

**Table 1.** Endocranial volume and body weight of *Ctenomys* species in this study. EQ: Encephalization Quotient calculated after Jerison [1973]. Standardized residuals from regressions of brain volume vs. body weight.

<i>Ctenomys</i> Species	Endocranial volume (cm <sup>3</sup> )	EQ	Standardized residuals	Body weight (g)	Naso-occipital length (mm)
<i>C. talarum</i> (12)	1.36	0.77	-1.89	134.6	37.55
<i>C. australis</i> (8)	2.32	0.80	-1.56	371.1	49.00
<i>C. porteusi</i> (12)	1.78	0.86	0.62	185.2	40.73
<i>C. dorbignyi</i> (11)	2.47	1.06	0.38	237.3	44.25
<i>C. azarae</i> (5)	1.85	1.03	0.17	138.0	38.28
<i>C. latro</i> (7)	1.55	0.92	-0.66	122.1	35.98
<i>C. occultus</i> (3)	1.58	1.059	0.34	95.0	35.33
<i>C. perrensi</i> (4)	2.41	1.23	1.42	166.0	42.99
<i>C. opimus</i> (6)	3.13	1.37	2.15	230.6	44.07
<i>C. haigi</i> (1)	1.30	0.97	-0.31	76.3	33.93
<i>C. emilianus</i> (2)	1.97	1.04	0.25	154.5	38.19
<i>C. bonettoi</i> (1)	1.60	0.88	-0.92	141	37.6
<i>C. tuconax</i> (12)	3.79	1.09	0.58	550	48.48
<i>C. tucumanus</i> (4)	2.02	0.87	-1.05	240	40.27
<i>C. magellanicus</i> (6)	2.81	1.22	1.32	234.7	48.47
<i>C. mendocinus</i> (2)	2.05	0.98	-0.22	192.5	41.64
<i>C. roigi</i> (5)	2.44	1.20	1.24	179	42.89
<i>C. sociabilis</i> (3)	1.98	1.07	0.42	148.3	41.08
<i>C. argentinus</i> (5)	1.89	1.03	0.12	146.6	39.81
<i>C. leucodon</i> (1)	2.83	1.27	1.61	220.0	43.51
<i>C. rionegrensis</i> (2)	2.07	0.89	-0.83	235	44.23
<i>C. pundti</i> (4)	1.70	0.94	-0.47	141.2	39.71
<i>C. fulvus</i> (3)	2,85	1.10	-0.95	300	48.75
<i>C. maulinus</i> (3)	1.95	0.88	0.61	215	43.11
<i>C. chasiquensis</i> (6)	1.48	0.82	-1.46	140.7	39.62
<i>C. boliviensis</i> (1)	2.78	0.81	-1.51	535	52.83
<i>C. torquatus</i> (1)	2.43	1.11	0.68	209.5	43.10
<i>C. lami</i> (1)	2.50	1.10	0.59	229	43.80
<i>C. flamarioni</i> (1)	2.45	0.94	-0.47	300	48.78
<i>C. minutus</i> (1)	2.21	0.98	-0.21	225	43.40

**Table 1 (cont.).** Endocranial volume and body weight of caviomorph species in this study. EQ: Encephalization Quotient calculated after Jerison [1973]. Standardized residuals from regressions of brain volume vs. body weight. *Agouti paca*; *Dasyprocta* sp. and *Erethizon dorsatum* from Eisenberg [1981]. *Dinomys branickii* from Mace et al. [1981].

