

Ecological Archives E082-001-A1

Raymond B. Huey, Eric R. Pianka, and Laurie J. Vitt . 2001. How often do lizards run on empty? *Ecology* 82: 1-7.

Appendix A. Dietary and related data on lizard species for 18,223 individual lizards (127 species, multiple families (depending on classification, see below), and from four continents).

Continent	Species	Clade I	Clade II	Clade III	Dietary niche breadth	Stand. dietary niche breadth	Foraging mode*	Time of activity**	No. empty	Total no. lizard guts	% Guts empty	Mean SVL (mm)	SD SVL
North America													
	<i>Cnemidophorus tigris</i>	Autarchoglossa	Teiidae	Teiidae	5.8	0.29	WF	D	20	1772	1.1	79	9.6
	<i>Uta stansburiana</i>	Iguania	Iguanidae	Phrynosomatinae	7.3	0.365	SW	D	7	870	0.8	42	9.7
	<i>Crotaphytus wislizeni</i>	Iguania	Iguanidae	Crotaphytinae	2.9	0.145	SW	D	6	233	2.6	93	14.1
	<i>Phrynosoma platyrhinos</i>	Iguania	Iguanidae	Phrynosomatinae	2.4	0.12	SW	D	0	167	0	72	12.5
	<i>Callisaurus draconoides</i>	Iguania	Iguanidae	Phrynosomatinae	6.6	0.33	SW	D	2	463	0.4	73	10.9
	<i>Dipsosaurus dorsalis</i>	Iguania	Iguanidae	Iguaninae	1.1	0.055	SW	D	0	63	0	107	23.1
	<i>Uma scoparia</i>	Iguania	Iguanidae	Phrynosomatinae	3.3	0.165	SW	D	1	42	2.4	82	15.9
	<i>Urosaurus graciosus</i>	Iguania	Iguanidae	Phrynosomatinae	6.5	0.325	SW	D	2	35	5.7	49	6.7
	<i>Sceloporus magister</i>	Iguania	Iguanidae	Phrynosomatinae	3	0.15	SW	D	0	36	0	86	21.7
	<i>Xantusia vigilis</i>	Autarchoglossa	Xantusiidae	Xantusiidae	4.4	0.22	NA	N	4	27	14.8	42	4.5
	<i>Coleonyx variegatus</i>	Gekkota	Gekkonidae	Eublepharinae	5.1	0.255	SW	N	56	232	24.1	51	9.9
Africa (Kalahari)													
	<i>Agama hispida</i>	Iguania	Agamidae	Agamidae	3.2	0.16	SW	D	3	378	0.8	67	25.7
	<i>Ichnotropis squamulosa</i>	Autarchoglossa	Lacertidae	Lacertidae	1.5	0.075	SW	D	4	116	3.4	51	9
	<i>Pedioplanis lineo-ocellata</i>	Autarchoglossa	Lacertidae	Lacertidae	4.2	0.21	SW	D	25	1156	2.2	48	12
	<i>Heliobolus lugubris</i>	Autarchoglossa	Lacertidae	Lacertidae	1.2	0.06	WF	D	12	250	4.8	50	10.4
	<i>Pedioplanis namaquensis</i>	Autarchoglossa	Lacertidae	Lacertidae	2.2	0.11	WF	D	2	220	0.9	48	7.1
	<i>Meroles suborbitalis</i>	Autarchoglossa	Lacertidae	Lacertidae	3.3	0.165	SW	D	18	780	2.3	51	9.3
	<i>Nucras tessellata</i>	Autarchoglossa	Lacertidae	Lacertidae	3	0.15	WF	D	15	93	16.1	57	13.2
	<i>Mabuya occidentalis</i>	Autarchoglossa	Scincidae	Scincidae	4.7	0.235	WF	D	38	235	16.2	75	12.7
	<i>Mabuya spilogaster</i>	Autarchoglossa	Scincidae	Scincidae	5.7	0.285	WF	D	18	378	4.9	62	11.3
	<i>Mabuya striata</i>	Autarchoglossa	Scincidae	Scincidae	6.1	0.305	WF	D	22	558	3.9	70	16.4
	<i>Mabuya variegata</i>	Autarchoglossa	Scincidae	Scincidae	6.4	0.32	WF	D	3	115	2.6	37	5.8
	<i>Chondrodactylus angulifer</i>	Gekkota	Gekkonidae	Gekkoninae	3.8	0.19	SW	N	50	441	11.3	76	16.5

