



http://app.pan.pl/SOM/app59-Hedrick_etal_SOM.pdf

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

SUPPLEMENTARY ONLINE MATERIAL FOR

**Bone microstructure and relative age of the holotype specimen of the
diplocoid sauropod dinosaur *Suuwassea emilieae***

Brandon P. Hedrick, Allison R. Tumarkin-Deratzian, and Peter Dodson

Published in *Acta Palaeontologica Polonica* 2014 59 (2): 295–304.
<http://dx.doi.org/10.4202/app.2012.0049>

Table S1. Sauropodomorpha Histologic Database

Table S2. Sauropodomorpha Dataset

References

Table S1. Sauropodomorpha Histologic Database

Genus	Reference
<i>Alamosaurus</i>	Woodward and Lehman, 2009
<i>Ampelosaurus</i>	Klein and Sander, 2008
<i>Apatosaurus</i>	Curry, 1999; Klein and Sander, 2008
<i>Brachiosaurus</i>	Sander, 2000
<i>Camarasaurus</i>	Klein and Sander, 2008
<i>Dicraeosaurus</i>	Sander, 2000
<i>Diplodocus</i>	Sander, 2000
<i>Europasaurus</i>	Sander et al., 2006
<i>Isanosaurus</i>	Klein and Sander, 2008
<i>Janenschia</i>	Sander, 2000
<i>Magyarosaurus</i>	Stein et al., 2010
<i>Massospondylus</i>	Chinsamy, 1995
<i>Phuwiangosaurus</i>	Klein et al., 2009
<i>Plateosaurus</i>	Sander and Klein, 2004
<i>Suuwassea</i>	This Study
<i>Tornieria</i>	Sander, 2000

Table 2. Sauropodomorpha Dataset

Taxon	Specimen number	References	Humerus length (mm)	Radius length (mm)	Ulna length (mm)	Femur length (mm)	Tibia length (mm)
<i>Plateosaurus</i>	SMNS 17928	Galton, 1984	323		219	487	422
<i>Lufengosaurus</i>	V 15	Young, 1941	320	181	204	560	350
<i>Efraasia</i>	SMNS 12667	Galton, 1973	175	92	–	230	216
<i>Efraasia</i>	SMNS 12668	Galton, 1973	150	–	86	–	–
<i>Mamenchisaurus</i>	ZDM0083	Zhang, 1988	–	–	–	1160	665
<i>Shunosaurus</i>	T5402	Zhang, 1988	670	480		1200	680
<i>Hudiesaurus</i>	IVPP V11121-1	Dong, 1997	1210	790	740	–	–
<i>Spinophorosaurus</i>	GCP-CV-4229	Remes et al., 2009	–	–	–	1215	700
<i>Limaysaurus</i>	MUCPv-205	Calvo and Salgado, 1995	900	690	660	1440	850
<i>Amargasaurus</i>	MACN-N 15	Salgado and Bonaparte, 1991	720	470	440	1050	640
<i>Suuwassea</i>	ANSP 21122	Harris, 2007	752	–	–	–	839
<i>Diplodocus</i>	CMNH 94	Hatcher, 1901	–	–	–	1470	1006
<i>Apatosaurus</i>	CMNH 3018	Gilmore, 1936	1150	800	850	1785	1115
<i>Apatosaurus</i>	CMNH 563	Gilmore, 1936	1100	755	740	1710	1010
<i>Barosaurus</i>	AMNH 6341	McIntosh, 2005	1034	–	–	1440	1064
<i>Jobaria</i>	MNN TIG3	Sereno et al., 1999	1360	1040		1800	1080
<i>Camarasaurus</i>	YPM 1901	McIntosh et al., 1996	890	615	645	–	–
<i>Camarasaurus</i>	BYU 9047	McIntosh et al., 1996	1018	720	775	–	–
<i>Camarasaurus</i>	AMNH 222	Osborn, 1898	–	–	–	1776	1117
<i>Brachiosaurus</i>	HMN SII	Paul, 1988	2130	1240		2090	1150
<i>Cedarosaurus</i>	DMNH 39045	Tidwell et al., 1999	1380	812	330	1395	884
<i>Epachthosaurus</i>	UNPSJB-PV 920	Martinez et al., 2004	885	530	597	1095	700
<i>Argyrosaurus</i>	MLP 77-V-29-1	Lydekker, 1893	1447	–	977.9	–	–
<i>Titanosaurus</i>	ISIR 355/1-65	Jain and Bandyopadhyay, 1997	1480	–	800	–	–
<i>Alamosaurus</i>	NMNH 15560	Gilmore, 1946	1360	800	885	–	–
<i>Opisthocoelicaudia</i>	ZPAL MgD-I/48	Borsuk-Bialynicka, 1977	1000	637	677	1395	810