Caviomorph taxa	Endocranial volume (cm <sup>3</sup> )	EQ	Standardized residual	Body weight (g)	Naso-occipital length (mm)
Family Caviidae					
<i>Kerodon rupestris</i> (4)	6.07	0.92	-0.43	950*	69.93
<i>Galea spixii</i> (4)	3.21	0.80	-1.15	450 <sup>§</sup>	56.93
<i>Galea musteloides</i> (9)	2.73	1.08	0.08	225*	50.37
<i>Microcavia australis</i> (16)	2.94	0.98	-0.13	269	48.32
<i>Cavia pamparum</i> (8)	5.01	1.09	0.23	549**	61.71
<i>Dolichotis patagonum</i> (4)	29.41	0.98	-0.11	7856 <sup>§</sup>	133.5
Family Hydrochaeridae					
<i>H. hydrochoeris</i> (2)	75.94	0.97	-0.06	43000**	215
Family Myocastoridae					
<i>Myocastor coipus</i> (11)	15.53	0.82	-1.00	4700	106.3
Family Chinchillidae					
<i>Chinchilla lanigera</i> (1)	7.39	1.71	1.79	500 <sup>§</sup>	
<i>Lagostomus maximus</i> (6)	16.36	0.97	-0.02	5100**	98.97
Family Echimyidae					
<i>Proechimys dimidiatus</i> (1)	2.70	1.04	0.06	235	56.33
<i>Proechimys albispinus</i> (2)	2.47	1.06	0.06	200	45.7
Familia Octodontidae					
<i>Spalacopus cyanus</i> (4)	1.61	1.08	-0.08	102**	33.9
<i>Octodontomys gliroides</i> (5)	2.33	1.70	1.85	90	41.15
<i>Octodon degus</i> (8)	2.20	1.18	0.36	140	41.03
<i>Octomys mimax</i> (1)	2.25	1.28	0.68	131**	42.9
<i>Tympanoctomys barrerae</i> (1)	1.90	1.47	1.22	82	36.61
<i>Aconaemys sagei</i> (2)	1.47	0.91	-0.82	116	39.97
<i>Aconaemys porteri</i> (3)	1.49	0.84	-1.14	132.33	41.44

Family Agoutidae					
<i>Agouti paca</i>	46.99	1.65	2.38	8700	117
Family Dasyproctidae					
<i>Dasyprocta sp</i>	15.35	1.17	0.65	2700	-
Family Erethizontidae					
<i>Erethizon dorsatum</i>	21.81	1.10	0.42	5000	-
Family Dinomyidae					
<i>Dinomys branickii</i>	27	0.69	-1.74	14000	-

---

\* from Nowak [1999]; \*\* from Redford and Eisenberg [1992]; § from Eisenberg [1981]

§ from <http://genomics.senescence.info/species/>

## Appendix

### SPECIMENS EXAMINED

Caviomorph specimens in this study are deposited in the collections of the Museo Municipal de Historia Natural “Lorenzo Scaglia”, Mar del Plata, Argentina (MMMP); Museo de La Plata, La Plata, Argentina (MLP), Museo de Historia Natural, Santiago, Chile (MHNC), Laboratorio de Ecofisiología, Universidad Nacional de Mar del Plata, Argentina (LEMP), and Facultad de Ciencias Exactas y Naturales (FCEN), Univ. Nacional de Mar del Plata. The respective museum-catalog numbers are given. Specimens separated by commas.