<i>Colopus wahlbergi</i>	Gekkota	Gekkonidae	Gekkoninae	2.4	0.12	SW	N	23	135	17	48	6.1
<i>Lygodactylus capensis</i>	Gekkota	Gekkonidae	Gekkoninae	6.8	0.34	SW	D	1	28	3.6	31	5.9
<i>Pachydactylus bibroni</i>	Gekkota	Gekkonidae	Gekkoninae	3.2	0.16	SW	N	39	175	22.3	65	15.1
<i>Pachydactylus capensis</i>	Gekkota	Gekkonidae	Gekkoninae	6.5	0.325	SW	N	28	106	26.4	52	10.3
<i>Pachydactylus rugosus</i>	Gekkota	Gekkonidae	Gekkoninae	8.2	0.41	SW	N	4	29	13.8	52	6
<i>Ptenopus garrulus</i>	Gekkota	Gekkonidae	Gekkoninae	2.4	0.12	SW	N	70	490	14.3	43	7.1
Australia												
<i>Caimanops amphiboluroides</i>	Iguania	Agamidae	Agamidae	1.3	0.065	SW	D	1	11	9.1	71	16.5
<i>Ctenophorus caudicinctus</i>	Iguania	Agamidae	Agamidae	.	.	SW	D	2	77	2.6	65	4.8
<i>Ctenophorus clayi</i>	Iguania	Agamidae	Agamidae	4.7	0.235	SW	D	2	25	8	46	4.5
<i>Ctenophorus fordi</i>	Iguania	Agamidae	Agamidae	3.6	0.18	SW	D	2	111	1.8	48	4.3
<i>Ctenophorus inermis</i>	Iguania	Agamidae	Agamidae	6.8	0.34	SW	D	4	197	2	78	20.5
<i>Ctenophorus isolepis</i>	Iguania	Agamidae	Agamidae	3.1	0.155	SW	D	9	511	1.8	51	7.7
<i>Ctenophorus reticulatus</i>	Iguania	Agamidae	Agamidae	4.1	0.205	SW	D	1	44	2.3	72	17.3
<i>Ctenophorus scutulatus</i>	Iguania	Agamidae	Agamidae	5.4	0.27	SW	D	1	89	1.1	75	22.5
<i>Diporiphora winneckeii</i>	Iguania	Agamidae	Agamidae	6.5	0.325	SW	D	0	36	0	44	8.5
<i>Lophognathus longirostris</i>	Iguania	Agamidae	Agamidae	7.3	0.365	SW	D	1	77	1.3	56	20.9
<i>Moloch horridus</i>	Iguania	Agamidae	Agamidae	1	0.05	SW	D	7	203	3.4	90	14.7
<i>Pogona minor</i>	Iguania	Agamidae	Agamidae	5.6	0.28	SW	D	3	102	2.9	97	34.1
<i>Cryptoblepharus plagiocephalus</i>	Autarchoglossa	Scincidae	Scincidae	9.4	0.47	WF	D	17	99	17.2	37	3.9
<i>Ctenotus ariadnae</i>	Autarchoglossa	Scincidae	Scincidae	1.5	0.075	WF	D	3	15	20	54	16.1
<i>Ctenotus atlas</i>	Autarchoglossa	Scincidae	Scincidae	2.7	0.135	WF	D	2	27	7.4	58	5.5
