic, no chemical inputs, annual tillage, rotary-hoed to control weeds	66 (10.2)	# adults/yellow sticky trap
		Treatment 5, poplar trees (fallow 2008), planted on a 10-year rotation cycle	69 (10.4)	# adults/yellow sticky trap
		Treatment 6, continuous alfalfa (wheat 2008)	76 (10.7)	# adults/yellow sticky trap
		Treatment 7, native successional treatment, abandoned after spring plowing in 1989	88 (11.8)	# adults/yellow sticky trap
		Treatment 7, native successional treatment, abandoned after spring plowing in 1989	88 (11.8)	# adults/yellow sticky trap

Appendix 21. Average (standard error) animal abundance for sites with data—Continued

Site code	Taxon	Station	Abundance	Unit
KNZ	Mammalia	Watershed 001d	8	(1.1) #/transect line/4-day trapping season
		Watershed 004b	12	(1.3) #/transect line/4-day trapping season
SGS	Orthoptera	Watershed 001d	346	(54.3)* #/200 sweeps of an insect net
		Watershed 004b	374	(114.8)* #/200 sweeps of an insect net
		Watershed 020b	126	(25.2) #/200 sweeps of an insect net
	Aves	USGS Bird Breeding Survey area 17901, Rockport, CO	20	(1.7) #/sighting effort
		USGS Breeding Bird Survey Route 17305, Nunn, CO	32	(0.9) #/sighting effort
Urban				
CAP	Araneae (spiders)	Agricultural study sites	0.4	(0.1) #/pitfall trap
		Desert study sites	0.2	(0.03) #/pitfall trap
		Urban study sites	0.4	(0.1) #/pitfall trap
	Orthoptera	Agricultural study sites	0.4	(0.2) #/pitfall trap
		Desert study sites	0.2	(0.05) #/pitfall trap
		Urban study sites	1	(0.1) #/pitfall trap
Western forests				
AND	<i>Oncorhynchus clarkii</i>	Clearcut section of Mack Creek	108	(6.1) #/50 m reach of stream
		Old growth section of Mack Creek	91	(5.7) #/50 m reach of stream

* indicates that the linear regression of the variable against time is significant ($p < 0.05$) and the trend appears linear.