*Ctenomys australis* Argentina, Necochea, Parque Lillo LEMP P 87.4; P 87.8; P87.14 P 87.18; P 87.42; 11; 22; 23. *C. argentinus* Argentina, Chaco, Colonia Benítez MMMP: 2450; 2451; 2452; 2453; 4074. *C. azarae* Argentina, La Pampa MMMP 2287; 1515; 1595; 1596; 1597. *C. boliviensis* MMMP MA 16 35. *C. bonettoi* Argentina, Chaco, Colonia Elisa MMMP 0673. *C. dorbignyi* Argentina, Corrientes, Curuzú Laurel MMMP 3432. Berón de Astrada, Mbariguí MMMP 3456; 3452; 3424; 3425; 3426; 3427; 3428; 3429; 3455; 3457. *C. haigi* Argentina, Chubut, Puerto Madryn MMMP 1925 *C. latro* Argentina, Tucumán, Ticucho MMMP 2426. Tapia MMMP 2427; 2428; 3187; 3188; 3189; 3190. *C. leucodon* Bolivia, Depto. La Paz, Comanche LEMP 4999. *C. magellanicus* Argentina, Tierra del Fuego, Colonia Herke MMMP 2500; 2501; 2502; 2808; 4096. Ruta 3 km2908 MMMP 2807. *C. maulinus* MLP 7x92.10; 1x01.2; 1x01.3 *C. mendocinus* MMMP 2655; 2711. *C. occultus* Argentina, Tucumán, Monteagudo MMMP 3183; 3184; 3185. *C. opinus* Argentina, Jujuy, Tres Cruces MMMP 2202; 3101; 3102; 3103; 3104; 3105. Bolivia, Potosí, Laguna Colorada, Campamento ENDE LEMP 929. *C. porteousi* Argentina, Buenos Aires, Bonifacio MMMP 1340; 2294; 2295; 2997; 3192; 3222; 3305; 3309; 3310; 3313; 3322; 82-165. *C. perrensi* Argentina, Corrientes, Yatayti MMMP 2437; 2438. Goya MMMP 2440; 3417. *C. fulvus* MLP 7x92.1; 7x92.2; 7x92.3. *C. sociabilis* MMMP 3404; 3408; 3410. *C. emilianus* Argentina, Neuquén MMMP 1505; 3310. *C. pundti* Argentina, Córdoba MMMP K69; K70; K71; K77. *C. torquatus* MMMP 1045. *C. rionegrensis* Argentina, Entre Ríos, Concordia MMMP1961; 1962. *C. roigi* Argentina, Corrientes, Costa Manción MMMP 2410; 2411; 2412; 2442; 2461. *C. minutus* MMMP 427. *C. talarum* Argentina, Necochea, Parque Lillo LEMP V88.57; P118.88; 103P88; P87.21; 3; 102P88; 80I88; P87.6; 9D; V88.51; 88P116. *C. tuconax* Argentina, Tucumán, El Infiernillo MMMP 2429; 2430; 2690; 2961; 2962; 2963; 3182; 3309; 3311; 3342; 3346; 3695. *C. tucumanus* Argentina, Tucumán, El Cardillar MMMP 2298; 2300. Ticucho MMMP 3181; 3181b. *C. chasiquensis* Argentina, Buenos

Aires; Chasicó LEMP LE 15; 16; 18; 19; 20; 21. *C. flamarioni* MMMP 85. *C. lami* MMMP 077.

*Actenomys priscus* MMMP 1642-M

*Kerodon rupestris* MMMP 1291; 8699; 1470; 2254. *Galea spixii* MMMP 3304; 2305; 2337; 4217. *G. musteloides* MMMP 143; 3275; 3274; 2698; 121; 33; 109; 3280; 3278. *Microcavia australis* MMMP 304; 302; 2451; 3250; 1420; 284; 306; 1940; 1418; 289; 245; 2484; 301; 1311; 1312; 4064. *Cavia pamparum* MMMP 2318; 2320; 2367; 1372; 603; 777; 2824; 1145. *Dolichotis patagonum* MMMP 18; 335; 336; ma23. *Hydrochaeris hydrochaeris* FCEN MF 16; MF 17. *Myocastor coipus* FCEN 2A; MF11; MF12; MF13; MF14; MF15; MF16; MF17; MF18; MF54; MF7-1. *Lagostomus maximus* FCEN 1A; MF130; MF22; MF23; MF24; MF29. *Chinchilla lanigera* FCEN 1. *Proechimys dimidiatus* MMMP 1474. *P. albispinus* MMMP 1259; 1260. *Octodon degus* Chile, Santiago, Los Dominicos, MHNC 913; 914; 915; 921; 951; 955; 956; 957. *Spalacopus cyanus* Chile, Aconcagua Norte, Papudo MMMP 3583; 3585; 3590; 3591. *Octomys mimax* MMMP 388. *Aconaemys sagei* Argentina, Neuquen, Pampa de Hui Hui MLP 17.II. 92.10; 17.II.92.11. *A. porteri* MLP 17.II.92.3; 17.II.92.4; 17.II.92.5. *Tympanoctomys barrerae* MMMP 3199. *Octodontomys gliroides* Jujuy, Tilcara, MMMP 755; 2200; 2532; 3057; 3557.