<i>Ctenotus brooksi</i>	Autarchoglossa	Scincidae	Scincidae	9	0.45	WF	D	5	68	7.4	37	6.1
<i>Ctenotus calurus</i>	Autarchoglossa	Scincidae	Scincidae	1.4	0.07	WF	D	53	194	27.3	38	5
<i>Ctenotus colletti</i>	Autarchoglossa	Scincidae	Scincidae	4.2	0.21	WF	D	3	10	30	39	3.9
<i>Ctenotus dux</i>	Autarchoglossa	Scincidae	Scincidae	5.2	0.26	WF	D	12	167	7.2	40	7.2
<i>Ctenotus grandis</i>	Autarchoglossa	Scincidae	Scincidae	1.6	0.08	WF	D	7	109	6.4	74	20.6
<i>Ctenotus helenae</i>	Autarchoglossa	Scincidae	Scincidae	2.2	0.11	WF	D	7	132	5.3	79	12.8
<i>Ctenotus leae</i>	Autarchoglossa	Scincidae	Scincidae	4.3	0.215	WF	D	4	19	21.1	51	5.9
<i>Ctenotus leonhardii</i>	Autarchoglossa	Scincidae	Scincidae	5.2	0.26	WF	D	11	110	10	61	9.9
<i>Ctenotus pantherinus</i>	Autarchoglossa	Scincidae	Scincidae	1.4	0.07	WF	D	15	121	12.4	71	18.3
<i>Ctenotus pianka</i>	Autarchoglossa	Scincidae	Scincidae	5.2	0.26	WF	D	2	21	9.5	35	5.5
<i>Ctenotus quattuordecimlineatus</i>	Autarchoglossa	Scincidae	Scincidae	2.8	0.14	WF	D	52	389	13.4	54	9.9
<i>Ctenotus schomburgkii</i>	Autarchoglossa	Scincidae	Scincidae	1.9	0.095	WF	D	16	119	13.4	40	5.8
<i>Egernia depressa</i>	Autarchoglossa	Scincidae	Scincidae	1.4	0.07	WF	D	5	31	16.1	85	16.7
<i>Egernia inornata</i>	Autarchoglossa	Scincidae	Scincidae	5.2	0.26	WF	N	7	123	5.7	65	14.8
<i>Egernia striata</i>	Autarchoglossa	Scincidae	Scincidae	2.1	0.105	WF	N	9	190	4.7	87	15.7
<i>Menetia greyi</i>	Autarchoglossa	Scincidae	Scincidae	3.6	0.18	WF	D	3	20	15	27	4.4
<i>Morethia butleri</i>	Autarchoglossa	Scincidae	Scincidae	3.7	0.185	WF	D	5	16	31.2	44	8.3
<i>Varanus brevicauda</i>	Autarchoglossa	Varanidae	Varanidae	6.85	0.342	WF	D	16	63	25.4	90	9.3
<i>Varanus eremius</i>	Autarchoglossa	Varanidae	Varanidae	1.65	0.082	WF	D	61	170	35.88	126	20.7
<i>Varanus gouldi (juveniles)</i>	Autarchoglossa	Varanidae	Varanidae	4	0.2	WF	D	4	18	22.2	129	17.1
<i>Varanus gouldi (adults)</i>	Autarchoglossa	Varanidae	Varanidae	5.9	0.295	WF	D	25	104	24	278	38.4