Supplemental references

- Borsuk-Bialynicka, M. 1977. A new camarasaurid sauropod *Opisthocoelicaudia skarzynskii* gen. n., sp. n. from the Upper Cretaceous of Mongolia. *Acta Palaeontologica Polonica* 37: 1–64.
- Calvo, J. and Salgado, L. 1995. *Rebbachisaurus tessoni* sp. nov. A new Sauropoda from the Albian-Cenomanian of Argentina; new evidence on the origin of the Diplodocidae. *Ameghiniana* 11: 13–33.
- Dong, Z. 1997. A gigantic sauropod (*Hudiesaurus sinojapanorum* gen. et sp. nov.) from the Turpan Basin, China. In: Z. Dong (ed.), *Sino-Japanese Silk Road Dinosaur Expedition*, 102–110. China Ocean Press, Beijing, China.
- Galton, P. 1973. On the anatomy and relationships of *Efraasia diagnostica* (Huene) n. gen., a prosauropod dinosaur (Reptilia: Saurischia) from the Upper Triassic of Germany. *Paläontologische Zeitschrift* 47: 229–255.
- Galton, P. 1984. An early prosauropod dinosaur from the Upper Triassic of Nordwürttemberg, West Germany. *Stuttgarter Beiträge zur Naturkunde (B)* 106: 1–25.
- Gilmore, C. 1946. Reptilian fauna of the North Horn Formation of central Utah. *Geological Survey Professional Paper* 210-C: 29–51.
- Jain, S. and Bandyopadhyay, S. 1997. New titanosaurid (Dinosauria: Sauropoda) from the Late Cretaceous of central India. *Journal of Vertebrate Paleontology* 17: 114–136.
- Lydekker, R. 1893. The dinosaurs of Patagonia. *Anales del Museo de La Plata* 2: 1–14.
- Martínez, R., Giménez, O., Rodríguez, J., Luna, M., Lamanna, M. 2004. An articulated specimen of the basal titanosaurian (Dinosauria: Sauropoda) *Epachthosaurus sciuttoi* from the early Late Cretaceous Bajo Barreal Formation of Chubut Province, Argentina. *Journal of Vertebrate Paleontology* 24: 107–120.
- McIntosh, J. 2005. The genus *Barosaurus* Marsh (Sauropoda, Diplodocidae). In: V. Tidwell and K. Carpenter (eds.), *Thunder-lizards: the Sauropodomorph Dinosaurs*, 38–77. Indiana University Press.
- McIntosh, J., Miller, W., Stadtman, K., and Gillette, D. 1996. The osteology of *Camarasaurus lewisi* (Jensen, 1988). *Brigham Young University Geology Studies* 41: 73–115.
- Osborn, H. 1898. Additional characters of the great herbivorous dinosaur *Camarasaurus*. *Bulletin American Museum of Natural History* 10: 219–233.

- Paul, G. 1988. The brachiosaur giants of the Morrison and Tendaguru with a description of a new subgenus, *Giraffatitan*, and a comparison of the world's largest dinosaurs. *Hunteria* 2: 1–14.
- Remes, K., Ortega, F., Fierro, I., Joger, U., Kosma, R., and Marín Ferrer, J. 2009. A new basal sauropod dinosaur from the Middle Jurassic of Niger and the early evolution of Sauropoda. *PLoS ONE* 4(9): e6924. (1–13).
- Salgado, L. and Bonaparte, J. 1991. Un nuevo sauropodo Dicraeosauridae, *Amargasaurus cazai* gen. et sp. nov., de la Formacion la Amarga, neocomiano de la provincia del Neuquen, Argentina. *Ameghiniana* 28: 333–346.
- Sereno, P., Beck, A., Dutheil, D., Larsson, H., Lyon, G., Moussa, B., Sadleir, R., Sidor, C., Varricchio, D., Wilson, G., and Wilson, J. 1999. Cretaceous sauropods from the Sahara and the uneven rate of skeletal evolution among dinosaurs. *Science* 286: 1342–1347.
- Tidwell, V., Carpenter, K., and Brooks, W. 1999. New sauropod from the Lower Cretaceous of Utah, USA. *Oryctos* 2: 21–37.
- Young, C. C. 1941. A complete osteology of *Lufengosaurus huenei* Young (Gen. Et Sp. Nov.) from Lufeng, Yunnan, China. *Palaeontologica Sinica, New Series C*. 7: 1–53.
- Zhang, Y. 1988. The Middle Jurassic dinosaur fauna from Dashanpu, Zigong, Sichuan Vol, 3. Sauropod dinosaurs: *Shunosaurus*, Publishing House of Science and Technology, Chengdu, People's Republic of China. 81pp. [in Chinese, with English abstract]