**South
America**

<i>Varanus tristis</i>	Autarchoglossa	Varanidae	Varanidae	1.5	0.075	WF	D	25	100	25	229	20.9
<i>Delma butleri</i>	Gekkota	Gekkonidae	Pygopodinae	3.2	0.16	NA	D	5	18	27.8	65	14.5
<i>Lialis burtoni</i>	Gekkota	Gekkonidae	Pygopodinae	1	0.05	SW	N	25	37	65.6	158	36.3
<i>Pygopus nigriceps</i>	Gekkota	Gekkonidae	Pygopodinae	3.1	0.155	SW	N	6	16	33.3	159	23.6
<i>Gehyra variegata</i>	Gekkota	Gekkonidae	Gekkoninae	5.8	0.29	SW	N	55	287	19.2	49	8.3
<i>Heteronotia binoeii</i>	Gekkota	Gekkonidae	Gekkoninae	8.4	0.42	SW	N	14	41	34.1	42	7.5
<i>Diplodactylus ciliaris</i>	Gekkota	Gekkonidae	Diplodactylinae	5.6	0.28	SW	N	14	75	18.7	76	3.8
<i>Diplodactylus conspicillatus</i>	Gekkota	Gekkonidae	Diplodactylinae	1	0.05	SW	N	34	55	61.8	59	6.3
<i>Diplodactylus elderi</i>	Gekkota	Gekkonidae	Diplodactylinae	4.4	0.22	SW	N	5	26	19.2	38	9.3
<i>Diplodactylus pulcher</i>	Gekkota	Gekkonidae	Diplodactylinae	1	0.05	SW	N	15	25	60	54	6.9
<i>Diplodactylus stenodactylus</i>	Gekkota	Gekkonidae	Diplodactylinae	6.3	0.315	SW	N	3	43	7	48	11.2
<i>Diplodactylus strophurus</i>	Gekkota	Gekkonidae	Diplodactylinae	7	0.35	SW	N	10	53	18.9	64	9
<i>Nephrurus laevis</i>	Gekkota	Gekkonidae	Diplodactylinae	7.3	0.365	SW	N	28	173	16.2	57	14.2
<i>Nephrurus levis</i>	Gekkota	Gekkonidae	Diplodactylinae	6.7	0.335	SW	N	12	36	33.3	67	16.6
<i>Nephrurus vertebralis</i>	Gekkota	Gekkonidae	Diplodactylinae	4.2	0.21	SW	N	0	14	0	68	15.8
<i>Rhynchoedura ornata</i>	Gekkota	Gekkonidae	Diplodactylinae	1	0.05	SW	N	119	274	43.43	47	5.4
<i>Anolis auratus</i>	Iguania	Iguanidae	Polychrotinae	7.98	0.347	SW	D	1	56	1.79	40	11.5
<i>Anolis fuscoauratus</i>	Iguania	Iguanidae	Polychrotinae	8.59	0.373	SW	D	30	125	24	44	5
<i>Anolis n. nitens</i>	Iguania	Iguanidae	Polychrotinae	6.79	0.295	SW	D	3	42	7.14	48	13.2
<i>Anolis n. scypheus</i>	Iguania	Iguanidae	Polychrotinae	7.61	0.331	SW	D	1	34	2.94	58	16.4
<i>Anolis n. tandai</i>	Iguania	Iguanidae	Polychrotinae	3.61	0.157	SW	D	2	14	14.29	63	14.5
<i>Anolis punctatus</i>	Iguania	Iguanidae	Polychrotinae	3.81	0.166	SW	D	2	22	9.09	73	10.5
<i>Anolis trachyderma</i>	Iguania	Iguanidae	Polychrotinae	7.68	0.334	SW	D	22	131	16.79	47	9.2
<i>Tropidurus plica</i>	Iguania	Iguanidae	Tropidurinae	2.6	0.113	SW	D	0	70	0	107	38.3
<i>Tropidurus umbra</i>	Iguania	Iguanidae	Tropidurinae	1.08	0.047	SW	D	0	36	0	84	9.9
<i>Tropidurus hispidus</i>	Iguania	Iguanidae	Tropidurinae	7.07	0.307	SW	D	7	169	4.14	74	18.2
<i>Tropidurus oreadicus</i>	Iguania	Iguanidae	Tropidurinae	6.74	0.293	SW	D	13	117	11.11	70	18
<i>Tropidurus RO</i>	Iguania	Iguanidae	Tropidurinae	4.85	0.211	SW	D	4	336	1.19	73	18.3
<i>Tropidurus flaviceps</i>	Iguania	Iguanidae	Tropidurinae	1.4	0.061	SW	D	0	33	0	80	28.8
<i>Uranoscodon superciliosus</i>	Iguania	Iguanidae	Tropidurinae	6.06	0.263	SW	D	2	108	1.85	105	30
<i>Coleodactylus amazonicus</i>	Gekkota	Gekkonidae	Gekkoninae	4.08	0.177	SW	D	8	121	6.61	21	2.7
<i>Coleodactylus septentrionalis</i>	Gekkota	Gekkonidae	Gekkoninae	3.57	0.155	SW	D	3	46	6.52	27	3.6
<i>Gonatodes concinnatus</i>	Gekkota	Gekkonidae	Gekkoninae	10.45	0.454	SW	D	4	26	15.38	43	7.2
<i>Gonatodes hasemani</i>	Gekkota	Gekkonidae	Gekkoninae	6.92	0.301	SW	D	0	23	0	36	5.7
<i>Gonatodes humeralis</i>	Gekkota	Gekkonidae	Gekkoninae	8.43	0.367	SW	D	13	123	10.57	36	4.3

<i>Hemidactylus mabouia</i>	Gekkota	Gekkonidae	Gekkoninae	4.48	0.195	SW	N	4	20	20	62	6
<i>Pseudogonatodes guianensis</i>	Gekkota	Gekkonidae	Gekkoninae	3.96	0.172	SW	D	1	23	4.35	24	3.6
<i>Thecadactylus rapicauda</i>	Gekkota	Gekkonidae	Gekkoninae	2.25	0.098	SW	N	13	58	22.41	103	17.1
<i>Mabuya nigropunctata</i>	Autarchoglossa	Scincidae	Scincidae	7.57	0.329	WF	D	13	145	8.97	85	15.2
<i>Alopoglossus angulatus</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	2.38	0.103	WF	D	5	38	13.16	41	13.2
<i>Alopoglossus atriventris</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	2.38	0.103	WF	D	6	19	31.58	36	10.2
<i>Arthrosaura reticulata</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	2.92	0.127	WF	D	9	45	20	48	14
<i>Cercosaura ocellata</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	6.49	0.282	WF	D	19	43	44.19	40	12.4
<i>Gymnophthalmus underwoodi</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	2.59	0.113	WF	D	3	21	14.29	32	3.9
<i>Leposoma parietale</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	5.07	0.22	WF	D	2	32	6.25	28	6.6
<i>Leposoma percarinatum</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	6.76	0.294	WF	D	10	58	17.24	30	5.5
<i>Neusticurus ecleopus</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	3.76	0.163	WF	D	25	107	23.36	46	14.5
<i>Neusticurus juruazensis</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	5.25	0.228	WF	D	13	47	27.66	42	10.5
<i>Prionodactylus eigenmanni</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	4.48	0.195	WF	D	10	49	20.41	33	13.3
<i>Prionodactylus oshaughnessyi</i>	Autarchoglossa	Gymnophthalmidae	Gymnophthalmidae	3.98	0.173	WF	D	5	53	9.43	35	8.8
<i>Ameiva ameiva</i>	Autarchoglossa	Teiidae	Teiidae	9.44	0.41	WF	D	41	359	11.42	120	29.5
<i>Cnemidophorus cryptus</i>	Autarchoglossa	Teiidae	Teiidae	5.23	0.227	WF	D	3	21	14.29	65	4
<i>Cnemidophorus lemniscatus</i>	Autarchoglossa	Teiidae	Teiidae	8.67	0.377	WF	D	7	158	4.43	62	10.4
<i>Kentropyx calcarata</i>	Autarchoglossa	Teiidae	Teiidae	3.91	0.17	WF	D	28	126	22.22	89	20.5
<i>Kentropyx pelviceps</i>	Autarchoglossa	Teiidae	Teiidae	3.03	0.132	WF	D	11	99	11.11	91	26.1
<i>Kentropyx striata</i>	Autarchoglossa	Teiidae	Teiidae	7.9	0.343	WF	D	6	94	6.38	85	14.1
<i>Tupinambis teguixin</i>	Autarchoglossa	Teiidae	Teiidae	3.12	0.136	WF	D	3	19	15.79	194	66.2
Central America												
<i>Anolis capito</i>	Iguania	Iguanidae	Polychrotinae	6.02	0.262	SW	D	10	53	18.87	65	21.5
<i>Anolis humilis</i>	Iguania	Iguanidae	Polychrotinae	4.82	0.21	SW	D	3	35	8.57	33	4.3
<i>Anolis limifrons</i>	Iguania	Iguanidae	Polychrotinae	8.23	0.358	SW	D	6	36	16.67	37	3.9
<i>Anolis oxylophus</i>	Iguania	Iguanidae	Polychrotinae	6.27	0.273	SW	D	1	67	1.49	55	13.1
<i>Ameiva festiva</i>	Autarchoglossa	Teiidae	Teiidae	4.29	0.187	WF	D	7	52	13.46	86	25.7

* code for
Foraging Mode

WF = widely
foraging

SW = sit and
wait

** code for Activity

D = diurnal

N = nocturnal

NA = uncertain
foraging mode

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